Use of force by the Toronto Police Service

Final report

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Ontario
Human Rights Commission
Commission ontarienne des
droits de la personne

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Introduction

Police use of force against Black people has emerged as one of the most controversial issues facing the law enforcement community in North America. In the United States, high-profile use of force incidents – including the cases of Rodney King, Abner Louima, Amadou Diallo, Timothy Thomas, Arthur McDuffie, Freddie Grey, Eric Garner, Michael Brown, Tamir Rice, Philando Castille, Ataliana Jefferson, Breonna Taylor and George Floyd – serve to increase tensions between the Black community and the police and solidify perceptions that the police are racially biased (Walker 2005; Walker et al. 2004; Joseph et al. 2003). The negative impact of police violence on community cohesion can be profound. For example, over the past 30 years, specific incidents of police violence against Black civilians have sparked major urban riots in several American cities including Ferguson (Missouri), Miami (Florida), Cincinnati (Ohio), Los Angeles (California) and New York City (New York). Allegations of police brutality against people of African descent have also directly contributed to large-scale urban unrest in both France and England (Kawalerowicz et al. 2015).

As in the United States and Europe, police use of force against Black, Indigenous and other minority civilians has emerged as a controversial issue in Canada. Over the past few decades, well publicized police use of force cases in both Ontario and Quebec – including the cases of Dudley George, Lester Donaldson, Allen Gosset, Sophia Cook, Buddy Evans, Jeffrey Reodica, Wade Lawson, Marlon Neal, Eric Osawe, Michael Elgin, Ozama Shaw, Tommy Barnett, Raymond Lawrence, Sammy Yatim, Pierre Coriolan, Jermaine Carby, Andrew Loku, Abdirahman Abdi, Olando Brown, Dafonte Miller, D'Andre Campbell and Ejaz Choudry – have led to community allegations of police discrimination, demonstrations, urban unrest and the rise of the "Black Lives Matter" social movement.

Police use of force is a crucially important issue. It directly engages with issues of public safety and the safety of law enforcement officers. However, when done improperly, police use of force can cause the unnecessary death or serious injury of civilians, undermine public trust in the police and compromise the legitimacy of the entire criminal justice system. Finally, police use of force can erode social cohesion and contribute to radicalization, riots and other social control issues. Unfortunately, despite its importance, police use of force has been subject to surprisingly little empirical research – especially in the Canadian context. The following report attempts to address this gap. The authors of this report were retained by the Ontario Human Rights Commission (OHRC) to examine a sample of use of force cases involving the Toronto Police Service (TPS) – Canada's largest municipal law enforcement agency. Details about this sample are provided in the methodology section.

The report is divided into six sections. Part A provides a review of previous academic research on police use of force conducted in both the United States and Canada. Part B explores public perceptions of police use of force, against the Black community, using data from two surveys of Toronto residents. Part C examines TPS use of force cases that resulted in the death or serious injury of civilians. The data for this analysis was derived from the Ontario government's Special Investigations Unit (SIU). Part D examines data on "less serious," lower-level use of force cases derived from internal TPS records. These are cases that allegedly did not meet the injury threshold needed to trigger a SIU investigation. Part E presents a variety of multivariate statistical models designed to examine the impact of race on police use of force incidents after controlling for other theoretically relevant, patrol zone-level variables. The final section of the report (Part F) summarizes major results and presents a variety of explanatory models that might help explain the over-representation of Black people in Toronto police use of force statistics. These explanatory models may help guide future policy development.

Part A:
Literature review: race and police use of force

Both Canadian and American experts have identified that there is a dearth of high-quality data on police use of force cases. During a 2015 speech, James B. Comey, the former Director for the US Federal Bureau of Investigation (FBI), clearly articulated the extreme challenges associated with conducting research on police use of force. Director Comey stated that:

> Not long after riots broke out in Ferguson late last summer, I asked my staff to tell me how many people shot by police were African American in this country. I wanted to see trends. I wanted to see information. They couldn't give it to me, and it wasn't their fault. Demographic data regarding officer-involved shootings is not consistently reported to us through our Uniform Crime Reporting Program. Because reporting is voluntary, our data is incomplete and therefore, in the aggregate, unreliable (Comey, 2015, paras 32-33).

The fact that in 2015, America's top cop could not easily assess up-to-date, accurate information on police use of force is both surprising and troubling. The failure to create a national police use of force database, is an issue that exists in the United States and Canada as well as many other Western nations (see Zimring 2017). Interestingly, most developed nations consistently generate reliable national statistics on both minor and serious criminal activity – including minor theft, car theft, physical assaults and burglaries. It is therefore disappointing that similar data collection practices have not been used to produce accurate, reliable statistics on police use of force – including information on cases that involve the death or serious injury of civilians.

The lack of quality use of force data is a long-standing issue. In 1931, after confirming allegations of widespread police brutality across the United States, the Wickersham Commission recommended that all police agencies collect data on police use of force incidents (Shane, 2016). Since then, several other American commissions and inquiries have noted the poor quality of police use of force statistics and called for improved data collection practices. For example, the *2015 President's Task Force on 21st Century Policing* argued that: "policies on use of force should require agencies to collect, maintain, and report data to the Federal Government on all officer-involved shootings, whether fatal or

non-fatal, as well as any in-custody death" (cited in Shane, 2016: p. 3). Unfortunately, this recommendation has not yet been translated into policy. In other words, U.S. law enforcement agencies are still not legally required to report details about use of force incidents.

Zimring (2017) examines three U.S efforts to collect national data on police killings of civilians: 1) the National Vital Statistics System (NVSS); 2) the Uniform Crime Report's Supplemental Homicide Reporting System (which documents "justifiable homicides" involving police officers); and 3) the Bureau of Justice Statistics Arrest-Related Deaths Program. Drawing on insights from an FBI data quality exercise, along with information from crowd-sourced and media-compiled datasets, Zimring (2017) argues that the U.S. government typically undercounts the true number of police killing by more than half. While government statistics estimate that the annual number of civilians killed by police in the United States is approximately 500, the true figure appears to be closer to 1,000 (Zimring, 2017).

This gap emerges because the reporting of police killings – let alone less serious use of force incidents – is only voluntary. Some services provide data on all incidents, others provide data on only some incidents, while others provide no data at all. Zimring also questions the validity and completeness of the police data that is provided to federal agencies and laments that there are no data quality assurance checks. He notes that some police services may not want to provide information that could cause reputational damage or challenge the legitimacy of officers' use of force decision-making (see also Ross 2015; Nix 2017; Williams et al. 2016). In other words, even when data is provided by American police services, there are concerns that it is often incomplete and/or inaccurate.

The data situation in Canada is even worse than the United States. Currently there is no Canadian effort – voluntary or otherwise – to create a national database on police killings or other police use of force incidents. Statistics Canada only tracks cases involving the very small number of police officers who have been criminally charged with killing a civilian (Gillis, 2015). As a general practice, local police agencies in Canada also do not release official statistics on use of force cases (Carmichael & Kent, 2015; Wortley, 2006). Furthermore, the methodologies used to collect use of force data vary greatly between jurisdictions (Kiedrowski et al., 2015). In 2015, to counter these limitations, a Federal/Provincial/Territorial Use of Force Working Group was given the mandate to share information on use of force reporting policies and practices with the goal of improving the quality of Canadian use of force data (Kiedrowski et al., 2015). However, this working group has yet to materialize and no apparent progress has been made in establishing a national database on police use of force in Canada.

For many years, both researchers and community advocates have been arguing for better data collection and reporting on police use of force incidents (see Royal Commission on the Donald Marshall, Jr. Prosecution 1989; Commission on Systemic Racism in the Ontario Criminal Justice System 1996; Foster et al. 2016; United Nations 2017). For example, Kane (2007: 773) argues that "all police departments should adopt as a collective professional standard the practices of (1) collecting comprehensive data on all coercive activities, including disciplinary actions, and (2) making those data available with minimal filtering and justification to members of the polity." Hickman et al. (2008) note that local and federal governments collect and report very little information about non-lethal (lower-level) use of force cases. In the U.S., the only systematic, national-level indicator of police use of force is the Police-Public Contact Survey (PPCS) administered by the Bureau of Justice Statistics (BJS). Unfortunately, this survey may grossly underestimate the true extent of police use of force because it excludes recently arrested and incarcerated persons (Hickman et al., 2008; Engel, 2008). Hickman et al. (2008) propose that using a Survey of Inmates in Local Jails (SILJ), in combination with the PPCS, would provide a more sound and complete estimate of police use of force incidents. However, they also note that the use of multiple sources can produce data problems because of inconsistencies in collection and reporting practices (Klinger, 2008; Williams, Bowman & Jung, 2016).

Researchers have also been vocal in highlighting that law enforcement agencies are often uncooperative with respect to documenting use of force incidents. Smith (2008) reveals that several attempts have been made to encourage police services to voluntarily report use of force incidents for research and policy-development purposes. Little progress has been made. Indeed, even when police services have been legislated to provide information on use of force cases, resistance is common. For example, the *Violent Crime Control and Law Enforcement Act of 1994* required the Attorney General to collect data on police use of excessive force and to publish annual reports from the data (McEwen, 1996). However, the majority of police agencies failed to report cases of excessive force because they are protected under the Tenth Amendment of the U.S. Constitution (Hickman & Poore, 2015; Shane, 2016). In other words, policing is the responsibility of state legislatures and the federal government cannot mandate local police agencies to report use of force data. This creates a significant challenge with respect to creating a national database on police use of force. Similar obstacles exist in Canada – since policing remains the responsibility of provincial and territorial governments.

The discussion above illustrates that, despite great public interest and policy relevance, data collection and reporting on police use of force has been stalled, if not fiercely resisted, by the policing community. As a result, in both the United States and Canada, research on police killings and other use of force incidents is very limited. The research that does exist has typically been conducted by individual researchers, special commissions of inquiry, human rights agencies, local governments, police oversight agencies and media outlets. Most academic researchers acknowledge the limitations of existing data and caution that findings should be "interpreted with a grain of salt." Others warn that, without a national dataset, it is difficult, if not impossible, to compare use of force practices across jurisdictions or draw broad conclusions about when the police are likely to use – or refrain from using – force (Zimring 2017). The reader is thus advised to consider these data limitations while reviewing the research results – on the police use of force against members of the Black community – presented in the next section of this report.

Race and use of force: American research

Research on race and police use of force is much more prevalent in the United States than Canada. The large racial disparities uncovered by these studies are not in dispute. Study after study, conducted at different periods of time and in different regions of the country, have found that African Americans are significantly over-represented in police shootings and other cases involving police use of force (see reviews in Geller and Toch 1995; Rahtz 2003; Walker et al. 2004; Lersch and Mieczkowski 2005; Ross 2015; Zimring 2017; Menifield et al. 2018). Importantly, research also suggests that the over-representation of African Americans in use of force cases has declined significantly over the past 30 years. For example, in the 1970s, American police shot and killed eight Black people for every one White person. By 1998 that ratio had been reduced to 4:1 (see Walker 2005; Walker et al 2004). Nonetheless, by 2018, the available data suggest that Black Americans are still twice as likely to be shot and killed by police than their White counterparts. Less is known about other types of use of force.

Over the past several years, the *Washington Post* has carefully collected detailed data on all police shooting deaths across the United States. These statistics are posted and updated daily on their [website](#). In 2018, *the Post* recorded 992 police shooting fatalities. Twenty-three percent of these shootings involved Black civilians, although Black people represent only 13% of the American population. Furthermore, the Black police shooting rate (5.2 per million) was 2.3 times greater than the White rate (2.3 per million). Findings based on the *Washington Post* dataset are consistent. According to the *Post*, between 2015 and 2019, the

U.S. experienced between 967 and 998 police killings per year. Each year, between 22% and 26% of all cases involved Black civilians. The rates are particularly high for Black males. Over the past decade, studies using different local and national datasets have produced very similar results (see Zimring 2017). It should be noted that, in approximately 10% of all police shooting cases in the United States, the race of the civilian is listed as "unknown." If any of these "unknown" cases are, in fact, African American, racial disparities in police shooting statistics could be even higher than documented by recent studies (Zimring 2017). Finally, emerging American research further suggests that racial disparities exist with respect to the police use of other use of force tactics – including Conducted Energy Weapons (CEWs), pepper spray, baton use and open/closed handed techniques (see Goff et al. 2016; Crow & Adrion, 2011; Gau et al., 2009; Lin & Jones, 2010).

Race and use of force: Canadian research

Despite growing public concern and allegations of police racial bias with respect to the use of physical force, very little Canadian research has actually addressed this issue. Although a growing number of studies have documented possible discrimination in other areas of the criminal justice process – including racial differences in police surveillance practices (racial profiling), racial differences in arrest decisions, racial differences in pre-trial outcomes and racial differences in criminal sentencing – detailed research has yet to be conducted on racial differences in the police use of force (see Tator and Henry 2006; Tanovich 2006; Wortley and Marshall 2005; Wortley 2004).

Early Canadian studies were plagued by methodological issues, including small sample sizes and a reliance on newspaper coverage of police shooting incidents. For example, using media sources, Gabriella Pedicelli (1998) examined police shootings in Toronto and Montreal between 1994 and 1997. She found that although Black people represented less than 2% of Montreal's Black population in 1991, five of the 11 people shot and killed by the police during the study period (45%) were Black males. Similarly, although African Canadians represented only 3.3% of Toronto's population in 1991, six of the 12 civilians (50%) shot and killed by the police during the study period were Black males (Pedicelli 1998: 63). A case-by-case analysis of particularly controversial cases led Pedicelli to conclude that police officials are often able to legitimize police violence by claiming that it is a normal reaction when dealing with ethnic groups that are prone to "criminality" and "violence."

Furthermore, police officer claims that they had to make "split-second decisions" during violent, "life and death" confrontations with civilians are usually enough to have the incident deemed a "justifiable homicide." Police versions of shooting incidents are rarely challenged by the media or government officials.

Phillip Stenning (1994) further explored the issue of police violence by interviewing 150 inmates from three provincial detention centers in the Greater Toronto Area. In contrast to Pedicelli's work, Stenning found little evidence of racial differences in experiences with police use of force. While Black inmates were much more likely to report verbal abuse and racial insults during arrest situations, they were not more likely to report police brutality. However, the author cautions that these findings are far from conclusive because they are based on interviews with a small, non-random sample of prison inmates. Indeed, only 51 Black inmates were interviewed as part of this study. Furthermore, this study did not examine racial differences in the use of deadly force or police violence that led to serious injury.

A 2006 study, conducted on behalf of the Ipperwash Inquiry, examined police use of force cases documented by Ontario's Special Investigations Unit. This study revealed that both Black and Indigenous people were highly over-represented in Ontario police use of force cases (Wortley 2006). By contrast, White people and members of other racial groups – including South Asians and Asians – were significantly under-represented. The SIU is a civilian law enforcement agency that conducts investigations into incidents involving police officers where there has been death, serious injury or allegations of sexual assault. The SIU is independent of the police and is arm's length to the Ministry of the Attorney General.

Between January 2000 and June 2006, the SIU conducted 784 investigations. While Black people represented only 3.6% of the Ontario population, they represented 12% of all civilians involved in SIU investigations, 16% of SIU investigations involving police use of force, and 27% of all investigations into police shootings. Additional analysis indicates that the police shooting rate for Black Ontario residents (4.9 per 100,000) was 7.5 times higher than the overall provincial rate (0.65 per 100,000) and 10.1 times greater than the rate for White civilians (0.48 per 100,000).

Finally, when examining cases where the death of a civilian was caused by police use of force, the over-representation of Black people becomes even more pronounced: Black people represent 27% of all deaths caused by police use of force and 34.5% of all deaths

caused by police shootings. The police shooting death rate for Black people (1.95 per 100,000) is 9.7 times greater than the provincial rate (0.20 per 100,000) and 16 times greater than the rate for White people (0.12 per 100,000). The results for Indigenous people were strikingly similar.[1]

In another recent study, Carmichael and Kent (2014) examined variations in police killings across 39 of Canada's largest cities over a 15-year period. Information on police use of force cases was derived from media accounts, not official statistics. The results of their pooled time-series analysis are highly consistent with the ethnic threat hypothesis: police killings are positively associated with the size of an urban centre's racial minority population. In other words, cities with high racial minority populations experience more cases of lethal police activity than cities with small racial minority populations. This relationship persists even after controlling for crime rate and various measures of socioeconomic disadvantage. Interestingly, Carmichael and Kent (2014) also found that the greater the representation of female officers, the lower the rate of police killing. The relationship between officer gender and use of force is discussed further below. A limitation of this study is that it does not disaggregate the racial minority category. In other words, the study cannot determine whether Canadian cities with high Black populations have higher use of force rates than cities with high populations of other racial minority groups.

The relationship between race and police use of force in Canada was further confirmed by the release of a CBC report in June 2018. A team of CBC researchers had scoured both police reports and media accounts to compile a dataset of 461 individuals who had been killed by police activity, in Canada, from 2000 to 2017. This is likely the first attempt at establishing a national dataset of lethal use of force cases in Canada. The results strongly indicate that both Indigenous and African Canadians are grossly over-represented in police use of force incidents that result in death. For example, although Black people represented less than 2.5% of Canada's population during this period, they comprised almost 8% of all police killings. Black over-representation was particularly large in certain urban centres. For example, during this 17-year period, Black people in Toronto made up approximately 8.3% of the city's population. By contrast, they comprised nearly 37% of Toronto residents killed

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[1] Toronto data from this broader study of Ontario use of force cases will be explored in more detail in Section C of this report.

by police use of force. It is also important to note that in 22% of all cases, the CBC could not identify the race of the civilian. In other words, if any of these missing cases involved individuals of African Canadian background, Black over-representation in deadly force incidents would actually be higher than the numbers above already indicate.

In sum, Canadian research on police violence has been greatly hindered by the fact that police services in this country *do not* routinely collect or release official statistics on police shootings or other use of force incidents.[2] Moreover, research on racial differences in policing outcomes is equally difficult to conduct because there has traditionally been an informal "ban" on the dissemination of any type of information that breaks down criminal justice statistics – including police shootings – by civilian racial background (see Wortley 1999). Nonetheless, the limited Canadian data that does exist strongly suggests that, as in the United States, Black Canadians are over-represented in police use of force statistics. This disparity is an issue that deserves more research and policy attention.

Racial disparity in context

While there is little debate in the U.S about the fact that Black people are over-represented in police use of force statistics, there is considerable debate among criminologists, police officials and politicians about the reasons for that over-representation. In summarizing the American research on deadly force by police, Locke (1996: 135) observes that: "What every single study of police use of fatal force has found is that persons of colour (principally Black males) are a disproportionally high number of the persons shot by the police compared to their representation in the general population. Where the studies diverge are the reasons for that disproportionality." On the one hand, some argue that racial disparities are a product of bias. Others, however, maintain that racial disparities are a product of legitimate police practices.

Some American scholars and social critics have argued that a combination of explicit, implicit and systemic racism explains the fact that Black people are more likely to be the victim of police violence than members of the White majority. In order to support this

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[2] There is some evidence that the willingness to collect and disseminate race-based data has recently increased among some Canadian policing agencies. For example, over the past year, both the Toronto Police Services Board and Ontario's Special Investigation Unit have committed to collecting data on the race of civilians involved in police use of force incidents. However, it appears that this data will not be available for a couple of years.

argument, these authors frequently highlight specific cases in which the police have clearly used excessive force when dealing with Black citizens (the Rodney King case, the Abner Louima case, the Amadou Diallo case, the Tamir Rice case, the Freddie Grey case, the Michael Brown case, the George Floyd case, etc.). They note that almost all of the "questionable" police shooting deaths in the United States have involved African American males. Others focus on the fact that Black males are particularly over-represented in official statistics that document unarmed citizens who have been shot and killed by the police (see Ross 2015). For example, Nix and his colleagues (2017) found that, in 2015, 38 of the 99 unarmed persons killed by a police shooting were described as Black (38%), even though Black people represent only 13% of the U.S. population. Overall, this study found that Black people were twice as likely as White people to have been unarmed when shot and killed by the police. Support for the racism hypothesis is further supported by survey results which suggest that the majority of Black police officers in the United States feel that White officers are more likely to use physical force against Black citizens than White citizens (Mann 1993; Sparger and Glacopassi 1992; Locke 1995; Tagagi 1978; Locke 1996; Walker et al. 2004).

Recently, scholars have argued that the over-representation of Black people in use of force statistics may be strongly associated with racial bias at earlier stages of the policing process. Racial profiling research, for instance, indicates that young Black males are much more likely to be stopped and searched by the police than their White counterparts (Tanovich 2006; Wortley 2018). In other words, Black youths have many more antagonistic street encounters or confrontations with the police than White youths. This fact alone increases the probability that, compared to White people, Black people may eventually become involved in a police encounter that will escalate into a use of force incident (Menfield et al. 2018).

Despite these compelling results, most American policing scholars have nonetheless argued that the positive correlation between Black racial background and police use of force does not prove that there is a problem with police racism or racial bias. They argue that disparity does not prove discrimination. The argument is that other factors, besides race, must be taken into account before the presence of racial bias can be established. Some of the most important variables – including civilian characteristics, officer characteristics and situational factors – are described below.

Civilian characteristics

Gender*:* Males are significantly over-represented in American use of force statistics*.* For example**,** over the past decade, males have constituted 90% to 95% of civilians killed by police shootings in the United States, although they represent only 50% of the U.S. population**.** Several studies suggest that, controlling for situational factors, the police are more likely to use force – or greater levels of force – against male than female suspects (Garner, Maxwell, & Heraux, 2002; McCluskey, Terrill, & Paoline, 2005; Terrill & Mastrofski, 2002; Terrill & Reisig, 2003; Terrill, Paoline, & Manning, 2003; Crawford & Burns, 1998; Schuck, 2004; Terrill, 2005; Kaminski, Digiovanni and Downs 2004). By contrast, only a handful of studies have found that suspect gender has no impact on the use of force decisions (Engel, Sobol, & Worden, 2000; Lawton, 2007; Morabito & Doerner, 1997).

Age*:* In general, American research suggests that age is negatively associated with police use of force. A number of studies suggest that, controlling for situational factors, officers are more likely to administer force against younger than older civilians (McCluskey & Terrill, 2005; Paoline & Terrill, 2007; Terrill & Mastrofski, 2002; Terrill & Reisig, 2003). However, some studies found that age is not a significant predictor of the level of force used by the police (Crawford & Burns, 1998; Engel et al., 2000; Kaminski et al., 2004; Terrill et al., 2008). Since American Census estimates suggest that the Black population is significantly younger than the White population, racial differences in age might help explain racial disparities in police use of force.

Socio-economic status*:* Despite the strong bivariate correlation between race and police violence, some critical criminologists have argued that the over-representation of African Americans in use of force incidents is more about social class than race (Walker et al. 2004). They maintain that, regardless of race, police tactics of control and coercion are focused on poor, socially disadvantaged segments of society. As Klockars (1996: 13) notes, when it comes to police abuse, lower-class people are "the persons who are the least likely to complain and the least likely to be believed if they do." Thus, the over-representation of African Americans in use of force cases could be partially explained by their over-representation in poor, socially disadvantaged communities. This explanation is far from comforting. In theory, police discrimination against poor people is just as upsetting – and unethical – as police discrimination against racial minorities. A policing focus on poverty also represents a form of systemic racism – since Black and other racialized groups are over-represented within economically disadvantaged communities.

Despite the theoretical relevance of social class, research findings with respect to civilian social class and use of force are somewhat inconclusive (Klahm & Tillyer, 2010). While several studies suggest that there is a negative relationship between socio-economic class and use of force (Friedrich, 1980; McCluskey & Terrill, 2005; Terrill & Mastrofski, 2002; Terrill & Reisig, 2003), other studies indicate only a weak, statistically insignificant relationship (Sun & Payne, 2004; Paoline & Terrill, 2005). It is important, however, to interpret any findings related to civilian socio-economic class with caution. Social class, at the individual level of analysis, is difficult to measure. Some studies have been criticized for using unreliable observer perceptions of civilian social class rather than self-reports (see Weitzer & Tuch, 2004; Klahm & Tillyer 2010).

Criminal record: A number of scholars have argued that police use of force studies should try to control for civilian criminal history. Indeed, previous research suggests that a high proportion of civilians involved in use of force cases have a previous criminal record (see reviews in Menifield et al. 2018, Zimring 2017). Previous criminality may increase the likelihood that a civilian will draw legitimate police attention, resist arrest and act in a violent or aggressive manner towards law enforcement officials. Police officers may also become "vigilant" when dealing with known violent offenders. Hypervigilance, in turn, could increase the likelihood that force will be used. Importantly, in the absence of more precise situational information, criminal record has often been used as a "proxy" measure for civilian behavior during police encounters. Civilian criminal record, in other words, is often used to legitimize use of force decisions (i.e., the person had a criminal record and therefore must deserve the force they received). Critics, however, maintain that a criminal record does not justify police use of force. For example, a person cannot be shot by the police just because they have a criminal record. These scholars argue that it is much more important to measure situational factors – including a civilian's actual behavior during police encounters – than criminal history.

Situational factors

Civilian impairment*:* Some scholars have suggested that civilian impairment could increase the likelihood of police use of force. The logic is that persons, intoxicated on drugs or alcohol, may act in a more irrational, aggressive or violent manner towards the police and eventually compel police action. However, the empirical evidence is mixed. While some studies suggest that civilian impairment increases the likelihood of police use of force (Engel et al., 2000; Friedrich, 1980; McCluskey & Terrill, 2005; McCluskey et al., 2005; Paoline & Terrill, 2007; Terrill

& Mastrofski, 2002; Terrill et al., 2003; Terrill et al., 2008), other studies reveal no significant relationship between intoxication and use of force decisions (Lawton, 2007; Morabito & Doerner, 1997; Crawford & Burns, 1998). Doubt has also been raised about the validity of "civilian intoxication" measures. Civilian intoxication measures are often based on officer perceptions rather than self-reports and physiological testing. There are also concerns that officers often conflate civilian intoxication with symptoms of mental illness.

Civilian mental illness*:* Civilian mental illness can be viewed as both an individual characteristic and a situational variable. A growing body of American evidence suggests that a large proportion of all police use of force cases involves civilians with mental illness and/or experiencing a mental health crisis at the time of their interaction with police (Morabito and Socia, 2015; Parent 2011). This includes cases of severe depression in which civilians try to induce "suicide by cop." It is hypothesized that, as with cases of civilian intoxication, people in mental crisis may appear "irrational" during police encounters, fail to obey police instructions, or act in a violent or threatening manner towards police officers. All of these factors may increase fear and concerns about officer safety and ultimately increase the likelihood of a use of force event.

Although a topic of growing public concern, empirical research on the relationship between mental health and police use of force is quite limited. Most research on this topic has only examined police perceptions of mental illness rather than official diagnoses or civilian self-reports (Desmarais et al., 2014; Livingston et al., 2014; Watson, Corrigan & Ottati, 2004; Wells & Schafer, 2006; Engel, 2015; Hails & Borum, 2003; Morabito, 2007; Morabito & Socia, 2015; Parent, 2007). It is estimated that approximately 10% of all police-civilian encounters involve people with a mental illness (Hails & Borum, 2003; Morabito, 2007).

A number of studies have also produced findings that suggest a positive relationship between mental illness and the likelihood of experiencing police use of force incidents. For example, Bailey, Smock, Melendez and El-Mallakh (2016) found that the police are more likely to deploy CEWs (Tasers) on mentally ill persons than on others. Similarly, Hall et al., (2013) found that one in six use of force incidents involves a person exhibiting common signs of Excited Delirium (often associated with a mental illness). Further, Parent (2011) examined all police killings in British Columbia over a 10-year period and found that one-third of all cases involved a person in mental health crisis.

However, other studies suggest that mental illness has no impact on use of force decisions (see Morabito & Socia, 2015). Moreover, in jurisdictions that have employed Crisis Intervention Teams (CITs), use of force against persons with mental illness declines (Morabito et al., 2012). CIT is a specialized police approach where officers are trained to effectively respond and manage calls involving mentally ill persons and act as liaisons to the mental health system (Morabito et al., 2012; see also Borum, Deane, Steadman, & Morrissey, 1998).

A major limitation of research on the policing of mentally ill populations involves the identification of those with mental health problems. Data validity often depends on the ability of individual police officers to identify the signs of mental illness and react accordingly. As discussed above, officers often find it difficult to differentiate between people who are impaired or intoxicated and people with mental health issues (Alpert, 2015; Morabito & Socia, 2015). As Morabito et al., (2012, p. 61) note: "police officers may encounter individuals who have a mental illness and are also under the influence of drugs or alcohol – increasing their difficulty in managing the incident and perhaps making it difficult for the officer to recognize the mental illness." Such measurement challenges may contribute to inconsistent research findings and impede efforts to determine the true relationship between mental health and police use of force.

Civilian behaviour during encounters with the police: Technically, the police are only permitted to use physical force – including firearms – when they or others are either threatened or attacked by a suspect. In other words, officers must fear for their own safety, the safety of fellow officers, or the safety of other civilians before they make the decision to use force. This fear must be considered reasonable. In support of this general principle, previous research consistently reveals that, in a high proportion of police shooting cases, civilians were alleged to have been threatening, attacking or shooting at police officers (Balko 2014; Haider-Markel et al. 2017; Klinger et al. 2017; Zimring 2017). Research also suggests that a high proportion of use of force derives from police attempts to arrest suspects accused of criminal behavior. In many cases it is alleged that force is justified because civilians have actively tried to resist arrest or avoid apprehension (Klahm & Tillyer, 2010). Most research suggests that officers enforcing an arrest are much more likely to use force than officers involved in other types of civilian interaction (McCluskey & Terrill, 2005; Paoline & Terrill, 2007; Terrill & Mastrofski, 2002; Terrill et al., 2003).

It is important to note, however, that research on the temporal ordering of the arrest/use of force relationship is limited. Most studies, for example, are unable to determine whether force

was used before or after arrest initiation (Klahm & Tillyer, 2010). Furthermore, the operationalization of "arrest" and "use of force" has been inconsistent across studies. Some studies, in fact, classify arrests as a type of use of force – regardless of whether physical force was used or not (see Alpert & Dunham, 2004). By contrast, other empirical studies measure police use of force in terms of physical strikes and blows or the use of weapons against civilians (see Bazley, Lersch, & Mieczkowski, 2007).

Civilian demeanour: Police scholars have also argued that the demeanour of civilians may have a major impact on police decision making – including the decision to use force. Some studies have observed that the police are more likely to use excessive force against citizens who are argumentative, belligerent or defy their authority (Garner and Maxwell 2003; Macdonald et al. 2003; Terrill 2003). It has been suggested that some police officers react negatively to even legitimate questions from civilians. In other words, civilians who "flunk the attitude test" or display "contempt of cop" may be more vulnerable to police violence than those who are passive or compliant (see Worden 1995).

Other research has suggested that young Black males are more likely to be rude and disrespectful towards the police than young White males (see Walker 2000). This has led some to hypothesize that the poor or disrespectful demeanour some Black youth display towards the police may partially explain their over-representation in police use of force statistics. However, as with the social class hypothesis, the demeanour explanation does not validate the over-representation of racial minorities in cases of police violence. Poor civilian demeanour towards the police is not a legal justification for police use of physical force.

Overall, the research record is mixed. Some studies indicate that police are more likely to use force against suspects with poor demeanour towards the police (Brooks, 1993; Engel et al., 2000; Garner et al., 2002), while other research suggests that civilian demeanour has no impact (Paoline and Terrill, 2007; Terrill and Mastrofski, 2002; Terrill and Reisig, 2003). Unfortunately, some scholars have questioned the measurement of civilian demeanour and note that it has been operationalized inconsistently across studies (Klahm & Tillyer, 2010). Inconsistencies in the measurement of demeanour may, in fact, help explain inconsistent results.

Previous research has also not explored the relationship between racial profiling and civilian demeanour. This is an important oversight. For example, previous research (see Wortley and Owusu-Bempah 2009; Wortley and Owusu-Bempah 2011) reveals that Black

people are much more likely to be stopped and searched by the police than White people. Research also suggests that those who are frequently stopped and searched by the police are more likely to develop negative attitudes towards the police and are more likely to believe that the police are racially biased. These negative attitudes may translate into a more hostile, non-compliant or questioning demeanour towards the police during subsequent police encounters. Negative demeanour, in turn, could increase the likelihood of police use of force. This is an issue that should be the subject of future research.

It should be further noted that some critics have suggested that researchers have focused far too much on citizen demeanour towards the police and not enough on police demeanour towards civilians (see Walker 1992; Walker 2000). Indeed, civilians may sometimes display disrespectful or defiant attitudes towards the police as a response to police mistreatment, verbal abuse or incivility. Is it the demeanour of citizens that leads to violent police encounters, or does the demeanour of the police officer set the tone for many civilian-police interactions?

Presence of bystanders: Previous research has also examined whether the presence of other police officers and/or civilian bystanders influences police use of force decisions. Several studies have found that police officers are more likely to use force when additional officers are present (Garner et al., 2002; Paoline & Terrill, 2007; and Terrill & Mastrofski, 2002). Other research has found no relationship between use of force and the number of officers present (Engel et al., 2000; McCluskey, et al., 2005). To date, most studies suggest that the presence of civilian bystanders has no impact on police use of force decisions (McCluskey et al., 2005; Paoline & Terrill, 2005; Schuck, 2004; Terrill & Mastrofski, 2002; Terrill et al., 2008). However, there has been some speculation that, in the future, the presence of civilians with cell phones might curb police brutality within some crowded social settings.

Community characteristics: Research suggests that neighborhood characteristics may have a major impact on police use of force. Several studies have found that use of force rates are significantly higher in economically disadvantaged, high-crime communities than wealthy, low-crime communities. Importantly, American research reveals that neighbourhood crime – especially violent crime – typically emerges as a stronger predictor of police use of force than neighborhood poverty. In many American cities, high-crime communities also have large Black populations. Thus, some scholars have argued that Black people are over-represented in police use of force statistics because they are more likely to live in poor, high-

crime communities. Some American research, in fact, suggests that racial disparities in police shootings are rendered statistically insignificant after controlling for community-level crime rates (see review in Johnson et al. 2019).

However, critics warn that community-level crime rates should not be used to justify the use of force against specific individuals. An individual's presence in a high-crime community does not justify police use of force. Indeed, many of the most celebrated cases of police brutality have taken place in high crime neighborhoods. Nonetheless, many studies appear to use community crime rates as a proxy measure for minority aggression against police officers. The suggestion seems to be that – if the police use force in high crime neighbourhoods – it is most likely "legitimate." Others suggest that use of force may be more prevalent in high-crime communities because of police deployment patterns (high-crime communities have a greater police presence than low-crime communities) and more aggressive police strategies (Menifield et al. 2018). Another possibility is that police officers are more vigilant (on edge) in high-crime communities and more anxious about their personal safety. This fear or apprehension could directly or indirectly impact use of force decisions.

Police officer characteristics

Officer gender: Some police scholars hypothesize that female police officers, due to gender socialization norms and higher levels of empathy, are less aggressive and thus less likely to use force than their male counterparts. However, research on the impact of officer gender has been mixed. Most studies suggest that officer gender is not a significant predictor of use of force (Klahm & Tillyer, 2010; Kaminski et al., 2004; Lawton, 2007; McCluskey & Terrill, 2005; Paoline & Terrill, 2007; Terrill & Mastrofski, 2002; Terrill, Leinfelt, & Kwak, 2008). Other research, however, has found that, after controlling for situational factors, male officers are more likely to use force – especially deadly force – than female officers (see reviews in Garner et al., 2002; Alpert & Dunham, 1997; Charmichael & Kent, 2015).

Officer age and experience: Officer age and experience are highly correlated. Veteran officers tend to be older than officers with little work experience. Some studies suggest that officers with more experience are less likely to use force than younger, less experienced officers (Worden 2015; McElvian and Kposawa 2008; Paoline & Terrill, 2007; Terrill & Mastrofski, 2002). However, other studies indicate that – after controlling for rank and type of policing assignment – officer experience has no influence on use of force decisions (Lawton, 2007; McCluskey & Terrill, 2005; Sun & Payne, 2004). Finally, other studies suggest that while officers

with more years of experience are less likely to use deadly force than younger officers, they are actually more likely to employ other, non-lethal, use of force techniques (Crawford & Burns, 1998; see also Kaminski et al., 2004; Morabito & Doerner, 1997; Klahm & Tillyer 2010).

One factor that might influence the relationship between officer experience and use of force is the type of policing assignment. Younger officers are more likely than older officers to be assigned to frontline patrol work that involves aggressive or proactive policing tactics – including stop, question and frisk practices (see Worden 2015). This type of work increases the frequency of negative interaction with civilians and thus the probability of use of force. By contrast, older, more experienced officers are more likely to be assigned to special units, detective work or supervisory positions that will decrease their likelihood of experiencing a use of force incident.

Officer racial background: A number of scholars have hypothesized that White police officers, due to both explicit and implicit biases, should be more likely to use force against Black civilians than Black police officers. However, a number of studies have found that officer race is not a significant predictor of police shootings of Black civilians. In fact, a few American studies have found the opposite – that Black civilians are more likely be shot by Black than White officers (see Menifield et al. 2019; Johnson et al. 2019). A number of factors might explain this unexpected relationship – including the fact that Black officers are more likely to work in large urban centres and are more likely to be assigned to patrol high-crime areas within those cities. Nonetheless, this finding has contributed to the argument that increasing diversity will not necessarily decrease police use of force incidents. Importantly, while research has focused on shootings in general – it has not yet adequately explored whether White officers are more likely to be involved in the shooting deaths of unarmed Black civilians or other "illegitimate" use of force cases.

Officer education: The education of an officer and whether this has any impact on the use of force has received considerable attention through general discussion, but relatively little empirical research has focused on this issue. It is argued that those who have attained a higher level of education possess better decision-making skills and should be less likely to resort to violence (Worden, 1990; see also Paoline & Terrill, 2007). The empirical evidence around this issue has produced mixed findings. Sun and Payne (2004) reported that an officer's level of education did not influence the likelihood of force being used. Conversely, Paoline and Terrill (2007) found that officers with a post-secondary degree were less likely

to use force compared to their colleagues with only a high school education (see also McElvain & Kposowa, 2008). Similarly, Rydberg and Terrill (2010, p. 110) found that "officers with some college exposure or a four-year university degree are significantly less likely to use force relative to non-college-educated officers."

The results of multivariate analyses

A growing number of studies have examined the impact of race on police use of force after statistically controlling for other theoretically relevant factors. As with much of the research on this controversial topic, the findings have varied. Some multivariate analyses have found that race is a significant predictor of police use of force (see reviews in Shane 2018; Buehler, 2017; Nix et al. 2017; Goff et al. 2016; Ross 2015; Crow & Adrion, 2011; Gau, Mosher, & Pratt, 2009; Lin & Jones, 2010; Brown & Langan, 2001; Eith & Durose, 2011; Jacobs & O'Brien, 1998; Smith, 2004; Terrill & Mastrofski, 2002), while others have found that the impact of race is rendered statistically insignificant after controlling for other situational and community-level variables (Tregle et al. 2019; Worrall et al. 2018; Engel et al., 2000; Garner et al., 2002; Lawton, 2007; McCluskey et al., 2005; Morabito & Doerner, 1997; Sun & Payne, 2004). The following examples are illustrative of the range of research methodologies and findings that have emerged within the American use of force literature over the last five years.

Ross (2015) examined the impact of race on police shootings using data from the U.S. Public Shooting database. He used a geographically resolved, multilevel Bayesian analysis to estimate county-level risk levels of being shot by the police. Ross (2015) found that, after controlling for a wide variety of other factors, the median probability of being unarmed and shot by the police was 3.5 times greater for Black civilians than White civilians. Furthermore, this study found that the average risk of being shot by the police was the same for unarmed Black suspects as it was for armed White suspects.

Other results indicate that police shootings were most likely to take place in larger urban communities with high Black populations and high levels of poverty and socioeconomic inequality. However, this study found no evidence to suggest that the observed racial disparities in police shootings could be explained by county-level crime rates. Ross (2015) concludes that these results support the argument that racial bias contributes to police-related killings of unarmed Black men in the United States.

In a similar study, Scott et al. (2017) examined deadly force cases, from 213 metropolitan areas, over a 17-year period (1998-2015). The authors found evidence that American police officers are more likely to shoot and kill Black suspects even after statistically controlling for civilian behaviour, community characteristics and race-based measures of criminality.

Goff et al. (2016) examined use of force records for 12 large police services across the United States. Their examination found that, even after statistically controlling for racial differences in arrest patterns, participating departments still demonstrated racial disparities across multiple levels of force severity. Second, even when controlling for the uncommon occurrence of arrests for serious violent crime, "25%-55% of participating departments still revealed robust racial disparities that disadvantaged Blacks" (Goff et al. 2016).

In another recent study, Menefield, Shin and Strother (2019) examined a dataset that captured documented cases of police lethal use of force in the United States from 2014 to 2015. The authors found that Black racial background still emerged as a significant predictor of lethal force after controlling for various individual and situational factors, including whether the civilian was armed at the time of the incident, had a criminal record, or if the police encounter resulted from the commission of a violent crime. However, contrary to the racial bias hypothesis, White police officers were no more likely to kill racial minority suspects than racial minority police officers. Further analysis of the data revealed that lethal force is significantly related to community racial composition (i.e., percentage Black), but not local rates of violent crime. The authors conclude that the disproportionate killing of African Americans by police officers does not appear to be driven by micro-level racism. It is more likely to be explained by macro-level policing policies and practices that target predominantly Black communities.

In another recent study, Johnson, Tress, Burkel, Taylor and Cesario (2019) examined 2015 lethal police shootings in the United States. This study also found that officer race is unrelated to the shooting of Black suspects. In other words, they found no evidence that White officers were more likely to shoot and kill Black civilians than racial minority officers. Furthermore, these authors argue that observed racial disparities in police use of force statistics can be explained by race-specific, county-level crime rates. In other words, the authors suggest that Black civilians are more involved in police shootings because, at the

aggregate level, Black people have a higher rate of criminal involvement than White people (see also Tregle, Nix and Alpert 2019).[3] It is important to highlight the potential limitations of this interpretation. The authors are using aggregate racial data (race-specific crime rates) to explain racial differences that emerge during micro-level police-civilian encounters. This is often referred to as the "ecological fallacy." It implies that the individuals involved in police shooting deaths must have been involved in criminal activity because – at the group level – Black people have higher crime rates. An alternative explanation might suggest that, because Black people as a group have a higher crime rate, officers are more wary, anxious or vigilant in their presence and this may contribute to biased use of force decisions (for an additional critique of this article see Knox and Mummolo 2020).4

A note on simulation studies

A growing body of research has examined the relationship between race and police use of force under controlled, experimental conditions (see James, James & Vila, 2016; James, Klinger & Vila, 2014; James, Vila & Daratha, 2013). These studies use highly realistic simulation technology to explore the conditions under which officers decide to discharge their firearm. The results of these studies suggest that, contrary to the discrimination hypothesis, officers are slower to shoot armed Black suspects than armed White suspects. The data also suggest that officers are less likely to shoot unarmed Black suspects than unarmed White suspects. Importantly, simulation studies have also demonstrated that implicit racial bias – as measured by the Harvard Implicit Association Test (IAT) – does not appear to increase the likelihood of shooting unarmed Black suspects (see James et al. 2016).

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[3] Using data from a national American sample of lethal police shootings, Tregle et al. (2019) found that racial disparities in deadly police encounters varied dramatically by the type of benchmark employed. Black civilians were significantly over-represented in lethal police shootings using Census benchmarks and benchmarks predicting the likelihood of involuntary police contact. However, according to the authors, Black civilians appear to be less likely to be shot when benchmarked on aggregate violent crime arrests or weapons arrests.

[4] In another recent study, Worrall et al. examined a sample of 300 cases in which officers had drawn their firearms on a civilian. About half these cases involved a Black person. Controlling for other situational factors, the authors found that officers were less likely to shoot Black civilians than White civilians after they had drawn their firearm. However, this study did not control for racial differences in the likelihood of police contact or the possibility that, due to bias, officers have a lower threshold when it comes drawing firearms on Black civilians. In other words, it is possible that the results were skewed by the possibility that officers more frequently draw their firearms – without strong justification -- when dealing with Black rather than White civilians.

Critics, however, are quick to identify the potential limitations of simulation research. For example, Fridell (2016) argues that, no matter how realistic, artificial laboratory settings cannot truly replicate "real world" conditions because officers know that there are no real consequences (i.e., death, serious injury). This might cause officers to be "under-vigilant" when dealing with scenarios involving minority suspects. Furthermore, although the purpose of simulation studies are never fully disclosed to participants, officers can easily detect that they are being tested for their use of force decision-making under different conditions. Thus, during simulation studies, officers may be particularly careful when confronted with Black suspects because they do not want to be identified as racially biased. The same caution might not apply on the street (Terrill 2016).

A note on police subcultures

A number of scholars have examined the impact that the police subculture may have on the nature and extent of police violence (see reviews in Kappeler et al. 1997; Kelling and Kliesmet 1996). The literature reveals that the police subculture may increase the likelihood of police violence for the following five reasons:

1) The militaristic "war on crime" orientation that permeates most modern police services creates an "us against them" mentality among police officers. To the police officer, every citizen becomes a potential "enemy" or "symbolic assailant." This ideology can create tensions with minority communities – particularly in departments with few racial minority officers. These tensions are further aggravated when officers do not live in the same communities that they police.

2) The police culture can further reinforce racial stereotypes through the telling of "war stories" that depict racial minorities as dangerous. This may increase the level of fear or apprehension officers experience when they encounter racial minorities on the street.

3) The police subculture puts emphasis on "toughness" and "courage." New officers are often not accepted until they have proven that they can handle a violent or dangerous civilian encounter. This increases the likelihood that officers will want to prove their courage and demonstrate their willingness to resort to physical force. It also reduces the probability that officers will try to diffuse citizen confrontations through non-violent methods.

4)   The police subculture places an emphasis on respect. A good officer demands respect and is able to quickly establish their legal authority when dealing with civilians. The subculture also reinforces the belief that it is sometimes okay for officers to respond to citizen hostility, disrespect or disobedience with violence. Within the police subculture, "contempt of cop" is an offence that deserves punishment.

5)   Finally, the police subculture creates a code of silence among police officers. It is a general subcultural dictate that a police officer should never "snitch" or "rat" on a fellow officer. Officers who violate this general rule are often chastised by fellow officers. They frequently become socially isolated, fear that they won't receive proper backup on the street and fear that their chances for promotion will be damaged. This makes investigations into the illegitimate use of force difficult if not impossible to conduct. In other words, the code of silence protects officers who may use force in an illegitimate fashion and thus ensures that this type of behaviour will continue.

Although scholars have recognized the potential importance of the local police subculture, the idea of the subculture has rarely been incorporated into police use of force studies. This likely reflects the fact that the concept of "the police subculture" is very difficult to measure or quantify. For this reason it has been left out of all statistical analyses. Nonetheless, scholarship suggests that the impact of the police subculture on use of force practices can be curtailed by strong leadership and meaningful regulations. This will be discussed further in the recommendations section of this report.

Summary

A large body of American research – and a small but growing body of Canadian research – reveals that Black people are significantly over-represented in police shooting and use of force statistics. While American researchers have tried to examine various individual, situational and community-level factors that might explain these racial disparities, such multivariate research is largely absent in the Canadian context. Overall, the results of American research have been mixed. Divergent findings often reflect differences in data collection strategies, the measurement of control variables and analytic strategies. American researchers have also documented serious data quality issues. In fact, it is believed that official government statistics in the United States capture only 50% of all civilian deaths caused by police activity (Zimring 2017). The non-reporting rate is even

lower for non-lethal police violence. There is growing evidence to suggest that the racial disparities documented by government statistics are significantly less pronounced than the figures captured by non-official data collection efforts. It is maintained that these non-official data collection efforts capture a much higher proportion of use of force cases and are less impacted by the self-interest of individual police agencies (see Beck and Uchida 2019; Klinger and Slocum 2017; Williams et al. 2016; Alpert 2015). Nonetheless, the preponderance of American evidence suggests that racial disparities with respect to lethal and non-lethal police use of force are both large and statistically significant. These aggregate findings are consistent with allegations of racial bias and public concern over this issue.

Although the discussion is nuanced, two major explanations have dominated American conversations around Black over-representation in use of force statistics: 1) Racial bias or discrimination; and 2) Black over-representation in violent criminal activity. It is possible that both explanations hold some validity. For example, it is possible that some use of force incidents are directly caused by police racism. It is also possible that the over-representation of Black people in police shootings and use of force cases is driven by systemic racism and macro-level police policies and practices that focus on the Black community. Finally, it is likely that some use of force incidents are entirely precipitated by the violent, criminal behaviour of individual civilians and thus have little to do with racial bias. These incidents, however, may serve to reinforce racial stereotypes among the police and contribute to the belief that all Black people are potentially violent or dangerous. These stereotypes may subsequently increase the amount of fear or apprehension that police officers experience when they come into contact with racial minorities and ultimately increase the likelihood that force will be used during such encounters.

In conclusion, there is a growing consensus, especially in the United States, that Black civilians are over-represented in police use of force incidents. Although debate over the causes of this over-representation persist, there is also general agreement that better data collection and data analysis are required before this debate can be resolved. The need for additional research is even more pronounced in Canada. Finally, although police officials and academics continue to debate the fundamental reasons behind the over-representation of racial minorities in use of force incidents, the research literature on controlling police violence is much less controversial. A number of studies have identified that specific use of force regulations and training regimes can significantly reduce the frequency that the police resort to physical force (see Zimring 2017). As stated in a recent report by the United States Department of Justice: "Many of the recommendations listed elsewhere have the potential to reduce the level and impact of bias on police behavior (e.g., increasing positive interactions

between police and the community; increasing the collection and analysis of stop data; and increasing oversight of the exercise of police discretion" (U.S Department of Justice 2016: 94). The OHRC will address this research in its final report and provide associated recommendations. In the next three sections of this report, however, we present new Canadian data on police use of force in Toronto, Ontario.

Part B: Community perceptions of racial bias

A large and growing volume of research suggests that racial minorities – particularly Black people – have less trust in the police and broader criminal justice system than White people (see Hagan and Albonetti, 1982; Schafer, Huebner and Bynum, 2003; Weitzer and Tuch, 2005a; Weitzer, Tuch, and Skogan, 2008; Wu, Sun and Triplett, 2009; O'Connor 2008; Wortley 1996; Wortley, Hagan and Macmillan, 1997; Wortley and Owusu-Bempah 2009; Wortley and Owusu-Bempah 2011). However, relatively little research has examined public perceptions of police use of force.

A few American studies have established that White civilians are more likely to support police use of force than Black civilians or people from other racial backgrounds (Elicker 2008; Thompson and Lee 2004; Halim and Stiles 2001; Cullen et al. 1996). Weitzer (2002) examined public opinion polls in New York City and Los Angeles over a 20-year-period. The results consistently reveal that, compared to White people, Black people are more likely to believe that the police unjustly use physical force against Black civilians. The findings further suggest that high-profile incidents of police misconduct tend to shape citizens' attitudes. Weitzer (2002: 406) claims that: "the incidents involving Rodney King, Abner Louina, and Amadou Diallo are now part of the cultural repertoire with which African Americans conceive of the police. As a result, they might become less cooperative toward officers and more predisposed to accept allegations of police misconduct, even when officers act properly."

These results are echoed by research on police officers. For example, Weisburd and his colleagues (2000) found that a higher proportion of Black than White police officers feel that civilian race has an impact on police use of force decisions. In another study, Johnson and Kuhns (2009) found that Black people were more approving of police use of force when the offender was White than when the offender was Black. They conclude that, when it comes to police use of force, "it is clear that race (whether in the form of racial prejudice or perceived racial injustice) informs Whites' and Blacks' views on this issue" (Johnson and Kuhns 2009: 616).

Despite extensive research on public perceptions towards the criminal justice system, there is a significant lack of research on public perceptions of police use of force, particularly in Canada. As Kuhns et al. (2011: 236) state: "Our knowledge of citizen perceptions of police use of force comes primarily from research conducted in the U.S.A." (See also Silver & Pickett, 2015). The research presented in this section attempts to fill this void by presenting data from two general population surveys of Toronto residents.

The first survey, funded by the Commission on Systemic Racism in the Ontario Criminal Justice System, was conducted in 1994 by York University's Institute for Social Research. The second survey, conducted in 2007 by the Hitachi Survey Research Centre at the University of Toronto, was a replication of the 1994 survey. Combined, these surveys can help document changes in public attitudes towards the police over a 13-year period. Both surveys employed similar techniques to produce representative samples of the White, Black and Chinese population of Toronto. For each survey, over 400 respondents from each racial group were interviewed (see Wortley and Owusu-Bempah 2011 for further methodological detail). Random samples of this size produce population estimates that are accurate – plus or minus 5% – 95 times out of 100. The results of these two surveys suggest that perceptions of anti-Black bias with respect to police use of force are widespread and did not decline over the study period.

In both surveys, respondents were first asked the following question:

> Sometimes the police must use PHYSICAL FORCE when arresting a person who might have committed a crime or to keep that person from escaping. In general, do you think the police are more likely to use physical force against Black people, against White people, or do you think there is no difference?

The results suggest that, in 1994, the majority of Toronto's Black community (55.4%) believed that the police were more likely to use force against Black people than White people. By contrast, only 26.3% of White respondents and 22.7% of Chinese respondents had the same opinion. However, between 1994 and 2007, the proportion of White and Chinese respondents who perceived that the police were more likely to use force against Black people rose by 10 percentage points for each group. The perceptions of Black respondents remained unchanged (See Figure B1).

In both surveys, respondents were then asked:

> In your opinion, all things being equal, are the police more likely to unfairly shoot a Black person than a White person?

In both 1994 and 2007, over three-quarters of Black respondents reported that the police were more likely to unfairly shoot a Black person than a White person. By contrast, fewer than half of the White and Chinese respondents shared the same opinion. However, the proportion of White and Chinese respondents who did perceive anti-Black bias with respect

police shootings increased by almost 10 percentage points between 1994 and 2007 (see Figure B2). Why did perceptions of police discrimination increase between 1994 and 2007 – but only among White and Chinese respondents? One possibility is that non-Black civilians became more aware of police use of force issues because of greater media coverage and, perhaps, the limited release of police use of force statistics. By contrast, the proportion of Black respondents who perceive police discrimination remains high and unchanged between 1994 and 2007. This may indicate that the Black community noticed relatively few reforms in police use of force outcomes over this 13-year period.

Multivariate analysis reveals that these racial differences in perceptions of police bias remain after controlling for racial differences in age, education, employment status, income, immigration history and both direct and vicarious experiences with the police (see Wortley and Laming 2017). In other words, racial differences in perceptions of police bias cannot be completely explained by racial differences in social class position or personal experiences with the police. Indeed, the survey results suggest that well-educated, high-income Black citizens actually perceive more police discrimination than those who come from more disadvantaged backgrounds. Neither can perceptions of bias be explained by racial differences in place of birth.[5] In fact, Black people born in Canada are more likely to perceive a problem with police discrimination than recent immigrants (Wortley et al. 1997; Wortley and Owusu-Bempah 2009).

These survey findings are important. They reveal that the majority of Toronto's Black community perceive that the police are more likely to unjustly use physical force against members of the Black community than others. This perception within the Black community remained relatively unchanged between 1994 and 2007. However, the perception of police racial bias appears to have increased among both White and Chinese people over this time period. Have these perceptions changed between 2007 and 2010? This is a crucial question that must be addressed by future research.

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[5] Some have argued that Black people are more likely to distrust the police because they have often emigrated from countries where the police are violent and/or corrupt. Our research does not support this hypothesis.

However, there is some reason to believe that racial differences in perceptions of injustice persist. For example, a 2018 survey, commissioned by the Toronto Police Services Board, asked respondents whether they agreed or disagreed with the following statement:

> Members of the Toronto Police Service may at times have to use physical force against members of my community.

Almost half of the Black respondents to this survey (48%) disagreed with this statement, compared to only 29% of White respondents (Fearon and Farrell 2019). Clearly, when it comes to police use of force, racial differences in opinion remain widespread. This section of the report briefly explored racial differences in perceptions of racial bias with respect to police use of force. The fact that a significant proportion of Toronto's population – and the majority of Toronto's Black residents – perceive bias in police use of force practices is, by itself, a justification for further research. In the next two sections of the report we explore whether public perceptions of racial bias are consistent with actual data on use of force incidents. Our findings suggest that public concern is warranted.

Figure B1: Percentage of respondents who perceive that the police are more likely to use force against Black civilians than White civilians, by respondent race and year of survey

Figure B2: Percentage of respondents who believe that the police are more likely to unfairly shoot a Black person than a White person, by respondent race and year of survey
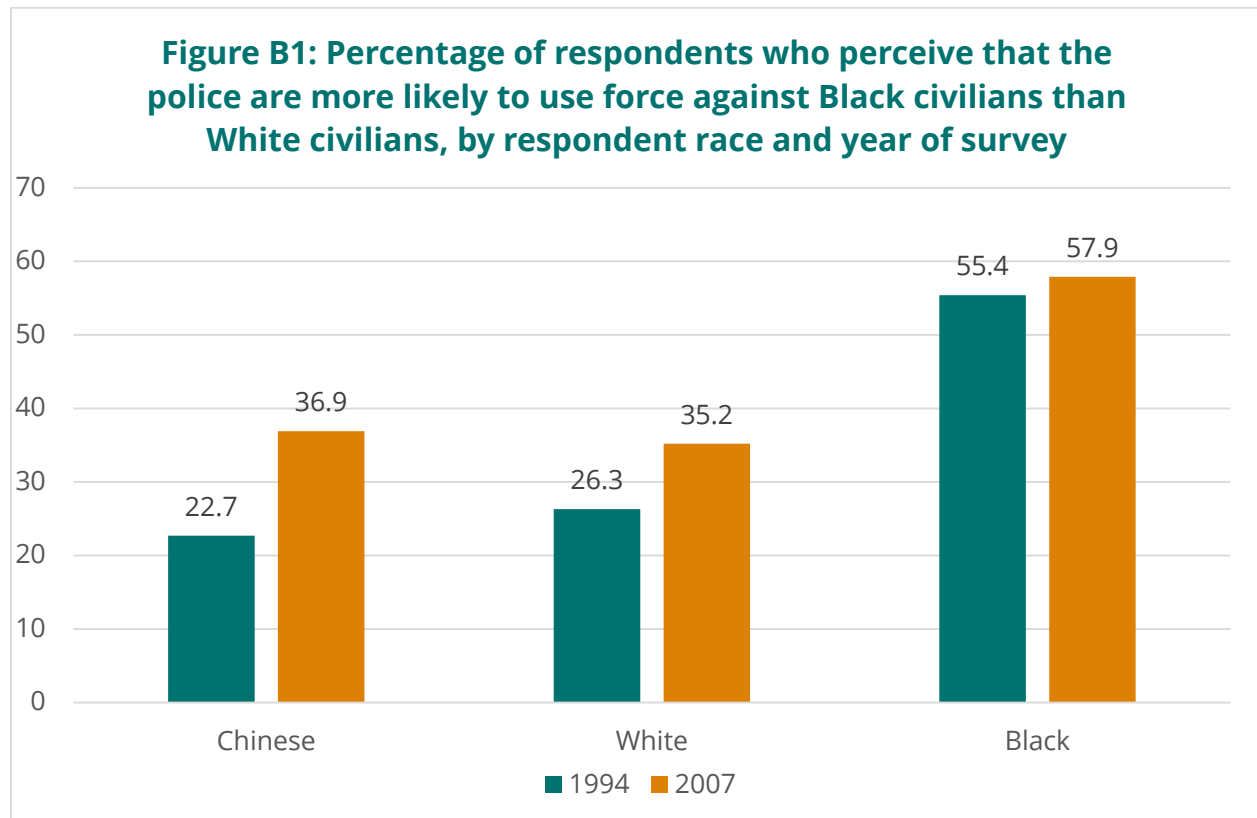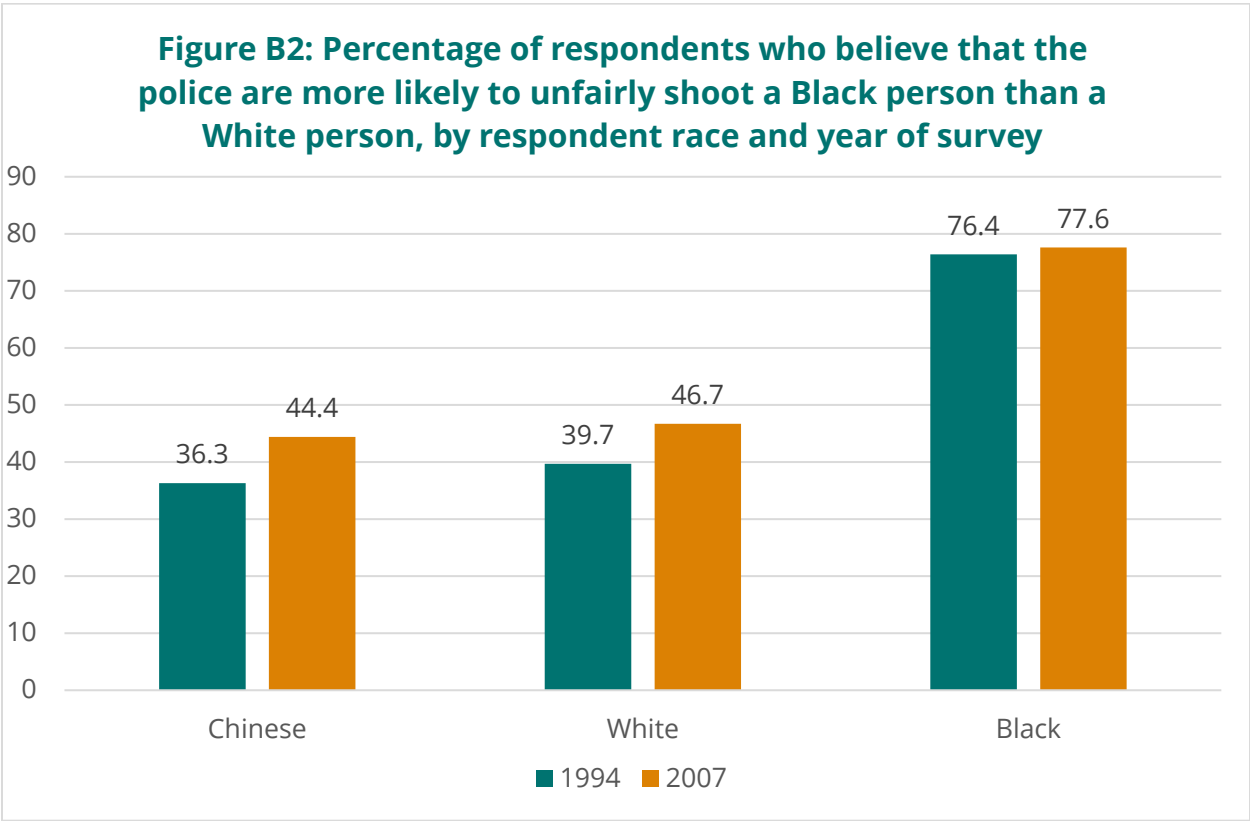
Part C: An examination of Special Investigations Unit cases involving the Toronto Police Service

Introduction

This section of the report provides an analysis of police use of force cases involving the Toronto Police Service (TPS).[6] All cases included in this study were investigated by the Government of Ontario's Special Investigations Unit (SIU). The SIU is a civilian police oversight agency with a mandate to investigate police-involved incidents that result in the death or serious injury of a civilian and allegations of sexual assault. The study is designed to address the following five research questions with respect to the TPS and use of force incidents:

1) To what extent are Black people represented in SIU investigations?
2) To what extent are Black people represented in police use of force cases – including police shootings?
3) To what extent are Black people involved in TPS lethal use of force incidents?
4) To what extent do SIU cases involving Black civilians differ from cases involving civilians from other racial groups?
5) What proportion of SIU investigations result in criminal charges against police officers?
6) What proportion of SIU cases experience problems with police cooperation?

This study is one of the first Canadian studies to provide a detailed examination of racial differences with respect to police use of force. In this section of the report, we focus on the bivariate relationship between race and various use of force outcomes. In the next section, we provide a series of multivariate analyses designed to gauge the impact of race after statistically controlling for other theoretically relevant factors (see the literature review in Section B).

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[6] A considerable proportion of the SIU findings presented in this section of the report were previously reported in the interim report (see *A Collective Impact*). However, new findings are presented pertaining to police shootings, civilian weapons use and neighbourhood crime. A Toronto-American comparison in police shooting rates has also been added.

Methodology

The current study examined SIU investigations related to the TPS over two periods of time: 1) January 1, 2000 to June 6, 2006; and 2) January 1, 2013 to June 30, 2017. The inclusion of data over two time periods permits a trend analysis of how police use of force has changed – or not changed – over time. During both time periods, the research team was not provided with information about SIU investigations that were still open or cases that were before the criminal courts at the time of data collection.

The 2000 to 2006 data was collected as part of a larger study on police use of force commissioned by the African Canadian Legal Clinic and the Government of Ontario's Ipperwash Inquiry (see Wortley 2006). The 2000 to 2006 study is based on the examination of data from SIU Director's Reports. A Director's Report provides detailed information on each SIU investigation, including the time, date and location of the incident, the personal characteristics of the civilian or civilians involved, the cause of civilian injury or death, a description of the circumstances surrounding the incident, and the justification behind the Director's decision to either charge subject officers with a criminal offence or clear them of any criminal wrongdoing.

During the 2000 to 2006 period the SIU completed 1,113 investigations across the province. One data record was produced for each civilian involved in a SIU investigation. During this period the SIU conducted 246 investigations involving the TPS. However, 59 of these TPS cases were "closed by memo" soon after the file had been opened. SIU investigations are "closed by memo" when, early in the investigation, it is determined that the civilian injury is not serious enough to meet the SIU mandate or was not directly caused by police activity. SIU cases can also be closed by memo if a civilian can't be located or decides not to cooperate with a SIU investigation. The final 2000 to 2006 sample includes 187 SIU investigations, all involving the Toronto Police Service, that were completed over this six-and-a-half-year period.

By 2013, SIU investigation materials had been digitized. The research team was granted access to these case materials – including Director's Reports, officer notes and witness statements – from January 1, 2013, to June 30, 2017. Between 2013 and 2017, the SIU opened investigations into 319 incidents involving the TPS. However, 75 of these cases were "closed by memo" shortly after the file had been opened. As a result, the 2013 to 2017 sample includes 244 SIU investigations, all involving the TPS, that were completed over this four-year period.

The data template used to collect information about each investigation is provided in Appendix A. Important variables include the time, date and location of the incident, the cause of civilian death or injury, the nature of the injury, civilian characteristics (including age, gender, race, mental health, criminal record, etc.), number of subject officers, number of witness officers, the characteristics of subject and witness officers, the actions of the civilian at the time of the incident, weapons use by civilians and case outcome.

Measuring civilian race

It should be noted that the racial background of civilians is not regularly recorded by SIU investigators. That is, there was no intentional or organized effort by the SIU to collect racial statistics *per se*. The research team, therefore, had to rely on a variety of other methods to make this determination, including: 1) case photographs; 2) police records (i.e., general occurrence reports); 3) interviews with the SIU investigators; and 4) photographs of the civilian that appeared in newspaper coverage of the incident. Using these methods, we were able to identify the civilian's racial background in 86.1% of the 2000 to 2006 cases and 87.3% of the 2013 to2017 cases.

Table C1 compares how civilian race was identified during both the 2000 to 2006 and 2013 to 2017 study periods. During the 2000 to 2006 time frame, the majority of racial identifications (59.9%) were made from photographs taken directly from SIU case files. By contrast, during the 2013 to 2017 period, only 16.5% of racial IDs were made via SIU case photos. Unfortunately, most of the digitized case materials received from the SIU did not contain photos.

During the 2013 to 2017 study period, civilian race was most likely to be derived from official TPS documents (General Occurrence reports, Arrest reports, Injury reports, etc.) or SIU investigator notes. By contrast, during the 2000 to 2006 period, only 12.3% of racial identifications were made from SIU investigator notes and none (0%) were made through TPS documents.

In 2000 to 2006, 9.6% of all racial identifications were made via interviews or discussions with the SIU investigators responsible for the case. During the second time period, the research team had broader access to SIU records – including TPS General Occurrence

Reports – and thus did not have to consult directly with SIU investigators.[7] In a small number of cases, during both time periods, civilian race was identified via media coverage of the SIU investigation or through social media.

**Table C1: How race of complainant was identified,
SIU investigations, 2000 – 2006 and 2013 – 2017 study periods**

Method of racial identification	2000-2006 study period		2013-2017 study period	
	Number	%	Number	%
SIU photos	112	59.9	16	16.5
SIU investigator notes	23	12.3	75	30.7
Discussions with SIU investigators	18	9.6	0	0.0
TPS documents	0	0.0	114	46.7
Media coverage	8	4.3	6	2.5
Social media	0	0.0	2	0.8
Race not identified	26	13.9	31	12.7
Sample size	187	100.0	244	100.0

For the purposes of the current analysis, three major racial groups are identified for analysis purposes: 1) White; 2) Black and 3) other racial minority. The number of cases in the "other racial minority" category is too small to be disaggregated. In other words, the number of Asian, South Asian, Hispanic and Indigenous people in the SIU dataset are too small to provide a meaningful analysis of each group.

For the 2013 to 2017 study period, the "other racial minority" category includes civilians who were identified as "Brown" or "Brown-skinned" in TPS reports. Although we know they are not "White," the exact racial identity of these individuals is impossible to determine. Brown-skinned people could come from a number of different racial backgrounds including South Asian, Hispanic, West Asian, mixed race, etc. Indeed, it is quite possible that some civilians who self-identify as "Black" were incorrectly coded as "Brown-skinned" by the police. If this is the case, the actual number of "Black" people appearing in SIU cases may be greater

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[7] We want to stress that, during the second time-period (2013 to 2017), the drop in consultation with SIU investigators was more a function of methodology than a lack of SIU cooperation. Overall, the SIU was very cooperative during both study periods.

than the numbers presented below[8] For example, due to our conservative coding strategy, all 13 of the civilians identified as "Brown-skinned" by TPS documents were put into the "other racial minority" category. However, if we had placed them into the "Black" category, the number of Black civilians appearing in 2013 to 2017 SIU cases would have jumped from 62 to 75 individuals – or from 25.4% to 30.7% of the cases.

Measuring racial disparity

Tables C2 through C18 compare the representation of different racial groups in Toronto with their representation in SIU investigations. For the 2000 to 2006 sample, population estimates were derived from the 2006 Canadian Census. For the 2013 to 2017 sample, estimates were derived from the 2016 Canadian Census (Statistics Canada 2016). Estimates for the White population were calculated by taking the total population estimate for Toronto and deducting the total racial minority population and the total Indigenous population.

Odds ratios and SIU case rates were calculated to determine the representation of specific racial groups in SIU investigations. Odds ratios were calculated by dividing the percentage of all SIU cases involving a particular racial group by their percentage representation in the general population. An odds ratio approaching 1.00 indicates that a racial group is neither over- nor under-represented in SIU cases. An odds ratio less than 1.00 indicates that the group is under-represented in SIU cases. An odds ratio greater than 1.00 indicates that the group is over-represented. For example, an odds ratio of 2.00 indicates that a group is twice as prevalent in SIU cases as they are in the general population. By contrast, an odds ratio of 0.50 indicates that a group is 50% less represented in SIU investigations than their proportion of the general population would predict.

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[8] My analysis of TPS street check data from 2008 to 2013, for example, reveals inconsistent coding of Black and Brown individuals by TPS officers. For example, the same individual might be labelled "Black" during some street checks, but "Brown" during others. We did not observe such inconsistencies with respect to White civilians. Furthermore, we also found that immigrants from North Africa (Somalia, Ethiopia, etc.), most of whom identify as Black or African, were often labeled "Brown" by TPS officers.

There is no set standard for determining when racial disproportionality (i.e., the over- or under-representation of a particular racial group with respect to a specific social outcome) is cause for concern. For example, in the Ottawa Traffic Stop study, the authors used the 20% rule (or an odds ratio of 1.20 or higher) to determine when a group was significantly over-represented with respect to involuntary police contact (Foster et al, 2016). For the purposes of this study we have used a higher threshold of 50%. In other words, for the purposes of the present analysis, an odds ratio of 1.50 or higher will be used to determine whether racial disproportionality is noteworthy or not. At times we will discuss the notion of "gross" racial disparity. For the purposes of this report, a gross racial disparity exists when the level of over-representation is 200% or greater (i.e., as indicated by an odds ratio of 3.00 or higher). In these cases, a particular racial group would be three times more prevalent in SIU investigations than their presence in the general Toronto population would predict.

A second disparity measure used in the current analysis was the SIU case rate. The SIU case rate (per 100,000) was calculated by dividing the total number of SIU cases per racial group by their population estimate and multiplying that figure by 100,000. The rate indicates the number of people, per 100,000 population, that were involved in a SIU investigation during the two study periods. This case rate allows us to directly compare the experiences of different racial groups of varying size. For example, if Group A has a case rate of 10 per 100,000 and Group B has a rate of five per 100,000, we can accurately state that the members of Group A are twice as likely to become involved in a SIU investigation as the members of Group B.

We must stress that the figures presented in the following tables are based on Census projections and the *total population* of SIU investigations over two study periods. These are not figures based on a random sample and therefore are not subject to the rules of probability theory. In other words, the observed racial differences do not have to be tested for statistical significance. All the racial differences documented in these tables should therefore be interpreted as "real" differences.

Finally, it should be noted that the odds ratios and SIU case rates presented below are likely conservative. In other words, they may slightly under-estimate the true level of racial disparity in police use of force cases. The issue involves the use of 2006 census estimates for the entire 2000 to 2006 study period and the use of 2016 census estimates for the entire 2013 to 2017 study period. Previous research suggests that Toronto's Black and other racial minority population is increasing at a faster rate than the White population.

Thus, using 2006 Census estimates to measure the Black/other minority population in 2000 may slightly over-estimate the population size of these groups for that year – and slightly under-estimate the size of the White population. This would serve to reduce the size of the racial differences that appear in the SIU data. In other words, the racial disparities outlined in this report may be smaller than the racial disparities that actually exist with respect to SIU investigations.

Findings

Table C2 and Table C3 reveal that, during both study periods, Black people are significantly over-represented in SIU cases involving the Toronto Police Service. From 2000 to 2006, Black people were involved in 30.5% of all SIU investigations, even though they represented only 8.3% of Toronto's population. These figures produce an odds ratio of 3.67. In other words, during this period, Black people were 3.67 times more likely to appear in SIU investigations than their presence in the general population would predict. By contrast, both White people and other racial minorities are under-represented. From 2000 to 2006, the Black SIU investigation rate (27.33 per 100,000) was 4.6 times greater than the White rate (5.95 per 100,000) and 10.6 times greater than the rate for other racial minorities (2.58 per 100,000).

The results suggest that little changed between 2000 to 2006 and 2013 to 2017. Overall, Black representation in SIU investigations dropped slightly from 30.5% to 25.4%. Nonetheless, Black people are still 2.58 times more likely to appear in SIU investigations than their representation in the general population would predict. From 2013 to 2017, both White people and other racial minorities were, once again, under-represented in SIU cases. From 2013 to 2017, the Black SIU investigation rate (25.65 per 100,000) was 3.1 times higher than the White rate (8.17 per 100,000) and 6.9 times higher than the rate for other racial minorities (3.68 per 100,000).

Table C2: Total SIU investigations involving the Toronto Police Service, by race of civilian, January 1, 2000 – June 6, 2006

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,327,151	53.0	79	42.2	0.79	5.95
Black	208,555	8.3	57	30.5	3.67	27.33
Other racial minority	967,675	38.7	25	13.5	0.35	2.58
Race unknown	----	----	26	13.9	----	----
Total	**2,503,381**	**100.0**	**187**	**100.0**	**----**	**7.47**

TABLE C3: Total SIU investigations involving the Toronto Police Service, by race of civilian, January 1, 2013 – June 30, 2017

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,322,656	48.4	108	44.3	0.91	8.17
Black	239,850	8.8	62	25.4	2.89	25.65
Other racial minority	1,169,065	42.8	43	17.6	0.41	3.68
Race unknown	----	----	31	12.7	----	----
Total	**2,731,571**	**100.0**	**244**	**100.0**	**----**	**8.93**

The impact of sex

Further analysis reveals that the vast majority of SIU investigations involved male civilians. From 2000 to 2006, 84% of SIU investigations involved males. From 2013 to 2017 this figure drops, but only slightly, to 83.6%. With respect to the intersection of race and gender, the data reveal that Black males are especially over-represented in SIU cases. From 2000 to 2006, Black males represented only 3.8% of the Toronto population, but accounted for 27.8% of all SIU investigations. In other words, during this period, Black males were 7.3 times more likely to appear in a SIU investigation than their presence in the Toronto population would predict. By contrast, between 2000 and 2006, Black females were under-represented in SIU investigations (4.6% of the general population but only 2.7% of SIU investigations).

From 2013 to 2017, Black males represented only 4% of the Toronto population, but 23.7% of all SIU investigations. In other words, during this period, Black males were 5.9 times more likely to appear in a SIU investigation than their presence in the Toronto population would predict. By contrast, between 2013 and 2017, Black females were under-represented in SIU investigations (4.8% of the general population but only 1.6% of SIU investigations).

The results reveal that Black males have, by far, the highest SIU investigation rates (see Figures C1 and C2). From 2000 to 2006, the Black male SIU investigation rate (54.53 per 100,000) was 5.2 times greater than the rate for White males (10.44) and 12.7 times greater than the rate for other racial minority males (4.29 per 100,000). Female SIU investigation rates are much lower than the rates for men. However, from 2000 to 2006, the SIU rate for Black females (4.42 per 100,000) was higher than the rate for White females (1.95 per 100,000) and females from other racial minority backgrounds (0.99 per 100,000). From 2013 to 2017, the Black male SIU investigation rate (52.78 per 100,000) remained 3.7 times higher than the White male rate (14.14 per 100,000) and 7.7 times higher than the rate for males from other racial minority backgrounds (6.81 per 100,000). During the 2013 to 2017 period, the SIU investigation rate for females remained much lower than the rate for men. However, Black females continued to have a higher rate (3.07 per 100,000) than White females (2.90 per 100,000) or females from other racial backgrounds (0.82 per 100,000).

Figure C1: SIU investigation rates (per 100,000), by race and gender, 2000 – 2006

Figure C2: SIU investigation rates (per 100,000), by race and gender, 2013 – 2017

Race	Female	Male
Other racial minority	0.82	6.81
White	2.9	14.15
Black	3.07	52.78

Legend: Female, Male
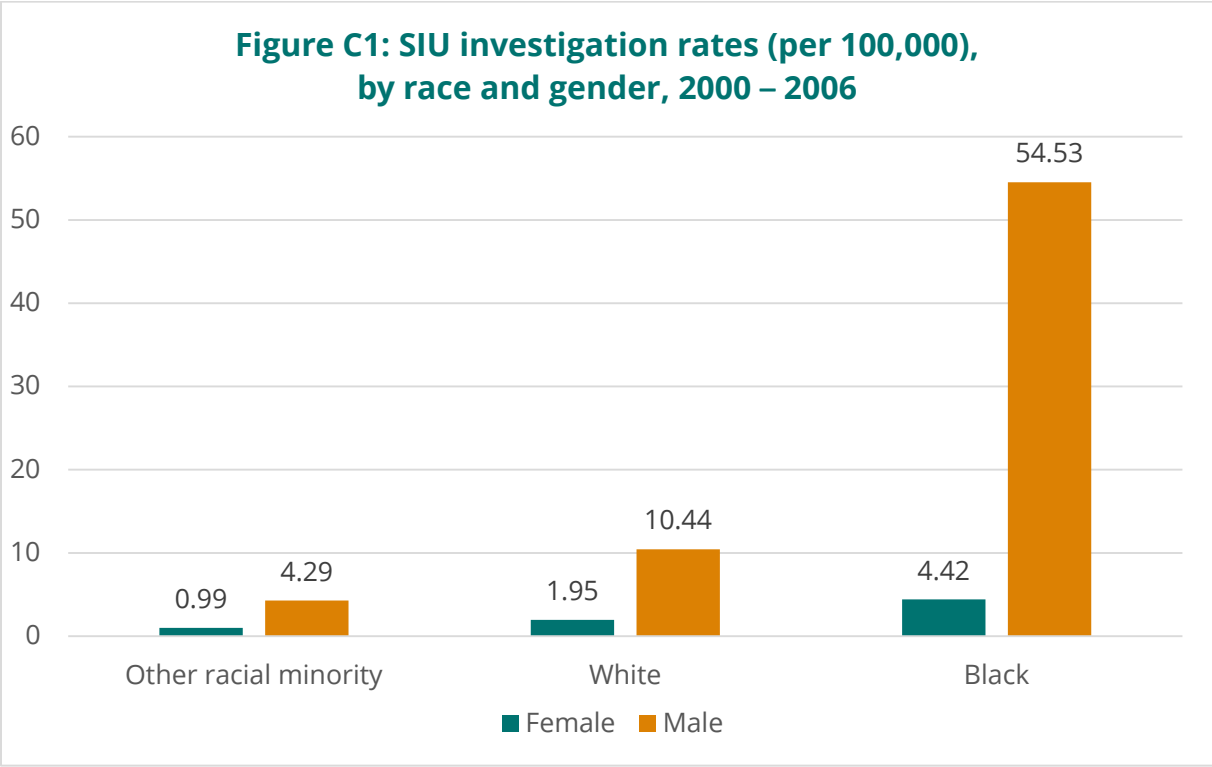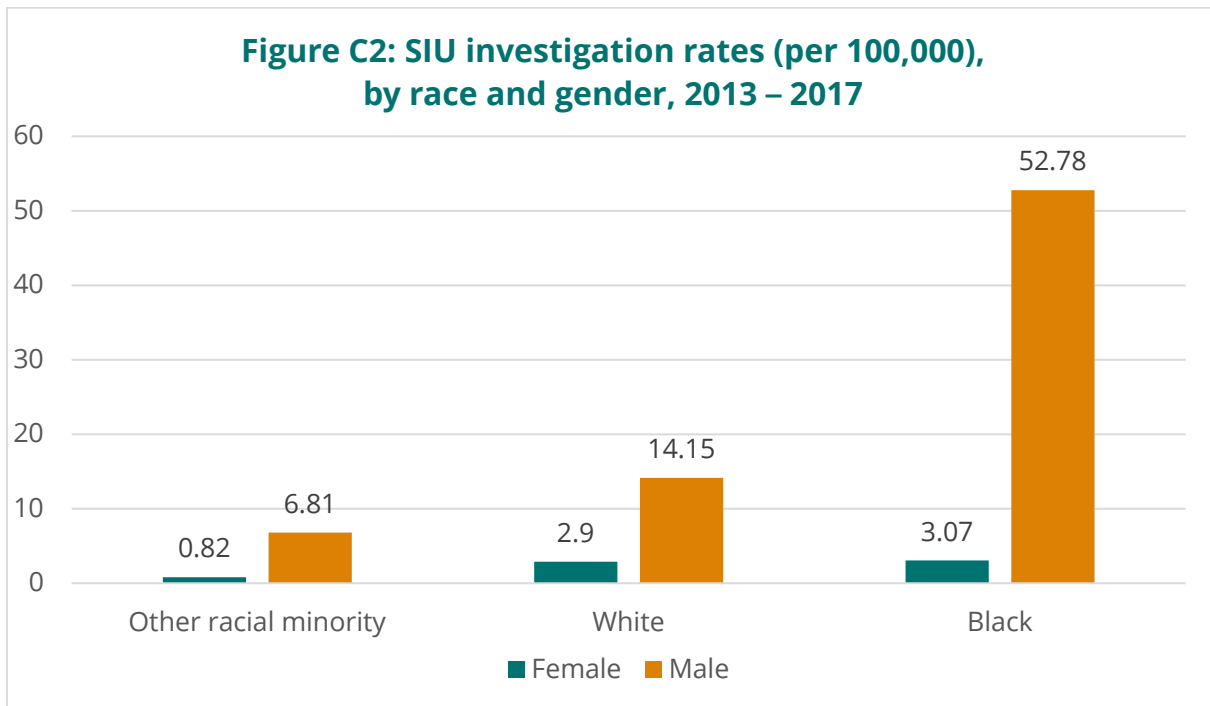
Cause of civilian injury

A major part of the SIU mandate is to determine the exact cause of civilian injury. The SIU determines cause of injury through interviews with subject and witness officers, interviews with the complainant, interviews with civilian witnesses, video surveillance and collecting physical evidence. It must be stressed that the data presented in Table C4 represent SIU determinations or conclusions about cause of harm. These determinations are not without conflict. For example, a civilian may claim that they were injured because of a police-related assault. The police, by contrast, may claim that the person's injury was the product of self-harm. In the current study, if the SIU decided that the police version of events is valid, this case would be categorized as "injury not caused by police" rather than "police use of force."

From 2000 to 2006, 23.5% of all SIU cases involved civilian deaths or injuries that were deemed not directly caused by police activity (see Table C4). This figure drops to 21.3% from 2013 to 2017. In these cases, injuries could have been self-inflicted (i.e., suicide), pre-existing (i.e., caused by a fight between civilians that occurred prior to police arrival) or caused by civilian attempts to flee police (i.e., a civilian suffered a heart attack while running from police).

From 2000 to 2006, 23% of all SIU investigations involved traffic accidents. A high proportion of these accidents took place during police pursuits. From 2013 to 2017, this figure dropped to only 12.7%. This noticeable decline in traffic accidents may reflect new regulations and strategies governing how police conduct pursuits.

From 2000 to 2006, only 14 SIU investigations (7.5% of all cases) involved allegations of sexual assault. This figure jumps to 36 investigations (14.8% of all cases) in 2013 to 2017. It is unclear whether this increase represents an actual increase in police sexual assaults, or an increased willingness of civilians to report allegations of sexual assault to the SIU.

From 2000 to 2006, 46% of all SIU investigations involved police use of force: 12.8% of those cases involved police use of firearms and 33.2% involved other types of force (including the use of Tasers, batons, pepper spray, etc.). From 2013 to 2017, 51.2% of all SIU investigations involved police use of force: 10.2% involved a police firearm and 41% involved other types of force, such as batons, Tasers and pepper spray. Thus, while the data suggest that the proportion of SIU investigations involving TPS use of force incidents increased between the two time periods (from 46% of all SIU investigations to 51.2%), the proportion of cases involving police firearm use declined slightly (from 12.8% to 10.2% of all SIU investigations). However, additional analysis suggests that, on an annual basis, TPS shootings went up during the two study periods. For example, the SIU investigated 24 police shootings from 2000 to 2006 and 25 police shootings from 2013 to 2017. In other words, the SIU investigated an average of four shootings per year from 2000 to 2006, compared to an average of 6.25 shootings per year from 2013 to 2017.

Table C4: Cause of civilian harm, as determined by SIU investigations, 2000 – 2006 and 2013 – 2017 study periods

Cause of civilian harm	2000 – 2006		2013 – 2017	
	Number	%	Number	%
Harm not caused by police	44	23.5	52	21.3
Traffic accident	43	23.0	31	12.7
Sexual assault	14	7.5	36	14.8
Police use of force	62	33.2	100	41.0
Police shooting	24	12.8	25	10.2
Total	**187**	**100.0**	**244**	**100.0**

Civilian injury not caused by police

The data reveal that Black people are over-represented in SIU investigations that concluded the police did not cause civilian injury or death (see Tables C5 and C6). From 2000 to 2006, Black people were 2.73 times more likely to appear in these types of SIU investigations than their presence in the general population would predict. Similarly, from 2013 to 2017, they were 2.41 times more likely to be involved in "injury not caused by police" cases than their presence in the general population would predict. Over both time periods, White and other racial minority civilians are either under-represented in "injury not caused by police cases" or their representation in these types of SIU investigation approximates their representation in the general population.

From 2000 to 2006, the Black rate of involvement in "injury not caused by police" cases (4.79 per 100,000) was 4.2 times higher than the White rate (1.13 per 100,000) and 3.9 times higher than the rate for other racial minorities (1.24 per 100,000). Little changed between the two study periods. By 2013 to 2017, the Black rate of involvement in "injury not caused by police" cases (4.59 per 100,000) remained 2.3 times higher than the White rate (1.96 per 100,000) and 7.65 times higher than the rate for other racial minorities.

Civilian injury caused by police-involved traffic accidents

Black people are also over-represented in SIU investigations in which civilian injuries were caused by police-involved traffic accidents (see Tables C7 and C8). However, the level of Black over-representation in these types of SIU investigations dropped noticeably between 2000 to 2006 and 2013 to 2017.

From 2000 to 2006, Black people were involved in 25.6% of "traffic accident" cases, even though they represented only 8.3% of the general population. In other words, during this time frame, Black people were 3.08 times more likely to appear in SIU "traffic" investigations than their presence in the general Toronto population would predict. From 2013 to 2017, Black people were involved in only 12.9% of SIU traffic-related investigations, even though they represented only 8.8% of the general Toronto population. Thus, during this period, Black people were 1.47 times more likely to appear in traffic-related SIU investigations than their presence in the population would predict, compared to 3.08 times more likely during the 2000 to 2006 period. During both time periods, White and other racial minority citizens are significantly under-represented in SIU investigations that involve traffic accidents.

From 2000 to 2006, the Black rate of "traffic-related" SIU investigations (5.27 per 100,000) was 5.9 times greater than the White rate (0.90 per 100,000) and 6.3 times greater than the rate for other racial minorities (0.83 per 100,000). By contrast, from 2013 to 2017, the Black rate of "traffic-related" SIU investigation (1.47 per 100,000) was only 2.01 times higher than the White rate (0.83 per 100,000) and 9.8 times greater than the rate for other racial minorities (0.17 per 100,000).

Sexual assault cases

Black people are significantly over-represented in SIU sexual assault investigations (see Tables C9 and C10). From 2000 to 2006, Black people were involved in 21.4% of sexual assault investigations, even though they made up only 8.3% of the general Toronto population. In other words, Black people were 2.58 times more likely to appear in SIU sexual assault investigations than their presence in the population would predict. Similarly, from 2013 to 2017, Black people were involved in 30.6% of sexual assault investigations, even though they made up 8.8% of the general Toronto population. In other words, during this period, Black people were 3.48 times more likely to appear in SIU investigations than their presence in the general population would predict. During both time periods, other racial minorities were significantly under-represented in SIU sexual assault investigations. White civilians, on the other hand, were slightly over-represented in 2000 to 2006 sexual assault cases (odds ratio = 1.21) and slightly under-represented in 2013 to 2017 cases (odds ratio = 0.90).

From 2000 to 2006, the Black rate of SIU sexual assault investigations (1.44 per 100,000) was 2.1 times greater than the White rate (0.68 per 100,000) and 6.9 times greater than the rate for other racial minorities (0.21 per 100,000). These racial disparities appear to have widened over time. Between 2013 and 2017, the Black rate of SIU sexual assault investigations (4.57 per 100,000) rose to 3.8 times greater than the White rate (1.21 per 100,000) and 13.4 times greater than the rate for other racial minorities (0.34 per 100,000).

An interesting trend involves a dramatic rise in the number of Black males who have made sexual assault allegations. Between 2000 and 2006, 11 of the 14 SIU sexual assault investigations (78.6%) involved female civilians. Only three sexual assault investigations (21.4%) involved males. By contrast, during the 2013 to 2017 period, the majority of SIU sexual assault investigations (58.3%) involved male complainants and only 41.7% involved females.

Between 2000 and 2006, Black males represented 3.8% of the Toronto population, but accounted for 7.1% of all SIU sexual assault investigations. In other words, during this period, Black males were only slightly more likely to appear in a SIU sexual assault investigation than their presence in the Toronto population would predict. During this time period, however, Black females were significantly over-represented in SIU sexual assault investigations (4.6% of the general population, 14.2% of SIU sexual assault investigations).

By the 2013 to 2017 study period, Black males still represented only 4% of the Toronto population. However, they were now involved in 25% of all SIU sexual assault investigations. In other words, during this period, Black males were 6.3 times more likely to appear in a SIU sexual assault investigation than their presence in the Toronto population would predict. By contrast, by the second study period, Black female representation in sexual assault cases had dropped significantly: from 14.2% of all sexual assault cases in 2000 to 2006, to only 5.5% of SIU sexual assault investigations in 2013 to 2017). During the 2000 to 2006 period, Black females had the highest SIU sexual assault investigation rate (1.77 per 100,000), followed by White females (1.10), Black males (1.05) and White males (0.33). From 2013 to 2017, however, Black males had by far the highest sexual assault investigation rate (see Figures C3 and C4). During this period, the Black male sexual assault investigation rate (8.19 per 100,000) was 5.3 times greater than the rate for Black females (1.54 per 100,000), and 6.7 times greater than the rate for both White males (1.27 per 100,000) and White females (1.22 per 100,000). As noted above, the number of SIU sexual assault investigations jumped from 14 in 2000 to 2006 to 36 in 2013 to 2017. Much of this increase appears to be related to Black male complainants who allege that they were sexually assaulted during police frisks or strip-searches.

Table C5: SIU investigations involving the Toronto Police Service in which civilian injuries were determined *not* to be caused by the police, by race of civilian, January 1, 2000 – June 6, 2006

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,327,151	53.0	15	34.1	0.64	1.13
Black	208,555	8.3	10	22.7	2.73	4.79
Other racial minority	967,675	38.7	12	27.3	0.71	1.24
Race unknown	----	----	7	15.9	----	----
Total	**2,503,381**	**100.0**	**44**	**100.0**	**----**	**1.76**

Table C6: SIU investigations involving the Toronto Police Service in which Civilian injuries were determined *not* to be caused by the police, by race of civilian, January 1, 2013 – June 30, 2017

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,322,656	48.4	26	50.0	1.03	1.96
Black	239,850	8.8	11	21.2	2.41	4.59
Other racial minority	1,169,065	42.8	7	13.5	0.32	0.60
Race unknown	----	----	8	15.4	----	----
Total	**2,731,571**	**100.0**	**52**	**100.0**	**----**	**1.90**

Table C7: SIU investigations of the Toronto Police Service involving traffic accidents (including accidents caused by police pursuits), by race of civilian, January 1, 2000 – June 6, 2006

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,327,151	53.0	12	27.9	0.53	0.90
Black	208,555	8.3	11	25.6	3.08	5.27
Other racial minority	967,675	38.7	8	18.6	0.48	0.83
Race unknown	----	----	12	27.9	----	----
Total	**2,503,381**	**100.0**	**43**	**100.0**	**----**	**1.72**

Table C8: SIU investigations of the Toronto Police Service involving traffic accidents (including accidents caused by police pursuits), by race of civilian, January 1, 2013 – June 30, 2017

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,322,656	48.4	11	35.5	0.73	0.83
Black	239,850	8.8	4	12.9	1.47	1.67
Other racial minority	1,169,065	42.8	2	6.5	0.15	0.17
Race unknown	----	----	14	45.2	----	----
Total	**2,731,571**	**100.0**	**31**	**100.0**	**----**	**1.13**

Table C9: SIU investigations of the Toronto Police Service involving allegations of sexual assault, by race of civilian, January 1, 2000 – June 6, 2006

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,327,151	53.0	9	64.3	1.21	0.68
Black	208,555	8.3	3	21.4	2.58	1.44
Other racial minority	967,675	38.7	2	14.3	0.37	0.21
Race unknown	----	----	0	0.0	----	----
Total	**2,503,381**	**100.0**	**14**	**100.9**	**----**	**0.56**

Table C10: SIU investigations of the Toronto Police Service involving allegations of sexual assault, by race of civilian, January 1, 2013 – June 30, 2017

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,322,656	48.4	16	44.4	0.92	1.21
Black	239,850	8.8	11	30.6	3.48	4.57
Other racial minority	1,169,065	42.8	4	11.1	0.26	0.34
Race unknown	----	----	5	13.9	----	----
Total	**2,731,571**	**100.0**	**36**	**100.0**	**----**	**1.32**

Figure C3: SIU sexual assault investigation rates (per 100,000), by race and gender, 2000 – 2006

Figure C4: SIU sexual assault investigation rates (per 100,000), by race and gender, 2013 – 2017

Race	Female	Male
Other racial minority	0.33	0.36
White	1.22	1.27
Black	1.54	8.19

■ Female ■ Male

Police use of force cases

Consistent with previous Canadian and American research (see Part A of this report), Black people are grossly over-represented in SIU investigations that involve police use of force (see Tables C11 and C12). However, the data also suggest that the level of Black over-representation dropped slightly over time.

From 2000 to 2006, Black people were involved in 38.4% of use of force cases, even though they represented only 8.3% of Toronto's general population. In other words, Black people were 4.63 times more likely to appear in SIU use of force investigations than their presence in the general population would predict. From 2013 to 2017, however, Black people were involved in 28.8% of SIU use of force cases – a decline of 10 percentage points during the two time periods. In other words, Black people were now 3.27 times more likely to appear in SIU use of force investigations than their presence in the general population would predict – compared to 4.63 times in the 2000 to 2006 period. By contrast, White and other racial minority citizens are both under-represented in police use of force cases.

From 2000 to 2006, the Black use of force investigation rate (15.82 per 100,000) was 4.9 times greater than the White rate (3.24 per 100,000) and 51 times greater than the rate for other racial minority groups (0.31 per 100,000). Similarly, from 2013 to 2017, the Black use of force investigation rate (15.01 per 100,000) was 3.6 times higher than the White rate (4.16 per 100,000) and 5.8 times greater than the rate for other racial minorities (2.57 per 100,000).

The vast majority of SIU use of force investigations (over 90% during both time periods) involve male civilians. The data suggest that Black males are particularly over-represented in police use of force cases (see Figures C5 and C6). From 2000 to 2006, Black males were involved in 34.9% of all SIU use of force cases, even though they represented only 3.8% of Toronto's population. In other words, Black males were 9.2 times more likely to be involved in a SIU use of force investigation than their presence in the general population would predict. Similarly, from 2013 to 2017, Black males were involved in 28.8% of all SIU use of force investigations, even though they represented just 4% of the population. In other words, during this period, Black males were 7.2 times more likely to appear in a SIU use of force investigation than their presence in the general population would predict.

From 2000 to 2006, the Black male use of force investigation rate (31.46 per 100,000) was five times greater than the rate for White males (6.32 per 100,000), 12 times greater than the rate for Black females (2.65 per 100,000), and 71.5 times greater than the rate for White females (0.44 per 100,000). Similarly, from 2013 to 2017, the Black male use of force investigation rate (32.76 per 100,000) was 4.1 times greater than the rate for White males (7.95 per 100,000) and 43.1 times greater than the rate for White females (0.76 per 100,000). Interestingly, during this second period, no Black females were involved in a SIU use of force investigation (rate = 0.0 per 100,000).

Table C11: SIU investigations of the Toronto Police Service involving police use of force, by race of civilian, January 1, 2000 – June 6, 2006
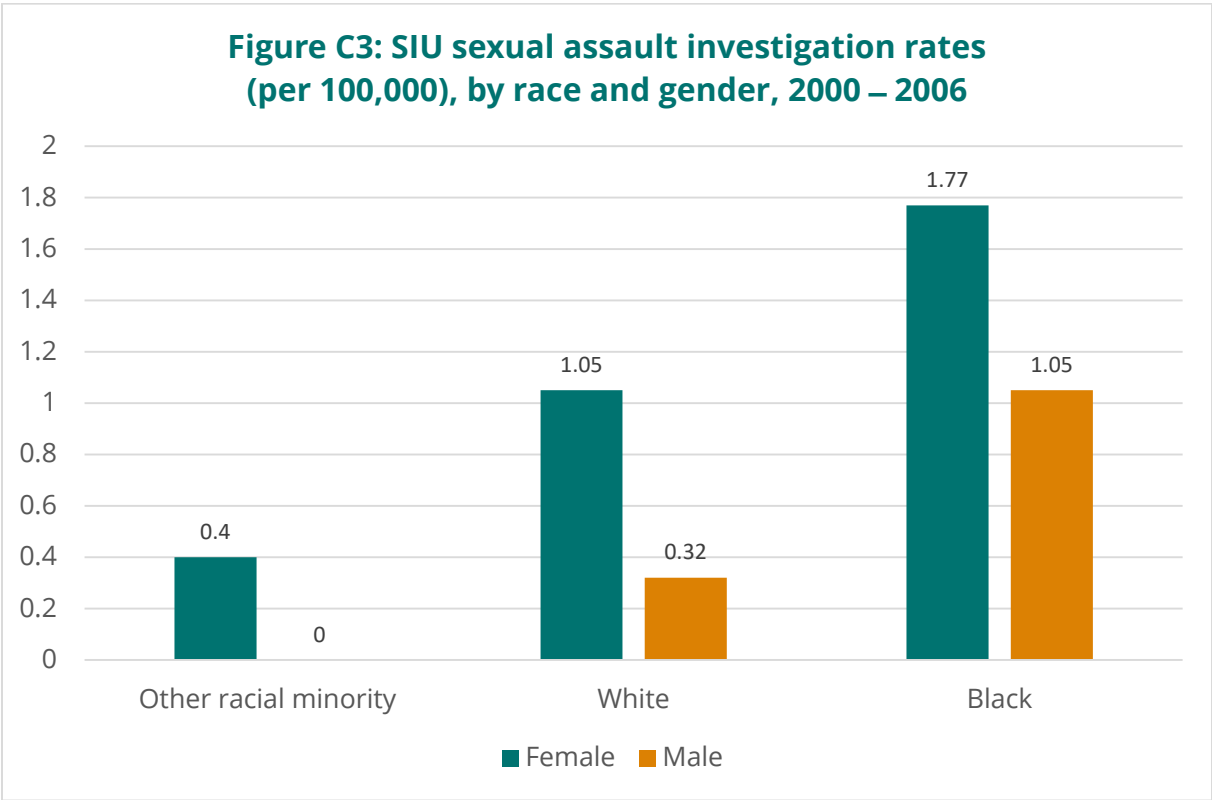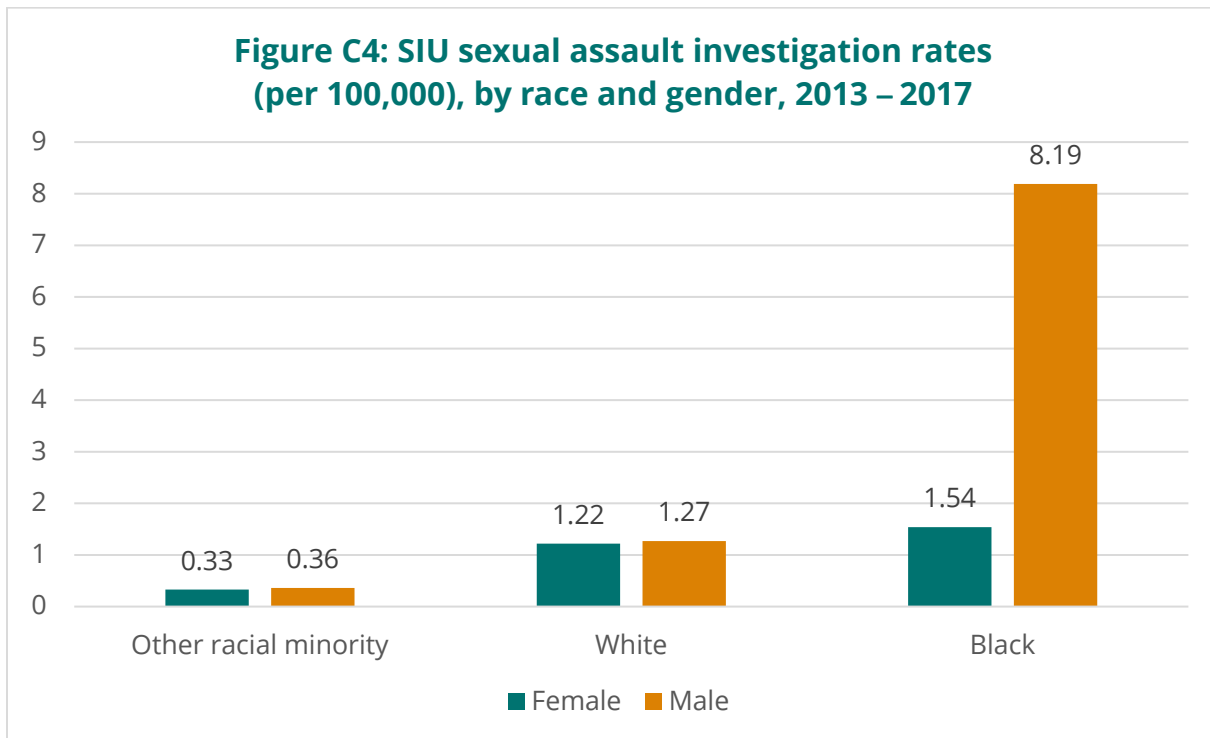
Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,327,151	53.0	43	50.0	0.94	3.24
Black	208,555	8.3	33	38.4	4.63	15.82
Other racial minority	967,675	38.7	3	3.5	0.09	0.31
Race unknown	----	----	7	8.1	----	----
Total	**2,503,381**	**100.0**	**86**	**100.0**	**----**	**3.43**

Table C12: SIU investigations of the Toronto Police Service involving police use of force, by race of civilian, January 1, 2013 – June 30, 2017

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,322,656	48.4	55	44.0	0.91	4.16
Black	239,850	8.8	36	28.8	3.27	15.01
Other racial minority	1,169,065	42.8	30	24.0	0.56	2.57
Race unknown	----	----	4	3.2	----	----
Total	**2,731,571**	**100.0**	**125**	**100.0**	**----**	**4.58**

Figure C5: SIU use of force investigation rates (per 100,000), by race and gender, 2000 – 2006

Figure C6: SIU use of force investigation rates (per 100,000), by race and gender, 2013 – 2017
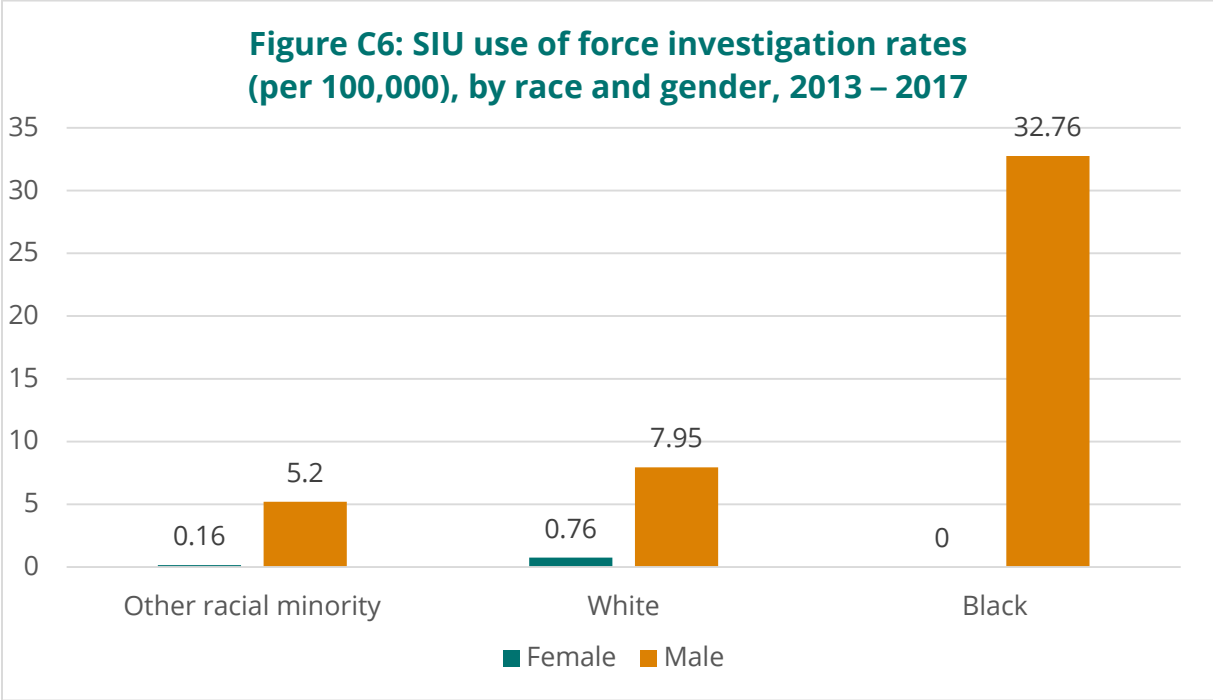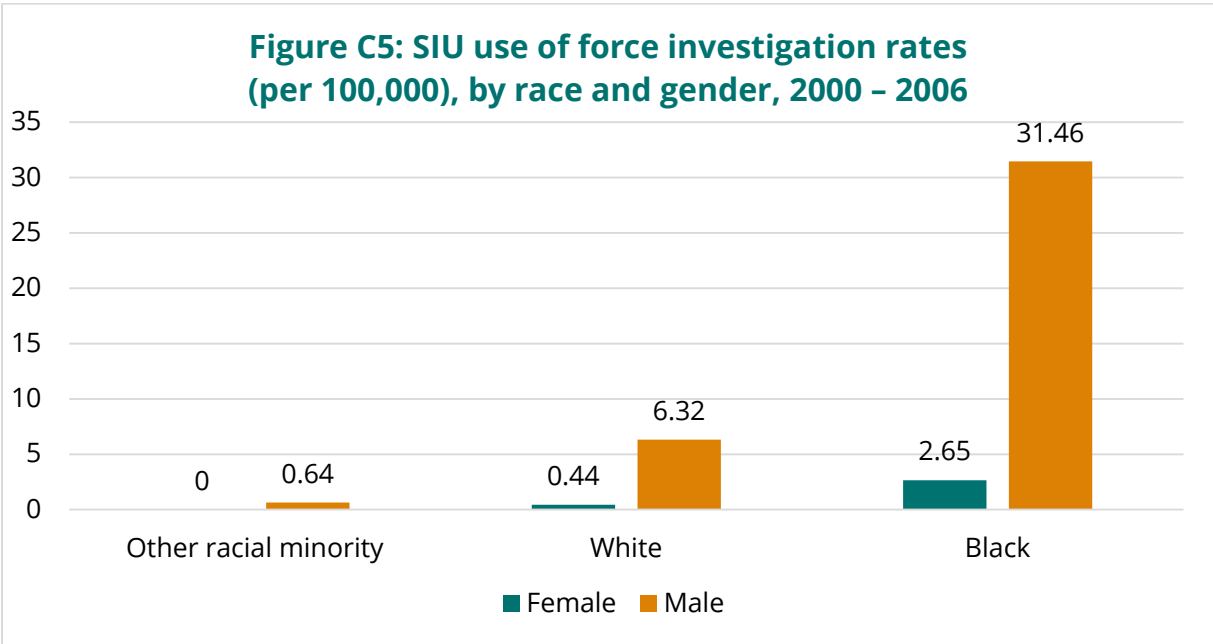
Police shooting cases

Black people are grossly over-represented in SIU shooting investigations that involve the Toronto Police Service (see Tables C13 and C14). Between 2000 and 2006, Black people were involved in 54.2% of shooting cases, even though they represent only 8.3% of the population. In other words, during this time, Black people were 6.53 times more likely to appear in SIU shooting investigations than their presence in the general Toronto population would predict.

The over-representation of Black people in police shooting cases, however, appears to have dropped somewhat between the first and second study periods. Between 2013 and 2017, Black people were involved in 36% of TPS shooting cases – down from 54.2% during 2000 to 2006. According to the data, Black people were still 4.09 times more likely to appear in SIU shooting investigations than their presence in the general population would predict – but this is down from 6.53 times during the 2000 to 2006 study period. By contrast, during both time periods, White people and members of other racial minority groups are noticeably under-represented in police shooting investigations.

Between 2000 and 2006, the Black shooting investigation rate (6.23 per 100,000) was 9.2 times higher than the White rate (0.68 per 100,000) and 29.7 times higher than the rate for other racial minorities (0.21 per 100,000). Between 2013 and 2017, the Black shooting investigation rate (3.75 per 100,000) was 4.9 times higher than the White rate (0.76 per 100,000) and 7.3 times greater than the rate for other racial minorities (0.51 per 100,000). Although racial disparities in SIU shootings investigations declined between the two studies, racial differences in the likelihood of being shot by the place are still large.

Table C13: SIU investigations of Toronto Police Service shootings, by race of civilian, January 1, 2000 – June 6, 2006

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,327,151	53.0	9	37.5	0.71	0.68
Black	208,555	8.3	13	54.2	6.53	6.23
Other racial minority	967,675	38.7	2	8.3	0.21	0.21
Race unknown	----	----	0	0/0	----	----
Total	**2,503,381**	**100.0**	**24**	**100.0**	**----**	**0.96**

Table C14: SIU investigations of Toronto Police Service shootings, by race of civilian January 1, 2013 – June 30, 2017

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,322,656	48.4	10	40.0	0.83	0.76
Black	239,850	8.8	9	36.0	4.09	3.75
Other racial minority	1,169,065	42.8	6	24.0	0.56	0.51
Race unknown	----	----	0	0.0	----	----
Total	**2,731,571**	**100.0**	**25**	**100.0**	**----**	**0.91**

Police use of force cases that resulted in civilian death

This section of the report provides an analysis of all police use of force cases that resulted in the death of the civilian. The data presented include police shootings as well as deaths that were caused by other types of force (i.e., Taser, baton, physical attacks, etc.). Black people are, once again, grossly over-represented in SIU police use of force investigations that resulted in civilian death (see Tables C15 and C16). From 2000 to 2006, Black people were involved in 46.6% of all use of force cases that resulted in civilian death, even though they represented only 8.3% of the Toronto population. In other words, Black people were 5.61 times more likely to be involved in a SIU death investigation than their representation in the population would predict.

Black over-representation in lethal use of force cases *increased* during the two study periods. Between 2013 and 2017, Black people were involved in 61.5% of all use of force cases that resulted in civilian death, compared to 46.6% of these cases during the first study period. Black people are now seven times more likely to be involved in a SIU death investigation than their presence in the general population would predict – up from 5.6 times during the 2000 to 2006 period. By contrast, over the two time periods, both White and other racial minority citizens were under-represented in police use of force cases that resulted in civilian death.

Between 2000 and 2006, the Black use of force death rate (3.36 per 100,000) was 6.3 times higher than the White rate (0.53 per 100,000) and 33.6 times greater than the rate for other racial minorities. Similarly, between 2013 and 2017, the Black use of force death rate (3.34 per 100,000) was 11.3 times greater than the White rate (0.30 per 100,000) and 37.1 times greater than the rate for other racial minorities. It is clear that, in Toronto, Black people are much more likely to die as the result of police use of force than people from other racial backgrounds.

Table C15: SIU Investigations of civilian deaths caused by police use of force, by race of civilian, Toronto Police Service, January 1, 2000 – June 6, 2006

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,327,151	53.0	7	46.6	0.88	0.53
Black	208,555	8.3	7	46.6	5.61	3.36
Other racial minority	967,675	38.7	1	6.7	0.17	0.10
Race unknown	----	----	0	0.0	----	----
Total	2,503,381	100.0	15	100/0	----	0.60

Table C16: SIU investigations of civilian deaths caused by police use of force, by race of civilian, Toronto Police Service, January 1, 2013 – June 30, 2017

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,322,656	48.4	4	30.8	0.64	0.30
Black	239,850	8.8	8	61.5	6.99	3.34
Other racial minority	1,169,065	42.8	1	7.7	0.18	0.09
Race unknown	----	----	0	0.0	----	----
Total	**2,731,571**	**100.0**	**13**	**100/0**	**----**	**0.48**

Police shooting deaths

Discharging a firearm at a civilian is widely considered the most serious form of police use of force. Shootings also represent the use of force option that is most likely to result in death. Indeed, over our two study periods, 19 of the 28 civilian deaths investigated by the SIU (68%) were the result of a TPS shooting. Police shooting deaths also garner significant media attention and thus likely have an impact on public attitudes. It can be argued, therefore, that police shootings require extra research attention. This section of the report includes an analysis of all civilian deaths that were caused by a police shooting (i.e., police use of a firearm). It excludes cases where death was not caused by a firearm.

Black people are grossly over-represented in SIU investigations involving police shooting deaths (see Tables 17 and 18). Between 2000 and 2006, Black people represented 77.8% of all shooting deaths involving the Toronto Police Service, even though they represented only 8.3% of Toronto's population at that time. In other words, according to SIU records, Black people were 9.4 times more likely to be involved in a police shooting death than their representation in the general population would predict. Similarly, between 2013 and 2017, Black people represented 70% of all police shooting deaths, even though they made up only 8.8% of Toronto's population. In other words, during this period, Black people were approximately eight times more likely to be involved in a police shooting death than their presence in the general population would predict. Over both time periods, both White and other racial minority civilians are under-represented in police shooting deaths.

Between 2000 and 2006, the Black police shooting death rate (3.36 per 100,000) was 48 times greater than the White rate (0.07 per 100,000) and 33.6 times higher than the rate for other racial minorities (0.10 per 100,000). Similarly, between 2013 and 2017, the Black police shooting death rate (2.92 per 100,000) was 19.5 times higher than the White rate (0.15 per 100,000) and 32.4 times greater than the rate for other racial minority groups (0.09 per 100,000).

Additional analysis reveals important racial differences in the percentage of police shootings that result in death (see Table C19). From 2000 to 2006, the SIU conducted 24 investigations into TPS shootings. Nine of those shootings (37.5%) resulted in the death of a civilian. However, the shooting death rate for Black civilians (53.8%) was much higher than the shooting death rate for White civilians (11.1%). Overall, during the first study period, seven of 13 Black shooting victims died from their injuries, compared to only one of the nine White shooting victims. During the 2000 to 2006 study period, seven of the nine TPS shooting deaths (77.8%) involved Black civilians.

From 2013 to 2017, the SIU conducted 25 investigations into police shootings involving the TPS. Ten of those shootings (41.7%) resulted in the death of a civilian. However, the shooting death rate for Black civilians (77.8%) was much higher than the rate for White civilians (15.8%) or other racial minorities (25%). Overall, during this period, seven of nine Black shooting victims died from their injuries, compared to only two of 10 White shooting victims. Furthermore, during this time period, seven of the 10 TPS shooting fatalities (70%) involved a Black civilian.

During the entire study period, the SIU conducted 49 investigations into TPS shootings. Nineteen of these 49 shootings (38.7%) resulted in the death of the civilian. Overall, the TPS shooting death rate for Black civilians (63.6%) was more than four times higher than the shooting death for White civilians (15.8%) or other racial minorities (25%). Overall, 14 of the 22 TPS shootings of Black civilians resulted in a fatality, compared to only three of the 19 shootings of White civilians. These racial differences are statistically significant (chi-square = 10.596; df = 2; p > .01). During the entire study period, 14 of the 19 deaths that resulted from police shootings (73.7%) involved Black civilians.

In sum, the data show that Black civilians are more likely to be involved in TPS shootings cases than White civilians or civilians from other racial backgrounds. Furthermore, when the police do discharge their firearms, they are more likely to kill Black civilians than

civilians from other racial backgrounds. The context of police shootings and other use of force incidents – including important situational factors – may help explain some of the gross racial disparities observed above. This issue is addressed in the next section.

Table C17: SIU investigations of civilian deaths caused by police shootings, by race of civilian, Toronto Police Service, January 1, 2000 – June 6, 2006

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,327,151	53.0	1	11.1	0.21	0.07
Black	208,555	8.3	7	77.8	9.37	3.36
Other racial minority	967,675	38.7	1	11.1	0.29	0.10
Race unknown	----	----	0	0.0	----	----
Total	**2,503,381**	**100.0**	**9**	**100.0**	**----**	**0.36**

Table C18: SIU investigations of civilian deaths caused by police shootings, by race of civilian, Toronto Police Service, January 1, 2013 – June 30, 2017

Racial group	Population estimate	% of population	Number of SIU investigations	% of SIU investigations	Odds ratio	SIU investigation rate (per 100,000)
White	1,322,656	48.4	2	20.0	0.41	0.15
Black	239,850	8.8	7	70.0	7.95	2.92
Other racial minority	1,169,065	42.8	1	10.0	0.23	0.09
Race unknown	----	----	0	----	----	----
Total	**2,731,571**	**100.0**	**10**	**100.0**	**----**	**0.37**

Table C19: Percentage of police shootings that resulted in civilian death, SIU investigations, by time period and race

Impact of police shooting	2000 – 2006			2013 – 2017			Total study period		
	White	Black	Other racial minority	White	Black	Other racial minority	White	Black	Other racial minority
Injury	88.9	46.2	50.0	80.0	22.2	83.3	84.2	36.4	75.0
Death	11.1	53.8	50.0	20.0	77.8	16.7	15.8	63.6	25.0
Sample	9	13	2	10	9	6	19	22	8

The context of police use of force

As discussed in Part A of this report, previous research suggests that many other factors – in addition to race – may impact police decisions to use force. These factors include civilian characteristics (age, gender, etc.), officer characteristics (i.e., years of experience, etc.) and situational factors (i.e., community setting, civilian behaviour, mental illness, civilian impairment, the presence of a weapon, etc.). Using information from SIU cases files, this section of the report examines how race intersects with other variables that may predict the likelihood of police use of force.

Civilian behaviour at time of use of force encounter

As discussed above, civilian behaviour during encounters with law enforcement is crucial to our general understanding of police use of force. Civilians who threaten or attack police officers, or other civilians, are much more vulnerable to police use of force than others. C20 and C21 present information on alleged civilian behaviour at the time of the encounter that led to police use of force.

It should be noted that this information reflects SIU conclusions. Alternative interpretations of events do exist. For example, in some cases, civilians claim that they were assaulted by the police for "no reason." The police, by contrast, claim that they only used force because they were first threatened or assaulted by the civilian. In most cases, the SIU accepts the police versions of events.

The results suggest that, in most use of force cases, the civilian either threatened or assaulted the police officer or was resisting arrest. In a small minority of cases force was used because the civilian was trying to flee from the police or avoid police apprehension.

For example, between 2013 and 2017, 54.4% of TPS use of force cases involved civilian threats or assaults against the police, 29.6% involved civilians resisting arrest and 7.2% involved civilians trying to escape police apprehension. In 8.8% of all cases, details about civilian behaviour at the time of the incident were missing. Nonetheless, if we take the testimony of the police in the SIU case files as truthful, very few of the civilians involved in TPS use of force cases can be considered passive or non-threatening.

Few racial differences emerge with respect to civilian behaviour. However, during the 2000 to 2006 period, a higher percentage of cases involving Black (18.2%) than White civilians (9.3%) involved civilian flight from the police. Similarly, during the 2013 to 2017 period, cases involving White civilians were more likely to involve threats/assaults against the police (61.8%) than cases involving Black civilians (44.4%). By contrast, cases involving Black civilians were more likely to involve allegations of resisting arrest (41.7%) than cases involving White (25.5%) or other racial minority civilians (20.0%).

Table C20: Civilian actions at the time of police encounter (as concluded by the SIU), SIU use of force investigations, Toronto Police Service, 2000 – 2006

Civilian actions at time of incident	White	Black	Other racial minority	Race unknown
Threatened or attacked police	39.5	36.4	66.7	57.1
Resisted arrest	34.9	33.3	33.3	28.6
Flee police	9.3	18.2	0.0	14.3
Not determined	8.1	4.7	0.0	0.0
Sample size	**43**	**33**	**3**	**7**

Ch-square = 4.457; df = 9; p > .879

Table C21: Civilian actions at the time of police encounter (as concluded by the SIU), SIU use of force investigations, Toronto Police Service, 2013 – 2017

Civilian actions at time of incident	White	Black	Other racial minority	Race unknown
Threatened or attacked police	61.8	44.4	56.7	25.0
Resisted arrest	25.5	41.7	20.0	50.0
Flee police	5.5	8.3	10.0	0.0
Not determined	7.3	5.6	13.3	25.0
Sample size	**55**	**36**	**30**	**4**

Ch-square = 8.844; df = 9; p > .452

Possession of a weapon

In most TPS use of force cases, the civilian was not in possession of weapon at the time of their encounter with police (see Tables C22 and C23). This situation exists across the two study periods.

Between 2000 and 2006, White civilians involved in police use of force investigations (74.4%) were more likely to be unarmed than their Black counterparts (54.5%). By contrast, Black civilians were more likely than White civilians to be in possession of a gun (24.2% vs. 7%) or a knife (15.2% vs. 4.7%).[9] However, from 2013 to 2017, Black civilians (66.7%) were slightly more likely to be unarmed than their White counterparts (63.6%). However, compared to White civilians, Black civilians were slightly more likely to be in possession of a gun (8.3% vs. 3.6%) or a knife (16.7% vs. 14.7%). White civilians, by contrast, were more likely to be in possession of other types of weapons (18.2%) than Black civilians (8.3%).[10]

A deeper analysis of the 2013 to 2017 dataset reveals that very few SIU cases involve armed attacks on TPS officers (see Table C24). For example, during this time period, only three of 125 use of force cases (2.4%) involved a civilian firing a gun at a police officer. Two of these cases involved a White person, one case involved a Black person. In one of these three cases, the firearm was described as a pellet gun. An additional three cases (2.4%)

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[9] In this analysis, guns include pellet guns, replicas and authentic firearms. Officers stressed that they could not tell whether the guns were real or not during their interactions with civilians.
[10] A variety of devices were included in the "other" weapons category. For example, the 10 "other" weapons documented in the 2013 – 2017 dataset include two hammers, one motor vehicle, a brick, a rock, a piece of wood, an ashtray, a barbell, a fire extinguisher and a retractable baton.

involve police officers being attacked by a civilian with another type of weapon (a hammer, a brick and a piece of wood). Seven cases involve civilians threatening officers with a gun or pellet gun (5.6%) and 11 cases (8.8%) involve officers being threatened by a civilian with another type of weapon (a knife, hammer, fire extinguisher, ashtray, etc.). In other words, only six use of force cases (4.8%) involve armed assaults on police officers and only 14.4% involve citizens threatening police officers with a weapon.

Armed attacks on civilians are equally rare. Only one case (0.8%) involves shots being fired at a civilian and only three cases (2.4%) involve civilians being attacked by civilianswith another type of weapon. By contrast, civilians were unarmed in almost two-thirds of all TPS use of force cases (64.8%) that resulted in a SIU investigation. Racial differences with respect to the presence of weapons, and how weapons were used, are very small and do not reach statistical significance.

Table C22: Civilian possession of a weapon at the time of police encounter (as concluded by the SIU), SIU use of force investigations, Toronto Police Service, 2000 – 2006

Civilian weapon at time of incident	White	Black	Other racial minority	Race unknown
No weapon	74.4	54.5	33.3	100.0
Gun	7.0	24.2	0.0	0.0
Knife	4.7	15.2	66.7	0.0
Other weapon	14.0	6.1	0.0	0.0
Sample size	**43**	**33**	**3**	**7**

Ch-square = 22.713; df = 9; p > .007

Table C23: Civilian possession of a weapon at the time of police encounter (as concluded by the SIU), SIU use of force investigations, Toronto Police Service, 2013 – 2017

Civilian weapon at time of incident	White	Black	Other racial minority	Race unknown
No weapon	63.6	66.7	70.0	100.0
Gun	3.6	8.3	3.3	0.0
Knife	14.5	16.7	16.7	0.0
Other weapon	18.2	8.3	10.0	0.0
Sample size	**55**	**36**	**30**	**4**

Ch-square = 5.417; df = 9; p > .797

Table C24: Civilian weapons use documented by SIU investigations into TPS use of force incidents, 2013 – 2017

Type of weapons used	Number of cases	%
Unarmed (no weapon involved)	81	64.8
Gun fired at police	3	2.4
Gun used to threaten police	7	5.6
Gun fired at civilians	1	0.8
Police suspected firearm – but gun not confirmed at time of arrest	2	1.6
Firearm present – but only identified after arrest	2	1.6
Other weapon used to attack police	3	2.4
Other weapon used to threaten police	11	8.8
Other weapon used to attack civilians	2	1.6
Other weapon used to threaten civilians	3	2.4
Police suspected other weapon – but weapon not confirmed at time of arrest	2	1.6
Other weapon identified after arrest	8	6.4
Total cases	**125**	**100.0**

Possession of a weapon during police shootings

Civilian weapons possession was very common in cases where TPS officers decided to discharge their firearm. According to SIU investigations, civilians were in possession of a weapon in approximately 90% of all police shooting cases. This is consistent across the two study periods (see Tables 25 and 26). During the 2000 to 2006 period, Black civilians were more likely to be in possession of a firearm (53.8%) than White civilians (33.3%). Rates of knife possession were almost identical between Black and White civilians (23.1% and 22.2% respectively). However, White civilians (33.3%) were more likely to be in possession of "other types" of weapon (33.3%) than Black civilians (15.4%). During the 2013 to 2017 period, White civilians (20%) were slightly more likely to be in possession of a firearm than their Black counterparts (11.1%). Black civilians, however, were more likely to be in possession of a knife (44.4%) than White civilians (20.0%).

The data, however, further suggest that White people are more likely to survive TPS police shootings, even when they do possess a weapon and use that weapon to threaten or attack the police. Between 2013 and 2017, for example, White people were shot by TPS officers on 10 occasions. Only two of these 10 shootings (20%) resulted in a fatality. In both these cases, the White civilian had threatened police officers with a firearm. However, in four other shooting cases, White civilians had either fired at the police (two cases), threatened the police with a gun (one case) or shot at a civilian (one case). The civilians in these four cases all survived the police encounter. In other words, White civilians survived four out of the six shooting cases (66.6%) in which they had threatened or attacked police officers with a gun. In the other four police shootings that involved White survivors, the civilian had either threatened (three cases) or attacked the police (one case) with another type of weapon. None of the White shooting victims were unarmed.

By contrast, the data suggest that Black civilians *never* survive police shootings in which they have threatened or attacked the police. Between 2013 and 2017, the TPS shot nine Black people. Seven of these shootings resulted in a fatality (77.8%). One of the Black shooting survivors was unarmed and the other had threatened a civilian with a knife. Only one Black shooting fatality involved a civilian firing a gun at police officers, two cases involved firearm threats against the police, two involved other weapons threats against the police, and two involved other weapons threats against civilians. These findings suggest that the high police shooting death rate for Black civilians cannot be simply explained away by higher rates of gun or weapons use during police shooting incidents.

Table C25: Civilian possession of a weapon at the time of police encounter (as concluded by the SIU), SIU shooting investigations, Toronto Police Service, 2000 – 2006

Civilian weapon at time of incident	White	Black	Other racial minority
No weapon	11.1	7.7	0.0
Gun	33.3	53.8	0.0
Knife	22.2	23.1	100.0
Other weapon	33.3	15.4	0.0
Sample size	**9**	**13**	**2**

Ch-square = 6.734; df = 6; p > .346

Table C26: Civilian possession of a weapon at the time of police encounter (as concluded by the SIU), SIU shooting investigations, Toronto Police Service, 2013 – 2017

Civilian weapon at time of incident	White	Black	Other racial minority
No weapon	10.0	11.1	16.7
Gun	20.0	11.1	16.7
Knife	20.0	44.4	50.0
Other weapon	50.0	33.2	16.7
Sample size	**10**	**9**	**6**

Ch-square = 2.785; df = 6; p > .797

Civilian criminal history at time of police use of force incidents

When faced with data on racial disparities in policing, a common response is that enforcement agents focus on known criminals and criminal behaviour – not civilian race. If true, we might expect a high proportion of those involved in police use of force cases to have a criminal record. We might also expect that a higher proportion of Black civilians than White civilians will have a criminal history. The results presented below do not support this contention. Furthermore, while a criminal record may serve as a proxy measure of criminality – it is not a justification for police use of force. The police cannot use force on an individual just because they have a criminal record. Only civilian behaviour – at the time of the incident – can be used to justify force. This should be noted when interpreting the following results.

Most civilians involved in police use of force investigations *did not* have a criminal record at the time of their encounter with the police. This pattern exists for both study periods (see Tables C27 and C28). During the 2000 to 2006 period, Black civilians involved in use of force cases were only slightly more likely to have a previous criminal record (48.5%) than their White counterparts (41.9%). During the 2013 to 2017 period, White civilians involved in police use of force investigations were slightly more likely to have a previous criminal record (54.5%) than Black civilians (44.4%) or civilians from other racial backgrounds (33.3%).

Table C27: Percentage of civilians with an existing criminal record at the time of police encounter, by racial group, SIU use of force investigations, Toronto Police Service, 2000 – 2006

Civilian criminal record at time of incident	White	Black	Other racial minority	Race unknown
No criminal record	58.1	51.5	66.7	57.1
Criminal record	41.9	48.5	33.3	42.9
Sample size	**43**	**33**	**3**	**7**

Ch-square = 0.490; df = 3; p > .921

Table C28: Percentage of civilians with an existing criminal record at the time of police encounter, by racial group, SIU use of force investigations, Toronto Police Service, 2013 – 2017

Civilian criminal record at time of incident	White	Black	Other racial minority	Race unknown
No criminal record	45.5	55.6	66.7	75.0
Criminal record	54.5	44.4	33.3	25.0
Sample size	**55**	**36**	**30**	**4**

Ch-square = 4.298; df = 3; p > .231

Civilian mental health at time of police use of force incidents

SIU investigations note whether the civilian was experiencing a mental health issue – or was in a mental health crisis – during their encounter with the police. Most often this information was found in TPS General Occurrence reports or in the statements of both subject and witness officers. In most use of force cases, civilians were not exhibiting mental

health issues at the time of their encounter with police. This pattern persists during both study periods. During the 2000 to 2007 study period, SIU case files reveal that a third of all use of force investigations (34.9%) involved a civilian who was experiencing a mental health crisis or issue at the time of their interaction with the police. This figure drops slightly, to 29.6%, during the 2013 to 2017 time period.

However, our analysis reveals that White civilians involved in SIU investigations were more likely to be in mental health crisis than Black or other racial minority civilians (see Tables C29 and C30). During the 2000 to 2006 period, 37.2% of White civilians were exhibiting mental health problems at the time of their encounter with the police, compared to 30.3% of Black civilians. During the 2013 to 2017 period, 43.6% of White civilians were exhibiting mental health issues at the time of their encounter with police, compared to only 16.7% of Black civilians and 20% of civilians from other racial minority backgrounds.

Further analysis reveals that Black civilians are grossly over-represented in use of force cases in which no mental health crisis was flagged. From 2013 to 2017, for example, Black people represented only 8.8% of the general population, but 34.1% of civilians involved in SIU use of force cases in which no mental health issues were noted (odds ratio = 3.87). Black civilians are also over-represented in SIU use of force cases where mental health issues were identified – but not to the same magnitude. During the 2013 to 2017 period, Black civilians represented only 8.8% of the general Toronto population, but were involved in 16.2% of use of force cases in which a mental health issue was noted (odds ratio = 1.84);

White civilians, by contrast, are over-represented in use of force cases that involve civilians who were identified as being in mental health crisis, and under-represented in cases in which no mental health issues were noted. For example, during the 2013 to 2017 period, White people represented 48.4% of Toronto's general population, but were involved in 64.9% of use of force cases in which a mental health issue was noted (odds ratio = 1.34). By contrast, White people were involved in only 35.2% of use of force cases in which there was no apparent mental health crisis (odds ratio = 0.71). These results suggest that White people are most often exposed to police use of force when experiencing a mental health crisis. Indeed, in the majority of use of force cases involving White civilians, mental health issues were cited by the SIU investigation. By contrast, mental health issues were not noted in the majority of use of force cases involving Black civilians. In other words, the data suggest that, compared to White people, Black people do not have to be experiencing a mental health issue to be subject to police use of force.

**Table C29: Percentage of civilians experiencing a mental
health crisis at the time of police encounter, by racial group,
SIU use of force investigations, Toronto Police Service, 2000 – 2006**

Mental health at time of incident	White	Black	Other racial minority	Race unknown
No issues noted	62.8	69.7	66.7	57.1
Mental health issues noted	37.2	30.3	33.3	42.9
Sample size	43	33	3	7

Ch-square = 0.606; df = 3; p > .895

**Table C30: Percentage of civilians experiencing a mental
health crisis at the time of police encounter, by racial group,
SIU use of force investigations, Toronto Police Service, 2013 – 2017**

Mental health at time of incident	White	Black	Other racial minority	Race unknown
No issues noted	56.4	83.3	80.0	75.0
Mental health issues noted	43.6	16.7	20.0	25.0
Sample size	55	36	30	4

Ch-square = 9.457; df = 3; p > .024

Civilian impairment at time of police encounter

Most civilians involved in use of force cases were not impaired by alcohol or drugs at the time of their encounter with police. However, SIU investigations reveal that White civilians were more likely to be intoxicated than Black or other minority civilians (see Tables C31 and C32). During the 2000 to 2006 period, 44.2% of White civilians were intoxicated or impaired during their encounter with police, compared to only 12.1% of Black civilians. During the 2013 to 2017 period, 49.1% of White civilians were intoxicated or impaired by alcohol or drugs during their encounter with police, compared to only 25% of Black civilians.

Table C31: Percentage of civilians who were impaired by drugs or alcohol at the time of police encounter, by racial group, SIU use of force investigations, Toronto Police Service, 2000 – 2006

Impairment at time of incident	White	Black	Other racial minority	Race unknown
Not impaired	55.8	87.9	66.7	71.4
Impaired	44.2	12.1	33.3	28.6
Sample size	**43**	**33**	**3**	**7**

Ch-square = 9.124; df = 3; p > .028

Table C32: Percentage of civilians who were impaired by drugs or alcohol at the time of police encounter, by racial group, SIU use of force investigations, Toronto Police Service, 2013 – 2017

Impairment at time of incident	White	Black	Other racial minority	Race unknown
Not impaired	50.9	75.0	60.0	50.0
Impaired	49.1	25.0	40.0	50.0
Sample size	**55**	**36**	**30**	**4**

Ch-square = 5.439; df = 3; p > .143

Type of police contact

Our analysis next explores the type of police contact that led to SIU investigations. We distinguish between reactive police activity (responding to civilian calls for service) and proactive police activities (investigative stops of civilians). The literature suggests that reactive policing involves very little police discretion – officers, for example, have no option but to respond to a civilian call for service. Proactive police activities, however, are discretionary and are thus more likely to expose bias. The results suggest that between 2003 and 2017, over half of all SIU investigations (52.9%) resulted from a civilian call for service, 19.7% resulted from a proactive police stop, 16% resulted from the serving of a search warrant or a police sting operation, 6.6% resulted from police investigation activities and 3.7% emerged because a police officer witnessed a crime while on patrol.

The numbers are similar with respect to use of force cases. Fifty-five per cent of all use of force cases resulted from a civilian call for service, 16% from a police stop, 16% from police search warrants of sting operations, 8% from investigative activities and 4.8% from patrol-related observations (see Table C33).

Table C33: Percentage of SIU investigations that resulted from proactive and reactive police activity, 2013 – 2017 cases

Type of police activity	All SIU investigations	Use of force investigations
Call for service	52.9	55.2
Police investigation	6.6	8.0
Proactive stop	19.7	16.0
Patrol activity	3.7	4.8
Warrant or sting operation	17.2	16.0
Sample size	**244**	**125**

Additional analysis reveals that SIU investigations involving Black civilians are more likely to result from proactive than reactive policing activities (see Tables C34 and C35). For example, over a quarter of Black cases resulted from proactive police stops, compared to only 11.1% of White cases. By contrast, 59.3% of White cases resulted from a civilian call for service, compared to only 46.8% of Black cases. This difference is statistically significant. The results are similar with respect to use of force investigations. One-quarter of all Black use of force cases (25%) emerged because of a proactive police stop, compared to only 10.9% of White cases. By contrast, 56.4% of White use of force cases emerged because of a civilian call for service, compared to only 44.4% of Black cases. This finding is important because it suggests a possible relationship between racial profiling and racial disparities in police use of force statistics. Since Black people are more likely to be subjected to discretionary police stops, they may also be more likely to experience a negative police encounter that deteriorates into police use of force.

Table C34: Percentage of use of force investigations that resulted from proactive and reactive police activity, by civilian race, 2013 – 2017 cases

Type of police activity	White	Black	Other racial minority
Call for service	59.3	46.8	67.4
Police investigation	9.3	6.5	0.0
Proactive stop	11.1	27.4	14.0
Patrol activity	4.6	3.2	2.3
Warrant or sting operation	15.7	16.1	14.3
Sample size	108	62	43

Chi-square: 30.687; df = 12; p >.010

Table C35: Percentage of use of force investigations that resulted from proactive and reactive police activity, by civilian race, 2013 – 2017 cases

Type of police activity	White	Black	Other racial minority
Call for service	56.4	44.4	70.0
Police investigation	12.7	5.6	0.0
Proactive stop	10.9	25.0	13.3
Patrol activity	5.5	2.8	3.3
Warrant or sting operation	14.5	22.3	13.3
Sample size	55	36	30

Chi-square: 16.927; df = 12; p >.152

Community-level crime rates

As discussed above, community crime level may be an important predictor of police use of force. Although presence in a high crime community is not a justification for police use of force, it is often used as a proxy measure of civilian criminality or the dangers police officers might face within certain geographical locations. Others argue that the police may be more aggressive or vigilant in high-crime communities and this may lead to more use of force incidents.

The Toronto Police Service provided our research team with annual patrol zone-level violent crime rates from 2013 to 2017. These figures were combined to produce the average annual crime rate for each patrol zone during the study period. For presentation purposes, patrol zones were divided into four equal groups – or quartiles – depicting their crime rates relative to other patrol zones in the city. In other words, the low crime category includes the 25% of patrol zones with the lowest crime rates. By contrast, the high crime category includes the 25% of patrol zones with the highest crime rates. The results suggest that, as anticipated, there is a positive relationship between community crime and the number of SIU investigations. For example, almost 40% of use of force investigations occurred in the patrol zones with the highest crime rates (see Table C36). However, it is important to note that SIU investigations and use of force cases happen in low-crime as well as high-crime patrol zones. In fact, according to the data, 22.3% of all TPS use of force cases that resulted in a SIU investigation occurred within low-crime patrol zones.

Further analysis reveals no statistically significant relationship between the racial background of those involved in SIU investigations and patrol zone crime rates (see Tables C37 and C38). SIU investigations involving Black civilians are just as likely to emerge within high- and low-crime communities as investigations involving White civilians. For example, 39.2% of use of force cases involving White people took place in high-crime patrol zones, as did 32.6% of cases involving Black civilians (see Table C37).

Finally, it is also important to stress that, regardless of patrol zone-level crime rates, Black people are significantly over-represented in TPS use of force cases (see Tables C39 and C40).[11] However, the data also reveal that the level of Black over-representation in SIU investigations is greatest in low-crime rather than high-crime patrol zones. For example, although Black people represent only 5.2% of the population of low-crime patrol zones, they represent 22.2% of SIU investigations in these regions of the city (odds ratio = 4.50). In other words, in low-crime patrol zones, Black people are 4.5 times more likely to end up in a SIU investigation than their presence in the population would predict. By contrast, Black people are only 2.1 times over-represented in SIU investigations that emerged within high-crime patrol zones (see Table C39).

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[11] The racial demographics of specific TPS patrol zones was provided by the *Toronto Star* and is based on 2016 Canadian Census projections.

Similar results pertain to SIU use of force investigations (Table C40). Black over-representation in SIU use of force cases is 4.3 times greater than the Black population residing in low-crime patrol zones, compared to only 2.1 times greater within high-crime patrol zones. This finding suggests that Black over-representation in SIU investigations cannot be explained by Black over-representation in high-crime communities. We return to an analysis of the relationship between race, community crime levels and police use of force in Section E of this report.

Table C36: Percentage of SIU investigations, by patrol zone crime rates, 2013 – 2017 cases

Patrol zone crime rate	All SIU investigations	Use of force investigations
Low	22.2	22.3
Medium-low	19.7	14.0
Medium-high	21.4	24.0
High	36.8	39.7
Sample size	**244**	**125**

Table C37: Percentage of SIU investigations involving different racial groups that took place in low and high crime patrol zones, 2013 – 2017 cases

Patrol zone crime rate	White	Black	Other racial minority
Low	25.2	18.0	23.3
Medium-low	19.4	23.0	14.0
Medium high	15.5	26.2	30.2
High	39.8	32.8	32.6
Sample size	103	61	43

Chi-square: 7.078; df = 9; p >.629

Table C38: Percentage of SIU use of force investigations involving different racial groups that took place in low- and high-crime patrol zones, 2013 – 2017 cases

Patrol zone crime rate	White	Black	Other racial minority
Low	24.5	17.1	26.7
Medium-low	13.2	20.0	10.0
Medium-high	15.1	28.6	30.0
High	47.2	34.3	33.3
Sample size	**53**	**35**	**30.0**

Chi-square: 9.270; df = 9; p >.413

Table C39: Black representation in SIU investigations, by patrol zone crime level

Black representation	Low-crime patrol zones	Low-medium-crime patrol zones	Medium-high-crime patrol zones	High-crime patrol zones
% patrol zone population	5.2	7.8	11.3	12.4
% SIU investigations	23.4	35.0	35.5	26.0
Odds ratio	**4.50**	**4.49**	**3.14**	**2.10**

Table C40: Black representation in SIU use of force investigations, by patrol zone crime level

Black representation	Low-crime patrol zones	Low-medium-crime patrol zones	Medium-high-crime patrol zones	High-crime patrol zones
% patrol zone population	5.2	7.8	11.3	12.4
% use of force cases	22.2	41.2	37.0	25.5
Odds ratio	4.27	5.28	3.27	2.06

Outcomes of SIU investigations

Very few SIU investigations result in criminal charges against police officers. Results do not vary significantly by the race of the civilian (see Tables C41 to C44). Indeed, regardless of race, over 90% of SIU cases result in the officers being cleared of wrongdoing.

During the 2000 to 2006 period, only 6.3% of all SIU cases involving White civilians resulted in charges, compared to 1.8% of cases involving Black complainants and zero cases involving civilians from other racial minority backgrounds (Table C41). Similarly, during the 2013 to 2017 period, only 3.7% of cases involving White civilians resulted in charges, compared to 1.6% of cases involving Black and 4.7% of cases involving other racial minorities (Tables C42).

The results are similar with respect to SIU use of force investigations. During the 2000 to 2006 period, only two out of 43 use of force cases involving White civilians (4.7%) resulted in charges against the officers. Likewise, only one out of the 33 use of force cases involving Black civilians (3%) resulted in a charge (see Table C43). During the 2013 to 2017 period, only two of the 55 use of force cases involving White civilians resulted in charges (3.6%). Similarly, only one of the 36 cases involving Black civilians (2.8%) and two of the 30 cases involving other minorities (6.7%) resulted in charges against the subject officers (see Table C44).

It should be noted that the 2013 to 2017 numbers, discussed above, do not include criminal charges laid by the SIU that are still before the courts. At the time of the current analysis, our records indicate that there are currently eight such cases. This would increase the total number of charges laid by the SIU, during this time frame, from seven to 15.

Table C41: Outcome of all SIU investigations, by racial group, Toronto Police Service, 2000 – 2006

Case outcome	White	Black	Other racial minority	Race unknown
Officers cleared (no charges)	93.7	98.2	100.0	100.0
Officers charged	6.3	1.8	0.0	0.0
Sample size	**79**	**57**	**25**	**26**

Ch-square = 4.556; df = 3; p > .207

**Table C42: Outcome of all SIU investigations,
by racial group, Toronto Police Service, 2013 – 2017**

Case outcome	White	Black	Other racial minority	Race unknown
Officers cleared (no charges)	96.3	98.4	95.3	100.0
Officers charged	3.7	1.6	4.7	0.0
Sample size	**108**	**62**	**43**	**31**

Ch-square = 2.062; df = 3; p > .567

**Table C43: Outcome of SIU use of force investigations,
by racial group, Toronto Police Service, 2000 – 2006**

Case outcome	White	Black	Other racial minority	Race unknown
Officers cleared (no charges)	95.3	97.0	100.0	100.0
Officers charged	4.7	3.0	0.0	0.0
Sample size	**43**	**33**	**3**	**7**

Ch-square = 0.555; df = 3; p > .907

**Table C44: Outcome of SIU use of force investigations,
by racial group, Toronto Police Service, 2013 – 2017**

Case outcome	White	Black	Other racial minority	Race unknown
Officers cleared (no charges)	96.4	97.2	93.3	100.0
Officers charged	3.6	2.8	6.7	0.0
Sample size	**55**	**36**	**30**	**4**

Ch-square = 0.881; df = 3; p > .830

Problems with police cooperation

Our analysis reveals that, in some investigations, the SIU Director noted problems with police cooperation. Problematic investigations do not appear to be related to the race of the civilians involved (see Tables C45 to C48).

During the 2000 to 2006 period, the Director noted problems with police cooperation in 13.9% of all SIU investigations involving White civilians, compared to 10.5% of cases involving Black civilians and 16% of cases involving people from other racial minority backgrounds (see Table C45). During the 2013 to 2017 period, the Director noted problems with police cooperation in 8.3% of cases involving White civilians, 9.7% of investigations involving Black civilians and 7% of cases involving people from other racial minority backgrounds (see Table C46).

The numbers are similar when we examine SIU use of force investigations in isolation. During the 2000 to 2006 period, the Director noted problems with 20.9% of TPS use of force investigations involving White civilians and 15.2% of cases involving Black civilians. Problems were not noted with respect to any of the investigations involving other racial minorities (Table C47). During the 2013 to 2017 period, the SIU Director noted problems with 16.7% of the use of force investigations involving Black civilians, 10.9% of the cases involving White civilians and 6.7% of the cases involving other minority civilians (Table C48).

Table C45: Percentage of all SIU investigations that experienced problems with police cooperation, by racial group, Toronto Police Service, 2000 – 2006

Problems with SIU investigation	White	Black	Other racial minority	Race unknown
No problems noted	86.1	89.5	84.0	76.9
Problems noted	13.9	10.5	16.0	23.1
Sample size	**79**	**57**	**25**	**26**

Chi-square = 2.343; df = 3; p > .504

Table C46: Percentage of all SIU investigations that experienced problems with police cooperation, by racial group, Toronto Police Service, 2013 – 2017

Problems with SIU investigations	White	Black	Other racial minority	Race unknown
No problems noted	91.7	90.3	93.0	90.3
Problems noted	8.3	9.7	7.0	9.7

Chi-square = 0.291; df = 3; p > .962

Table C47: Percentage of SIU use of force investigations that experienced problems with police cooperation, by racial group, Toronto Police Service, 2000 – 2006

Problems with SIU investigation	White	Black	Other racial minority	Race unknown
No problems noted	79.1	84.8	100.0	85.7
Problems noted	20.9	15.2	0.0	14.3
Sample size	**43**	**33**	**3**	**7**

Ch-square = 01.166; df = 3; p > .761

Table C48: Percentage of SIU use of force investigations that experienced problems with police cooperation, by racial group, Toronto Police Service, 2013 – 2017

Problems with SIU investigations	White	Black	Other racial minority	Race unknown
No problems noted	89.1	83.3	93.3	100.0
Problems noted	10.9	16.7	6.7	0.0
Sample size	**55**	**36**	**30**	**4**

Ch-square = 2.211; df = 3; p > .530

Toronto-American comparisons

In our consultations for this project, we found that Ontario residents tend to believe that police use of force rates are much lower in Toronto than in the United States. We decided to explore this hypothesis by comparing lethal police shooting rates (per million population) for Toronto and the United States. The American data was drawn from the *Washington Post'*s dataset on lethal police shootings from across the United States. The results reveal the United States lethal police shooting rate is, in fact, three times greater than the corresponding rate for Toronto. The data further reveal that the United States lethal police shooting rate for White civilians (2.11 per million) is 5.5 times greater than the rate for White civilians (0.38 per million). However, the data also reveal that the Toronto Police Service lethal shooting rate for Black civilians is actually higher (7.29 per million) than the American lethal police shooting rate for Black civilians (6.99 per million). In other words, our analysis reveals that, at least during the study period, Black civilians are just as likely to be shot and killed by the police as Black Americans (see Figure C7).

It must be stressed, however, that racial disparities in lethal police shootings vary dramatically across American jurisdictions. As an example, Figure C8 compares police shooting rates for Toronto and Chicago. Chicago is often compared to Toronto because they are both Great Lake cities of similar size (approximately 2.7 million residents). The data reveal that, in both cities, Black civilians are much more likely to be shot by the police than White civilians. However, while Black civilians in Toronto are five times more likely to be shot by the police than White civilians, Black Chicago residents are 24 times more likely to be shot by the police than their White counterparts. Furthermore, the Chicago shooting rate for Black civilians (43.1 per million) is four times greater than the Toronto rate (9.6 per million).

Overall, these data reveal that racial disparities in lethal police shootings are just as profound in Toronto as in the United States. In fact, Black Toronto residents are slightly more likely to be shot and killed by the police than Black Americans. Furthermore, while police shooting rates may be significantly higher in some American cities, Black Toronto residents remain grossly over-represented in the police shootings that have occurred in this city. These findings underscore the urgent need to study patterns of police use of force in Canada.

Figure C7: Average annual lethal police shooting rate (per million), by race, Toronto (2013 – 2017) and United States (2015 – 2020)
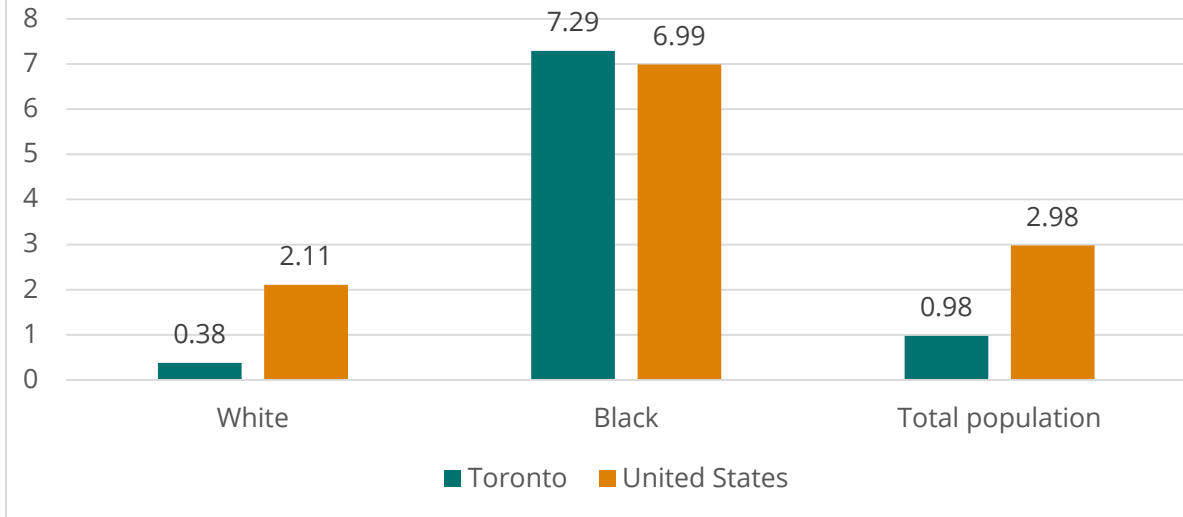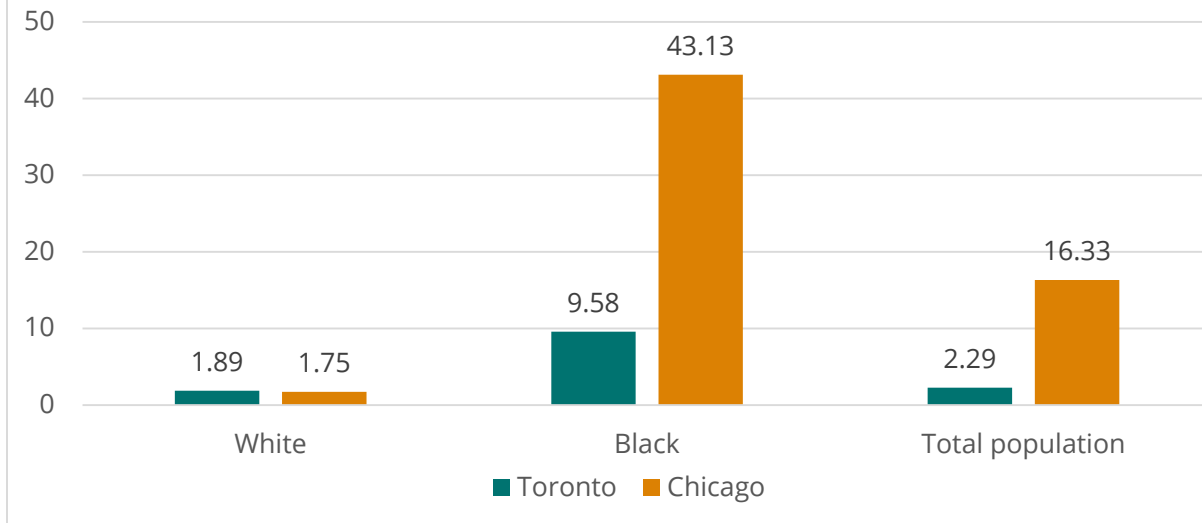

Figure C8: Average annual police shooting rates (per million), by race, Toronto (2013 – 2017) and Chicago (2010 – 2015)

Summary

- Black civilians are over-represented in all types of SIU investigation.

- Black over-representation appears to increase with case seriousness. For example, Black people are more over-represented in police shooting cases than cases involving other types of force. Similarly, Black people are more over-represented in SIU death investigations than SIU injury investigations.

- Use of force cases involving Black people are more likely to result from proactive policing practices (police stops/search warrants) than cases involving White people. By contrast, use of force cases involving White people are more likely to emerge from reactive policing activities (civilian calls for service) than cases involving Black people.

- Use of force cases are slightly more likely to emerge in high-crime than low-crime patrol zones. However, with respect to use of force cases, race and patrol zone crime rates are unrelated. Furthermore, Black people are over-represented in TPS use of force cases that take place in both low- and high-crime communities. In other words, the data suggest that patrol zone crime cannot explain the over-representation of Black people in use of force statistics.

- The circumstances surrounding police use of force cases vary little by race. However, according to the results of SIU investigations, White civilians are more likely to have threatened or assaulted the police than Black civilians. Black civilians, on the other hand, are more likely to have resisted arrest than their White counterparts.

- In general, most civilians involved in police use of force cases were unarmed at the time of their encounter with the police. However, Black civilians were slightly more likely to have been found in possession of a gun or knife than White civilians. White civilians were more likely to be in possession of other types of weapons (i.e., a bat, crowbar, etc.).

- During both time periods, only half of the civilians involved in SIU use of force cases had a criminal record at the time of the incident. Black civilians were less likely to have a criminal record than White civilians. This finding contradicts the argument that serious use of force incidents typically involve "known criminals" with a lengthy history of involvement in violent offending.

- The police shooting death rate for Black civilians is much higher than the shooting death rate for White people and other racial minorities. During police shooting incidents, the police almost always kill Black civilians. By contrast, the majority of White civilians involved in police shooting incidents survive. This discrepancy cannot be explained by racial differences in civilian weapons use.

- Use of force cases involving White civilians are more likely to involve a mental health crisis than cases involving Black civilians.

- Use of force cases involving White civilians are more likely to involve extreme intoxication or impairment than cases involving Black civilians.

- Police officers are cleared of wrongdoing in over 95% of all SIU investigations involving the Toronto Police Service. Only a small minority of cases result in criminal charges against subject officers. Investigation outcomes do not vary significantly by civilian race.

- A minority of use of force cases experienced problems with TPS cooperation. Problematic investigations appear to be unrelated to civilian race.

As discussed in Part B of this report, a high proportion of Toronto residents believe that the police are more likely to use physical force against Black people than White people. The results from an analysis of SIU use of force investigations suggests that these perceptions are consistent with the empirical reality. The results presented above reveal that Black civilians are grossly over-represented in SIU use of force cases that involve the Toronto Police Service. Nonetheless, the cause of Black over-representation in police use of force statistics will continue to be a topic of debate. While some may view the data as evidence of overt, implicit or systemic racial bias, others will interpret it as evidence that Black people are more likely to be engaged in criminal activity and thus more likely to become subject to "legitimate" police use of force. We will return to this debate in the conclusion of this report. Furthermore, additional analysis, to be presented in Part E of this report, will use multivariate techniques to explore how other factors – including geographic location – may help explain racial disparities in SIU use of force cases. In the next section, however, we explore racial differences with respect to lower-level police use of force incidents involving the Toronto Police Service.

Part D: An analysis of TPS "lower-level" use of force cases

In addition to an analysis of Special Investigation Unit (SIU) cases involving the Toronto Police Service (TPS), the Ontario Human Rights Commission (OHRC) was also interested in examining "lower-level" use of force cases involving the TPS. Lower-level use of force cases refer to incidents in which physical force was used by TPS officers – but did not result in serious civilian injury or death. In other words, we wanted to examine cases that fell below the high SIU investigative standard (see Part C of this report).

Our first plan was to explore data from TPS Use of Force Reports (UFRs). According to Ontario Regulation 926/901 and the Toronto Police Service's own procedures, TPS officers are mandated to complete a Use of Force Report (UFR) any time they: 1) draw their firearm in the presence of a civilian; 2) point their firearm at a civilian; 3) discharge their firearm; 4) use a police weapon – including a conducted energy weapon – against a civilian; or 5) use physical force that results in an injury to a civilian that requires medical attention. Unfortunately, the data from these use of force reports are not compiled into a use of force dataset. Rather, after being reviewed by supervisors, the hard copies of these forms are forwarded to the Toronto Police College for training purposes.[12]

TPS Use of Force Reports capture a great deal of information about police-civilian interactions. This information includes the date, time and location of the incident, the type of force used, the reason force was used, the number of civilians and officers involved, whether the civilian was armed with a weapon, whether alternative conflict resolution strategies were employed and whether injuries were suffered by either the police or civilians involved. The Use of Force Report also contains information on environmental conditions included the quality of both natural and artificial lighting. However, the Use of Force Reports contain absolutely no information about the demographic characteristics of the civilians involved (see Appendix B). In other words, these reports include no information on the civilians' age, gender or racial background.

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[12] The current inquiry examined over 140 TPS Use of Force Reports. However, we did not identify a single report where officers were recommended for additional training as a result of a specific use of force incident.

Critics might argue that that the forms appear to have been explicitly designed to prevent an analysis of how civilian characteristics impact use of force decisions and examine whether racial minority citizens are over-represented in use of force cases.[13] Nonetheless, despite these limitations, the OHRC requested scanned copies of each TPS Use of Force Report completed from July 1, 2016, to June 30, 2017. The OHRC eventually retrieved 1,237 scanned Use of Force Reports completed by TPS officers during that time frame.

Due to the limitations of the UFRs, it became clear that OHRC researchers were going to have to use another strategy to identify the race – and other demographic characteristics – of civilians involved in lower-level use of force cases. Fortunately, during our preliminary investigations, we discovered that the TPS also fills out Injury Reports. Injury reports (IRs) are to be completed every time the police identify the existence of an injury or illness requiring medical attention during their interactions with a civilian. These injuries and illnesses may have taken place prior to arrest, during arrest or after arrest. Injuries may have been the result of police activity – including use of force – but could also have been caused by non-police factors. For example, suppose the police arrive at a fight and arrest the combatants. Suppose also that one of the combatants was injured in the fight and requires stiches. Even though the police did not cause the injury – an Injury Report should be completed. It is important to note that Injury Reports are supposed to be completed any time force is used – regardless of the extent of the injury or the level of medical treatment received.

As with the Use of Force Reports, Injury Reports include a wealth of information including the date, time and location of the incident, whether the injury occurred before, during or after arrest, the nature of the injury, the cause of the injury, whether paramedics were summoned and the type of medical treatment received. The Injury Reports also include a synopsis of the incident that led to the identification of civilian injury. Although Injury Reports contain information on the gender and age of civilians, they do not provide information on civilian racial background. However, the Injury Report also includes a General Occurrence identification number which can be used to link the Injury Report to a General Occurrence Report (GO). The General Occurrence Report does have information on civilian racial background. The OHRC requested and eventually received over 2,000 TPS Injury Reports covering the period from July 1, 2016, to June 30, 2017.

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[13] Importantly, the Toronto Police Services Board recently decided to measure civilian race with respect to TPS use of force incidents. Data from this new data collection practice has not yet been released to the public.

General Occurrence Reports (GOs) arguably provide the most detailed information about police-civilian interactions. They capture the date, time and location of the incident, a detailed synopsis of the incident and the nature of police actions during the incident (i.e., whether force was used, whether an arrest was made, criminal charges laid, etc.). Importantly, for the purposes of the OHRC inquiry, General Occurrence Reports also include information on the personal characteristics of the civilians involved – including information on age, gender and racial background as determined by TPS officers.[14] In sum, in order to conduct an examination of race and lower-level use of force cases, the OHRC had to create their own dataset to extract information from three different TPS data sources: 1) Injury Reports; 2) Use of Force Reports; and 3) General Occurrence Reports. The process for compiling this dataset is described in the next section.

Coders' process of identifying and coding lower-level use of force cases

The process for identifying and coding a single lower-level use of force case required a close examination of three separate TPS reports: 1) an Injury Report (IR); 2) a Use of Force Report (UFR); and 3) a General Occurrence Report (GO). The first stage of the process began by examining Injury Reports for the purpose of identifying whether an incident was *in scope*. A case was considered *in scope* if it was clear that the police had employed force on the civilian at some time during the interaction. This included cases in which the injury was directly caused by police use of force and cases in which the injury was caused by other factors.

Once it was determined that a given Injury Report was *in scope*, the coders were then tasked with finding a corresponding Use of Force Report. This was accomplished by going through each of the scanned UFRs that the TPS provided to the OHRC. While each IR is associated with the unique GO number – the UFRs lack this form of identification. The coders thus had to rely on other information to match an IR with a UFR – including the date and time of the incident. Once a *potential* match was made between an IR and UFR, through the date and time filtering process, other information – including type of police assignment, the location of the incident, the names of the officers involved, the type of force used and other details from the case synopsis – were used to confirm the match.

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[14] It should be stressed that civilian race was identified by TPS officers in General Occurrence Reports. We collapsed TPS racial designations into three major categories: White, Black and other racial minority.

It is important to note that there was often significant discrepancy in the data provided on the IR and UFR. This rendered the matching process challenging. For instance, there were a number of cases in which the ETF was recorded as affecting the arrest on the UFR, but not disclosed on the IR. The coders also noted that despite R.R.O. 1990. Reg. 926: Equipment and the Use of Force 14.5 stipulating that a UFR must be submitted when force results in an injury requiring medical attention, it was difficult to use this as a predictive factor in matching a UFR to an IR. This made it difficult to ascertain with a high degree of certainty in cases where the IR did not indicate that medical attention was sought, but a UFR with a similar time and location was found.

Furthermore, the coders noted significant difficulty in ascertaining a match with a high degree of certainty when the type of incident was not explicitly identified in an IR. In these cases, extensive investigation of the VDX_GO was necessary. This dataset provided both the RIN# and the RUCR#, the latter of which linked the report to a specific offence committed. After this re-tracing, it was possible to determine that the incident identified through this dataset matched that of the IR. This incident was then used as a basis to connect with the incident descriptors provided on the UFR to establish a match.

In a case where ambiguity persisted, despite examining these other avenues for possible links, the IR was left unmatched. In other instances, IRs may have had no possible corresponding UFRs. Overall, a very conservative matching strategy was employed. Unless the information on the IR completely corresponded with the information on the UFR – the two reports were left unmatched.

In both scenarios, where an IR was matched with a UFR or remained unmatched, the third stage of the process involved linking a GO Report to the IR. This process was much easier in that the GO# associated with an IR, in almost every case, was identical to the one associated with a GO report. To make certain of the match, the name of the individual, as well as prosecution summary and/or initial officer report enclosed within the GO report was compared to the information provided on the IR. In circumstances where there was a partial match of the IR's GO# with the one associated with GO report, or where no corresponding match could be found, a system search was conducted using the civilian's name. In these cases, the GO report was thoroughly read before determining whether or not it was indeed a match for the corresponding IR (as often times the same individuals have multiple GO reports for different incidents). Unlike with the UFR matching, it was highly unlikely that an IR was left without a corresponding GO report.

After matching was completed, the final stage of the process involved consolidating all reports into a single case of lower-level use of force using a detailed use of force template (see Appendix B). This template was designed to collect information from all three types of report. In the ideal scenario, an entry included information from all three reports – the IR, UFR, and GO report – thus presenting a complete picture of an occurrence. However, in many cases, due to the lack of corresponding UFRs, entries only included data from the IR linked with the GO report.

The initial screening process led to the identification of 912 "in-scope" cases. However, a further vetting procedure, comparing information from all data sources, eliminated cases in which there was any ambiguity about whether police use of force had been used or not. Thus, the final dataset includes a sample of 652 TPS cases. Information from the three reports explicitly confirms that use of force was involved in each of the cases in the final sample. Additional analysis reveals that civilian race was missing from 61 of the 652 GO reports included in the dataset (9.3% of the sample). This leaves us with a sample of 591 cases in which race could be determined. We now turn to an analysis of these 591 cases.[15]

Findings

Tables D1 and D2 compare the representation of different racial groups in Toronto with their representation in our sample of lower-level use of force cases. Population estimates were derived from the 2016 Canadian Census (Statistics Canada 2016). Estimates for the White population were calculated by taking the total population estimate for Toronto and deducting the total racial minority population and the total Indigenous population.

Odds ratios and case rates were calculated to determine the representation of specific racial groups in lower-level use of force incidents. Odds ratios were calculated by dividing the percentage of all use of force cases involving a particular racial group by their percentage representation in the general population. An odds ratio approaching 1.00 indicates that a racial group is neither over- nor under-represented. An odds ratio less than 1.00 indicates that the group is under-represented in lower-level use of force cases. An odds ratio greater than 1.00

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[15] The SIU study, described in Section C of this report, included cases from 2013 to 2017. The lower-level use of force study described in this section only includes cases from July 1, 2016 to June 30, 2017. The research team attempted to identify and flag all cases that were subjected to a SIU investigation and remove them from the lower-level use of force dataset. The possibility of data overlap is thus trivial and should not impact study findings.

indicates that the group is over-represented. For example, an odds ratio of 2.00 indicates that a group is twice as prevalent in lower-level use of force cases as they are in the general population. By contrast, an odds ratio of 0.50 indicates that a group is 50% less represented in use of force cases than their proportion of the general population would predict.

There is no set standard for determining when racial disproportionality (i.e., the over- or under-representation of a particular racial group with respect to a specific social outcome) is cause for concern. For example, in the Ottawa Traffic Stop study, the authors used the 20% rule (or an odds ratio of 1.20 or higher) to determine when a group was significantly over-represented with respect to involuntary police contact (Foster et al, 2016). For the purposes of this study we have used a higher threshold of 50%. In other words, for the purposes of the present analysis, an odds ratio of 1.50 or higher will be used to determine whether racial disproportionality is noteworthy or not.

At times we will also discuss the notion of "gross" racial disparity. For the purposes of this report, a gross racial disparity exists when the level of over-representation is 300% or greater (i.e., as indicated by an odds ratio of 3.00 or higher). In these cases, a particular racial group would be three times more prevalent in use of force cases than their presence in the general Toronto population would predict.

A second disparity measure used in the current analysis was the lower-level use of force case rate. The lower-level use of force case rate (per 100,000) was calculated by dividing the total number of cases per racial group by their population estimate and multiplying that figure by 100,000. The rate indicates the number of people, per 100,000 population, that were involved in a use of force case during the 2013 to 2017 study period. This case rate allows us to directly compare the experiences of different racial groups of varying size. For example, if Group A has a case rate of 10 per 100,000 and Group B has a rate of five per 100,000, we can accurately state that the members of Group A are twice as likely to become involved in a lower-level use of force case as the members of Group B.

The results indicate that Black people are grossly over-represented in TPS lower-level use of force cases (see Table D1). Although they represent only 8.8% of Toronto's population, Black people are involved in 38.9% of the cases included in the OHRC lower-level use of force dataset. These results suggest that Black people are 4.42 times more likely to appear in a lower-level use of force incidents than their presence in the general population would predict. By contrast, White people and people from other racial minority groups are under-

represented. The results further suggest that Black people are even more over-represented in lower-level use of force cases (odds ratio = 4.42) than use of force cases that resulted in a SIU investigation (odds ratio = 3.27).[16] Overall, the lower-level use of force rate (95.9 per 100,000) for Black people is five times greater than the rate for White people (19.4 per 100,000) and 11 times greater than the rate for other racial minorities (8.9 per 100,000).

The data indicate that 88.3% of all lower-level use of force cases involved a male civilian. Only 11.7% involved females (see Table D2). However, further analysis indicates that the involvement of Black males in lower-level use of force cases is particularly high. Although they represent only 4% of Toronto's population, Black males were involved in more than a third (34.5%) of all lower-level use of force cases documented by the OHRC dataset. In other words, Black males are 8.6 times more likely to appear in the use of force data than their presence in the general population would predict. White males are also slightly over-represented in lower-level use of force cases (odds ratio = 1.57). By contrast, males from other racial minority groups, and females from all racial backgrounds, are significantly under-represented.

Overall, the Black male lower-level use of force rate (185.7 per 100,000) is 5.5 times greater than the White male rate (33.9 per 100,000) and 10.5 times greater than the rate for males from other minority groups (17.7 per 100,000). Although Black females are under-represented in the lower-level use of force dataset, the Black female rate (20.0 per 100,000) is 3.6 times greater than the rate for White females (5.6 per 100,000) and 25 times greater than the rate for females from other racial minority backgrounds (0.8 per 100,000).

Table D1: Total lower-level use of force cases, by race of civilian, Toronto Police Service, July 1, 2016 – June 30, 2017

Racial group	Population estimate	% of population	Number of cases	% of cases	Odds ratio	Case rate (per 100,000)
White	1,322,656	48.4	257	43.5	0.90	19.4
Black	239,850	8.8	230	38.9	4.42	95.9
Other racial minority	1,169,065	42.8	104	17.6	0.41	8.9
Total	**2,731,571**	**100.0**	**591**	**100.0**	**1.00**	**21.6**

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[16] This figure was derived from the 2013 to 2017 SIU data presented in Table C12 above.

Table D2: Total lower-level use of force cases, by race and gender of civilian, Toronto Police Service, July 1, 2016 – June 30, 2017

Racial group	Population estimate	% of population	Number of cases	% of cases	Odds ratio	Case rate (per 100,000)
White male	645,960	23.6	219	37.1	1.57	33.9
White female	676,690	24.8	38	6.4	0.26	5.6
Black male	109,870	4.0	204	34.5	8.63	185.7
Black female	129,980	4.8	26	4.4	0.92	20.0
Other racial minority male	557,760	20.4	99	16.7	0.82	17.7
Other racial minority female	611,315	22.4	5	0.8	0.03	0.8
Total	**2,731,571**	**100.0**	**591**	**100.0**	**1.00**	**21.6**

Representation in TPS use of force reports

As discussed above, the project coders identified 652 TPS use of force cases that were considered "in scope" based on information provided by both the Injury and General Occurrence Reports. However, the coders were only able to match these cases with 141 Use of Force Reports (or 21.6% of the sample). There are three possible reasons why the matching rate is so low. First of all, it is possible that a corresponding Use of Force Report does exist for each case but was just not located by the coders. As discussed above, the matching process was difficult and complicated by the fact that: 1) the UFRs do not include a General Occurrence number; and 2) the officers who filled out the Injury Reports were often different than the officers who filled out the Use of Force Reports. The second possibility involves the different thresholds for filling out Injury and Use of Force Reports. Use of Force Reports must be filled out when, among other reasons, physical force causes an injury that requires medical attention. Injury Reports, by contrast, must be filled out if the person sustains any kind of injury – even if that injury does not require medical attention. Finally, for whatever reason, some use of force incidents may not be captured or documented by Use of Force Reports.[17] For example, our coding confirmed 47 cases in which the TPS deployed a Taser or CEW on a civilian. However, a matching Use of Force Report could only be located for three of these 47 cases (6.4%).

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[17] The data included in the above analysis includes only 141 of the 1,237 Use of Force Reports (11.4%) acquired from the TPS. Some of these cases could not be matched to an Injury Report because no injury occurred (i.e., as in cases where an officer points their firearm at a civilian but does not cause injury).

The results reveal that Use of Force Reports were less likely to be located for cases involving Black civilians (14.8%) than cases involving White civilians (24.5%) or civilians from other racial minority backgrounds (26.9%). This difference is statistically significant (see Table D3). However, it is important to note that Black people are still grossly over-represented in the Use of Force Reports we were able to link to the General Occurrence reports. Although they represent only 8.8% of the population, Black people represent 27.2% of the individuals captured by the Use of Force reports included in the current study. In other words, they are 3.1 times more likely to appear in a Use of Force report than their presence in the general population would predict.

Table D3: Percentage of lower-use-of-force cases with a corresponding TPS use of force report, by civilian race

TPS use of force report completed	White	Black	Other race
No	75.5	85.2	73.1
Yes	24.5	14.8	26.9
Sample size	**257**	**230**	**104**

$X^2 = 9.413$; df = 2; p >.009

Type of force used by TPS officers

Table D4 documents the percentage of use of force incidents involving different police use of force techniques. It should be noted that the figures do not add up to 100% because a single incident could involve several different use of force tactics. The results suggest that about half of all cases in the dataset involved "grounding" or 'taking physical control" of a civilian. Also included in this category are cases in which the exact nature of police force was unclear. For example, in several synopses, the narrative only indicates that a "fight" or "violent struggle" had taken place between the civilian and the police. Since the exact nature of the force used by the police in these cases is undetermined, we placed these cases in the "grounded/other force" category.

The second most prevalent category involves police "strikes" without a weapon. This category includes cases in which the police punched, kicked, kneed, elbowed, slapped or used other "hard empty handed" techniques on the civilian. Regardless of race, over 40% of cases involved this type of force. One out of 10 cases (10%) involved an officer pointing

a firearm at a civilian. Other less prevalent use of force techniques identified by the data include pepper (OC) spray, conducted energy weapons (CEWs), baton strikes, "less than lethal" shotguns and police dogs. Only two statistically significant racial differences emerge from the data. First of all, the data indicate that Black (8.7%) and other racial minority civilians (13.5%) were more likely to be subjected to a Taser deployment than their White counterparts (3.9%). In addition, it appears that other racial minority civilians were more likely to be subjected to baton strikes (4.8%) than either Black civilians (0.4%) or White civilians (1.2%).

Further analysis, however, suggests that Black people are grossly over-represented in most use of force categories (see Table D4a). Although they represent only 8.8% of Toronto's population, they represent 32.2% of use of force cases involving a police firearm, 36% of cases involving police use of pepper spray, 36.7% of cases involving police strikes, 41.1% of cases involving police grounding/other force, 45.5% of cases involving police Taser use and 57.1% of cases involving a police dog. In other words, compared to their representation in the general population, Black people are four times more likely to be involved in use of force cases involving a police firearm, 4.1 times more likely to be involved in police pepper spray cases, 4.2 times more likely to be involved in cases involving police strikes, 4.7 times more likely to be involved in a case involving grounding or other force, 5.2 times more likely to be involved in a case involving Taser use, and 6.5 times more likely to be involved in a case involving a police dog. It appears that Black people *are not* significantly over-represented in cases involving either baton use of a "less than lethal" shotgun.

Table D4: Percentage of cases involving different types of police use of force, by civilian race

Type of force used	White	Black	Other racial minority	Statistical significance
OC spray	5.1	3.9	2.9	NS
CEW (Taser)	3.9	8.7	13.5	**
Baton	1.2	0.4	4.8	**
Strikes (no weapon)	44.0	40.0	44.2	NS
Firearm pointed	10.5	8.3	12.5	NS
Less than lethal shotgun	1.6	0.4	3.8	NS
Police dog	0.8	1.7	1.0	NS
Grounding/other force	47.1	49.1	37.5	NS
Sample size	**257**	**230**	**104**	**----**

**Table D4a: Percentage of cases involving
different racial groups, by type of force used**

Race	OC spray	CEW	Baton	Strikes (no weapon)	Firearm pointed	Less than lethal shotgun	Police dog	Grounding/ other force
White	52.0	22.7	33.3	45.2	45.8	44.4	28.6	44.3
Black	36.0	45.5	11.1	36.4	32.2	11.1	57.4	41.4
Other racial minority	12.0	31.8	55.6	18.4	22.0	44.4	14.3	14.3
Sample size	**25**	**44**	**9**	**250**	**59**	**9**	**9**	**273**

Type of civilian injury

Table D5 presents data on the type of injury that resulted from lower-level use of force cases. Once again, the figures do not add up to 100% because a single use of force case could result in more than one type of injury. The data reveal that, in over half of all cases, the civilian received a head injury. Head injuries include bloody noses, split or swollen lips, black or swollen eyes, bumps and lacerations to the head and concussions. The next most common injury involved abrasions or scratches. Approximately 40% of civilians experienced this type of injury. Body pain (soft tissue damage) and cuts/lacerations were experienced by about 20% of the civilians in the sample. Less than 5% experienced a fracture or broken bone. Other less common injuries include Taser-related issues, pepper spray discomfort, chest pain and handcuff rub. Only one statistically significant racial difference emerged. In general, Black (25.3%) and White civilians (23%) are more likely to report body pain or soft tissue damage than civilians from other racial minority groups (13.5%).

Further analysis reveals that Black people are grossly over-represented within each injury category. Although they represent only 8.8% of the Toronto population, Black people represent 23.5% of people with broken bones, 33.3% of people with a pepper spray-related injury, 36.8% of people suffering from abrasions or scratches, 38.5% of people with a head injury, 40.2% of people experiencing body pain, 41.4% of people suffering from a Taser-related injury, 41.4% of people suffering from cuts or lacerations, 50% of people suffering from handcuff rub, and 58.3% of people suffering from chest pain. In other words, compared to their representation in the general population, Black people are 2.7 times more likely to suffer from broken bones related to a police use of force incident, 3.8 times more likely to

suffer an injury from police use of pepper spray, 4.2 times more likely to suffer abrasions or scratches, 4.4 times more likely to suffer a head injury, 4.6 times more likely to experience body pain or soft tissue damage, 4.7 times more likely to experience cuts or lacerations, 4.7 times more likely to experience a Taser-related injury and 6.6 times more likely to experience chest pains as the result of a police use of force incident.

Table D5: Percentage of cases involving different types of civilian injury, by civilian race

Type of injury	White	Black	Other racial minority	Statistical significance
Eye pain from OC spray	1.2	1.3	2.9	NS
Injury from Taser (CEW)	3.1	5.2	8.7	NS
Body pain/soft tissue damage	25.3	23.0	13.5	*
Chest pains/breathing issues	0.8	3.0	2.9	NS
Broken bones/fractures	3.1	1.7	4.8	NS
Handcuff rub	5.8	8.7	4.8	NS
Cuts/lacerations	24.5	25.2	18.3	NS
Abrasions/scratches	41.6	38.3	42.3	NS
Head injury	54.9	53.0	51.9	NS
Injury details not provided	2.3	4.8	1.0	NS
Sample size	**257**	**230**	**104**	**----**

Involvement of paramedics

Information drawn from the Injury Report was used to determine whether the injury to the civilian was serious enough to warrant the involvement of paramedics (i.e., EMS services). The results suggest that paramedics were involved in about one-quarter of the use of force incidents documented by the current study. The use of paramedics did not vary significantly by the racial background of the civilian (Table D6).

Further analysis reveals that Black people were grossly over-represented in both cases that involved EMS services and cases that did not involve EMS services. Although Black people represent only 8.8% of Toronto's population, they were involved in 37% of the cases

that involved a paramedic and 39.6% of the cases that did not involve a paramedic. In other words, compared to their representation in the general population, Black people were 4.2 times more likely to be involved in a TPS use of force case that involved a paramedic and 4.5 times more likely to be involved in a use of force case that did not involve EMS services.

Table D6: Percentage of lower-use-of-force cases that involved a call for EMS Services, by civilian race

EMS called	White	Black	Other racial minority
No	73.2	73.9	68.3
Yes	26.8	26.1	31.7
Sample size	**257**	**230**	**104**

X^2 = 1.219; df = 2; p >.544

Location of civilian medical treatment

Information from the Injury Reports was used to determine the nature and location of the medical treatment received by civilians following TPS use of force incidents (see Table D7). The results suggest that, in almost half of the cases documented by the OHRC, the civilian either did not receive medical treatment or the type of treatment was not specified. In approximately 20% of all cases, the civilian was transported to a hospital by ambulance. In 15% of cases, the civilian was transported to the hospital by the police. In one out of 10 cases, the civilian was either treated on the scene by paramedics (7.4%) or by the police (1.5%). In about 9% of cases, it was noted that the civilian refused medical treatment. Compared to White civilians, the data suggest that Black civilians were slightly more likely to be treated by paramedics at the scene. They were also slightly more likely to refuse medical treatment. By contrast, White civilians were slightly more likely to be transported to hospital by ambulance. Importantly, none of these slight racial differences reach statistical significance.

It is also important to note that Black people are grossly over-represented in all treatment categories. For example, although they represent only 8.8% of Toronto's population, Black people represent 32% of people taken to hospital by ambulance, 40.9% of people taken to the hospital by the police and 43.2% of people treated at the scene by paramedics. Similarly, Black people represent 38.6% of people with missing treatment information and 46.3% of people who refused medical treatment.

Table D7: Location of civilian medical treatment, by civilian race

Location of medical treatment	White	Black	Other racial minority
No information provided	46.7	45.7	45.2
At scene by TPS officers	0.8	2.2	1.9
At scene by paramedics	6.2	8.3	8.7
Taken to hospital by ambulance	23.0	17.0	23.1
Taken to hospital by TPS officers	16.3	15.7	9.6
Went to hospital on own	0.0	0.4	1.0
Civilian refused treatment	7.0	10.9	10.6
Sample size	**257**	**230**	**104**

$X^2 = 11.930$; df = 12; p >.451

Nature of police contact

The research team examined the case synopses provided in the Injury, Use of Force and General Occurrence reports to determine how contact between the police and civilians involved in lower-level use of force cases was initiated. The results suggest that, compared to their White counterparts, Black people are more likely to be involved in cases that involve proactive rather than reactive policing. For example, 60.7% of the use of force cases involving White civilians began as the result of a call for service, compare to only 48.3% of the cases involving Black civilians. By contrast, compared to White people, Black civilians were more likely to be involved in use of force cases that started with a traffic stop, warrant, follow-up investigation or police raid (see Table D8). These racial differences are statistically significant. This finding is important because it suggests a possible relationship between racial profiling and racial disparities in police use of force statistics. Since Black people are more likely to be subjected to discretionary police stops, they may be more likely to experience a negative police encounter that eventually deteriorates into a use of force incident.

Importantly, the data further suggest that Black people are grossly over-represented in both reactive and proactive forms of police contact. However, the degree of Black over-representation is higher for cases involving proactive rather than reactive policing. Although they represent only 8.8% of Toronto's population, Black people were involved in 33.3% of use of force cases that stemmed from a pedestrian stop, 33.8% of cases that stemmed from a call for service, 35.4% of cases that stemmed from police witnessing illegal activity, 38.1% of cases that involved an offender already in custody, 47.4% of cases that stemmed from a follow-up investigation, 51.9% of cases that stemmed from traffic stops, 54.8% of cases that stemmed from a police raid and 67.4% of cases than involved the serving of a warrant. In other words, compared to their presence in the general population, Black people are 3.8 times more likely to be involved in use force cases that stemmed from a pedestrian stop, 3.8 times more likely to be involved in cases that stemmed from a call for service, four times more likely to be involved in cases that involved the police witnessing illegal activity, 4.3 times more likely to be involved in cases involving a civilian already in custody, 5.4 times more likely to be involved in cases that stemmed from a follow-up investigation, 5.9 times more likely to be involved in cases that stemmed from a traffic stop, 6.2 times more likely to be involved in cases that stemmed from a police raid, and 7.7 times more likely to be involved in cases that involved a warrant.

Table D8: Type of police contact, by civilian race

Type of police contact	White	Black	Other racial minority
No details provided	6.6	2.6	2.9
Call for service	60.7	48.3	58.7
Traffic stop	3.9	6.1	2.9
Pedestrian stop	5.8	3.9	2.9
Police witnessed illegal activity	8.2	7.4	9.6
Serving warrant	3.1	12.6	5.8
Police raid	5.1	10.0	5.8
Civilian initiated contact	1.2	1.7	2.9
Civilian already in custody	3.5	3.5	3.8
Follow-up investigation	1.9	3.9	4.8
Sample size	**257**	**230**	**104**

X^2 = 36.673; df = 18; p >.006

Civilian behaviour during use of force incident

The research team used information from the report synopses to determine the behaviour of civilians prior to police use of force. Most cases (over 50%) involved civilian non-compliance with police commands. In these cases, although the civilian was described as uncooperative, there was no indication that they had threatened or assaulted the police prior to the decision to use force. However, it should be noted that, in several cases, the civilian struggled with the police after the police had initiated physical contact. In approximately one-third of all cases, the synopsis indicated that the civilian had tried to physically assault the police – without a weapon – and that this assault led the police to respond with force. Civilian threats and assaults with a weapon were quite rare. Indeed, there were only three cases in which a civilian threatened the police with a firearm. Racial differences with respect to civilian behaviour do not reach statistical significance (see Table D9).

Black people are over-represented in most civilian behaviour categories. Although they represent only 8.8% of Toronto's population, they were involved in 39.4% of cases that involved civilian non-compliance, 37.6% of cases than involved assaults against the police and 37.5% of cases that involved resist arrest allegations. In other words, compared to their presence in the general population, Black people were 4.5 times more likely to be involved in a use of force case that involved civilian non-compliance, 4.3 times more likely to be involved in a case that involves an alleged assault against the police, and 4.3 times more likely to be involved in a case that involves an allegation of resist arrest.

**Table D9: Civilian behaviour prior to police
use of force interaction, by civilian race**

Type of police contact	White	Black	Other racial minority
Uncooperative/noncompliant	53.7	54.3	51.9
Threatened police (no weapon)	3.5	3.5	2.9
Threatened police (weapon)	1.2	1.3	3.8
Threatened police (gun)	0.4	0.9	0.0
Threatened civilian (weapon)	0.4	0.0	1.0
Threatened civilian (gun)	0.0	0.0	1.0
Assault police (no weapon)	33.9	29.6	25.0
Assault police (weapon)	0.8	1.3	2.9
Resisted arrest	5.8	6.5	9.6
Damaged police property	0.4	1.7	1.0
Threatened self-harm	0.0	0.9	1.0
Sample size	**257**	**230**	**104**

X^2 = 32.726; df = 22; p >.110

Civilian weapons

The research team examined report synopses to determine whether civilians were armed during the lower-level use of force cases identified by the OHRC inquiry. The results indicate that, regardless of race, the majority of civilians were unarmed (Table D10). However, the results also indicate that a slightly higher proportion of Black civilians (27.4%) were armed than White civilians (19.1%) or civilians from other racial minority groups (26.0%). Furthermore, 8.3% of Black civilians possessed or were suspected of possessing a firearm, compared to only 2.7% of White civilians and 3.8% of civilians from other racial minority backgrounds. These racial differences are statistically significant.

Importantly, the data further reveal that Black civilians are grossly over-represented in all four weapons categories. Although they represent only 8.8% of Toronto's population, they represent 36.9% of use of force cases involving unarmed civilians, 33.3% of cases involving a civilian armed with an "other" weapon (i.e., bat, brick, glass bottle, piece of wood, etc.), 47.3% of cases involving a knife and 63.3% of cases involving a firearm. In other words, compared to their representation in the general population, Black people are 4.2 times

more likely to be involved in use of force cases involving unarmed civilians, 3.8 times more likely to be involved in cases involving "other" weapons, 5.4 times more likely to be involved in cases involving a knife, and 7.2 times more likely to be involved in cases involving a firearm.

Table D10: Civilian weapons identified or suspected during police interaction, by civilian race

Type of police contact	White	Black	Other racial minority
No weapons	80.9	72.6	74.0
Firearms	2.7	8.3	3.8
Knife/cutting edge weapon	8.2	11.3	7.7
Other weapons	8.2	7.8	14.4
Sample size	**257**	**230**	**104**

$X^2 = 14.415$; df = 6; p >.025

How civilian weapon identified

Many in the public believe that police use of force cases involve confrontations with violent, armed civilians. Analysis reveals that this stereotype simply is not true. According to the data compiled by the OHRC, eight out of 10 use of force cases (80%) involved unarmed civilians (see Table D10). Furthermore, even when armed, civilians rarely use weapons to threaten or assault police officers. For example, the current data identified 30 use of force cases in which the civilian had or was suspected of having a firearm. In five cases (16.7% of the sample), the police suspected that the civilian possessed a firearm – but these suspicions were unfounded. A firearm was not located post-arrest. In 15 cases (50% of the sample), the police did not identify the firearm until a search had been conducted. In other words, for 20 of the 30 gun-related use of force cases (66.7%) there is no evidence that the civilian had brandished the weapon in front of officers. Of the remaining 10 cases, eight involved gun-related threats or assaults on other civilians. Only two (6.7%) involved gun threats against the police. Overall, racial differences in weapons use during police use of force cases do not reach statistical significance (see Table D11). However, Black civilians were slightly more likely to be involved in cases in which the weapon was not identified until after arrest (9.6%) than both White (4.3%) and other minority civilians (2.9%).

**Table D11: How civilian weapon identified
during police interaction, by civilian race**

Type of police contact	White	Black	Other racial minority
No weapon identified	81.7	73.9	76.9
Other weapon used to threaten civilian	5.8	4.8	2.9
Knife used to threaten civilian	0.8	0.4	0.0
Firearm used to threaten civilian	0.4	0.9	1.0
Other weapon used to assault civilian	1.9	3.0	5.8
Firearm discharged at civilian	0.4	0.9	1.0
Other weapon used to threaten police	0.0	0.9	1.9
Firearm used to threaten police	0.4	0.4	0.0
Other weapon used to assault police	1.6	2.6	2.9
Weapon used to threaten self-harm	0.4	0.4	0.0
Police suspected weapon – none recovered	0.0	0.0	1.0
Police suspected firearm – none recovered	1.6	1.3	1.9
Weapon only identified after arrest/search	4.3	9.6	2.9
Civilian tried to access officer's firearm	0.4	0.0	1.0
Civilian holding weapon (no threats or assaults)	0.4	0.9	1.0
Sample size	**257**	**230**	**104**

X^2 = 30.099; df = 30; p >.446

Civilian arrests

Almost 90% of the lower-level use of force cases documented by the OHRC resulted in a civilian arrest. Only 12.5% resulted in some other outcome (including mental health apprehensions). Racial differences in arrest outcomes are not statistically significant (see Table D12). Black people are grossly over-represented among both those who were and were not arrested. For example, although they represent only 8.8% of the population, Black people represent 36.5% of those not arrested and 39.3% of those arrested during use of force altercations. In other words, compared to their representation in the general population, Black people were 4.1 times more likely to appear in use of force cases that did not result in arrest and 4.5 times more likely to be involved in cases that resulted in arrest.

**Table D12: Percentage of lower-use-of-force cases
that resulted in an arrest or charges, by civilian race**

Civilian charged	White	Black	Other racial minority
No charges laid	13.2	11.7	12.5
Arrested/charges laid	86.8	88.3	87.5
Sample size	**257**	**230**	**104**

$X^2 = 0.246$; df = 2; p >.884

Fled police custody

The research team examined police report synopses to determine whether the civilians involved in lower-level use of force cases had been reported as having tried to flee or escape police custody (see Table D13). The results indicate that, regardless of race, most civilians (64.8%) had not been reported as having tried to escape custody. However, the results also suggest that a higher proportion of Black civilians (39.1%) had been reported as having tried to escape custody than White civilians (29.6%). This difference is statistically significant.

Importantly, Black civilians are over-represented among those who were and were not reported as having tried to escape police custody. Although they represent only 8.8% of Toronto's population, Black people account for 43.3% of people who were reported as having tried to escape custody and 36.6% of people who did not try to escape custody. In other words, compared to their representation in the general population, Black people are 4.9 times more likely to be involved in reported escape custody cases and 4.2 times more likely to be involved in cases in which the civilian was not reported as having tried to escape custody.

Table D13: Percentage of lower-use-of-force cases that involved a civilian fleeing police custody, by civilian race

Civilian fled custody	White	Black	Other racial minority
Did not flee	70.4	60.9	59.6
Fled custody	29.6	39.1	40.4
Sample size	**257**	**230**	**104**

X^2 = 6.353; df = 2; p >.042

Resisting arrest charges

The research team examined report synopses to determine whether the civilians involved in lower-level use of force cases had been charged with resisting arrest (see Table D14). The results reveal that although 35.2% of the civilians involved in lower-level use of force cases had reportedly tried to escape police custody, only 14.3% were charged with resisting arrest. This finding likely demonstrates that, regardless of civilian behaviour, individual officers still wield considerable discretion when it comes to charge decisions. However, the results reveal little evidence of racial bias when it comes to resist arrest charges. Although Black civilians were slightly more likely to be charged with resist arrest (17%) than White (15.2%) or other minority civilians (12.5%), these racial differences do not reach statistical significance. Nonetheless, Black subjects are grossly over-represented among those charged with resist arrest. Although they represent only 8.8% of the Toronto population, they represent 42.9% of those involved in use of force cases that resulted in a resist arrest charge (odds ratio = 4.90).

Table D14: Percentage of lower-use-of-force cases that resulted in a resisting arrest charge, by civilian race

Civilian charged	White	Black	Other racial minority
Not charged with resisting arrest	84.8	83.0	87.5
Charged with resisting arrest	15.2	17.0	12.5
Sample size	**257**	**230**	**104**

X^2 = 1.109; df = 2; p >.574

Civilian criminal record

The research team examined report synopses to determine whether the civilians involved in lower-level use of force cases had a prior criminal record. The results reveal that Black civilians were slightly more likely to have a prior criminal record (57.4%) than White civilians (51.8%) or civilians from other racial minority backgrounds (41.3%). These racial differences are statistically significant (see Table D15).[18]

The results also reveal that Black civilians are grossly over-represented among both those with and without a prior criminal history. Although they represent only 8.8% of the population, they represent 34.6% of people without a previous criminal record and 42.9% of people with a criminal record. In other words, compared to their representation in the general population, Black people are 3.9 times more likely to appear in a use of force case involving civilians with no criminal record. By contrast, they are 4.9 times more likely to appear in cases involving civilians with a criminal record.

Table D15: Percentage of lower-use-of-force cases that involved a civilian with a previous criminal record, by civilian race

Civilian criminal record	White	Black	Other racial minority
No record	48.2	42.6	58.7
Have criminal record	51.8	57.4	41.3
Sample size	**257**	**230**	**104**

X^2 = 7.412; df = 2; p >.025

Civilian substance use

The research team examined report synopses to determine whether the civilians involved in lower-level use of force cases were intoxicated or under the influence of drugs or alcohol at the time of the incident (see Table D16). The results suggest that Black civilians (22.6%) were much less likely to be intoxicated or high than White civilians (44.7%) or those from other racial minority backgrounds (31.7%). These racial differences are statistically significant. The results further reveal that Black people are significantly over-represented in both cases

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[18] It is important to note that, if bias exists within the criminal justice system, it is likely that Black people will be more likely to have a criminal record than their White counterparts.

that involve severe intoxication and cases in which intoxication was not noted. However, the data also show that Black people are particularly over-represented in cases that did not involve civilian intoxication. Although they represent only 8.8% of the population, Black people were involved in 45.5% of cases in which the civilian was not intoxicated or high (odds ratio = 5.2) and 22.6% of cases in which the civilian was intoxicated or high (odds ratio = 2.6).

Additional analysis reveals that Black civilians were also less likely to have a noted substance abuse history (18.3%) than either White (35.0%) or other minority civilians (24.0%). These racial differences are statistically significant (see Table D17). However, further analysis reveals that Black people are significantly over-represented among both people with and people without a noted substance abuse problem. Compared to their representation in the general population, Black people are 4.9 times more likely to be involved in use of force cases that involve civilians without a history of substance abuse. By contrast, they are only three times more likely to be involved in cases that involve civilians with a noted substance abuse problem.

Table D16: Percentage of lower-use-of-force cases that involved a civilian who was intoxicated or high at the time of the incident, by civilian race

Civilian intoxication	White	Black	Other racial minority
Not intoxicated or high	55.3	77.4	68.3
Intoxicated or high	44.7	22.6	31.7
Sample size	**257**	**230**	**104**

X^2 = 26.281; df = 2; p >.001

Table D17: Percentage of lower-use-of-force cases that involved a civilian who had a noted substance abuse problem, by civilian race

Civilian substance abuse problem	White	Black	Other racial minority
Problem not noted	65.0	81.7	76.0
Problem noted	35.0	18.3	24.0
Sample size	**257**	**230**	**104**

X^2 = 17.887; df = 2; p >.001

Civilian mental health

Finally, the research team examined report synopses to determine whether the civilians involved in lower-level use of force cases were experiencing a mental health crisis at the time of the incident (see Table D18). The results suggest that Black civilians (10.9%) were slightly less likely to be in a mental health crisis than White civilians (14.4%) or those from other racial minority backgrounds (15.4%). However, these racial differences are not statistically significant. The results further reveal that Black people are significantly over-represented in both cases that involve a mental health crisis and cases in which a mental health crisis was not noted. Although they represent only 8.8% of the population, Black people were involved in 40% of cases in which the civilian was not in a mental health crisis (odds ratio = 4.5) and 32.1% of cases in which the civilian was in a mental health crisis (odds ratio = 3.6).

Additional analysis reveals that Black civilians were less likely to have a noted history of mental health problems (16.5%) than either White (26.1%) or other racial minority civilians (22.1%). These racial differences are statistically significant (see Table D19). However, further analysis reveals that Black people are significantly over-represented among both people with and people without a history of mental health problems. Compared to their representation in the general population, Black people are 4.7 times more likely to be involved in use of force cases that involve civilians without a history of mental health problems. By contrast, they are only 3.4 times more likely to be involved in cases that involve civilians with a noted history of mental health issues.

Table D18: Percentage of lower-use-of-force cases that involved a civilian who was in a mental health crisis at the time of the incident, by civilian race

Civilian mental health at time of the Incident	White	Black	Other racial minority
Not in crisis	85.6	89.1	84.6
In crisis	14.4	10.9	15.4
Sample size	**257**	**230**	**104**

X^2 = 1.845; df = 2; p >.398

Table D19: Percentage of lower-use-of-force cases that involved a civilian who had a noted mental health problem, by civilian race

Civilian mental health history	White	Black	Other racial minority
Problem not noted	73.9	83.5	77.9
Problem noted	26.1	16.5	22.1
Sample size	**257**	**230**	**104**

X^2 = 6.537; df = 2; p >.038

Community-level crime rates

As discussed in the literature review, community crime level may be an important predictor of police use of force. Although presence in a high-crime community is not a justification for police use of force, it is often used as a proxy measure of civilian criminality or the dangers police officers might face within certain geographical locations. Others argue that the police may be more aggressive or vigilant in high-crime communities and this may lead to more use of force incidents.

As discussed in Section C, the Toronto Police Service provided our research team with annual patrol zone-level violent crime rates from 2013 to 2017. These figures were combined to produce the average annual crime rate for each patrol zone during the study period. For presentation purposes, patrol zones were divided into four equal groups – or quartiles – depicting their crime rates relative to other patrol zones in the city. In other words, the low crime category includes the 25% of patrol zones with the lowest crime rates. By contrast, the high crime category includes the 25% of patrol zones with the highest crime rates.

As with the SIU data, our analysis of lower-level use of force cases reveals that there is a positive relationship between patrol zone crime levels and how often the police resort to force. For example, almost 40% of lower-level use of force incidents, captured by our data, occurred in the patrol zones with the highest crime rates. By contrast, only 14.7% took place in low-crime patrol zones (see Table D20).

Further analysis reveals that lower-level use of force cases involving Black civilians (45.9%) are more likely to take place in high-crime patrol zones (45.9%) than cases involving White (33.5%) and other minority civilians (36.5%). By contrast, cases involving White and other racial minority civilians are more likely to take place in low-crime patrol zones. This racial difference is statistically significant (see Table D21).

Additional analysis, however, reveals that Black people are grossly over-represented in lower-level use of force cases that take place in both low-crime and high-crime patrol zones (see Table D22). For example, although Black people represent only 5.2% of the population of low-crime patrol zones, they represent 28.7% of lower-level use of force incidents that took place in these areas. In other words, Black people are 5.5 times more likely to be involved in a use of force incident that took place in a low-crime patrol zone than their residence in such communities would predict. Similarly, although Black people represent only 12.4% of the population residing in high-crime patrol zones, they were involved in 45.9% of the use of force cases that took place in these areas. In other words, Black people were 3.7 times more likely to be involved in a lower-level use of force incident that occurred in a high-crime patrol zone than their residence in these zones would predict. These findings indicate that the over-representation of Black people in lower-level use of forces incidents cannot be explained by their presence in high crime communities.

Table D20: Percentage of lower-level use of force cases, by patrol zone crime rates, 2013 – 2017 cases

Patrol zone crime rate	Lower-level use of force incidents
Low	14.7
Medium-low	22.0
Medium-high	24.4
High	38.8
Sample size	**591**

Table D21: Percentage of lower-level use of force cases, involving different racial groups, that took place in low- and high-crime patrol zones, 2013 – 2017 cases

Patrol zone crime rate	White	Black	Other racial minority
Low	16.0	10.9	20.2
Medium-low	25.3	18.3	22.1
Medium high	25.3	24.9	21.2
High	33.5	45.9	36.5
Sample size	257	229	104

Chi-square: 12.791; df = 6; p >.046

Table D22: Black representation in SIU investigations, by patrol zone crime level

Black representation	Low-crime patrol zones	Low-medium crime patrol zones	Medium-high crime patrol zones	High crime patrol zones
% patrol zone population	5.2	7.8	11.3	12.4
% lower-level use of force cases	28.7	32.3	39.6	45.9
Odds ratio	5.52	4.14	3.50	3.70

Summary

The findings presented above are based on an analysis of 591 lower-level use of force cases involving TPS officers. These are cases that fall below the threshold for a SIU investigation (i.e., they do not involve civilian death or serious injury). The findings reveal that:

- Black people are grossly over-represented in TPS lower-level use of force cases. Although they represent only 8.8% of Toronto's population, Black people are involved in 38.9% of the cases included in the lower-level use of force dataset. These results suggest that Black people are 4.4 times more likely to appear in a lower-level use of force incidents than their presence in the general population would predict. By contrast, White people and people from other racial minority groups are under-represented.

- Overall, the results suggest that Black people are even more over-represented in lower-level use of force cases (odds ratio = 4.42) than use of force cases that resulted in a SIU investigation (odds ratio = 3.27).

- Overall, the lower-level use of force rate for Black people (95.9 per 100,000) is five times greater than the rate for White people (19.4 per 100,000) and 11 times greater than the rate for other racial minorities (8.9 per 100,000).

- The involvement of Black males in lower-level use of force cases is particularly high. Although they represent only 4% of Toronto's population, Black males were involved in more than a third (34.5%) of all lower-level use of force cases documented by the current study; Black males are 8.6 times more likely to appear in the use of force data than their presence in the general population would predict.

- White males are slightly over-represented in lower-level use of force cases (odds ratio = 1.57). By contrast, males from other racial minority groups, and females from all racial backgrounds, are significantly under-represented.

- Overall, the Black male lower-level use of force rate (185.7 per 100,000) is 5.5 times greater than the White male rate (33.9 per 100,000) and 10.5 times greater than the rate for males from other racial minority groups (17.7 per 100,000).

- Compared to their presence in the general population, Black females are under-represented in the lower-level use of force dataset. However, the Black female rate (20 per 100,000) is 3.6 times greater than the rate for White females (5.6 per 100,000) and 25 times greater than the rate for females from other racial minority backgrounds (0.8 per 100,000).

- The results suggest that most minor use of force cases involved either the physical restraint or grounding of a civilian or police strikes (punches, kicks, etc.). About 10% involved police officers pointing their firearm at a civilian.

- In general, Black people are grossly over-represented within all use of force categories including the use of pepper spray, Tasers, strikes without a weapon, grounding and firearms deployment.

- The results suggest that, compared to White people, minor use of force cases involving Black people were more likely to result from proactive policing efforts (traffic stops, raids, follow-up investigations, etc.) than from reactive policing efforts (calls for service).

- The results suggest that the majority of TPS lower-level use of force cases involve civilians described as non-compliant, cases involving civilians who attempted to resist arrest or cases involving the physical assault of police officers.

- Three-quarters of all minor use of force incidents involve unarmed civilians. Less than 5% involved civilians in possession of a firearm.

- While Black civilians were slightly more likely to be carrying a firearm than White civilians, only 8% of Black civilians had a firearm at the time of the minor use of force incident.

- In general, civilians did not brandish firearms in front of the police. In most cases, firearms were either incorrectly suspected by the police (i.e., a firearm was never located) or only identified after an arrest had been made. This finding challenges the notion that TPS officers only use physical force when they are involved in shootouts with dangerous, armed offenders.

- Regardless of race, almost half of all the minor use of force cases documented by the study involved civilians without a criminal record.

- Compared to their White counterparts, Black civilians were less likely to be intoxicated or high at the time of their minor use of force incident.

- Compared to their White counterparts, Black civilians were less likely to be experiencing a mental health crisis at the time of their minor use of force incident.

- Regardless of race, almost 90% of minor use of force incidents involved the arrest of a civilian.

- Black people are grossly over-represented in lower-level use of force cases that take place in both low-crime and high-crime patrol zones.

Overall, the findings from this study of TPS lower-level use of force cases are highly consistent with the results of our analysis of SIU investigations (see Part C of this report). Both investigations found that Black people are grossly over-represented in incidents involving use of force by TPS officers. In the next section of this report we combine data from the SIU study with data from the lower-level use of force study to further examine whether local demographics and crime rates can help explain these racial disparities.

Part E – Multivariate analysis of use of force cases[19]

Introduction

This section of the report presents the results of several multi-level, negative binomial regression models of police use of force. Negative binomial models are a type of "count" regression model commonly used to model discrete police-citizen interactions (Edwards, Lee, and Esposito 2019; Gelman, Fagan, and Kiss 2007; Geller and Fagan 2010).[20] We set the race-specific population of each patrol zone as the "offset" or underlying population at risk for use of force, reflecting the expectation that use of force against particular racial groups will be higher in patrol zones where more members of that racial group reside. We estimate these models in a Bayesian framework in the R programming language.[21]

The principal purpose of these models is to test whether the observed racial disparities in the risk of experiencing police use of force persist after controlling for the independent effects of aggregate patrol zone characteristics. As discussed, patrol zone-level characteristics may affect the risk that an individual will experience force in a variety of ways (see section B). For example, residents of Toronto patrol zones where the violent crime rate is high may be at greater risk of experiencing use of force if officers are especially vigilante or concerned for their safety in these areas and, as a result, are more aggressive towards local residents. Racial disparities in use of force, in this scenario, may be explained by the disproportionate representation of Black civilians in patrol zones where violent crime rates are high. The multi-level models we employ here allow us to assess this potential and other potential explanations for observed racial disparities.[22]

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[19] This section of the report was prepared by Dr. Ayobami Laniyonu, Assistant Professor, Centre for Criminology and Sociolegal Studies, University of Toronto.

[20] Footnote deleted.

[21] This paragraph was revised from the previously reported version.

[22] This paragraph was revised from the previously reported version.

The data

Our data on use of force by the Toronto Police Service (TPS) was derived from two sources. The first set of data capture information from Special Investigation Unit (SIU) investigations into use of force by the TPS. We limited our analysis to the 207 investigations that took place between January 1, 2013, and June 30, 2017, where the patrol zone where the incident occurred was known or could be geolocated, and where the race of the civilian was known.[23]

The second source of data capture details regarding TPS lower-level use of force incidents. These police use of force incidents did not result in the death of the civilian and were not considered serious enough to meet the SIU's investigative mandate. Information about lower-level incidents was extracted from TPS Injury Reports, Use of Force Reports and GO reports. All incidents occurred between July 1 2016, and June 30, 2017. Examples of lower-level force include officer strikes (e.g. open-palm techniques, punches and kicks), grounding, OC spray (e.g. pepper spray), or the application of a conducted energy weapon (e.g. Taser). We limited our analysis to the 512 lower-level incidents where it could clearly be determined that force had been used by the officers involved, the patrol zone where the incident happened had been recorded or could be geolocated, and the race of the civilian was known. A full description of the SIU data is provided in Section C of this report. A full description of the TPS "lower-level" use of force data is provided in Section D.[24]

The data used to control for the independent effect of patrol zone demographic characteristics on police use of force was provided by Statistics Canada at the request of the *Toronto Star*. This data is derived from 2006 Canadian Census and used as part of the Star's *Race Matters* series (Rankin 2010). Data on patrol zone-level crime rates – from 2010 to 2017 – were provided by the TPS at the request of the Ontario Human Rights Commission.[25]

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[23] We were not able to use the SIU data from the 2000 to 2006 period. That study involved an analysis of cases from across Ontario. Patrol zone information was not collected for specific police services. Furthermore, TPS patrol zones changed between 2006 and 2013.

[24] This paragraph was revised from the previously reported version.

[25] At the time of the current analysis, we were unable to acquire patrol zone-level data from the 2016 Canadian Census. However, we feel that the overall profile of these zones has likely not changed dramatically over the last decade.

Variables

Our models control for the independent effect of several ecological variables characterized in past research as potential explanations for use of force, including patrol zone-level violent crime rate, median household income, and share of single-mother households in the patrol zone. The patrol zone violent crime rate serves as a proxy for the potential danger officers may face within particular regions of the city, as well as for how officers' concern for their personal safety may impact use of force decisions. Median household income and proportion of single-mother households also allow for an estimate of how economic disadvantage/social disorganization within patrol zones might impact the risk that a resident of those patrol zones will experience police use of force. Past studies suggest that if all else is held constant, police use of force will be higher in poorer areas and areas characterized by higher levels of disadvantage, whether due to civilian or officer behavior (Terrill and Reisig 2003).[26]

Multi-level models also allow researchers to account for the impact that unmeasured patrol zone-level characteristics may have on use of force rates. For example, the presence of a public park, the density of public housing, and the share of young males who have not completed high school in a patrol zone may all affect the risk that residents of a particular patrol zone will experience police force. Our multi-level models account for systematic variation in these (and other) characteristics across Toronto patrol zones, but do not allow us to identify specifically the independent effect that they have on the risk that a resident will experience force. What is important here, however, is testing the extent to which racial disparities persist while controlling for these characteristics.[27]

Results

Our results suggest that the gross racial disparities in both serious and lower-level use of force incidents, documented in Sections C and D of this report, cannot be explained by patrol zone-level characteristics. In other words, we still view striking disparities in the relative risk that Black civilians will experience serious and minor police use of force relative to their White counterparts – even after statistically controlling for patrol zone-level characteristics.

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[26] This paragraph was revised from the previously reported version.
[27] This paragraph was revised from the previously reported version.

Each table depicts the results of five different regression models. Model 1 simply estimates the risk that Black civilians and civilians belonging to other racial minority groups[28] in a patrol zone (relative to White civilians in that patrol zone) will experience police use of force, given their share of the population. Model 2 estimates racial disparity while statistically controlling for average violent crime rates over the study period. Model 3 estimates racial disparity while controlling for (the log of) median household income. Model 4 estimates racial disparity while controlling for the share of single-mother households in the patrol zone. Finally, Model 5 estimates racial disparity while controlling for violent crime rate, median household income and single-mother households simultaneously.[29] For parsimony, for each analysis, only the results from Model 5 are discussed.[30]

Table E1 examines the impact of race on SIU investigations controlling for patrol zone characteristics. White civilians are set as the "reference" group, so the model coefficients can be interpreted as the effect that race has on the risk that a member of a particular racial minority group will experience force, relative to the risk that a White civilian will experience force (e.g., relative risk ratios). When looking at SIU cases in isolation, we estimate that the risk that a Black civilian will experience injury or death related to use of force resulting in a SIU investigation is 4 times the risk that White civilians will experience an injury resulting in a SIU investigation (see Table E1). The risk that civilians belonging to other racial minority groups will experience force resulting in an SIU investigation is 0.6 times the risk (or 40% lower) that White civilians will experience force. Note that an increase in the log of the mean violent crime rate is also associated with an increase in the risk that a civilian will experience an injury – related to use of force – resulting in a SIU investigation. In other words, people residing in high-crime communities are more likely to experience a SIU investigation than people residing in low-crime communities. The share of single-mother-headed households in a patrol zone is also associated with use of force rates though, surprisingly, the association is negative meaning that as the share of such households increase, the risk of force decrease (though slightly). However, race remains a significant predictor of SIU investigations after statistically controlling for patrol zone characteristics.[31]

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[28] For the purpose of the following analysis and because of the relative infrequency of cases, civilians who are not identified as either Black or White were coded as other racial minority

[29] Single-mother households is often used as an alternative measure of social disadvantage.

[30] This paragraph was revised from the previously reported version.

[31] This paragraph was revised from the previously reported version.

Table E1: Predictors of SIU cases in Toronto by race and patrol zone factors[32]

	Model 1	Model 2	Model 3	Model 4	Model 5
Race (White set as reference group)					
Black					
Other racial minority	**0.6** **(0.4–0.9)**	**0.6** **(0.4– 0.9)**	**0.6** **(0.4–0.9)**	**0.7** **(0.4–0.9)**	**0.6** **(0.4– 0.9)**
Patrol zone factors					
Violent crime rate (log)	—	**3.6** **(2.6–5.70**)	—	—	**3.4** **(2.3– 4.8)**
Median household income (log)	—	—	**0.3** **(0.1–0.8)**	—	0.6 (0.2–1.5)
% Single mother households	—	—	—	.97 (0.93–1.02)	**0.94** **(0.90–0.98)**

Note: Negative binomial models of SIU cases in Toronto patrol zones. 95% credible intervals are given in parentheses. Effect of race is relative to White reference group. Cell values give effect of a unit change on risk of force. Values in bold are those where 95% credible intervals do not overlap with 1.

Table E2 examines the impact of race on lower-level use of force incidents controlling for patrol zone characteristics. The analysis identifies significant disparities in the relative risk that Black civilians will experience lower-level police force. Model 5 estimates that, relative to their share of the population in specific patrol zones, the risk that a Black civilian will experience force is 5.2 times the risk that a White civilian will experience low-level force. The risk that civilians belonging to other racial minority groups will experience force is again 0.6 times the risk that a White civilian will experience lower-level force (or 40% lower). Patrol zone violent crime rates also predict the likelihood of experiencing lower-level use of force – as does share of single-mother-headed households. In other words, people who reside in high-crime communities are more likely to experience lower-level use of force than people residing in low-crime communities, while more single-mother-headed households is slightly associated with lower risk of force However, controlling for these factors does not reduce the impact of civilian race.[33]

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[32] This table was revised from the previously reported version.
[33] This paragraph was revised from the previously reported version.

**Table E2: Predictors of low-level cases in Toronto
by race and patrol zone factors, corrected[34]**

	Model 1	Model 2	Model 3	Model 4	Model 5
Race (White set as reference group)					
Black	**5.3** **(4.2–6.7)**	**5.1** **(4.1–6.3)**	**5.2** **(4.1–6.6)**	**5.3** **(4.2–6.8)**	**5.2** **(4.1–6.6)**
Other racial minority	**0.6** **(0.4–0.8)**	**0.6** **0.4–0.7)**	**0.6** **(0.4–0.8)**	**0.6** **(0.4–0.8)**	**0.6** **(0.4–0.8)**
Patrol zone factors					
Violent crime rate (log)	—	**5.8** **(4.0–8.5)**	—	—	**4.9** **(3.3–7.3)**
Median household income (log)	—	—	**0.1** **(0.00–0.4)**	—	0.3 (0.1– 1.1)
% Single mother households	—	—	—	1.0 (0.9–1.1)	**0.94** **0.90– 0.98)**

Note: Negative binomial models of low-level use of force cases in Toronto patrol zones. 95% credible intervals are given in parentheses. Effect of race is relative to White reference group. Cell values give effect of a unit change on risk of force. Values in bold are those where 95% credible intervals do not overlap with 1.

Table E3 examines the impact of race on both SIU and lower-level use of force cases controlling for patrol zone characteristics. The results reveal that, relative to their share of the general population in a patrol zone, the risk that a Black civilian will experience force are 4.9 times the risk that a White civilian will experience force. The risk that civilians belonging to other racial minority groups will experience force is 0.6 times the risk that White civilians will experience force (or 40% lower). Once again, patrol zone violent crime rate positively predicts the likelihood of experiencing police use of force. In this model we estimate that median household income negative predicts the risk of force, as does the share of single mothers in the patrol zone increases. In other words, the risk that people who reside in high-crime and low-income communities will experience force resulting in injury are greater than the risk that people who reside in low-crime, high-income communities will experience force resulting in injury. Residing in a patrol zone with greater shares of single-mother-headed households is negative associated with risk of force, but only weakly. In total, however, these patrol zone-level factors do not explain why Black people are over-represented in police use of force statistics.[35]

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[34] This table was revised from the previously reported version.
[35] This paragraph was revised from the previously reported version.

**Table E3: Predictors of all force cases in Toronto by
race and patrol zone factors, corrected[36]**

	Model 1	Model 2	Model 3	Model 4	Model 5
Race (White set as reference group)					
Black	**5.0**	**4.7**	**4.9**	**5.0**	**4.9**
	(4.0–6.2)	**(3.8–5.8)**	**(3.9–6.0)**	**(4.0–6.2)**	**(4.0–6.0)**
Other racial minority	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
	(0.5–0.8)	**(0.5–0.7)**	**(0.5–0.8)**	**(0.5–0.8)**	**(0.5–0.7)**
Patrol zone factors					
Violent crime rate (log)	—	**4.9**	—	—	**4.3**
		(3.7–6.5)			**(3.3–5.8)**
Median household income (log)	—	—	**0.2**	—	**0.4**
			(0.1–0.4)		**(0.2–.95)**
% Single mother households	—	—	—	0.99	**0.94**
				(0.95–1.04)	**(0.91–0.97)**

Note: Negative binomial models of all use of force cases in Toronto patrol zones. 95% credible intervals are given in parentheses. Effect of race is relative to White reference group. Cell values give effect of a unit change on risk of force. Values in bold are those where 95% credible intervals do not overlap with 1. Model corrects for miscoding error presented in the main report.

Results from models that exclude patrol zones 51 and 52

Tables E4, E5 and E6 present the results of the same models as above, but limit analysis to patrol zones beyond the downtown core, which are serviced by 51 and 52 Divisions. Our concern here is the potential that most use of force cases that occur in these divisions may involve individuals who did not reside in these areas. However, the results presented in these tables are highly consistent with results presented above. Relative to their share of the population, the risk that Black civilians will experience injury resulting in an SIU investigation are still 4 times the risk of White civilians. Similarly, the risk that Black civilians will experience lower-level or any type of force are 5 times and 4.7 times the risk what White civilians will experience force, respectively. Comparable rates for civilians belonging to other racial minority groups are .7 times, .6 times and .6 times respectively (or 30%, 40% lower, and 40% lower,

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[36] This table was revised from the previously reported version.

respectively). As with the overall data, patrol zone crime rate is also a consistent and significant predictor of police use of force. In other words, excluding patrol zones from 51 and 52 Divisions, the risk that people residing in high-crime communities will experience force resulting in injury are still greater than the risk of people from low-crime communities. However, patrol zone crime rates do not explain away racial disparities.[37]

Table E4: Predictors of serious force in Toronto by race and patrol zone factors with Divisions 51 and 52 dropped, corrected[38]

	Model 1	Model 2	Model 3	Model 4	Model 5
Race (White set as reference group)					
Black	**4.0** **(2.7–6.0)**	**3.6** **(2.4–5.3)**	**3.9** **(2.6–5.8)**	**4.1** **(2.7–6.2)**	**4.0** **(2.7–5.9)**
Other racial minority	0.7 (0.45–1.0)	**0.6** **(0.4–0.94)**	**0.7** **(0.4–0.98)**	0.7 (0.4–1.03)	**0.7** **(0.4–0.98)**
Patrol zone factors					
Violent crime rate (log)	—	2.9 (1.9–4.4)	—	—	**3.2** **(2.1–5.0)**
Median household income (log)	—	—	0.5 (0.2–1.4)	—	0.5 (0.1–2.0)
% Single mother households	—	—	—	1.0 (0.9–1.0)	0.9 (0.9–1.0)

Note: Negative binomial models of SIU cases in Toronto patrol zones. 95% credible intervals are given in parentheses. Effect of race is relative to White reference group. Cell values give effect of a unit change on odds and risk of force. Values in bold are those where 95% credible intervals do not overlap with 1.

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[37] This paragraph was revised from the previously reported version.
[38] This table was revised from the previously reported version.

Table E5: Predictors of low-level force in Toronto by race and patrol zone factors with Divisions 51 and 52 dropped, corrected[39]

o	Model 1	Model 2	Model 3	Model 4	Model 5
Race (White set as reference group)					
Black	**5.2** (4.0–6.7)	**4.8** (3.8–6.2)	**5.1** (3.9–6.6)	**5.1** (3.9–6.7)	**5.0** (3.8–6.5)
Other racial minority	**0.6** (0.4–0.8)	**0.6** (0.4–0.8)	**0.6** (0.4–0.8)	**0.6** (0.4–0.8)	**0.6** (0.4–0.8)
Patrol zone factors					
Violent crime rate (log)	—	4.8 (3.1–7.6)	—	—	**5.0** (3.2–7.8)
Median household income (log)	—	—	**0.3** (0.1–0.9)	—	0.5 (0.1–1.8)
% Single mother households	—	—	—	1.02 (0.97–1.08)	0.95 (0.90–1.0)

Note: Negative binomial models of low-level use of force cases in Toronto patrol zones. 95% credible intervals are given in parentheses. Effect of race is relative to White reference group. Cell values give effect of a unit change on odds and risk of force. Values in bold are those where 95% credible intervals do not overlap with 1.

[39] This table was revised from the previously reported version.

Table E6: Predictors of all force in Toronto by race and patrol zone factors with Divisions 51 and 52 dropped, corrected40

	Model 1	Model 2	Model 3	Model 4	Model 5
Race (White set as reference group)					
Black	**4.9** (3.8–6.2)	**4.5** (3.6–5.6)	**4.8** (3.8–6.0)	**4.9** (3.8–6.1)	**4.7** (3.7–6.0)
Other racial minority	**0.6** (0.4–.08)	**0.6** (0.5–0.8)	**0.6** (0.5–0.8)	**0.6** (0.5–.8)	**0.6** (0.5–0.8)
Patrol zone factors					
Violent crime rate (log)	—	**4.1** (3.0–5.7)	—	—	**4.5** (3.3–6.1)
Median household income (log)	—	—	**0.4** (0.1–.9)	—	0.5 (0.2–1.3)
% Single mother households	—	—	—	1.01 (0.97–1.05)	**0.94** (0.91– 0.97)

Note: Negative binomial models of all force cases in Toronto patrol zones. 95% credible intervals are given in parentheses. Effect of race is relative to White reference group. Cell values give effect of a unit change on odds and risk of force. Values in bold are those where 95% credible intervals do not overlap with 1.

Conclusion and limitations

The totality of the analysis suggests that Black people are markedly more likely to experience all types of police use of force relative to their White counterparts. These gross racial disparities remain after statistically controlling for patrol zone characteristics including violent crime rates. Our multi-level negative binomial models explicitly control for the independent effect that the patrol zone violent crime rate, average income, and percentage of single-mother households have on use of force incidents. We find, consistent with expectations, that individuals living in neighborhoods with higher violent crime rates are more likely to experience police use of force. Furthermore, individuals living in patrol zones with higher average incomes are less likely

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[40] This table was revised from the previously reported version.

to experience force in some models. Interestingly we find that the percentage of single-mother households in a patrol zone is negatively correlated with use of force rates, but only slightly so. Most importantly, however, the sizeable effect of race – particularly Black racial background – persists even after patrol zone characteristics have been taken into statistical account.[41]

Some important words of caution are warranted. Our results do not provide conclusive evidence that individual police officers are engaged in individual acts of racial discrimination in their decisions to apply force. Our results, more narrowly, demonstrate that racial disparities in police use of force against Black civilians cannot be explained by the disparate distribution of Black civilians in patrol zones with higher rates of violent crime or by other patrol zone-level factors.

Our models are also limited in that we, in contrast with the majority of American studies, cannot statistically control for race-specific arrest rates or race-specific police contact rates (Gelman, Fagan, and Kiss 2007). The availability of such data would enable us to estimate racial disparities in police use of force relative to arrest or the likelihood of police-citizen contact. The availability of that type of information may further contextualize the findings and help explain observed racial disparities (Tregle, Nix, and Alpert 2019). Accordingly, our models in this section treat the share of the patrol zone that are Black, White, or belong to other racial minority groups as the population "at risk" for use of force, which – in conjunction with the inclusion of patrol zone-level factors – explains why the disparities estimated here exceed those reported elsewhere in the report. Other data, such as data on police-citizen contacts that did not result in injury, would aid in our estimation of racial disparities. As noted, the current TPS system of data collection lags behind peer police departments, such as those in New York, Chicago and London, England. Nevertheless, the data gathered and analyzed here clearly demonstrate the persistence of population-level disparities – despite patrol zone-level characteristics. Our findings are consistent with racial bias arguments and further underscore the need for race-based police statistics.

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[41] This paragraph was revised from the previously reported version.

Part F: Explaining Black over-representation in police use of force statistics

The results of the research conducted in this report confirm that Black people are greatly over-represented in police use of force incidents involving the Toronto Police Service (TPS). Hopefully, this data can close the debate over whether Black people are more exposed to police use of force than White people. **They are**. We must now turn our efforts to explaining why this over-representation exists.

To begin with, the gross racial disparities in police use of force documented by this study are strongly consistent with the argument that racial bias exists within the Toronto Police Service. As stated in a document entitled *Policy and guidelines on racism and racial discrimination*, the Ontario Human Rights Commission (OHRC) maintains that:[42]

> Numerical data that demonstrated that members of racialized groups are disproportionately represented may be an indicator of systemic or institutional racism. Numerical data can be evidence of the consequences of a discriminatory system in the following ways: 1) Under-representation in an organization relative to the availability of qualified individuals in the population or in the applicant pool suggests systemic racism in hiring practices or may be indicative of on-the-job discrimination resulting in a failure to retain racialized persons; 2) Unequal distribution of racialized persons in an organization, for example, high concentration in entry-level positions and low representation in managerial positions, may demonstrate inequitable training and promotion practices; and 3) *Over-representation of racialized persons in police stops, jails and other areas of the justice system may be indicative of the practice of racial profiling or other forms of racial discrimination* (OHRC 2005: 32).

However, the OHRC cautions that: "Except in the most obvious circumstances, for example, where data show gross disparities in treatment that are unlikely to be the result of random selection, numerical data alone will not be proof of systemic discrimination.[43] *However, it*

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[42] This paragraph was revised from the previously reported version.

[43] It is somewhat difficult to determine whether the huge racial disparities observed in the current SIU study reach the "gross disparity" standard highlighted by the Ontario Human Rights Commission. At what level do racial disparities become large enough to indicate discrimination?

will constitute strong circumstantial evidence of the existence of inequitable practices. An organization can challenge the statistics and their validity or can demonstrate a non-discriminatory reason for disproportional representation" (OHRC 2005: 32).

In its new anti-racial profiling policy, the OHRC extends this conversation by stating that:

> It is important to collect data using the best available methodological approaches. Also, keep in mind that numbers cannot be interpreted by themselves, without understanding the assumptions that underlie them, the lived experiences of communities represented by the numbers, and analysis of relevant contextual factors. Where the data reveals that there is a problem, even if it cannot reveal the cause of a disparity, law enforcement organizations must be prepared to act. In a recent case, the HRTO described the "critical secondary work" that is needed when data reveals a problem. It said that "data collection is just a first step, albeit a significant one, in addressing racial disproportionalities arising from policing practices." The HRTO strongly urged the police service to take the next steps in the process – "to identify to the best of its ability what is causing or contributing to these disparities through conducting further research, and then based on the research findings, to develop and implement specific strategies to reduce and hopefully eliminate these disparities."

The evidence, from the current study, that supports the biased policing argument includes the following:

- Black people are grossly over-represented in police use of force cases involving the Toronto Police Service.

- Black people are grossly over-represented in lower-level use of force cases as well as use of force cases that resulted in a SIU investigation.

- Depending on the specific measure used, the Black use of force rate is four to 19 times greater than the White rate. The more serious the police use of force, the greater the racial disparity. For example, racial disparities are greater with respect to police shootings, particularly shooting deaths, than other use force cases.

- Police shooting cases involving the police are quite rare. However, when the police do decide to shoot, they almost always kill Black people. By contrast, more than 70% of White people who were shot by the police survive.

- The results suggest that, compared to White people, use of force cases involving Black people were more likely to result from proactive policing efforts (traffic stops, street checks, etc.) than reactive policing efforts (calls for service). This finding suggests that racial bias with respect to police surveillance tactics (racial profiling) may increase the probability of violent confrontations between the police and Black people.

- Perhaps as a result of media depictions, citizens tend to believe that Toronto police are often involved in violent confrontations with dangerous, armed criminals. The data from this study paint a different picture. Regardless of race, most of the citizens involved in the use of force cases documented by this study were unarmed. Furthermore, regardless of race, approximately half of the civilians involved in the TPS use of force cases had no previous criminal record.

- Regardless of race, a high proportion of police use of force cases involve non-compliance with police commands and resist arrest rather than physical assaults or threats against the police.

- While a significant proportion of cases involve civilians armed with a knife, bat, hammer, piece of wood, brick or other weapon, very few cases involve civilians in possession of a firearm. Even fewer cases involve civilians who have actually pointed or fired a gun at a police officer or civilian. In some firearm cases, the gun was either suspected (but never found) or only discovered after the arrest had been made.

- This is not to say that Toronto police do not arrest dangerous, violent criminals or gang members. However, to their credit, these arrests often involve coordinated paramilitary operations, involving hundreds of officers, who overwhelm suspects and dramatically reduce the likelihood of injury to both the suspects and the police. Examples of such investigations and raids involving the Toronto Police Service include Project Patton, Project Kraken, Project Traveller, Project Kronic and Project Marvel.

- A high proportion of use of force cases involve individuals who are intoxicated or high on drugs. However, compared to their White counterparts, Black civilians were less likely to be intoxicated or high at the time of their use of force incident.

- A high proportion of police use of force cases involve individuals described as being in a mental health crisis. However, compared to their White counterparts, Black civilians were less likely to be experiencing a mental health crisis at the time of their use of force incident.

- In other words, the data suggest that intoxication and mental illness are variables that seem to increase the likelihood that the police will use force against a White person. However, race alone seems to increase the risks for Black people. A Black person does not have to be intoxicated or in mental health crisis to be viewed as potentially dangerous and thus a legitimate target for police use of force.

- Finally, the analysis presented above reveals that racial disparities in police use of force cannot be explained by patrol zone-level poverty, racial composition or crime rates. After statistically controlling for these factors, Black people are still grossly over-represented in TPS use of force incidents – especially those that involve serious injury or death. In fact, Black people are significantly over-represented in use of force cases in both low and high crime patrol zones.

In the past, both police services and police associations have vigorously disputed the argument that gross racial disparities in use of force statistics are evidence of overt, implicit or systemic racial bias. They have previously argued, for example, that racial minority criminality or aggressiveness during police encounters can explain this over-representation. This argument is bolstered somewhat by the finding, presented above, that indicates that the Special Investigations Unit rarely lays criminal charges against the police in use of force cases. In other words, the data clearly indicate that SIU officials, as a result of their intensive and detailed investigations, almost always conclude that there is not enough evidence to charge police officers with a criminal offence. Furthermore, the data also show that the SIU Director is not more likely to lay criminal charges against the police in cases involving Black civilians – a finding that suggests that police use of force against minorities is just as "lawful" as the use of force against White people.

Of course, this finding will not necessarily convince members of the Black community that racial bias does not exist within the TPS. In the past, for example, community advocates have argued that SIU investigations are compromised by the fact that many SIU investigators are ex-police officers and that subject officers do not have to give a statement explaining their use of force decisions. Furthermore, community members have frequently expressed the belief that, during any formal inquiry into police misconduct, investigators and adjudicators

are much more likely to believe the statements of police officers over the statements of civilian victims and witnesses (especially racial minority victims and witnesses). In other words, SIU investigations often develop into "our word against their word" scenarios, and in such cases, civilians are often viewed as having less credibility than sworn police officers. Others have also argued that, even when use of force against Black civilians is deemed technically legitimate, alternative forms of conflict resolution should have been employed. In other words, just because Black over-representation in police use of force cases may be technically "lawful," it does not make it any less "awful."

To our knowledge, this is one of the first studies of its kind in Canada. Thus, as is the case with most "first studies," certain data limitations emerged. First of all, unlike most American research, we were unable to statistically control for race-specific crime rates. To date such race-crime data are not publicly available to Canadian researchers (see Wortley 1996; Wortley and McCalla 2003). Finally, although we made an attempt (see Appendix B), we were often unable to gather information on other important case characteristics (including the age, gender, race, education, rank and experience of the subject officers, the number of police and civilian witnesses, whether the statements of civilians conflicted with the statements of police officers, etc.). Such information would have permitted a more detailed analysis of SIU and lower-level use of force cases.

Nonetheless, we do feel that this is a landmark study in the Canadian context. For the first time, community allegations that certain racial groups are more vulnerable to police violence than others have received empirical validation. Now we must try to explain this vulnerability. We hope, therefore, that this study will be used as a catalyst and justification for future research – research that will be help address the issues, debates and questions that still remain. To begin this conversation, we must first consider the various explanations that might account for why Black people in Toronto are so greatly over-represented in police use of force incidents.

Explanatory models

Below we outline a number of different explanatory models or factors that might account for the over-representation of Black people in TPS use of force cases. Each of these explanatory variables has very different policy implications. In our opinion, the relative validity or strength of any particular model or factor cannot be established with the current data. This must be determined by future studies. However, we do believe that each model may have validity under certain circumstances. In other words, the

appropriateness of each model may vary from case to case, situation to situation. Thus, we strongly believe that it is the responsibility of police supervisors and policy-makers to acknowledge that each of these models may hold some value and subsequently develop programs, procedures and regulations that will provide an integrated approach to the issue of police use of force.

The Racial Animus Model

The Racial Animus Model proposes that blatantly racist police officers (often referred to as "bad apples") sometimes deliberately abuse their legal authority and illegitimately use coercive force against racial minority civilians – often as an act of racial hatred or animus. In other words, the overtly racist attitudes and beliefs of a relatively small number of police officers may directly contribute to the over-representation of racial minority civilians in police use of force incidents. Removing these officers from policing will dramatically reduce observed racial disparities.

The Devaluation Model

The Devaluation Model maintains that, in general, racial minority citizens are devalued by mainstream society – especially if they reside in socially disadvantaged communities. The roots of such devaluation are deeply rooted in our shared history of colonialism and slavery. As a result, police use of force against racial minorities is less likely to be questioned or come under state scrutiny. This devaluation ultimately puts racial minorities at greater risk of becoming a victim of police violence. In other words, the police may be more reluctant to use physical force against White people because they feel that the legitimacy of such actions is more likely to be questioned by the White power structure. Furthermore, White victims, or their family members, may have the power and resources needed to successfully challenge the legal authority of the police. On the other hand, the police may be more likely to use violence against certain racial minorities because they view them as less valued, and less powerful, members of society. This is particularly true when racial minorities are more likely to occupy positions of economic or social disadvantage.[44]

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[44] Interestingly, several personal conversations with police officers have suggested that, if they had to be involved in a police shooting, they would prefer that the shooting involve a White civilian than a minority civilian. Several officers felt that, because of concerns over racism, incidents involving racial minority civilians actually come under more public scrutiny than cases involving White civilians.

The Racial Stereotype Model

The Racial Stereotype Model proposes that racial stereotypes may lead to a belief among some police officers that racial minorities, particularly racial minority males, are more dangerous or violent than other members of society. Such racial stereotypes could develop as a result of exposure to negative media images of racial minorities or through negative contact with racial minority criminals in the course of a policing career (especially if such negative contacts are not balanced with more positive interactions with non-criminals). Negative racial stereotypes, in turn, may cause some police officers to become more fearful, apprehensive or vigilant when they encounter racial minority males on the street. This fear or apprehension, in turn, may increase the probability that the police will use physical force against racial minority males compared to other groups. The stereotyping of other groups as "dangerous," including people with mental health disabilities, may similarly increase their vulnerability to police use of force.

The Statistical Discrimination Model

The Statistical Discrimination Model is quite similar to the Racial Stereotype Model. However, rather than rely on informal processes, the Statistical Discrimination Model develops race-specific risk profiles using statistical information. Much like the actuarial practices employed by insurance companies, statistics may reveal that Black people and other racial minority groups are more involved in violent crime – including firearm-related homicides – than others. These statistics, in turn, can be used to flag all individuals in this group as "potentially more dangerous" than others. This empirically supported "dangerous" label may impact officer fear and vigilance and how they interact with Black males in the community.

It should be stressed that even though risk profiles appear to be justified by empirical data, they can still constitute a major source of racial bias. It must be remembered that, regardless of race, the vast majority of people from the Black community never engage in violence. Thus, using the violence of a few people to justify the differential treatment of

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They argued that the "White community" rarely questions the legitimacy of police actions against White civilians. White people, they claimed, generally feel that the person must have done something to deserve it. On the other hand, it was felt that racial minority community organizations, the media and civil rights groups will attempt to make a "race issue" in cases where police force is used against racial minorities.

an entire group constitutes racial discrimination. Furthermore, the police can never justify force against an individual because they belong to a group with a higher than average violent crime rate. Only the behaviour of the individual, at the time of the incident, can justify use of force.

The Minority Crime Model

The Minority Crime Model proposes that Black males are over-represented in police use of force statistics because they are actually more involved in crime and violence than other racial groups, and thus are more likely to have violent confrontations with police. In other words, racial minorities are more involved in the types of violent or aggressive behaviors (carrying firearms, threatening police, shooting at police, threatening or shooting at other civilians, etc.) that ultimately result in the *legitimate* use of force by police. In sum, this model maintains that the over-representation of racial minorities in police use of force incidents has nothing to do with police racism or bias. The blame must be placed on the actions or behaviours of individual Black citizens at the time of their encounters with the police.

The Neighbourhood Model

The Neighbourhood Model proposes that people who live in poor, socially disorganized, high-crime neighbourhoods are at greater risk of police violence than people who live in more affluent, low-crime communities. The idea is that some police officers may be more wary, vigilant or fearful when working in such neighbourhoods, and are thus quicker to resort to the use of physical force. To the extent that racial minorities are over-represented in such socially disadvantaged communities, they will be at significantly greater risk of becoming over-represented in police use of force statistics.

The Proactive Policing (Profiling) Model

As reviewed in other areas of the OHRC inquiry, data collected over the past two decades has consistently revealed that Black people are more likely to be subjected to proactive police surveillance practices than their White or other racial minority counterparts. Both survey research and official police statistics, for example, reveal that Black people are much more likely to be subjected to street checks. Compared to their White counterparts, Black people are also much more likely to be report being stopped, questioned and searched by the police for investigative purposes. These findings are consistent with allegations of racial profiling. It should be stressed that frequency of police contact alone may increase the

likelihood or probability of experiencing police use of force. The greater a group's involuntary contact with the police, the greater the likelihood some of these encounters will escalate into a dispute that results in police force being used. In other words, there may be a strong correlation between racially biased police surveillance practices and racial disparities in police use of force.

The Demeanour Model

The Demeanour Model proposes that people who are aggressive, belligerent or demonstrate blatant disrespect to police authority are more vulnerable to police use of force than people who are polite and compliant (Macdonald et al. 2003; Terrill 2003). This model is completely consistent with the results of a recent American study, sponsored by the National Institute of Justice, which found that, holding other legally-relevant factors constant, the police are much more likely to use physical force when arresting verbally abusive suspects than compliant, non-abusive suspects (see Garner and Maxwell 2003). This model therefore anticipates that the over-representation of racial minorities in police use of force statistics may – at least partially – be explained by the fact that some racial minority citizens may be less likely to show respect to police than White civilians. In sum, this model assumes that police violence is sometimes used to punish civilians who do not demonstrate appropriate deference (the Contempt of Cop phenomena).

The Police Subculture Model

Finally, the Police Subculture Model argues that the police subculture may increase the likelihood of police violence because it: 1) reinforces racial stereotypes through the telling of "war stories" that depict minorities as dangerous; 2) increases the likelihood that young officers will want to prove their courage and toughness on the street; this may reduce the probability that officers will try to diffuse confrontations with citizens through non-violent methods; 3) reinforces the belief that the police should respond to citizen hostility, disrespect or disobedience with violence; and 4) creates a code of silence among police officers that makes investigations into the illegitimate use of force difficult, if not impossible.

This code of silence serves to protect police officers who may use force in an illegitimate fashion. Future research should explore the extent to which the TPS culture promotes or de-emphasizes the use of force. This is a topic that is impossible to explore without researcher access and the opportunity to both interview officers and observe police

activity. However, there is some reason for concern. For example, in his book, Alok Mukherjee, former head of the Toronto Police Services Board, discussed how police culture may impact how police treat non-compliant civilians:

> Another thing that isn't being talked about publicly that points to a cultural factor is something I learned from Blair and Mike McCormack, the police association president. They believed there was a generational factor. The new generation of police officers, the young ones, just don't know when to back off, they said. During a conversation McCormick, Blair and I had in Blair's office some months before he stepped down as Chief, McCormick said, "You know, this is a real problem." He went on: "Bill, you and I were street cops and when somebody swore at us or gave us lip, we would back off and say, 'Okay, fine.' But this generation of officers must have the last word." So, if someone swears at them, they get in their face with a "What did you say?" Rather than disengaging and walking away, they tend to escalate confrontation to such an extent that McCormick claimed he was going to division to division to talk to officers and telling them to lay off" (Murherjee and Harper 2018: 94).

The Integrated "Fear" Model

The Integrated Fear Model combines elements of the Stereotype, Statistical Discrimination, Neighbourhood, Minority Crime and Demeanor Models. This perspective maintains that the police are most likely to use force when they fear for their own safety, the safety of fellow officers or the safety of civilians. The greater the level of fear, the higher the probability that physical force will be used. For example, a civilian carrying a gun may legitimately create "fear" among responding police officers. However, if racial stereotypes exist, this fear may be greater if it is a Black man carrying a gun rather than a White man. Similarly, fear may be even greater if it is a Black man, carrying a gun in a poor, high-crime neighbourhood and yelling insults at the police. Fear may be higher still if it is a Black man, displaying signs of mental illness, yelling insults at the police and carrying a gun in a high-crime area.

The idea is that police use of force is most likely to occur when a high number of fear-generating factors – some of them legitimate (violent behaviour, weapons possession, etc.), some of them illegitimate (racial stereotypes, disrespectful civilian demeanor, etc.) – converge at the same place and time. Use of force incidents, in other words, must be seen as part of a fear quotient or equation. The higher the fear "score" attributed to a particular police-civilian encounter, the higher the probability that physical force – particularly deadly force – will be used.

Conclusion

The results of this study reveal that Black people are grossly over-represented in police use or force incidents. The data also reveal that this gross racial disparity cannot be easily explained away by racial differences in criminal history, civilian behaviour towards the police at the time of the incident, civilian weapons use, civilian mental illness, civilian intoxication or local crime rates. In our opinion, these findings are completely consistent with allegations of racial bias. Nonetheless, a counter-narrative will inevitably emerge. This counter narrative will hold that racial disparity does not mean racial discrimination. In other words, it will be argued that racial disparities in police use of force tactics merely reflect legitimate police practices and that data-driven allegations of police bias only serve to damage police-community relations.

This is a difficult argument to resolve. One limitation with our findings is that the current data was not able to statistically control for race-specific crime rates. However, the availability of such data – and the documentation of racial differences in criminal behaviour – cannot alone be used to justify police use of force in individual cases. The police cannot use force on an individual just because they belong to a "high-crime" group. A second major limitation of this, and the vast majority of other use of force studies, is that the sample only includes incidents in which the police actually used force. The sample does not include other aggressive police-civilian encounters in which the police could have used force but did not. Future research needs to include such cases in order to determine whether – controlling for other factors – the police are more likely to use violence against Black people than White people.

Nonetheless, the gross racial disparities documented by this study underscore the great need for the continued, systematic collection of disaggregated racial data on police use of force and other important police decisions. Such data is needed to monitor racial disparities over time and examine how police policies, programs and tactics that may either reduce or increase racial differences in exposure to coercive police actions.

Ultimately, police agencies must pursue the goal of reducing police use of force, reducing racial disparities in use of force statistics and improving police-community relations. Strategies that may help achieve this goal include:
- Clearly articulated and enforced use of force policies and regulations
- Clearly articulated use of force reporting and review requirements
- Police recruiting procedures that screen for anti-racism, cultural competence and non-violent tendencies

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- Increased recruitment and promotion of both female and racial minority officers
- Improved use of force training that promotes non-violent disengagement and conflict resolution strategies. De-escalation strategies must challenge the police "stand-your-ground" mentality – especially with respect to encounters with unarmed civilians or civilians not in possession of a firearm
- Improved anti-bias, cultural competence training
- Data-driven early warning systems that identify problematic officers and target them for additional training, re-assignment or dismissal
- Improved civilian oversight and independent investigation of police complaints and use of force incidents
- Improved assessment and evaluation through improved data collection and dissemination practices.[45]

With respect to data collection, at the very least, police services should be mandated to collect data on the citizens they decide to stop and/or search, the citizens they arrest and the citizens upon which they use physical force. At the very least, data collection efforts should specify the racial background, gender and age of the civilian, along with their home address, criminal history, the location of the incident, the reason for the encounter and an explanation of how the situation was resolved (i.e., did the encounter result in an arrest, a ticket, a warning, the use of force, etc.). A more detailed process would also include information on the officers involved including officer age, gender, racial background, years of experience and rank.

There are three important arguments in favour of the collection of race-based data. First of all, from a social science perspective, such information would be valuable with respect to determining whether racial bias exists within policing or not. Second, the collection and dissemination of such data would demonstrate to the public that the police are transparent in their operations – that they have nothing to hide. Ultimately, such transparency could help improve relationships with minority communities and increase confidence in the criminal justice system. Finally, the official monitoring of police activities may actually reduce or eliminate racial profiling and racial bias in the police use of physical force. If police officers know that they must record and justify their decisions – they may be less likely to engage in racially-biased "fishing expeditions."

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[45] A more detailed discussion of these and other policy recommendations is provided in other documents related to the current OHRC inquiry.

For example, one of the most common racial profiling complaints involves Black men who claim that they were stopped and investigated by the police simply because they were driving a nice car. These men often complain that they were targeted because the police felt that their car might be stolen or that they fit the profile of a drug dealer. It could be argued, however, that these types of stops would be largely eliminated if officers had to officially record the encounter and justify their reasons for making the stop. In other words, rather than an exercise to determine the mere existence or non-existence of racial profiling, data collection should be seen as an effective monitoring strategy that may reduce racial profiling in and of itself.

We should stress that in order for monitoring to be effective, data collection needs to be on-going. Special studies that collect data on police activities over a limited time period are of dubious value. For example, it is possible that some criminal justice agents may refrain from stopping and searching racial minority citizens during the identified study period, but return to normal racial profiling practices after the study has been completed. Without longitudinal designs, the long-term impact of data collection efforts will be impossible to determine.

Arguments against the official collection of race-criminal justice data range from methodological difficulties (including issues related to the measurement of race and the establishment of meaningful baseline population estimates) and how race-based research might impact police effectiveness. For example, opponents of data collection maintain that, if police officers are required to record the race of people that they stop and question, many officers will refrain from initiating contact with minority citizens out of fear of being labelled a racist. Indeed, in the past, the Toronto Police Association announced that they would encourage their officers to adopt a "no contact, no complaint" philosophy if required to collect data on stop and search encounters. Critics argue, therefore, that data collection initiatives would permit racial minority criminals to roam free and that crime rates would ultimately soar. Interestingly, there is no evidence to suggest that crime rates have increased or that police productivity has diminished in American or British jurisdictions that have adopted data collection procedures. Nonetheless, we do agree that such concerns should be a focus of future research.

Accountability measures

Unfortunately, any anti-racism policy is likely doomed to failure unless specific accountability mechanisms are put into place. These accountability measures include: 1) data collection; 2) specific disciplinary consequences for criminal justice personnel found guilty of racial bias; and 3) a public complaints system that will encourage and empower citizens to report racial bias in police encounters. We would also encourage a policy that would hold supervisors accountable for the racially biased behaviour of those under their supervision. Such efforts would ensure that supervisors take racial profiling and anti-racism regulations seriously and subsequently increase the monitoring of criminal justice personnel in the field.

The need for evaluation

Finally, we strongly believe that any effective anti-racism policy must include a strong evaluation component. Without objective evaluation research, how are we to determine whether specific policy initiatives are effective or not? Research designed to evaluate anti-profiling or anti-racism policies might include: 1) studies that examine police attitudes towards racial minorities before and after race relations training; 2) studies that examine official data on racial differences in stop and search activities and police use of force; 3) data on public complaints about racial profiling and police brutality; 4) general population surveys that measure public perceptions of discrimination within the criminal justice system and minority attitudes towards the police and other criminal justice agents; and 5) surveys of police officers, Customs officers and other security agents that examine how race-related issues are impacting job performance and job satisfaction.

We strongly believe that without a strong evaluation effort, policies and programs designed to eliminate racism within the criminal justice system are reduced to nothing more than public relations endeavours. Racial minority groups can easily identify "window dressing" when they see it and such efforts are unlikely to improve police-community relations. Without collecting information on police stop and search activities how can we really determine whether efforts to reduce racial profiling are working? Without collecting data on civilians killed or injured by the police, how can we really determine the effectiveness of programs designed to reduce racial bias in the police use of force? Clearly the time to face these issues in a transparent and honest manner has arrived.

Appendix A: SIU case template: 2013 – 2017 data

Study case number: _____

SIU file number: _____

Part A: Complainant information

Age at time of incident (in years): _____

Gender:

> Male
> Female
> Other (specify): _____

Racial background:

> White (European)
> Black (African Canadian)
> Asian (Chinese, Japanese, Korean, Vietnamese, etc.)
> South Asian (Indian, Pakistani, Sri Lankan, Tamil, etc.)
> Native Canadian (Indigenous/Aboriginal)
> West Asian (Arab, Middle-Eastern, etc.)
> Hispanic (Latin American)
> Mixed Race (specify): _____
> Other (specify): _____
> Unknown

Civilian race determined by:

> SIU photos (from case files)
> SIU notes (from case files)
> TPS documents (specify) _____
> Media coverage (specify) _____
> Other (specify) _____

Employment history:

Employed
Unemployed
On social assistance
Retired
Other (specify): _____
Unknown

Details of employment/social class position (i.e., type of job, income, financial problems, any details noted in file):

_____
_____

Criminal history:

Has criminal record – not under supervision at time of incident
Has criminal record – under supervision at time of incident

Other known to police (specify): _____

No criminal record

Unknown

Details of criminal history (i.e., type of offences, type of mental health problem, etc.):

_____
_____

History of mental illness:

Mental health issues not noted
Depression
Suicidal Ideation
Schizophrenia
Bi-polar Disorder
Anxiety Disorder

Other (specify): _____

Details of mental health history (i.e., type of mental health problems, etc.):

_____
_____

Complainant's residence:

Resident of Toronto
Resident of GTA (Peel Region, Durham, York, Halton, etc.)
Resident of Ontario
Other Canadian province/territory (specify): _____
Resident of the United States
Resident of another country (specify): _____
Unknown

Complainant's home address (city or community, postal code, closest main intersection, etc.):
_____
_____

Immigration status:

Born in Canada
Canadian citizen born outside of Canada
Landed immigrant
Refugee
Migrant worker (work visa)
Foreign visitor/tourist
Other (specify) _____
Note: If born outside of Canada try to identify year of immigration to Canada _____

Part B: Police information

Subject officer information

Number of subject officers: _____

Rank of subject officers:

_____
_____

Gender of subject officers:

Male
Female
Both male and female (specify # from each gender) _____

Age of subject officers:

_____

_____

Years of experience of subject officers: _____

Race of subject officers (if possible):

_____

_____

Platoon of the subject officers

_____

_____

Unit of the subject officers

_____

_____

Division of the subject officers

_____

_____

Did the subject officers belong to a special unit? 1. Yes   2. No

Name/description of special unit:

_____

_____

Did the subject officer(s) make a statement to the SIU?   1. Yes   2. No

Did the subject officer(s) provide their notes to the SIU?   1. Yes   2. No

Did the subject officer(s) provide the SIU with a General Occurrence Report?   1. Yes   2. No

Was there an arrest during the incident?   1. Yes   2. No

If yes, did the subject officer(s) provide the SIU with the Arrest Report?
    Yes
    No
    Not applicable

Did the incident involve officer use of force (see part C)   1. Yes   2. No

If yes, did the subject officer(s) provide the Use of Force Report?

 Yes

 No

 Not Applicable

Did the subject officer(s) provide their disciplinary records?   1. Yes   2. No

Did the subject officer(s) provide their photos?   1. Yes   2. No

Details about the subject officer(s) statements:

_____

_____

According to the SIU case file, have any of the subject officers been the subject of a previous SIU investigation?

 Yes

 No

 Unknown

According to the SIU case file, have any of the subject officers been subject to previous use of force complaints/charges/internal investigations, etc.?

 Yes

 No

 Unknown

Details about previous SIU/use-of-force investigations provided to the SIU

_____

_____

Witness officer(s) information

Number of witness officers: _____

Rank of witness officers (if possible):

_____

_____

Gender of witness officers:

 Male

 Female

Both male and female (specify # from each gender): _____

Age of witness officers:

_____
_____

Years of experience of witness officers:

_____
_____

Race of witness officers (if possible):

_____
_____

Did the witness officers belong to a special unit?   1. Yes   2. No

Name/description of special unit:

_____
_____

Did the witness officer(s) make a statement to the SIU?   1. Yes   2. No

Did the witness officer(s) provide notes to the SIU?   1. Yes   2. No

Nature of witness officer(s) notes:

_____
_____

Nature of witness officer(s) statements:

_____
_____

Part C: Incident information

Date of incident (month/year only): _____

Approximate time of incident: _____

Number of civilians involved in incident: _____

Number of civilian witnesses: _____

Location of incident (postal code or major intersection):

_____
_____

Description of location (i.e., house, apartment, nightclub, street, park, housing project, etc.):
_____

Patrol zone of incident: _____

Type of harm to complainant

    Death
    Sexual assault
    Injury (specify):

    _____
    _____

Cause of harm to complainant

    Police shooting
    Police use of baton
    Conducted energy weapon/CEW/Taser
    Police vehicle used as a weapon
    Traffic accident
    Police physical assault (punching, kicking, holding, other impact, etc.)
    Other police use of force (specify): _____
    Investigation found that injury not caused by police
    Other (specify): _____

Complainant involvement (check all that apply)

    Complainant committing a crime (specify): _____
    Complainant threatening police
    Complainant threatening another citizen(s)
    Complainant physically attacked police
    Complainant physically attacked another citizen(s)
    Complainant fleeing police on foot
    Complainant fleeing police in a vehicle – car chase
    Complainant resisting arrest
    Other (specify): _____
    _____

Complainant's use of weapons (check all that apply)

    Complainant had a handgun
    Complainant had a rifle/long gun
    Complainant had a knife
    Complainant had a bat/club (specify): _____

Complainant used other weapon (specify): _____

Complainant used motor vehicle as a weapon

Complainant was unarmed

Other (specify): _____

Mental health of civilian at time of incident

1. No mental health problems noted in Director's Report
2. Mental health problem noted
3. Director's Report notes that complainant was suicidal

Details about civilian's mental state at time of incident

_____

_____

Complainant drug or alcohol use at time of incident

1. Alcohol use noted – but not impairment
2. Complainant drunk/inebriated/impaired on alcohol at the time of incident
3. Drug use noted – but not impairment
4. Complainant intoxicated (high or impaired) on drugs at time of the incident
5. No drug or alcohol use noted

Details about complainant drug/alcohol use noted in file (including type of drugs used)

_____

_____

Part D: Reporting to and investigation by the SIU

How was incident reported to the SIU?

Was reported to the SIU by the Toronto Police Service

Was reported to the SIU by another police service

Was reported to the SIU by the complainant

Was reported to the SIU by the complainant's family

Was reported to the SIU by the complainant's lawyer

SIU found out about the case through court proceedings

SIU found out about case through the media

Other (specify): _____

Date incident reported to the SIU: _____

Time incident reported to the SIU: _____

How soon was the SIU informed about the case?

    Immediately (within an hour of the incident)
    Two to four hours after the incident
    Four to 10 hours after the incident
    10 to 24 hours after the incident
    From 24 to 48 hours
    Between 48 hours and one week after the incident
    Between one week and one month after the incident (specify): _____
    More than a month after the incident (specify): _____

Reason for late reporting of the incident:

_____
_____

Brief description/synopsis of incident:

_____
_____
_____
_____

Length of SIU investigation (days): _____

Part E: Director's Report

Page length of Director's Report (# of pages): _____

Investigation terminated (indicate reasons for termination and length of memorandum):
_____
_____

Outcome of SIU investigation

    Officer(s) cleared – no criminal charges laid
    Criminal charges laid

Nature of charges
_____
_____

Issues noted in Director's Report

_____

_____

Police service – level of cooperation

    No problems noted in Director's Report
    Problems noted

Problems with police service cooperation

_____

_____

Subject officer – level of cooperation

    No problems noted in Director's Report
    Problem with subject officers' cooperation noted in Director's Report

Nature of problems with subject officers' cooperation

_____

_____

Police witness officer – level of involvement and cooperation

1. No witness officers involved in case
2. No problems noted in Director's Report
3. Problems with witness officers' cooperation notes in Director's Report

Nature of problems with witness officer cooperation

Complainant "victim" – level of involvement and cooperation

1. Victim deceased
2. No problems noted in Director's Report
3. Problem with complainant's cooperation noted in Director's Report

Nature of problems with complainant's cooperation

_____

_____

Civilian witness – level of involvement and cooperation

1. No civilian witnesses identified in case
2. No problems noted in Director's Report
3. Problem with civilian witnesses' cooperation noted in Director's Report (specify)

Nature of problems with civilian witnesses

_____

_____

Letter to the chief of police

    No difficulties with investigation noted
    Difficulties with investigation noted

Nature of difficulties highlighted in Director's letter to chief

Letter to the chief of police

    No request for a written response by chief of police to issues arising from investigation
    Request for a written response by the chief of police to issues arising from investigation

Nature of request

_____

_____

Response letter from chief of police to SIU

    No request made
    Request made but no response received
    Request made and response received

Details of response from police chief

_____

_____

Appendix B: Lower-level use of force data collection template

Study number: _____

GO (occurrence) number: _____

Part A: Data from TPS injury report

A1. Circumstances of the injury:

Sustained prior to arrest
Sustained during arrest
Sustained after arrest
No arrest: unintentional or indirect use of force application
No arrest: unintentional other (specify): _____

A2. Causal factors:

Firearm discharge
Conducted energy weapon
Impact weapon
Handcuffs
OC
Other use of force (specify): _____
Self-inflicted injury
Accidental injury (specify): _____
Prisoner taken to hospital
Other (specify): _____

A3a. Cause of injury/illness: Review both the response field and the synopsis for details
_____
_____

A3b. Was injury/illness caused by police use of force?

Yes
No
Not determined/not clear

A4. Description of injury/illness: Please review entire document, including both the specific response field, the case synopsis and any other section of the report for details about the injury/illness:

_____
_____

A5. Date of incident: _____

A6. Time of incident: _____

A7. Occurrence no: _____

A8. Location of incident (address):

_____
_____

A9. Location of incident (zone):

_____
_____

A10. Address of injured party:

_____
_____

A11. Age of injured party: _____

A12: Description of medical treatment received: Please review entire document, including both the specific response field, the case synopsis and any other section of the report for details about the nature of medical treatment received:

_____
_____

A13. EMS no. provided

    Yes
    No
    NA

A14. Location of treatment (review synopsis for details):

    Treatment at scene by officers
    Treatment at scene by paramedics
    Other treatment at scene (specify): _____
    Taken to hospital by officers
    Taken to hospital by ambulance/EMS
    Taken to hospital by other party (specify): _____

Visited hospital on own
Visited doctor's office or medical clinic
Civilian refused medical treatment
Other treatment (specify): _____

A15. Name of hospital (if applicable): _____

A16. Case synopsis from Injury Report (record as many details as possible):
_____
_____
_____
_____

A17. Details of officer(s) who completed Injury Report (name, rank, employee number and unit). Note this information is for matching purposes only:
_____
_____
_____
_____

A18. Coder's comments regarding Injury Report:
_____
_____
_____
_____

Part B: Data from TPS use of force report

B1. Date of incident: _____

B2a. Time incident commenced: _____

B2b. Time incident terminated: _____

B3a. Type of report:

    Individual
    Team: specify team type: _____
    Missing

B3b. Officer length of service: _____

B3c. Officer rank: _____

B4. Type of police assignment (circle all that apply):

    General patrol
    Foot patrol
    Traffic
    Investigation
    Drugs
    Off duty
    Other (specify): _____
    Missing

B5. Type of incident (circle all that apply):

    Robbery
    Break and enter
    Domestic disturbance
    Other disturbance:
    Traffic
    Suspicious person
    Serious injury
    Homicide
    Weapons call
    Alarm
    Other (specify): _____

    _____
    Missing

B6. Number of police officers present at incident: _____

B7. Attire of officers:
Uniform
Civilian clothes
Missing

B8. Number of civilians (subjects) involved in the incident: _____

Type of force used	Check if used (B9a)	Sequence of use (B9b)	B10. Was force effective?	
			Yes	No
a) Firearm discharged				
b) Firearm pointed at person				
c) Firearm drawn				
d) Aerosol weapon used				
e) Impact weapon (hard)				
f) Impact weapon (soft)				
g) Empty hand techniques (hard)				
h) Empty hand techniques (soft)				
i) Conducted energy weapon				
j) Other (specify): _____				

B11. Reason for use of force (circle all that apply):

Protect self or other police officers
Protect public
Effect arrest
Prevent commission of offences
Prevent escape
Accidental
Destroy animal
Other: (specify): _____

_____

Missing

B12. Alternative strategies used:

Verbal interaction
Cover
Concealment
Other (specify): _____

_____

B13. Type of police firearm used (circle all that apply):

Revolver
Semi-automatic
Rifle
Shotgun
Other (specify): _____
Not applicable

B14. Total number of rounds fired: _____

B15. Distance:

Less than 2 metres
2-3 metres
3-5 metres
5-7 metres
7-10 metres
Greater than 10 metres

B16. Weapons in civilians' possession (type and number). Check box if weapon was in possession of the civilian:

Type of weapon	Civilian one (B16a)	Civilian two (B16b)	Civilian three (B16c)
a) No weapon present			
b) Unknown			
c) Revolver			
d) Semi-automatic			
e) Rifle			
f) Shotgun			
g) Knife or edged weapon			
h) Baseball bat/club			
i) Other (specify):			

B17.   Location of civilian weapon (at the time use of force decision was made):

Location of weapon	Civilian one (B17a)	Civilian two (B17b)	Civilian three (B17c)
a) In-hand			
b) At-hand			
c) Concealed			
d) Not applicable			
i) Other (specify): _____			

B18.   Number of rounds fired by civilian: _____

B19.   Location of incident:

Roadway
Laneway
Yard
Park
Rural
Motor vehicle
House
Apartment
Hallway
Financial institution
Commercial site
Public institution
Other (specify): _____

B20. Weather conditions:

Clear
Sunny
Cloudy
Rain
Snow/sleet
Fog
Other (specify): _____

B21a. Natural lighting conditions:

Daylight
Dusk
Dark
Other (specify): _____

B21b. Artificial lighting conditions:

Good artificial lighting
Poor artificial lighting
Other (specify): _____
Not applicable

B22.   Did the subject police officer require medical attention?

   Yes
   No

B23. Did another police officer require medical attention?

   Yes
   No

B24. Did the civilian subject require medical attention?

   Yes
   No

B25. Did a third party (civilian) require medical attention?

   Yes
   No

B26.   Nature of injuries to subject officer:

   Minor
   Serious
   Fatal
   Unknown
   Not applicable

B27.   Nature of injuries to other police officer(s):

   Minor
   Serious
   Fatal
   Unknown
   Not applicable

B28.   Nature of injuries to civilian subject:

   Minor
   Serious
   Fatal
   Unknown
   Not applicable

B29. Nature of injuries to third party:

Minor
Serious
Fatal
Unknown
Not applicable

B30. Use of Force Report reviewed by supervisor:

Yes
No
Not known

B31. Use of Force Report reviewed by training analyst:

Yes
No
Not known

B32. Officer recommended for post-traumatic counselling?

Yes
No
Not known

B33. Officer recommended for other training?

Yes
No
Not known

B34. Date of review: _____

B35: Use of Force Report synopsis/narrative:
_____
_____

B36. Officer involved details (name, rank and badge number). For matching purposes only:
_____
_____

B37. Date of last use of force refresher training: _____

B38. Would officer like to discuss the incident with a training sergeant/analyst?

Yes
No

B39. Additional training recommended by:

Training analyst
Supervisor
Other (specify): _____
NA

B40. Type of training recommended:

_____
_____

B41. Coder's comments regarding Use of Force Report:

_____
_____
_____
_____

Part C: Data from General Occurrence (GO) report

Incident details

C1a. Date of incident (occurrence date): _____

C1b. Date of GO report (date incident was reported on): _____

C1c. Date report approved: _____

C2. Time of incident: _____

C3a. Location of incident (district): _____

C3b. Location of incident (zone): _____

C4. Location of incident (atom): _____

C5. Location of incident (address):

_____
_____

C6. Location of incident (X-Y coordinates – to be extracted from access table):

X-coordinate: _____

Y-coordinate: _____

C7. Description of incident location:

Private residence – house
Private residence – apartment or condo
Hotel (public area)
Hotel room
Shelter
Rooming house
On the street (vehicle involved)
On the street (no vehicle involved)
In the public area of a mall
Store in mall
Store outside mall
Restaurant or cafe
Nightclub or bar
In a park
At a school, college or university
At a bank or other financial institution
In a government building
Other (specify): _____

C8. Incident synopsis: This can be ascertained from several sections of the General Occurrence Report including: 1) Narrative: prosecution summary/synopsis for a guilty plea; and 2) Narrative: initial officer report:

_____
_____

C9. Did the police use physical force? Circle all that apply.

   No force used
   Police discharged firearm – did not hit civilian
   Police discharged firearm – hit civilian
   Police pointed firearm at civilian
   Police drew firearm but did not point it at civilian
   Police used Taser (conducted energy weapon)
   Police used pepper spray
   Police used baton
   Police engaged in empty-hand techniques (hard)
   Police engaged in empty-hand techniques (soft)
   Police vehicle used as a weapon
   Other (specify): _____
   Information not provided

C10. Did the police attempt verbal resolution prior to use of force?

   Yes
   No
   No information provided
   NA

C11. Did the officers warn the civilian that they would use force?

   Yes
   No
   No information provided
   NA

C12.   How was police contact with civilian initiated?

   Call for service from member of the public (reactive)
   Follow-up investigation (reactive)
   Traffic stop (proactive)
   Pedestrian stop (proactive)
   Police witnessed crime in progress (proactive)
   Police search warrant (proactive)
   Police raid/sting operation (proactive)
   Other (specify): _____
   Missing

C13.   What were the actions of the civilian(s) during the encounter?

Civilian did not threaten or attack the police
Civilian threatened police (no weapon)
Civilian threatened police with a firearm
Civilian threatened police with another weapon
Civilian assaulted officers (no weapon)
Civilian discharged firearm at police
Civilian assaulted officers with another weapon
Other (specify): _____

C14. Flee police custody:

The civilian did not try to flee police or escape police custody
The civilian tried to flee police to avoid apprehension
The civilian tried to escape police custody
No information provided

C15. Was the civilian charged with a crime as a result of this incident?

Yes
No
No information provided

C16. Was the civilian charged with resisting arrest?

Yes
No
No information provided
NA

C17.   Criminal charges. Please list all the charges against the civilian that emerged from this incident.

_____
_____
_____
_____

C18.   Was the civilian in the possession of a weapon at the time of this incident?

No weapons involved
Handgun
Shotgun
Rifle
Knife or another edged weapon
Bat or club
Other (specify): _____

C19.   When was the weapon or weapons identified (when did it emerge)?

No weapon associated with this case
Gun used to threaten police
Gunshots fired at police
Gun used to threaten civilians
Gunshots fired at civilians
Civilian suspected of firearm possession (did not view before arrest)
Presence of firearm only identified after arrest
Other weapon used to threaten police
Other weapon used to threaten civilians
Other weapon used to attack police
Other weapon used to attack civilians
Civilian suspected of "other" weapon possession
Weapon only identified after arrest
Other (specify): _____

C20. Description of case disposition:

_____
_____

Civilian characteristics

C21. Civilian gender

Female
Male
Other (specify): _____
Not provided

C22. Civilian age: _____

C23. Civilian race/ethnicity

> White
> Black
> Brown
> South Asian
> Asian
> Indigenous
> West Asian/Arab
> Other (specify): _____
> Not provided

C24. Civilian address:

_____
_____

C25. Criminal history: Did the civilian have a criminal record prior to this incident?

> Yes
> No
> Information not provided

C26. Details of prior criminal record:

_____
_____

C27. Prior to this incident, hade the civilian ever been convicted of the following types of offences. Check all that apply:

> Homicide, manslaughter or attempted murder
> Armed robbery
> Extortion
> Aggravated assault
> Domestic assault
> Firearms offences
> Sexual assault
> Assault police
> Drug trafficking
> Organized crime-related offences

C28.   According to the file is the civilian a suspected gang member?

Yes
No
No information provided

C28a. How was gang membership determined by the coder?

_____
_____

C29. According to the file, does the civilian have a history of mental illness?

Yes
No
Information not provided

C29a. How was mental health history determined by the coder?

_____
_____

C30. According to the file, was the civilian experiencing a mental health crisis at the time of the incident?

Yes
No
No information provided

C30a. How was "mental health crisis" determined by the coder?

_____
_____

C31. According to the file, was the civilian drunk or intoxicated on alcohol at the time of the incident?

Yes
No
No information provided

C31a. How was intoxication on alcohol determined by the coder?

_____
_____

C32. According to the file, does the civilian have a history of alcohol abuse?

    Yes
    No
    Information not provided

C32a. How was alcohol/drinking history determined by the coder?

_____
_____

C33. According to the file, was the civilian intoxicated or high on drugs at the time of the incident?

    Yes
    No
    No information provided

C33a. How was drug-related intoxication determined by the Coder?

_____
_____

C34. According to the file, what types of drugs had the civilian been using? Skip if no drugs used. Indicate "drug not listed" if file says drugs were used but does not specify the types of drugs used.

_____
_____

C35.   According to the file, does the civilian have a history of drug abuse?

    Yes
    No
    Information not provided

C35a. How was drug abuse history determined by the coder?

_____
_____

C36. Officer information (please see section of the General Occurrence Report on police role involvement):

Officer characteristics	Officer one (C36a)	Officer two (C36b)	Officer three (C36c)
a) Name			
b) Rank			
c) Badge number			

d) Gender: (derive from name):
    1. Male
    2. Female
    3. Can't tell			

e) Rank:			
f) Years of service			
g) Was officer deemed a victim in this incident			
h) Unit			

C37. Coder's comments regarding General Occurrence Report:

_____
_____
_____
_____

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