Traffic Stop Race Data Collection Project II

Progressing Towards Bias-Free Policing:

Five Years of Race Data on Traffic Stops in Ottawa

Submitted to

Ottawa Police Services Board

and

Ottawa Police Service

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Brief Biographies of Authors

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Dr. Les Jacobs is the Vice-President, Research and Innovation, at Ontario Tech University. Previously, he held at York University the York Research Chair in Human Rights and Access to Justice (Tier 1) leading the new Access to Justice Data Science Lab, while serving as Director of the Institute for Social Research. He was appointed a Fellow of the Royal Society of Canada (FRSC) in 2017 for his internationally recognized data science contributions to equality of opportunity, human rights, and access to justice research.

He completed his DPhil at Oxford University. He joined Ontario Tech University and York University after having held full-time teaching positions at the University of British Columbia and Magdalen College, Oxford University. His numerous books include Rights and Deprivation (Oxford University Press, 1993, ebook edition 2012), Workfare: Does it work? Is it Fair? (Renouf/IRPP, 1995), The Democratic Vision of Politics (Simon & Schuster, 1997), Pursuing Equal Opportunities: The Theory and Practice of Egalitarian Justice (Cambridge University Press, 2004), Balancing Competing Human Rights in a Diverse Society (Irwin Law Books, 2012), Linking Global Trade and Human Rights: New Policy Space in Hard Economic Times (Cambridge University Press, 2014), Privacy Rights in the Global Digital Economy: Legal Problems and Canadian Paths to Justice (Irwin Law Books, 2014), Racial Profiling and Human Rights: the new legal landscape in Canada (Irwin Law Books, 2018), and Grey Zones in International Economic Law and Global Governance (UBC Press, 2018).

Executive Summary

This *TSRDP II* report by the Ontario Tech/York University Research Team provides an overview of the findings of three-years of traffic stop data from 2015 to 2018 for the Ottawa Police Service as a follow-up to the pioneering 2016 Traffic Stop Race Data Collection Project Report (*TSRDCP I),* which involved undertaking the largest race based data collection in Canadian policing history. The original community-based research project arose from an agreement between the Ontario Human Rights Commission (OHRC) and the Ottawa Police Services Board (Board) and the Ottawa Police Service (OPS). The OHRC and the OPS believe that race based data collection is part of an organizational approach to ensuring bias-neutral policing services. Full information regarding the agreement is available online at ottawapolice.ca/race.

The Traffic Stop Race Data Collection Project required police officers to record their perception of the driver's race, by observation only, for traffic stops over a two-year period from June 27, 2013 to June 26, 2015. A data set of 81,902 records of traffic stops over two years were examined for the original *TSRDCP I* Report.

The current *TSRDCP II* report examines a total of 96,436 recorded traffic stops of Ottawa residents for the three year period from 2015 to 2018. The analysis presented in this report segments the records of 96,436 traffic stops into three data sets reflecting one-year periods, 2015-2016, 2016-2018, and 2017-2018. As with the original groundbreaking report, each traffic stop record includes complete information on race, sex and age, along with reasons for traffic stops and outcomes.

The findings of the *TSRDCP II* report address three sets of issues:

INCIDENCES OF TRAFFIC STOPS - Are there disproportionately high incidences of traffic stops for drivers of different race groups, when compared with their respective driver populations in Ottawa, in the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings for the two-year period of 2013-2015 reported in *TSRDCP I*? Are there significant or emerging patterns?

- **There is a clear pattern across the five years that the Ottawa Police Service are stopping fewer and fewer of its residents for traffic violations.** Traffic stops declined from 40,951 in 2013-2014 to 26,641 in 2017-2018, which is a 35% decline.

    - In many racialized communities in Ottawa, initial consultations and outreach by the Traffic Stop Race Data Collection Project found that these communities felt subject to excessive surveillance by the police, exemplified by the report of frequent traffic stops. This finding is significant especially for racialized communities in Ottawa because it means in absolute

terms Middle Eastern and Black drivers are being stopped far less in 2018 than they were five years ago.

- o This finding is also important because it suggests that the Ottawa Police Service has become less reliant on traffic stops as an instrument to advance community safety.

- **Middle Eastern and Black drivers continue to experience disproportionately high incidences of traffic stops.**

  - o In 2015-2016, Middle Eastern Drivers were stopped 2.9 times more than what you would expect based on their segment of the driving population while Black Drivers were stopped 2.2 times more than what you would expect based on their population. In 2016-2017, Middle Eastern Drivers were stopped 2.9 times more than what you would expect based on their segment of the driving population while Black Drivers were stopped 2.26 times more than what you would expect based on their population. In 2017-2018, Middle Eastern Drivers were stopped 3.18 times more than what you would expect based on their segment of the driving population while Black Drivers were stopped 2.3 times more than what you would expect based on their population. White Drivers were stopped at a consistent rate of 0.9 times their ratio in the driver population over the five years of the study from 2013-2018.

  - o There has been only a very modest reduction in the overall disproportionality traffic stop rates for Middle Eastern and Black drivers by the Ottawa Police Service compared to the *TSRDCP I* report findings for 2013-2015.

  - o The reduction of racial disproportionalities in traffic stops requires innovative new approaches to conducting traffic stops that reduces the impact of implicit bias and systemic racism that adversely affect the Middle Eastern and Black communities in Ottawa.

  - o The continued adverse impact of traffic stop enforcement on certain racial communities strongly points to the importance of the Ottawa Police Service to explore alternative practices that can advance community safety.

- **There have been significant reductions since 2013 in the disproportionately high incidences of traffic stops for the two subgroups – Middle Eastern and Black Males aged 16-24 – identified in the 2016 *TSRDCP I* report as the most adversely affected by traffic stop practices by the Ottawa Police Service.**

  - o The reductions over the five years from 2013 to 2018 averaged 30% for young Middle Eastern Males and 23% for young Black males. However, in 2017-2018, young male Middle Eastern Drivers were still stopped 8.7 times more than what you would expect

based on their segment of the driving population while young male Black Drivers were stopped 6.7 times more than what you would expect based on their population.

- o Reductions on this scale suggest that at least some of the targeted measures adopted by the Ottawa Police Service during *TSRDCP I* and *TSRDCP II* have been impactful and that there are good reasons to be optimistic that the unacceptable high rates of disproportionality for these two sub-groups can be further reduced.

- o The patterns of disproportionately high traffic stop rates for young Middle Eastern and Black males by the Ottawa Police Service in the period from 2015-2018 cannot be justified and are consistent with findings of racial profiling in cases involving other police services.

REASONS FOR TRAFFIC STOPS - Do racialized minority drivers experience disproportionately high incidences of specific reasons for traffic stops by the Ottawa Police Service when compared with their White counterparts during the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings reported for *TSRDCP I*?

- **Provincial and municipal offences was the reason for 98% of the traffic stops by the Ottawa Police Service for the three-year period from 2015 to 2018. Police officers did not utilize "provincial and municipal offenses" for traffic stops in a disproportionally manner for any racial minority group.**

    - o The findings about reasons for traffic stops in the three years from 2015 to 2018 are very similar to those findings in the 2016 *TSRDCP I* report regarding the period from 2013 to 2015.

    - o The consistent finding that Provincial and Municipal Offenses is the cited reason for the traffic stop except in a tiny fraction of circumstances suggests that there is a genuine need in the future to develop a more robust data field that requires officers to identify in more detail the particular provincial or municipal offence at issue for the traffic stop.

    - o In the three-year period from 2015 to 2018, Black Drivers were at least 3 times more likely to be stopped for both Criminal Offenses and Suspicious Activities than White Drivers. Likewise, Middle Eastern Drivers were at least 2 times more likely to be stopped for both Criminal Offenses and Suspicious Activities than White Drivers. Since the categories of Criminal Offense and Suspicious Activity were cited so infrequently as the reason for the traffic stop, reliable inferences about these racial disproportionalities are difficult to make and reinforce the importance in future data collection to further disaggregate the reasons for stop data field.

OUTCOMES OF TRAFFIC STOPS - Do racialized minority drivers experience disproportionately high incidences of specific outcomes for traffic stops by the Ottawa Police Service when compared with their

White counterparts during the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings reported for *TSRDCP I*?

- **The clear upward trend in the outcomes of traffic stops in the five-year period from 2013 to 2018 is the very significant overall increase in charges. Over the five-year period, there is more than a 30% increase in charges resulting from a traffic stop by the Ottawa Police Service.**

  - During the same period, there is also a corresponding decrease in drivers receiving warnings. No action outcomes have remained steady across the five years.

  - There is no evident disproportionate higher incidences in charges for racialized minority groups in Ottawa when compared with the White group from 2015 to 2018. White Drivers have seen the greatest increases in likelihood of being charged and are the most likely to be charged when stopped.

  - There may be a link between the increase in charges resulting from a traffic stop and the declining frequency of traffic stops by the Ottawa Police Service. When officers do engage in a traffic stop, the traffic stop may be more serious and involve a violation of a Provincial or Municipal Offence where the officer does not have the same degree of discretion to issue a warning instead of a charge. This would indicate a trend toward a "deliberative service approach" – involving a more conscientious practice of weighing the merits and ethics of policing action involving enforcement.

TSRDCP II Recommendations

It is recommended that the Ottawa Police Service Board and the Ottawa Police Service:

1.   Create a formal policy directing officers to permanently track and report the races of people involved in traffic stop encounters.

- I.   Use the Traffic Stop Race Data Collection 'Project' as the base for the new Traffic Stop Race Data Collection 'Policy'.
- II.   Retain independent experts to tabulate, analyze and report annually or bi-annually on the data.
- III. Experiment with new data fields including neighbourhood level analysis, patrol zones, and time-of-day.
- IV.   Refine the current data field for reasons for stops so that there are at least 4 sub-fields for Provincial and Municipal Offenses.
- V.   Refine the data field for outcomes so that there are at least 3 sub-fields for No Action.
- VI.   Establish annual public reporting.
- VII. Continue to release to the public raw and study data collected by the TSRDCP.

VIII. Analyze the TSRDCP data sets using newer, more innovative statistical methods including causal inference to better under the cause and effect relationship between the race of the driver and the traffic stop encounter.

IX. Integrate experiments and pilots of new protocols and Artificial Intelligence technology for traffic stops into the analysis and reporting of the TSRDCP. (See Recommendations 4, 5,6, &7.)

2. Set annual targets for the reduction of the high racial disproportionalities of Middle Eastern and Black traffic stops.

I. Set 10% annual reduction targets for Middle Eastern and Black drivers as a group so that by 2025 there will be no longer high disproportionalities for these two race groups.

II. Set 20% annual reduction targets for young male Middle Eastern and Black drivers as a group so that by 2030 there will be no longer high disproportionalities for these two race sub-groups.

III. Require regular audits by first line supervisors of officer interactions with public.

IV. Conduct operational reviews of race data collection monthly statistical totals.

V. Monitor pattern changes and statistical anomalies in race data collection at the officer and district level.

3. Develop police service procedures on racial profiling that includes a clear definition of bias neutral policing that is inclusive of explicit and implicit bias.

I. Put policies and procedures in place to limit the impact of bias.

II. Policies must extend to officer conduct, and must distinguish explicit from implicit bias.

III. In cases of conduct involving possible implicit bias – patterns that might be occurring outside of the officers' conscious control – it may not be appropriate to formally discipline the officer. Instead, the best human rights practice is facilitating positive contact across groups, conversation, and training that aims to raise awareness of implicit bias.

IV. Police officers should be required to take human rights training at least every three years, including effective training initiatives on racism, race relations, racial profiling, and unconscious/implicit bias.

V. Leverage the OPS code ethics and value in order to inspire principled performance among officer employees and police management.

4. Experiment with new and innovative protocols for engaging in traffic stops.

I. Retain external experts to design and analyze new protocols such as checklists for completion by the officer prior to undertaking a traffic stop modelled on Randomized Control Trials (RCTs).

II. Pilot these protocols and analyze their impact on racial disproportionalities in traffic stops as well as on community safety.

III. Analyze data from these experiments using the baselines from the *TSRDCP I and II*.

IV. Scale up effective protocols.

4. Test the decision points that are most vulnerable to implicit bias during traffic stops and be innovative about how those decision points may be shifted, including using new Artificial Intelligence technology.

I. A potential intervention for reducing the effects of implicit bias on disproportionality is to provide guidance in making unbiased discipline decisions in ambiguous or snap-decision situations.

II. General guidance (e.g. telling police officers to be less bias or bias-neutral) is not effective, but specific guidance may aid in such situations. Efficient and effective development of specific guidance requires a set of empirically-derived vulnerable decision points on which to focus training and implementation.

III. Identify the situations that are most likely to be affected by implicit bias – a few strategies can be used to address bias in these specific situations.

IV. Identify specific situations where disproportionality is more likely to occur – eg. time of day also substantially affects disproportionality.

V. Teach neutralizing routines for vulnerable decision points.

VI. Retain independent experts to guide experiments with new Artificial Intelligence technology such as front hood license plate scanners to provide bias-free reasons for traffic stops.

VII. In addition to clarifying procedures, research indicates that it may be effective to use the police service data to teach officers to identify when they are in a vulnerable decision point (e.g. fatigue, suspect demeanor, subjective behavior) and use a self-review routine just prior to making a discipline decision. Such if-then routines, frequently called "implementation intentions," may neutralize the likelihood of disproportionate discipline from implicit bias, especially in situations that are chaotic, ambiguous, or seem to demand snap judgments.

VIII. Analyze data from these tests and experiments using the baselines from the *TSRDCP I and II*.

6. Using Artificial Intelligence (AI) technology, develop an Early Intervention System (EIS) that captures all necessary information to alert supervisors to potential racial discrimination by both individuals and platoons/units/divisions.

I. This AI system should capture and flag patterns related to racial disproportionalities and disparities, including in:
   ❖ Citizen complaints
   ❖ Lack of service situation
   ❖ All uses of force, broken down by level and type
   ❖ All stops of civilians
   ❖ Civil litigation,

❖ Resist-arrest incidents

❖ Charges and arrests.

II. Consider integration of appropriate EIS software options for supervisory caseload management.

III. The early warning and intervention technology should provide for the tracking of officer behavior through data analysis that can produce various types of 'alerts' that a problem exists.

❖ The software should provide for alert by type of incident, i.e., set different thresholds for different incident types, such as citizen complaints, use-of-force incidents, or lack-of-service situations.

❖ The software should provide for a 'monitored officer alert', which targets a specific employee/unit with an alert whenever the individual/unit is involved in an incident.

❖ The software should provide for a 'top percentile alert', which allows the OPS to identify instantly persons/units that appear in a designated top percentile for a specific time period.

❖ The software should provide for a 'detail alert' by allegation and by use-of-force type.

❖ The software should provide for an 'overall' alert that is triggered regardless of incident type.

7.   Conduct a Body-Worn Camera Pilot Project.

I. Police body-worn cameras (BWCs) are being rapidly and widely adopted by law enforcement for their suspected capacity to increase police accountability and transparency.

II. Work with an independent expert to develop a pilot project to collect social scientific evidence of the positive benefits of the use of body-worn cameras as they relate to police-community interactions.

III. The study should employ a "mixed method approach" that collects quantitative and qualitative data, centred on race and race-related information, and be modelled on Randomized Control Trials (RCTs).

IV. Develop appropriate privacy guidelines for the use of body-worn cameras in consultation with the Information and Privacy Commissioner of Ontario.

V. Select two districts in the Ottawa Metropolitan Census Area to conduct the pilot project, with relatively dense urban populations.

VI. Require mandatory-use BWC policies.

VII. Require officers wearing the cameras to inform citizens that they are wearing a BWC and that the device is recording.

VIII. Hand out survey invitations to a minimum of 5000 motorists following police stops.

IX. The survey should include questions about the citizen's experience, as well as their opinions of police in general.

X. Compare body camera survey results (procedural justice policing) with Traffic Stop Race Data (regarding racial disproportionality) annually.

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PART 1

The Ottawa Police Service Traffic Stop Race Data Collection Project, 2013-2018

Introduction

The Ottawa Police Service (OPS) Traffic Stop Race Data Collection Project (TSRDCP) began race based data collection for all traffic stops on June 27, 2013. In October 2016, the *TSRDCP I* report provided an analysis of the data collected on traffic stops for the two-year period from June 27, 2013 until June 26, 2015. The current report (*TSRDCP II)* report provides an overview of the findings of the Ottawa Police Service's Traffic Stop Race Data Collection Project (TSRDCP) for the period from June 27, 2015 until June 26, 2018, drawing comparisons to the findings in the *TSRDCP I* Report.

Background

The TSRDCP has its origins in the letter of understanding signed between the Ontario Police Service Board and the Ontario Human Rights Commission on April 27, 2012. This settlement agreement was based on the complaint put forward by Chad Aiken, a young Black man, who was pulled over by a police officer in Ottawa. He believed that he was racially profiled and alleged that his right to equal treatment with respect to services without discrimination because of age, colour, ethnic origin, and race had been violated.

According to the Minutes of Settlement, the Ottawa Police Service Board agreed to collect race data in traffic stops. It agreed to "begin collecting the data on or before June 27, 2013. The data shall be collected for no less than two (2) full years ("the data collection period"). The data collection period may be extended if recommended by the expert."

In 2012, in preparation for the race data collection project, the Ottawa Police Services (OPS) obtained independent expert advice from the team of Dr. Lorne Foster, Dr. Les Jacobs, and Dr. Bobby Siu at York University. This three-person York University research team directed the initial research project design and issued the *TSRDCP I* report in October 2016 of the findings of the race data collection project for the first two years of data collection.[1] Following the recommendations of the independent research team, the OPS continued to collect race data with regard to traffic stops. Subsequently, in the Spring of 2019, the OPS retained the Ontario Tech/York University Research Team – Dr. Foster (at York University) and Dr. Jacobs (at Ontario Tech University) – to undertake a follow-up independent analysis of the data for the period from June 2015 until June 2018 and submit the *TSRDCP II* report.

Project Design

In developing the initial framework for the project, Ottawa Police Service and the independent Ontario Tech-York University research team, along with other stakeholder groups, established a range of project

components including ongoing consultations and communication with communities, internal stakeholders, Ottawa Police Association, and the Ontario Human Rights Commission. The project framework included data requirements; information technology specifications; data collection mechanisms, policies and procedures; data storage; roles and responsibilities; quality assurance; methodology and data limitations; education and training; communications; and schedule of project activities.

Notable Findings of the TSRDCP I Report

The *TSRDCP I* report on the Ottawa Police Service Race Data Traffic Collection Project addressed three central issues:

INCIDENCES OF TRAFFIC STOPS - Do drivers of different race groups have disproportionately high incidences of traffic stops, when compared with their respective driver populations in Ottawa? Research findings for the period from 2013-2015 showed that:

- There were 81, 902 traffic stops where officers recorded their perception of the driver's race: 69.3% White (56,776), 12.3% Middle Eastern (10,066), 8.8% Black (7,238), 4.7% E. Asian/SE Asian (3,875), 2.7% S. Asian (2,195), 1.9% Other racialized minorities (1,545), and .3% Indigenous Peoples (207).

- In Ottawa, Middle Eastern and Black groups, irrespective of their sex and age, are the two race groups with disproportionately high incidences of traffic stops. Middle Eastern Drivers were stopped 10066 times, which constituted about 12.3% of the total stops over the two year period. This means that Middle Eastern Drivers were stopped 3.3 times more than what you would expect based on their population. Black Drivers were stopped 7238 times, which constituted about 8.8% of the total stops over the two-year period. This means that Black Drivers were stopped 2.3 times more than what you would expect based on their population.

- Men aged 16-24 (including White men) have disproportionately high incidences of traffic stops. Young Middle Eastern male drivers were stopped 12 times more than what you would expect based on their population. Young Black male drivers were stopped 8.3 times more than what you would expect based on their population. Young White male drivers were stopped 1.7 times more than what you would expect based on their population.

REASONS FOR TRAFFIC STOPS - Do racialized minority drivers experience disproportionately high incidences of specific reasons for traffic stops when compared with their White counterparts in Ottawa? Research findings for the period from 2013-2015 showed that:

- When compared with the White group, "criminal offences" reason has been used disproportionately by police officers for five of the six racialized minority groups. The data is inconclusive about Indigenous peoples with regard to this issue because the number of stops citing "criminal offenses" was too low to draw any conclusions.

- Similarly, "suspicious activities" reason has been used disproportionately by police officers for four racialized minority group - Indigenous peoples (99.37%), Black (148.40%), Middle Eastern (133.70%), and other racialized minorities (132.78%).

OUTCOMES OF TRAFFIC STOPS - Do racialized minority drivers experience disproportionately high incidences of specific outcome of traffic stops when compared with their White counterparts in Ottawa? Research findings for 2013-2015 showed that:

- All race groups (including White) have received similar proportions of charges (44.65%) from police officers after traffic stops.

- All race groups (including White) have received similar proportions of warnings (41.29%) from police officers after traffic stops.

- Indigenous peoples (37.77%), Black (47.28%), Middle Eastern (36.84%), and other racialized minorities (28.21%) groups experienced disproportionately high incidences of "final (no action)" outcomes of traffic stops.

Recommendations of the *TSRDCP I* Report

The October 2016 *TSRDCP I* report by the independent research team made six recommendations to the Ottawa Police Service Board and the Ottawa Police Service:

Determine the sources of the disproportionately high incidences identified in this study through additional research on psychological, organizational, and social issues within the Ottawa Police Service – systemic biases in police practices; police leadership and corporate culture; organizational policing strategies and tactics; human resources policies and practices; institutional mindsets about the association between race and crime; the diversity of the Ottawa Police Service workforce; and race relations dynamics with the diverse communities that constitute the City of Ottawa.

Develop and implement solutions to address the anomalies of disproportionately high incidences through a review of research findings gathered through the implementation of Recommendation # 1 in consultation with stakeholder groups, race and ethnic communities, and the public.

Increase positive police-community contact by holding monthly, or regular, relationship- building meetings; train officers and community members together; promote joint police and community committee work particularly in advisory areas; and hold "critical incident" discussions and trainings and annual conferences on police-community relations.

Continue collecting race data in traffic stops with improved tools and processes; monitor regularly traffic stops issues; place data reports as a regular agenda item on meetings at the level of staff, senior management, and board; and communicate data related to race and traffic stops regularly to the public through quarterly bulletins, press releases, annual reports, and other media.

Build on its extensive and successful experience with community engagement and develop a multi-year action plan to address the issues of racial disparities in traffic stops raised in this report.

Make readily available the data collected for this research project on race and traffic stops. The raw data made available should allow for analysis that goes beyond the scope and methodology of this report, but within the legal limits of the Freedom of Information and Protection of Privacy Act and the Municipal Freedom of Information and Protection of Privacy Act.

Implementation of the *TSRDCP I* Report Recommendations

In the three years since the 2016 *TSRDCP 1* Report, the Ottawa Police Service has acted upon all six of the recommendations.

> *(1)   Determine the sources of the disproportionately high incidences identified in this study through additional research on psychological, organizational, and social issues within the Ottawa Police Service – systemic biases in police practices; police leadership and corporate culture; organizational policing strategies and tactics; human resources policies and practices; institutional mindsets about the association between race and crime; the diversity of the Ottawa Police Service workforce; and race relations dynamics with the diverse communities that constitute the City of Ottawa.*

Led by senior management, the effort to determine the sources of high racial disproportionalities in traffic stops and other police practices has focused on continued research, both commissioned and internal, that addresses implicit bias and systemic discrimination in policing, while championing the values of equity, diversity and inclusion.

Systemic biases in police practices that are inherent in the normal functioning of the institution are often subtle and covert and go unnoticed. Nevertheless, they are discernable through numerical data patterns that can inform corrective action.[2] Race based data collection is now used to monitor and inform OPS policies, practices and decision-making processes, as well as organizational culture (attitudes, norms and

shared perspectives). Human rights based data collection and questions are incorporated in existing OPS research, surveys, census projects, program evaluations (e.g., Neighbourhood Resource Teams), and its strategic planning frames (e.g., the Multi-Year Action Plan for Bias-Neutral Policing).

In addition, several fact-based and evidence-driven initiatives to reduce race and other human rights code-prohibited disproportionalities are outlined in recent reports to the Ottawa Police Service Board, including:

- The Fair and Impartial Policing (FIP) Training Program delivered to all sworn officers. This involves officer and staff implicit bias training as well as a review and evaluation of FIP training outcomes.

- The Human Rights & Racial Profiling Policy Annual Report provided in November 2016 outlines several initiatives related bias-neutral policing.

- The Street Checks/Regulated Interactions Provincial Regulations for regulated interactions, also known as street checks, was implemented throughout 2016 and launched in March 2017. This requires officer training on the new rules, which also includes topics such as individual rights, unlawful detention, discrimination, and bias awareness.

- The Gender Audit is now in the fourth phase of the project, phase one and two of the OPS Gender Audit was carried out and released in 2016.

- The OPS Business Plan 2016-2018 outlines three significant and measurable goals: (1) Engaging, mobilizing and supporting communities, (2) Building sustainable strategic/collaborative partnerships, and (3) Prioritizing and addressing risk activities in communities and neighbourhoods in a collaborative manner.

- The Equity, Diversity, and Inclusion Office at the OPS is scheduled to be fully launched in 2019.

Opportunities for further human rights based research initiatives exist, including the replication of prior study findings of the *TSRDCP I*, and triangulation of different research methods, to determine the sources of high racial disproportionalities and aid in the formulation of effective solutions.

> *(2)   Develop and implement solutions to address the anomalies of disproportionately high incidences through a review of research findings gathered through the implementation of Recommendation # 1 in consultation with stakeholder groups, race and ethnic communities, and the public.*

For over a decade, the Ottawa Police Service 'Partnership in Action' (PIA) served as the fundamental framework and cornerstone of public consultation and supports the service's community policing approach.[3] The *TSRDCP I* report presented new dimensions to the PIA by moving this model of community engagement and partnership from the traditional enforcement side of policing to the service

delivery side, bringing the public into the formerly internal OPS conversation on officer performance and professional standards.

The *TSRDCP I* report helped open up an 'organizational change and service delivery' dialogue in Ottawa that has served the city well. This new police-citizen proximity and dialogue has brought a discernible focus (if not a clearly determinative impact) on 'problem policing', and therefore, racial anomalies in police-minority relations.[4] Since the public now has a voice in conversations on standards of professionalism, it has had the effect of enhancing public trust and raising the general confidence in police legitimacy, even in the face of police-citizen traumata, such as the 2016 arrest and subsequent death of Mr. Abdirahman Abdi.

The death of Mr. Abdi was a catalyst for community outrage and re-ignited long-standing questions about how police deal with people with mental illness and whether the treatment of Mr. Abdi by police was racially motivated. Subsequent to the *TSRDCP I* report, which opened up the service delivery dialogue in Ottawa, the OPS Outreach Liaison Team was mandated to increase community engagement with racialized and broader diverse communities (including, Consult Stakeholders – OPA, PSB, NCCM, Coalition for Mr. Abdi, OLIP Network, Black Agenda Noir, etc.). The Outreach Liaison Team was tasked with a number of roles and responsibilities focused on creating meaningful dialogue regarding police interaction with community, including providing responsive outreach that identifies concerns and provides effective partnership opportunities.

Part of the outreach efforts at the OPS to engage a diverse and multicultural Ottawa population involve extensive consultations and relationship-building efforts conducted by both the Community Development Section (CDS) and the Diversity and Race Relations (DRR) Section. The CDS and DRR sections exist to ensure that the police respond effectively, appropriately, and sensitively to all members of the community, particularly those who have traditionally been marginalized by society.

The *TSRDCP I* project used the OPS (PIA) framework for community engagement as a resource, but also established itself as a resource for the OPS framework going forward.

The project instilled community engagement into every aspect of the study from research design to the final analysis, creating a template and platform for Ottawa's important ongoing dialogue and action planning for racial profiling and bias-neutral police services. The OPS race data project is the centerpiece for collaborative knowledge sharing and police-community problem solving, which is fundamental to better decision-making, driving progressive change, debunking myths and effectively addressing social issues.[5]

> *(3)   Increase positive police-community contact by holding monthly, or regular, relationship building meetings; train officers and community members together; promote joint police and community committee work particularly in advisory areas; and hold "critical incident" discussions and trainings and annual conferences on police-community relations.*

The Ottawa Police Service has undertaken a significant amount of post-TSRDCP I work to address systemic discrimination and profiling, much of it in collaboration with community stakeholders including the Community-Police Action Committee known as COMPAC.

Under the auspice of Partnership in Action (PIA), Ottawa citizens are encourage to establish a working relationship with Community Police Centre and their neighbourhood officers through several active police-community committees – including, the GLBT Liaison Committee, the Community Equity Council, and the Youth Advisory Committee (YAC).

While the role of relationship-building is integral to every aspect of policing, the recently created Community Development Section (CDS) and Diversity and Race Relations Section (DRR), focus the bulk of their efforts on creating inroads with traditionally under-served communities, while reinforcing the importance of our long-term existing partnerships. In 2018, CDS participated in 97 separate community engagement activities, ranging from a well-attended Police Week that hosted events across the city, to meeting with more than 150 university and college students to discuss issues like the Diversity Audit and OPS's Strategic Plan.

In response to continued demands from community groups, the OPS is looking to rework its community-based consultative group for the important work it does with Indigenous, Faith-Based and racialized communities in Ottawa. The Community Equity Council (CEC) is scheduled to be fully implemented in 2019, with six sub-committees which will be created to examine specific issues, like anti-racism, LGBTQ2S+, Indigenous relations and Bias-Neutral Policing.

In order to create meaningful dialogue and to begin to rebuild the community's trust and confidence in the Ottawa Police Service, the Outreach Liaison Team (OLT), as noted above, is charged with the responsibility of creating meaningful dialogue regarding police interaction with community, including providing responsive outreach that identifies concerns and provided effective partnership openings.

The OPS is currently developing Neighbourhood Resource Teams in order to implement a neighbourhood-policing program where OPS officers work in collaboration with communities to identify and address community based problems, crimes, and social disorders.

 While relationship building has grown in expanse and sophistication, there are some shortcomings – or mixed agendas – in the OPS approach to this recommendation:(i) Community engagement theory recognizes the importance of the collaborative involvement of all stakeholders, including the marginalized and voiceless, to serve as a catalyst for problem-solving and progressive social change.[6] This requires "a two-way communication leading to productive partnerships that yield mutually beneficial outcomes."[7] Yet, training opportunities in OPS police-community partnership areas seem to be both limited, and are often shaped, by a police driven order maintenance agenda. Beyond the mobilization of particular communities, this agenda is normally concerned with how to link micro-assets to the macro-environment for sustainable community development, within a pre-determined public

safety and security framework. We argue that comprehensive police-community engagement is a bi-directional approach to problem solving that elevates the values of democratic citizenship and participation rights, and empowers (marginalized) communities.[8] In the context of the recommendation to "train officers and community members together," this suggests partnerships between police and citizen stakeholders, are most actualized where both are integral to processes and outcomes. For police and citizen groups, mutual input into the development or selection as well as co-participation of some training packages is strongly advised.

(ii) In addition, we are not aware of any substantive developments undertaken in the area of "critical incident" community briefings. Providing information about problematic officer involved occurrences or events serves the purpose of demonstrating police transparency and a sense of professional accountability in real time, and can have the desired effect of mitigating disillusionment and post-traumatic stress among marginalized communities.[9] Critical incident briefing sessions with the Ottawa public, particularly with affected communities, is strongly advised.

> (4)   Continue collecting race data in traffic stops with improved tools and processes; monitor regularly traffic stops issues; place data reports as a regular agenda item on meetings at the level of staff, senior management, and board; and communicate data related to race and traffic stops regularly to the public through quarterly bulletins, press releases, annual reports, and other media.

Following the release of the *TSRDCP I* report, there was a considered decision to continue human rights based data collection beyond the mandated two-year timeframe, improving the former weak data links between police organization as a field of practice (traffic stops) and its relationship to public interest and community well-being. Accordingly, race microdata is now an important evidentiary component in the advance of professional reforms in organizational practice and OPS police culture. Race data collection is also been implemented in provincial regulations for regulated interactions (street checks).

Subsequent to the *TSRDCP I* report, the OPS increased the monitoring of race relations as a policy priority and core policing practice, and improved the dissemination of information through the Service communications technologies and other media, as well as externally commissioned, and internally prepare and present reports.

This continuation of human rights data collection, analysis and reporting is pivotal to assessing organizational progress, improving professional standards, enhancing customer service, and driving innovation for the public good.

> (5)   Build on its extensive and successful experience with community engagement and develop a multi-year action plan to address the issues of racial disparities in traffic stops raised in this report.

The OPS developed and is currently implementing the Multi-Year Action Plan for Bias-Neutral Policing (MYAP) as an organizational-wide action plan for bias-neutral policing and an Equity, Diversity & Inclusion (EDI) policy that responds to the recommendations received of the *TSRDCP 1* report, and community and police feedback received in subsequent years.

The MYAP is a forward-looking and noteworthy initiative. The daunting challenge of bias-neutral policing is broken down into smaller goals in the OPS action plan for systematic and long-term gain. At the same time, bias-neutral policing is placed in the broader context of EDI goals that are anchored in collaboration, encouraging police and citizens to work together and in teams. The designed goals have an emotional connection to police and community, in order to tap into their energy and passion. The outcomes in the logic model are time-phased for predefined and relevant periods to ensure progressive organizational change and achievement of EDI objectives.

The MYAP offers a clear and exciting vision grounded in a planning process for actionable steps to support modern democratic policing. The planning and implementation steps are concrete, measurable and attainable. This underwrites a clearly defined pathway to increased competence in ensuring a fair, respectful, equitable and inclusive working and service environment.

In a global society, this holistic approach to modern democratic policing and professional practice takes into account the faster, more-agile environment that most large police services find themselves in today. The multi-year action plan set goals with a headstrong and steadfast objective. However, as new information arises and presents itself from ongoing engagement activities, partnership projects, and study reports, it is important to be poised to refine and modify objectives. With the multi-year action plan the OPS is now well positioned to do so.

The MYAP is a capstone initiative that has exceeded the expectation of the *TSRDCP I* recommendation. It represents an innovative, forward-looking, multi-pronged approach to racial profiling, bias-neutral policing and EDI that has the potential to be a template for 21st century policing.

The MYAP action plan template mapping the work process can be found at –
https://www.ottawapolice.ca/en/news-and-community/resources/Projects/MYAP_DraftFramework_PDF.pdf

> (6)	Make readily available the data collected for this research project on race and traffic stops. The raw data made available should allow for analysis that goes beyond the scope and methodology of this report, but within the legal limits of the Freedom of Information and Protection of Privacy Act and the Municipal Freedom of Information and Protection of Privacy Act.

The extensiveness and robustness of the data collected during *TSRDCP I* allows for the pursuit of more diversified questions and issue analysis. The captured raw data conforms to the standards of *the Freedom of Information and Protection of Privacy Act and the Municipal Freedom of Information and*

Protection of Privacy Act, and is accessible for disaggregation and comparison concerning many questions about policing Ottawa's diverse population.

All of the raw data collected by the Ottawa Police for the *TSRDCP I* is available online at – https://www.ottawapolice.ca/en/news-and-community/Traffic-Stop-Race-Data-Collection-ProjectTSRDCP.aspx

PART 2

TSRDCP II Reporting for 2015 - 2018

Key Issues for the TSRDCP II Report

The three sections (Section A, Section B, Section C) of the *TSRDCP II* report analyze the data fields in the records of the 96,436 traffic stops for the period from June 27, 2015 to June 26, 2018 to address three sets of key issues:

> INCIDENCES OF TRAFFIC STOPS - Are there disproportionately high incidences of traffic stops for drivers of different race groups, when compared with their respective driver populations in Ottawa, in the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings for the two-year period of 2013-2015 reported in *TSRDCP I*? Are there significant or emerging patterns?

> REASONS FOR TRAFFIC STOPS - Do racialized minority drivers experience disproportionately high incidences of specific reasons for traffic stops by the Ottawa Police Service when compared with their White counterparts during the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings reported for *TSRDCP I*?

> OUTCOMES OF TRAFFIC STOPS - Do racialized minority drivers experience disproportionately high incidences of specific outcomes for traffic stops by the Ottawa Police Service when compared with their White counterparts during the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings reported for *TSRDCP I*?

The analysis presented in this report segments the records of 96,436 traffic stops into three one-year periods, 2015-2016, 2016-2018, and 2017-2018. The segmenting of the *TSRDCP II* data sets into three one-year time periods supports annual TSRDCP reporting going forward.

Data Collection

There has now been the continuous collection of race data with regard to traffic stops by the Ottawa Police Service for more than six years, beginning in June 2013. The traffic stops data is collected by police officers. The Traffic Stops Race Data Collection (TSRDC) project focuses on five data fields for each traffic stop: the perceived race of the driver, the sex of the driver, the age of the driver, the reason for the stop, and the outcome of the stop. The analysis is limited to drivers who reside in the City of Ottawa where there are complete entries for all five data fields.

The race data categories utilized in this project were developed through consultation with communities and stakeholder groups. The seven race categories – indigenous, White, Black, East Asian/South East

Asian, South Asian, Middle Eastern, Other Racialized Minorities – correspond to the visible minorities typology of Statistics Canada. (See Part 4, Note 1 below.) These race data categories are also consistent with Ontario's Anti-Racism Data Standard established by 2017 Anti-Racism Act.[10]

In preparation for the *TSRDCP I* report, a complete data set was initially created for the period from June 27, 2013 to June 26, 2015 (two years). In preparation for the current *TSRDCP II* report, three additional data sets are now complete, one for the period from June 27, 2015 to June 26, 2016, a second one for the period from June 27, 2016 to June 26, 2017, and a third one for the period from June 27, 2017 to June 26, 2018.

TABLE 1: Four Data Sets in the OPS TSRDC Project, 2013-2018

OPS TSRDCP Data Set	Time Period of Data Collection	Traffic Stops Involving Ottawa Residents
2013 – 2015 Traffic Stops Data Set	June 27, 2013 until June 26, 2015	81,902
2015 – 2016 Traffic Stops Data Set	June 27, 2015 until June 26, 2016	39,963
2016 – 2017 Traffic Stops Data Set	June 27, 2016 until June 26, 2017	29,832
2017 – 2018 Traffic Stops Data Set	June 27, 2017 until June 26, 2018	26,641

All four data sets are available to the public at http://www.ottawapolice.ca/en/news-and-community/Traffic-Stop-Race-Data-Collection-ProjectTSRDCP.asp

Data System

The in-vehicle computer technology used by the Ottawa Police Service was modified to accommodate the data fields required by the project. The data collection process was also redesigned to reduce the likelihood of data entry errors and to increase data quality.

Data Collection Capabilities

Police officers are responsible for collecting traffic stop data. The technical modifications for data field collection to include required race categories and other traffic stop data required additional skill development, which the Ottawa Police Service provided through on-line training with a toolkit and

coaching. There were also pilot test sessions for detecting errors so that the training model could be improved.

Data Quality Supervision

To ensure high quality data, supervisors were also trained through orientation, videos and regular briefings on the data collection mechanisms and detection of collection errors. The Ottawa Police Service monitors the quality of data collected on a regular schedule.

General Research Findings on Traffic Stops, 2015-2018

The analysis presented in this *TSRDCP II* report is segmented into three twelve-month periods, unlike the *TSRDCP I* report which focused on a 24-month period.

During the one-year period between June 27, 2015 and June 26, 2016, the Ottawa Police Service had non-erroneous data in 58,991 traffic stop records. The officers reported not perceiving the race of the driver prior to the stop in 89% of the stops. As this research required the presence of data on Ottawa residents, with their complete information on race, sex and age, reasons for the traffic stops and the outcomes of the traffic stops, the number of records of traffic stops that are useable for this research is 39,963. (See the more detailed explanation in Part 4, Note 3.)

During the one-year period between June 27, 2016 and June 26, 2017, the Ottawa Police Service had non-erroneous data in 45,520 traffic stop records. The officers reported not perceiving the race of the driver prior to the stop in 87% of the stops. The number of records of traffic stops that are useable for this research is 29,832.

During the one-year period between June 27, 2017 and June 26, 2018, the Ottawa Police Service had non-erroneous data in 44,711 traffic stop records. The officers reported not perceiving the race of the driver prior to the stop in 83% of the stops. The number of records of traffic stops that are useable for this research is 26,641.

By comparison, the basis for the October 2016 report was traffic stop records during the period between June 27, 2013 and June 26, 2015. The Ottawa Police Service had non-erroneous data in 120,617 traffic stop records. The officers reported not perceiving the race of the driver prior to the stop in 89% of the stops. The number of traffic stops that were useable for the October 2016 report was 81,902.

The general trend evident from the traffic stops data is the steadily declining frequency of traffic stops by the Ottawa Police Service over the past five years.

The perception of the race of indigenous drivers by OPS officers appears unreliable in all of the data sets.

Section A: Incidences of Traffic Stops

This section of the TSRDCP II reporting addresses three key questions: Are there disproportionately high incidences of traffic stops for drivers of different race groups, when compared with their respective driver populations in Ottawa, in the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings for 2013-2015 reported in *TSRDCP I*? Are there significant patterns?
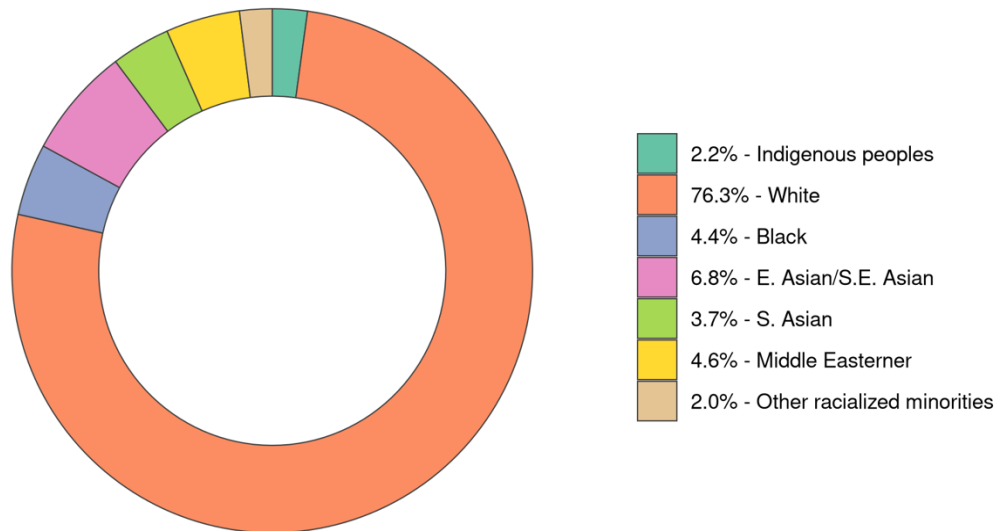
An important broad objective of the *TSRDCP II* report is the determination of whether there are any disproportionately high incidences of race groups, broken down by sex and age, in traffic stops in Ottawa during the period from 2015-2018.

For working purposes, data on Ottawa residents was divided into seven race groups (Indigenous peoples, White, Black, East Asian/Southeastern Asian, South Asian, Middle Eastern, and Other Racialized Minorities). They were then divided into male and female, which were then subdivided into three age groups: 16-24, 25-54, and 55 and over. In total, there are 42 race subgroups.

As the catalyst of this research study was a concern about racial profiling in traffic stops in Ottawa, special attention is therefore focused on the disproportionately high incidences of traffic stops among race groups, broken down by sex and age.

The benchmark for measuring disproportionately high incidences of traffic stops is the driving population in Ottawa. The segment of population in Ottawa which drive to work using private vehicles (based on the "commute-to-work" population data in the 2016 Census for the City of Ottawa) is used to define accurately the driving population of Ottawa. This definition has been validated by independent race and driving data from the General Social Survey research by Statistics Canada. When race groups are described as having "disproportionately high incidences in traffic stops" (20% and over), this means they are over-represented in traffic stops when their shares of traffic stops are greater than their shares in the "commute-to-work" driver segments. A zero percentage (0%) in the proportionality of incidences in traffic stops for a race group means the group's proportion in traffic stops corresponds to its proportion in the driver segment (who commute to work).

There were 301,685 drivers out of a total of 750,700 in the resident population in Ottawa. Diagram 1 provides a graphic representation of the driver population in 2016 based on race in Ottawa.

Diagram 1: Race of Driver Distribution In Ottawa, Based on the Census, 2016

	2.2% - Indigenous peoples
	76.3% - White
	4.4% - Black
	6.8% - E. Asian/S.E. Asian
	3.7% - S. Asian
	4.6% - Middle Easterner
	2.0% - Other racialized minorities

A comparison of the driver segments (commuters-to-work) and the population of all seven race groups shows that the White group is the only race group whose driver segment is proportionately higher than its resident population (3.05%).

TABLE 1: Proportions of Driver Segments and Resident Populations, by Race, in Ottawa, based on the 2016 Census

Race Groups	Driver Segments	Resident Populations
Indigenous peoples	2.17%	2.36%
White	76.29%	73.24%
Black	4.44%	5.72%
E. Asian/ S.E. Asian	6.82%	7.57%
S. Asian	3.66%	4.03%
Middle Eastern	4.60%	4.91%
Other racialized minorities	2.02%	2.17%
Total	100.00%	100.00%

In other words, there are more White drivers in Ottawa than White representation in the resident population. This has implications later in our analysis of traffic stops.

The analysis is organized around initialing reporting on each individual data set beginning with 2015-2016, then 2016-2017, and finally 2017-2018. The discussion that follows compares the findings from each of these three data sets to the findings from the 2013-2015 data set, as reported in the October 2016 Report.

2015-2016 Incident Findings

Among the 39,963 traffic stops of Ottawa residents in 2015-2016, in addition to race, the findings allow for a breakdown of incidences of traffic stops based on age groupings and sex groupings. The findings show that almost two-thirds of traffic stops involved drivers between the ages of 25 and 54 (65%) compared to 16.5% who were between 16-24 and 18.5% who were 55 or older. The findings show that less than one third of drivers stopped were women (32.2%).

The findings enable a breakdown for the perceived race of the driver by the officer among the 39,963 traffic stops in 2015-2016: 67.26% White (26,880), 13.21% Middle Eastern (5,280), 9.79% Black (3,914), 4.79% E. Asian/SE Asian (1,225), 2.89% S. Asian (842), 1.85% Other racialized minorities (738), and 0.21% Indigenous Peoples (82). Diagram 2 provides an overview of the breakdown of the race of the driver based on the seven race groupings used in the project as well as a comparision between race of driver distribution among traffic stops and the Driver Population Benchmark from the 2016 Census.

Diagram 2: Comparison of Race of Driver Distribution Among 2015-2016 Traffic Stops and 2016 Driver Population Benchmark
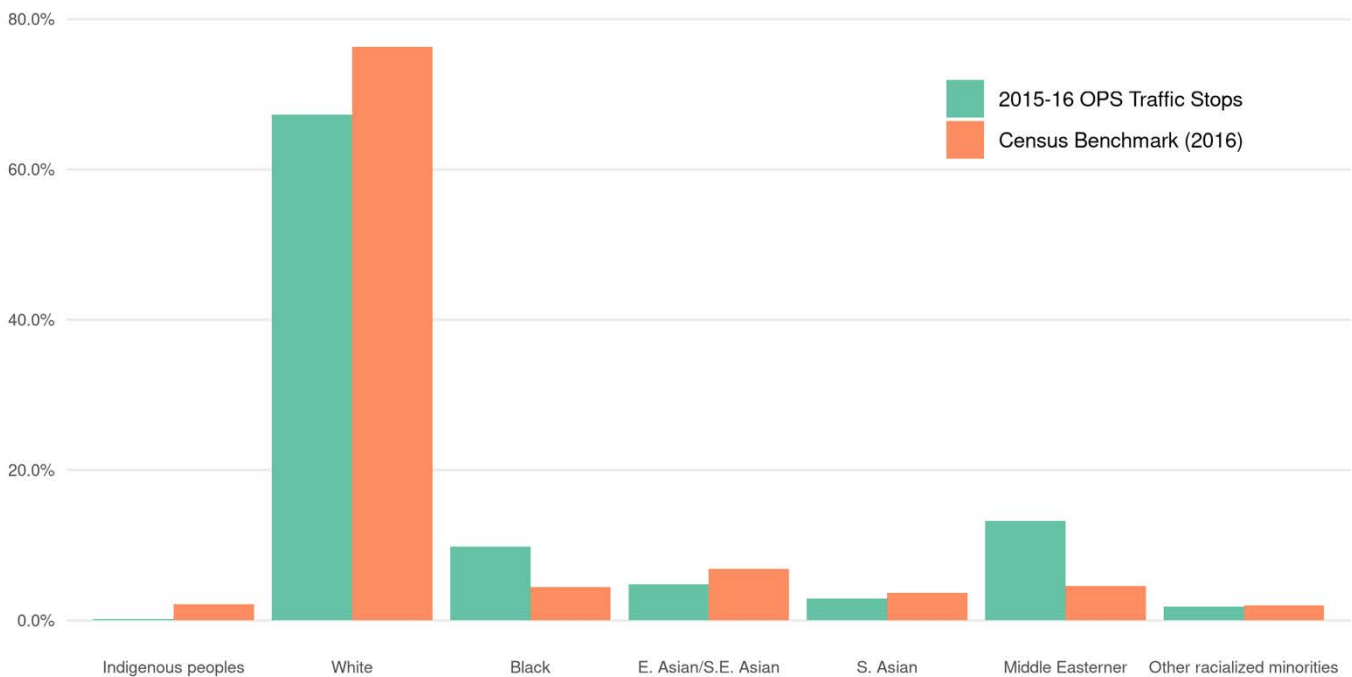

TABLE 2 below shows the disproportionalities and ratios by racial category. In Ottawa, Middle Eastern and Black groups, irrespective of their sex and age, are the two race groups with disproportionately high incidences of traffic stops in 2015-2016. Middle Eastern Drivers constituted about 13.21% of the total

stops during this period, despite these drivers representing 4.6% of the total driving population in Ottawa. This means that Middle Eastern Drivers were stopped 2.9 times more than what you would expect based on their population. Black Drivers constituted about 9.79% of the total stops during this period, despite these drivers represent 4.44% of the total driving population in Ottawa. This means that Black Drivers were stopped 2.2 times more than what you would expect based on their population.

Middle Eastern group's disproportionally high incidences are 187% on average, and those of the Black group are 121% on average. They are the only two racialized groups (among all seven race categories) that have disproportionately high incidents of traffic stops in 2015-2016. All other racialized groups have proportionally low incidents of traffic stops. E. Asian/ S.E. Asian group (-29.83%) and Indigenous peoples' (-90.53%) disproportionalities in traffic stops are even lower. The White group's incidences of traffic stops (-11.84%) are proportionately low too.

TABLE 2: Proportionalities of Incidences of Traffic Stops during 2015-2016, by Race, in Ottawa*

Race Groups	Proportionalities of Incidences of Traffic Stops	Ratio of Share of Traffic Stops to Share of Driving Population (1 + x-y/y)
Middle Eastern	187.07%	2.9 times
Black	120.83%	2.2 times
Other racialized minorities	-8.52%	0.9 times
White	-11.84%	0.9 times
S. Asian	-21.06%	0.8 times
E. Asian/ S.E. Asian	-29.83%	0.7 times
Indigenous peoples	-86.09%	0.1 times

*Negative percentages denote low proportionalities. Positive percentages denote high proportionalities. Shaded positive percentages denote disproportionately high incidences of traffic stops.

In total, as reported in TABLE 3 below, among the 42 race subgroups for which traffic stop data is available for 2015-2016, there are 14 subgroups with disproportionately high incidences of traffic stops in Ottawa:

- Middle Eastern – 6 subgroups: all age groups among men and women.

- Black – 4 subgroups: all age groups among men and Black women age 16 to 24.

- White – 1 subgroup: men aged 16-24.

- E. Asian/S.E. Asian – 1 subgroup: men aged 16-24.

- S. Asian – 1 subgroup: men aged 16-24.

- Other racialized minorities – 1 subgroup, men aged 16-24.

Middle Eastern and Black groups constituted eight of the top 10 subgroups with disproportionately highest incidences of traffic stops in 2015-2016 (ranging from 8 times their share of the driving population for Middle Eastern men aged 16-24 to 1.9 times for Black men aged 55+).

It is notable that that men aged 16-24 of all the race groups, except Indigenous peoples, have disproportionately high incidences of traffic stops.

TABLE 3: Race Subgroups That Have Disproportionately High Incidences of Traffic Stops During 2015-2016*

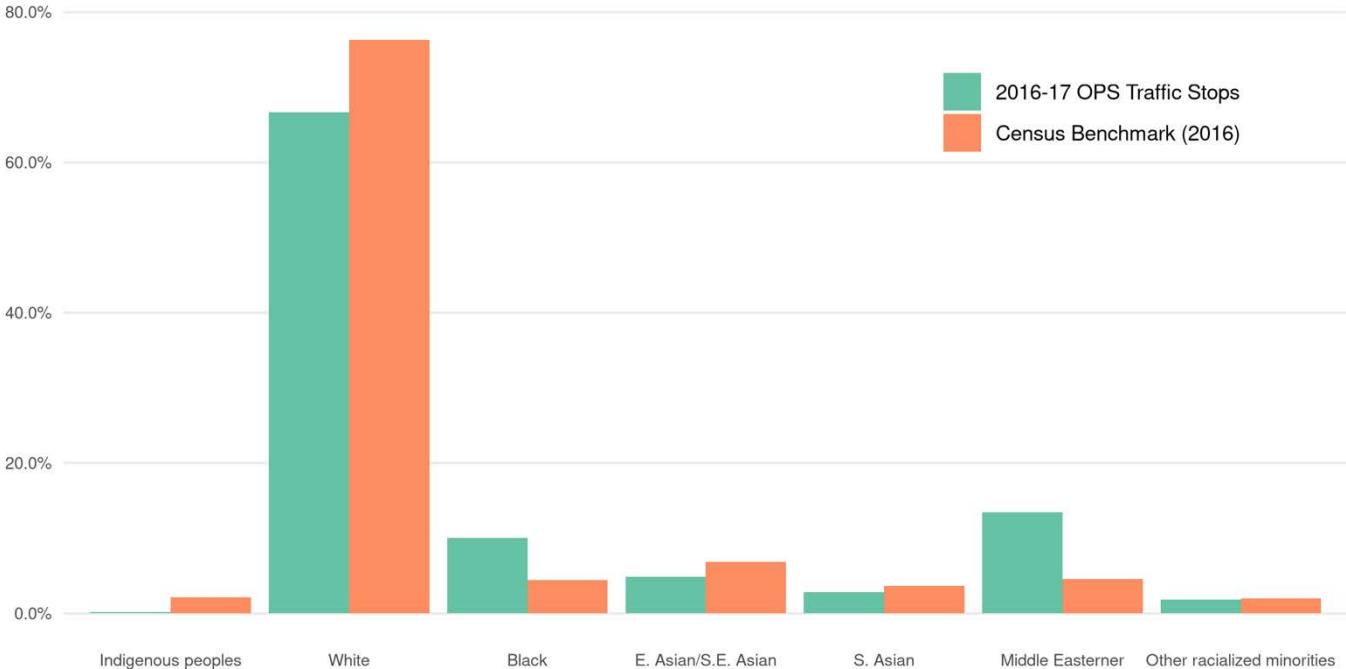| Race	Sex	Age	Disproportionalities of High Incidences of Traffic Stops	Ratio of Share of Traffic Stops to Share of Driving Population $(1 + x-y/y)$
Middle Eastern	Male	16-24	696.41%	8 times
Black	Male	16-24	516.51%	6.2 times
Middle Eastern	Male	25-54	208.34%	3.1 times
Black	Male	25-54	204.46%	3 times
Middle Eastern	Male	55+	184.40%	2.8 times
Middle Eastern	Female	16-24	159.23%	2.6 times
Black	Female	16-24	95.72%	2 times
Black	Male	55+	89.41%	1.9 times
White	Male	16-24	65.32%	1.7 times
S. Asian	Male	16-24	74.61%	1.7 times
E. Asian/S.E. Asian	Male	16-24	71.78%	1.7 times
Other racialized minorities	Male	16-24	50.98%	1.5 times
Middle Eastern	Female	25-54	38.76%	1.4 times
Middle Eastern	Female	55+	32.11%	1.3 times

Middle Eastern and Black groups are highlighted.

2016-2017 Findings

Among the 29,832 traffic stops of Ottawa residents in 2016-2017, in addition to race, the findings allow for a breakdown of incidences of traffic stops based on age groupings and sex groupings. The findings show that almost two-thirds of traffic stops involved drivers between the ages of 25 and 54 (64.5%) compared to 17% who were between 16-24 and 18.5% who were 55 or older. The findings also show that less than one third of drivers stopped were women (31.3%).

The findings enable a breakdown for the perceived race of the driver by the officer among the 29,832 traffic stops in 2016-2017: 66.69% White (19,894), 13.46% Middle Eastern (4,014), 10.04% Black (2,996), 4.91% E. Asian/SE Asian (1,466), 2.82% S. Asian (842), 1.88% Other racialized minorities (560), and 0.2% Indigenous Peoples (60). Diagram 3 provides an overview of the breakdown of the race of the driver based on the seven race groupings used in the project **as well as** a comparison between race of driver distribution among traffic stops in 2016-2017 and the Driver Population Benchmark from the 2016 Census.

Diagram 3: Comparison of Race of Driver Distribution Among 2016-2017 Traffic Stops and 2016 Driver Population Benchmark

In Ottawa, Middle Eastern and Black groups, irrespective of their sex and age, are the two race groups with disproportionately high incidences of traffic stops in 2016-2017, as reported in TABLE 4 below. Middle Eastern Drivers constituted about 13.46% of the total stops during this period, despite these drivers representing less than 4.6% of the total driving population in Ottawa. This means that Middle Eastern Drivers were stopped 2.9 times more than what you would expect based on their segment of the driving population. Black Drivers constituted about 10.04% of the total stops during this period, despite these drivers representing 4.44% of the total driving population in Ottawa. This means that Black Drivers were stopped 2.26 times more than what you would expect based on their population.

The Middle Eastern group's disproportionally high incidences of traffic stops are 192% on average, and those of the Black group are 126% on average. They are the only two racialized groups (among all seven race categories) that have disproportionately high incidents of traffic stops in 2016-2017. All other racialized groups have proportionally low incidents of traffic stops. The White group's incidences of traffic stops (-12.59%) are proportionately low too.

TABLE 4: Proportionalities of Incidences of Traffic Stops during 2016-2017, by Race, in Ottawa*

Race Groups	Proportionalities of Incidences of Traffic Stops	Ratio of Share of Traffic Stops to Share of Driving Population $(1 + x-y/y)$
Middle Eastern	192.35%	2.9 times
Black	126.44%	2.26 times
Other racialized minorities	-7.01%	0.7 times
White	-12.59%	0.9 times
S. Asian	-22.91%	0.8 times
E. Asian/ S.E. Asian	-28%	0.7 times
Indigenous peoples	-90.72%	0.1 times

*Negative percentages denote low proportionalities. Positive percentages denote high proportionalities. Shaded positive percentages denote disproportionately high incidences of traffic stops.

In total, as reported in TABLE 5 below, among the 42 race subgroups for which traffic stop data is available for 2016-2017, there are 15 subgroups with disproportionately high incidences of traffic stops in Ottawa:

- Middle Eastern – 6 subgroups: all age groups among men and women.

- Black – 4 subgroups: all age groups among men and Black women age 16 to 24.

- White – 1 subgroup: men aged 16-24.

- E. Asian/S.E. Asian – 1 subgroup: men aged 16-24.

- S. Asian – 1 subgroup: men aged 16-24.

- Other racialized minorities – 2 subgroups: men aged 16-24,men aged 55+

Middle Eastern and Black groups constituted eight of the top 10 subgroups with disproportionately highest incidences of traffic stops in 2016-2017 (ranging from 8 times their share of the driving population for Middle Eastern men aged 16-24 to 1.9 times for Black men aged 55+).

It is notable that that men aged 16-24 of all the race groups, except Indigenous peoples, have disproportionately high incidences of traffic stops in 2016-2017.

TABLE 5: Race Subgroups That Have Disproportionately High Incidences of Traffic Stops During 2016-2017*

Race	Sex	Age	Disproportionalities of High Incidences of Traffic Stops	Ratio of Share of Traffic Stops to Share of Driving Population $(1 + x-y/y)$
Middle Eastern	Male	16-24	729.15%	8.3 times
Black	Male	16-24	536.59%	6.4 times
Middle Eastern	Male	25-54	216.35%	3.2 times
Black	Male	25-54	208.51%	3.1 times
Middle Eastern	Male	55+	172.13%	2.7 times
Middle Eastern	Female	16-24	174.76%	2.7 times
Black	Female	16-24	128.47%	2.3 times
E. Asian/S.E. Asian	Male	16-24	121.63%	2.2 times

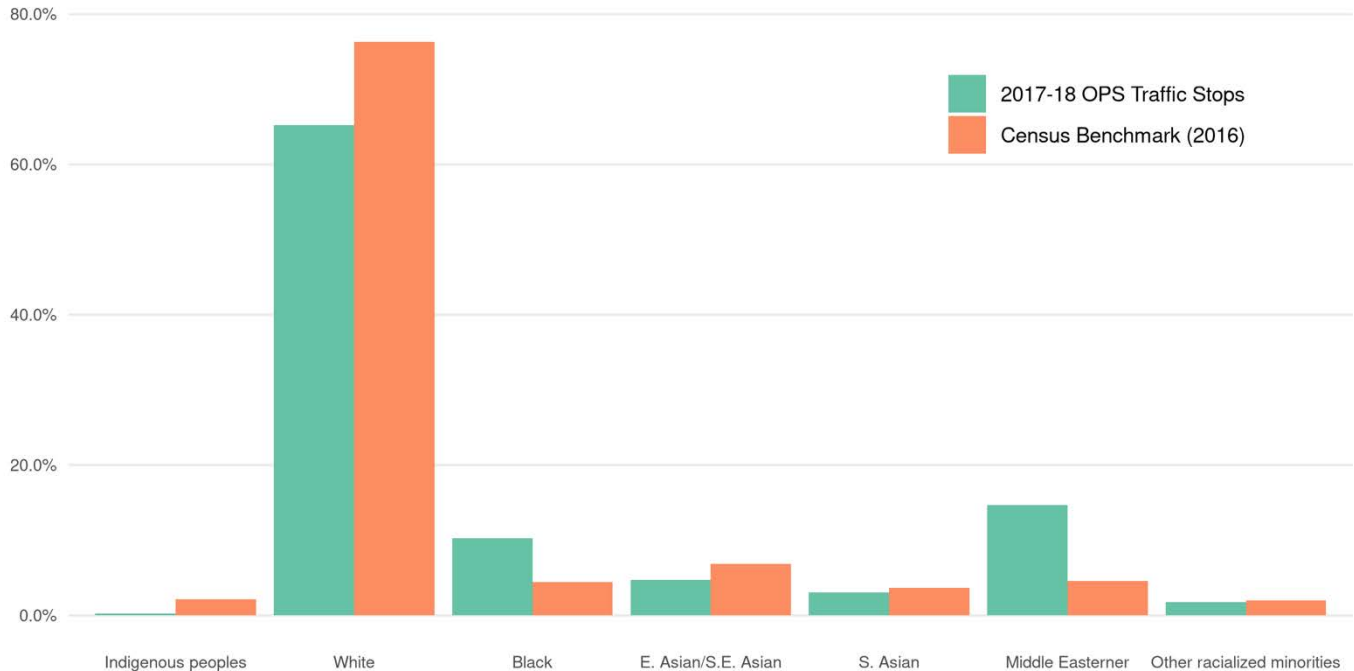|				
Black	Male	55+	102.26%	2 times
White	Male	16-24	67.71%	1.7 times
S. Asian	Male	16-24	56.53%	1.7 times
Other racialized minorities	Male	16-24	61.17%	1.5 times
Middle Eastern	Female	25-54	37.78%	1.4 times
Other racialized minorities	Male	55+	28.54%	1.3 times
Middle Eastern	Female	55+	30.3%	1.3 times

Middle Eastern and Black groups are highlighted.

2017-2018 Findings

Among the 26,641 traffic stops of Ottawa residents in 2017-2018, the findings allow for a breakdown of incidences of traffic stops based on age groupings and sex groupings. The findings show that less than two-thirds of traffic stops involved drivers between the ages of 25 and 54 (62.63%) compared to 16.46% who were between 16-24 and 20.91% who were 55 or older. The findings also show that less than one third of drivers stopped were women (31.39%).

The findings enable a breakdown for the perceived race of the driver by the officer among the 26,641 traffic stops in 2017-2018: 65.25% White (17,382), 14.64% Middle Eastern (3,901), 10.24% Black (2,727), 4.76% E. Asian/SE Asian (1,269), 3.09% S. Asian (823), 1.8% Other racialized minorities (479), and 0.13% Indigenous Peoples (60). Diagram 4 provides an overview of the breakdown of the race of the driver based on the seven race groupings used in the project as well as a comparison between race of driver distribution among traffic stops in 2017-2018 and the Driver Population Benchmark from the 2016 Census.

Diagram 4: Comparison of Race of Driver Distribution Among 2017-2018 Traffic Stops and 2016 Driver Population Benchmark

In Ottawa, Middle Eastern and Black groups, irrespective of their sex and age, are the two race groups with disproportionately high incidences of traffic stops in 2017-2018, as reported in Table 6 below. Middle Eastern Drivers constituted about 14.64% of the total stops during this period, despite these drivers representing less than 4.6% of the total driving population in Ottawa. This means that Middle Eastern Drivers were stopped 3.2 times more than what you would expect based on their segment of the driving population. Black Drivers constituted about 10.24% of the total stops during this period, despite these drivers representing 4.44% of the total driving population in Ottawa. This means that Black Drivers were stopped 2.3 times more than what you would expect based on their population.

Middle Eastern group's disproportionally high incidences of traffic stops are 218% on average, and those of the Black group are 131% on average. They are the only two racialized groups (among all seven race categories) that have disproportionately high incidents of traffic stops in 2017-2018. All other racialized groups have proportionally low incidents of traffic stops. The White group's incidences of traffic stops (-14%) are proportionately low too.

TABLE 6: Proportionalities of Incidences of Traffic Stops during 2017-2018, by Race, in Ottawa*

Race Groups	Proportionalities of Incidences of Traffic Stops	Ratio of Share of Traffic Stops to Share of Driving Population (1 + x-y/y)
Middle Eastern	218.15%	3.18 times
Black	130.80%	2.3 times
Other racialized minorities	-10.93%	0.9 times
White	-14.48%	0.9 times
S. Asian	-15.62%	0.9 times
E. Asian/ S.E. Asian	-30.21%	0.7 times
Indigenous peoples	-89.60%	0.1 times

*Negative percentages denote low proportionalities. Positive percentages denote high proportionalities. Shaded positive percentages denote disproportionately high incidences of traffic stops.

In total, as summarized in Table 7 below, among the 42 race subgroups for which traffic stop data is available for 2017-2018, there are 14 subgroups with disproportionately high incidences of traffic stops in Ottawa:

- Middle Eastern – 6 subgroups: all age groups among men and women.

- Black – 4 subgroups: all age groups among men and Black women age 16 to 24.

- White – 1 subgroup: men aged 16-24.

- E. Asian/S.E. Asian – 1 subgroup: men aged 16-24.

- S. Asian – 1 subgroup: men aged 16-24.

- Other racialized minorities – 1 subgroup: men aged 16-24

Middle Eastern and Black groups constituted eight of the top 10 subgroups with disproportionately highest incidences of traffic stops in 2017-2018 (ranging from 8.7 times their share of the driving population for Middle Eastern men aged 16-24 to 2.1 times for Black men aged 55+).

It is again notable that men aged 16-24 of all the race groups, except Indigenous peoples, have disproportionately high incidences of traffic stops in 2017-2018.

TABLE 7: Race Subgroups That Have Disproportionately High Incidences of Traffic Stops During 2017-2018*

Race	Sex	Age	Disproportionalities of High Incidences of Traffic Stops	Ratio of Share of Traffic Stops to Share of Driving Population (1 + x-y/y)
Middle Eastern	Male	16-24	773.73%	8.7 times
Black	Male	16-24	566.38%	6.66 times
Middle Eastern	Male	25-54	240.16%	3.4 times
Black	Male	25-54	214.31%	3.1 times
Middle Eastern	Male	55+	224.49%	3.2 times
Middle Eastern	Female	16-24	188.44%	2.9 times
Black	Female	16-24	116%	2.16 times
E. Asian/S.E. Asian	Male	16-24	115.63%	2.2 times
Black	Male	55+	112.48%	2.1 times
White	Male	16-24	57.05%	1.6 times
S. Asian	Male	16-24	114.67%	2.1 times
Other racialized minorities	Male	16-24	73.4%	1.7 times
Middle Eastern	Female	25-54	55.74%	1.6 times
Middle Eastern	Female	55+	43.73%	1.4 times

Middle Eastern and Black groups are highlighted.

Comparing Traffic Stops Incident Data Across the Five Years of the TSRDCP

There is a clear pattern across the five years that the Ottawa Police Service are stopping fewer and fewer of its residents for possible traffic violations. Table 8 details the rate of decline.
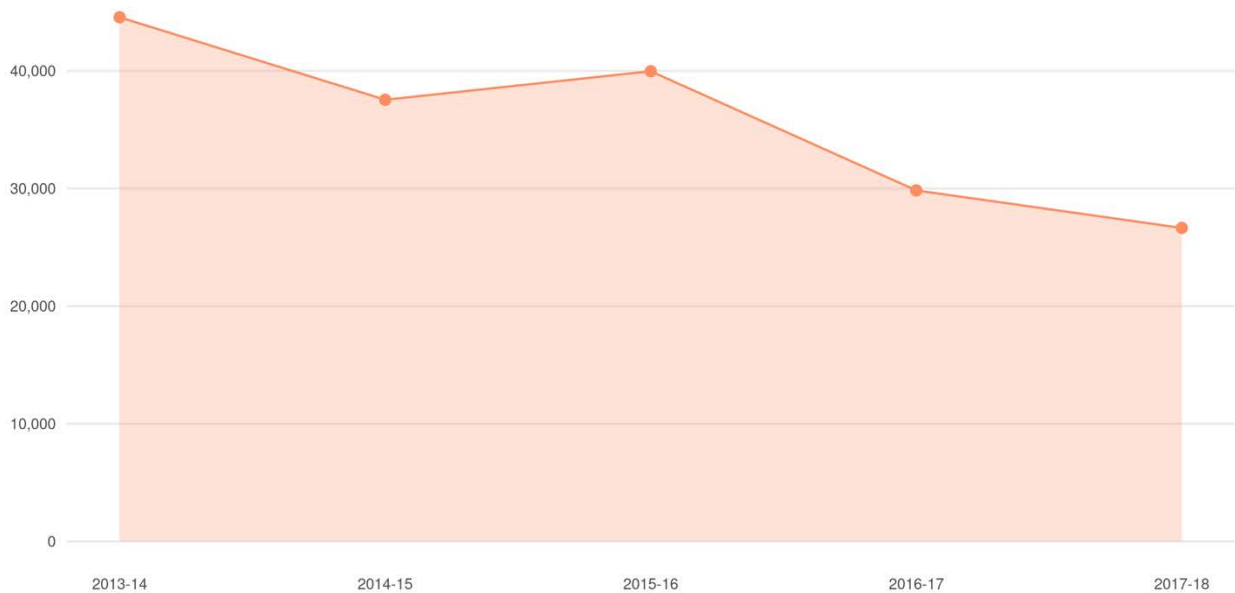
TABLE 8: Declining Traffic Stops of Ottawa Residents from 2013-2018

Time Period	Traffic Stops of Ottawa Residents	Percentage Change from 2013-2014
June 27, 2013 – June 26, 2014	40,951*	Not Applicable
June 27, 2014 – June 26, 2015	40,951*	Nil
June 27, 2015 – June 26, 2016	39,963	-2.5%
June 27, 2016 – June 26, 2017	29,832	-27%
June 27, 2017 – June 26, 2018	26,641	-35%

This total represents half of the total traffic stops reported in the period from June 27, 2013 – June 26, 2015.

Diagram 5 illustrates that the decline is accelerating.

Diagram 5: Declining Traffic Stop Incidence by Ottawa Police Service, 2013-2015

This finding is significant especially for racialized communities in Ottawa because it means in absolute terms Middle Eastern and Black drivers are being stopped far less in 2018 than they were three years ago. Black drivers are being stopped 30% less and Middle Eastern drivers are being stopped 26% less.

TABLE 9: Traffic Stops of Middle Eastern and Black Drivers from 2015-2018

Time Period	Traffic Stops of Black Drivers	Traffic Stops of Middle Eastern Drivers
June 27, 2015 – June 26, 2016	3,914	5,280
June 27, 2016 – June 26, 2017	2,996	4,014
June 27, 2017 – June 26, 2018	2,727	3,901

At the same time, as summarized in Table 10, there has been remarkable consistency in traffic stop records of Ottawa residents for the five-year period from 2013 - 2018 in terms of the breakdown for both sex and age.

TABLE 10: Traffic Stops in Ottawa by Sex and Age from 2013-2018

Time Period	Percentage of Women Stopped	Percentage of Men Stopped	Percentage of Drivers aged 16-24 Stopped	Percentage of Drivers aged 25-54 Stopped	Percentage of Drivers aged 55+ Stopped
June 27, 2013 – June 26, 2015	32%	68%	17.4%	65.1%	17.5%
June 27, 2015 – June 26, 2016	32%	68%	17.5%	65%	17.5%
June 27, 2016 – June 26, 2017	31%	69%	17%	64.5%	18.5%
June 27, 2017 – June 26, 2018	31.5%	68.5%	16.5%	62.5%	21%

In terms of racial disproportionalities for Black, Middle Eastern, and White drivers as an entire resident group in Ottawa, Table 11 below illustrates that there has been some very modest progress in reducing disproportionalities for Black and Middle Eastern drivers in the period from 2013 to 2018. For both groups as a whole, there are high disproportionalities in every year of the study. White drivers are consistently stopped at rate below what would be expected from their representational share of the driver population in Ottawa.

TABLE 11: Traffic Stops in Ottawa for Black, Middle Eastern, and White Drivers from 2013-2018

Time Period	Black Drivers Ratio of Traffic Stops to Driving Population	Middle Eastern Drivers Ratio of Traffic Stops to Driving Population	White Drivers Ratio of Traffic Stops to Driving Population
June 27, 2013 – June 26, 2015	2.3 times	3.3 times	0.9 times
June 27, 2015 – June 26, 2016	2.2 times	2.9 times	0.9 times
June 27, 2016 – June 26, 2017	2.26 times	2.9 times	0.9 times
June 27, 2017 – June 26, 2018	2.3 times	3.18 times	0.9 times

 An important aspect of the analysis above is to sharpen the focus by bringing to the forefront the incidences of traffic stops involving drivers from particular racial sub-groups such as Black Males aged 16-24. This focus flows in part from the settlement of the human rights complaint that was the initial catalyst for the Ottawa Police Service Traffic Stops Race Data Collection Project since that complaint involved a young Black male driver. Moreover, during community consultations in Ottawa, the research team frequently heard concerns that racial bias in traffic stops by the Ottawa Police Service is especially harmful to particular sub-groups of racialized communities. The 2016 *TSRDCP I* report found that racial disproportionalities are especially high for young Middle Eastern and Black male drivers.

Table 12 below shows that for both Middle Eastern Males aged 16-24 and Black Males aged 16-24 there have been very significant declines in the disproportionalities of traffic stops.

Compared to traffic stops in the period from 2013-2015, young Middle Eastern Male drivers have seen on average about a 30% decline in disproportionalities in the period from 2015 to 2018. Young Black Male drivers have similarly seen on average a 23% decline in disproportionalities during this period. Moreover, the traffic stops data indicates that this pattern is stable. However, the existing rates of disproportionalities for both of these sub-groups remains unacceptably high and warrant significant action by the Ottawa Police Service.

TABLE 12: Traffic Stops in Ottawa for Select Racial Sub-Groups from 2013-2018

Racial Subgroup Ratio of Traffic Stops to Driving Population	June 27, 2013 – June 26, 2015	June 27, 2015 – June 26, 2016	June 27, 2016 – June 26, 2017	June 27, 2017 – June 26, 2018
Middle Eastern Male aged 16-24	12 times	8 times	8.3 times	8.7 times
Black Male aged 16-24	8.3 times	6.2 times	6.4 times	6.7 times
Middle Eastern Male aged 25-54	3.4 times	3.1 times	3.2 times	3.4 times
Black Male aged 25-54	3 times	3 times	3.1 times	3.1 times
Middle Eastern Female aged 16-24	2.9 times	2.6 times	2.7 times	2.9 times
Black Female aged 16-24	1.8 times	2 times	2.3 times	2.2 times
South Asian Male aged 16-24	1.7 times	1.7 times	1.7 times	2.1 times
E. Asian/S.E. Asian Male aged 16-24	1.6 times	1.7 times	2.2 times	2.2 times

Table 12 also reveals an important trend of increasingly higher disproportionalities for two other sub-groups, Black Females aged 16-24 and South Asian Males aged 16-24 over the period from 2013 to 2018.

Three Significant Findings about Traffic Stop Incidents

The most significant findings based on the patterns in the incidences of traffic stops by the Ottawa Police Service emerging from the five years of race data collection are three-fold. The first significant finding is that, among Ottawa residents, incidences of traffic stops are declining. In many racialized communities in Ottawa, the initial consultations and outreach by the Traffic Stop Race Data Collection Project found that these communities felt subject to excessive surveillance by the police, exemplified by the report of frequent traffic stops. The total number of traffic stops has declined in these communities as well as elsewhere in Ottawa. This is also important because it suggests that the Ottawa Police Service has become less reliant on traffic stops as an instrument to advance community safety.

The second significant finding is that there has been only a very modest reduction in the overall disproportionality traffic stop rates for Middle Eastern and Black drivers. This suggests that there is a need to better identify possible sources of implicit bias and systemic racism in police service practices that adversely affect these two racialized communities.

The third significant finding in comparing the traffic stops incidents across the five years from 2013 to 2018 is the considerably lower rates of disproportionate traffic stops for the two subgroups – Middle Eastern and Black Males aged 16-24 – identified in the 2016 *TSRDCP I* report as the most adversely affected by traffic stop practices by the Ottawa Police Service. The reductions averaged 30% for young Middle Eastern Males and 23% for young Black males. Reductions on this scale suggest that at least some of the measures adopted by the Ottawa Police Service in during *TSRDCP I* and *TSRDCP II* have been impactful and that there are good reasons to be optimistic that the unacceptable high rates of disproportionality for these two sub-groups can be further reduced. However, the patterns of disproportionately high traffic stop rates for young Middle Eastern and Black males by the Ottawa Police Service in the period from 2015-2018 cannot be justified and are consistent with findings of racial profiling by other police services.

Section B: Reasons for Traffic Stops

This section of the *TSRDCP II* reporting addresses the key questions: Do racialized minority drivers experience disproportionately high incidences of specific reasons for traffic stops when compared with their White counterparts in Ottawa during the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings reported for *TSRDCP I*?

An important broad objective of the *TSRDCP II* report is the determination of the extent to which the reasons why police officers traffic stops varied by race groups, and whether there is any marked differences between the White group and each of the racialized minority groups during the period from June 27, 2015 to June 26, 2018 as compared to the period from June 27, 2013 to June 26, 2015.

To meet this objective, Ottawa Police Service identified three major reasons for traffic stops: (a) criminal offenses, (b) provincial and municipal offenses, and (c) suspicious activities. Police officers identified the reason for each traffic stop.

"Criminal Offenses" – offenses based on the Criminal Code of Canada. Examples: stolen vehicles, and impaired driving.

"Provincial and Municipal Offenses" – Offenses related to provincial laws and municipal by-laws. Examples: Offenses related to the Highway Traffic Act such as speeding and light/stop sign running' licence plate sticker validation.

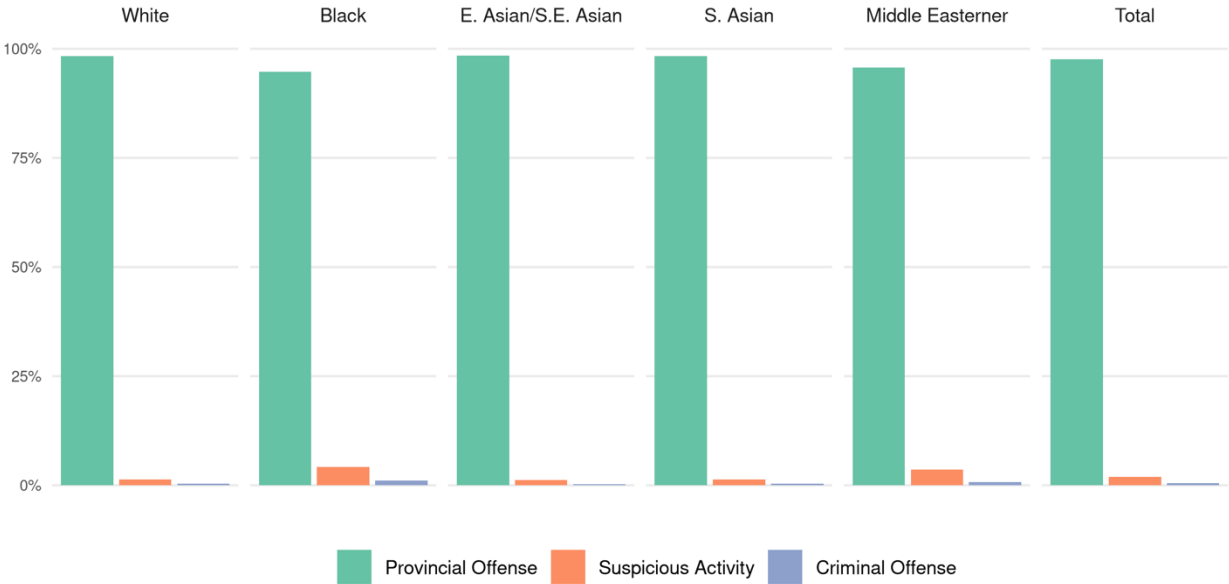"Suspicious Activities" – Activities deemed to be dubious by police officers.

2015-2016 Findings

The findings for 2015-2016 show that, in Ottawa, the reason most used by police officers in traffic stops is Provincial and Municipal Offenses" (ranging from 94.76% for Black Drivers to 98.48% for E. Asian/S.E. Asian Drivers). In Ottawa, this rationale (97.62%) utilized for traffic-stopping drivers is followed by the use of Suspicious Activities" (1.92%) and Criminal Offenses (0.47%). The findings are summarized in Diagram 6. Police officers did not utilize Provincial and Municipal Offenses" for traffic stops in a disproportionally manner for any racial minority groups.

Compared to White Drivers, in 2015-2016, Black Drivers were 3.2 times more likely to be stopped for both Criminal Offences and Suspicious Activities. Similarly, Middle Eastern Drivers

were 2.1 times more likely than White Drivers to be stopped for Criminal Offences and 2.7 times more likely to be stopped for Suspicious Activities.

Diagram 6: Reasons for Traffic Stops Among Race Groups, 2015-2016

2016-2017 Findings

The findings for 2016-2017 show that, in Ottawa, the reason most used by police officers in traffic stops is Provincial and Municipal Offenses (ranging from 96.30% for Black Drivers to 99.05% for E. Asian/S.E. Asian Drivers). In Ottawa, this rationale (98.10%) utilized for traffic-stopping drivers is followed by the use of Suspicious Activities" (1.32%) and Criminal Offenses (0.59%). The findings are summarized in Diagram 7. Police officers did not utilize Provincial and Municipal Offenses for traffic stops in a disproportionally manner for any racialized minority groups.

Compared to White Drivers, in 2016-2017, Black Drivers were 3.2 times more likely to be stopped for Criminal Offences and 2.4 times more likely to be stopped for Suspicious Activities. Similarly, Middle Eastern Drivers were 2.4 times more likely than White Drivers to be stopped for Criminal Offences and 2.1 times more likely to be stopped for Suspicious Activities.
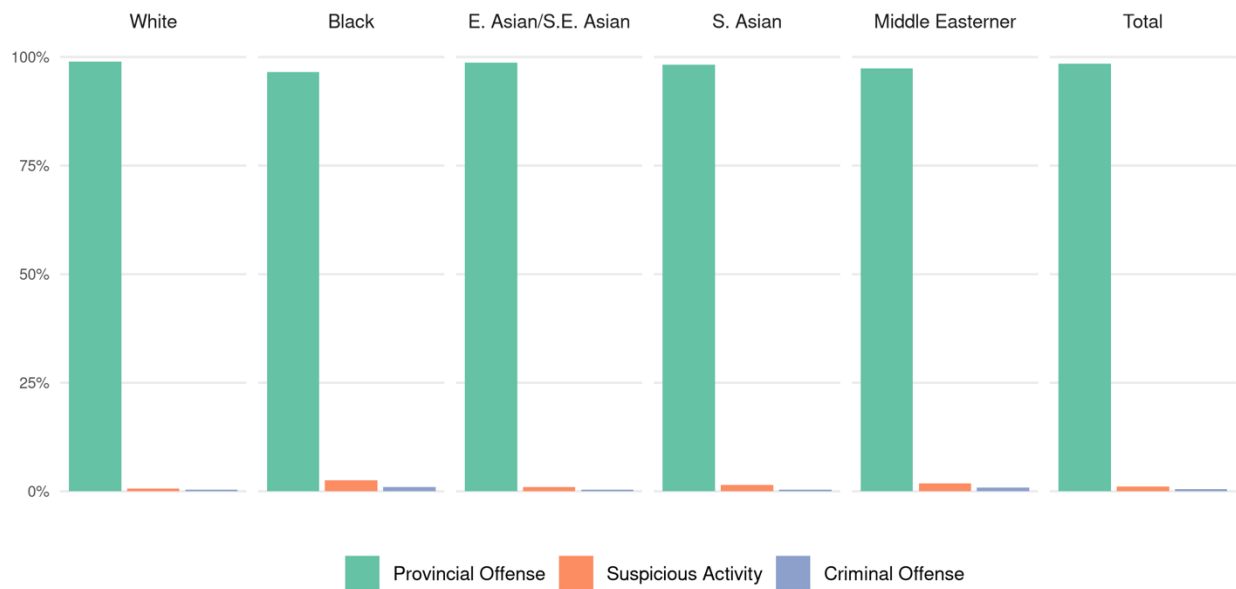
Diagram 7: Reasons for Traffic Stops Among Race Groups, 2016-2017

2017-2018 Findings

The findings for 2017-2018 show that, in Ottawa, the reason most used by police officers in traffic stops is Provincial and Municipal Offenses (ranging from 96.52% for Black Drivers to 99.16% for Other Racialized Minorities). In Ottawa, this rationale (98.46%) utilized for traffic-stopping drivers is followed by the use of Suspicious Activities (1.05%) and Criminal Offenses (0.48%). The findings are summarized in Diagram 8. Police officers did not utilize Provincial and Municipal Offenses for traffic stops in a disproportionally manner for any racial group in 2017-2018.

Compared to White Drivers, in 2017-2018, Black Drivers were 2.8 times more likely to be stopped for Criminal Offences and 3.8 times more likely to be stopped for Suspicious Activities. Similarly, Middle Eastern Drivers were 2.3 times more likely than White Drivers to be stopped for Criminal Offences and 2.8 times more likely to be stopped for Suspicious Activities.

Diagram 8: Reasons for Traffic Stops Among Race Groups, 2017-2018

Discussion

The findings about reasons for traffic stops in the three years from 2015 to 2018 are very similar to those findings in the 2016 *TSRDCP I* report regarding the period from 2013 to 2015.

The consistent finding that Provincial and Municipal Offenses is the cited reason for the traffic stop except in a tiny fraction of circumstances suggests that there is a genuine need in the future to develop a more robust data field that requires officers to identify in more detail the particular provincial or municipal offence at issue for the traffic stop.

In the three-year period from 2015 to 2018, Black Drivers were at least 3 times more likely to be stopped for both Criminal Offenses and Suspicious Activities than White Drivers. Likewise, Middle Eastern Drivers were at least 2 times more likely to be stopped for both Criminal Offenses and Suspicious Activities than White Drivers. Since the categories of Criminal Offense and Suspicious Activity were cited so infrequently as the reason for the traffic stop, reliable inferences about these racial disproportionalities are difficult to make and reinforce the importance in future data collection to further disaggregate the reasons for stop data field.

Section C: Outcomes of Traffic Stops

This section of the *TSRDCP II* reporting addresses the key questions: Do racialized minority drivers experience disproportionately high incidences of specific outcomes for traffic stops when compared with their White counterparts in Ottawa during the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings reported for *TSRDCP I*? Are there emerging patterns in the outcomes data?

An important broad objective of the *TSRDCP II* report is the determination of the extent to which the outcomes of traffic stops by the Ottawa Police Service varied by race groups, and how disproportionate these variations are between each of the racialized minority groups and the White group during the period from June 27, 2015 to June 26, 2018 as compared to the period from June 27, 2013 to June 26, 2015.

To meet this objective, Ottawa Police Service identified three major outcomes of traffic stops: (a) "final (no action)", (b) "warned", and (c) "charged".

- "Final (no action)" outcomes - Police officers did not give warnings or lay charges to the drivers after the traffic stops. No further action was taken by officers.
- "Warned" outcomes - Police officers gave verbal or written warnings to the drivers after the traffic stops.
- "Charged" outcomes - Police officers laid charges (such as speeding or distracted driving) to the drivers after the traffic stops.

In traffic stops, being charged is considered to be more severe than being warned which, in turn, is considered to be more severe than no action on the part of police officers.

The analysis of proportionalities is based on a comparison of the outcomes of traffic stops as experienced by each of the racialized minority groups with the White group. The outcomes for the White group act as a benchmark to measure the extent of deviations of outcomes for the racialized minority groups.

2015-2016 Findings

During 2015-16, the majority of traffic stops resulted in charges (51%). The rest resulted in either "warned" (32%) or ""no action" (17%). However, there are variations in outcomes among race groups. Table 13 below reveals that White Drivers are most likely to be charged. Indigenous Drivers are disproportionately unlikely to be charged compared to White Drivers.

TABLE 13: Traffic Stop Outcomes by race in 2015-2016

Race Groups	Charged	Warned	No Action (Final)
Middle Eastern	47%	32%	21%
Black	44%	34%	22%
Other racialized minorities	47%	33%	20%
White	52%	32%	16%
S. Asian	49%	33%	18%
E. Asian/ S.E. Asian	47%	38%	15%
Indigenous peoples	41%	28%	31%

2016-2017 Findings

During 2016-17, the majority of traffic stops resulted in charges (57%). The rest resulted in either "warned" (28%) or ""no action" (15%). However, there are variations in outcomes among race groups. Table 14 below reveals that White Drivers (60%) are most likely to be charged.

TABLE 14: Traffic Stop Outcomes by race in 2016-2017

Race Groups	Charged	Warned	No Action (Final)
Middle Eastern	52%	30%	18%
Black	49%	32%	19%
Other racialized minorities	59%	28%	13%
White	60%	26%	14%
S. Asian	53%	32%	15%
E. Asian/ S.E. Asian	59%	29%	12%
Indigenous peoples	47%	35%	18%

2017-2018 Findings

During 2017-18, the majority of traffic stops resulted in charges (59%). The rest resulted in either "warned" (26%) or ""no action" (15%). However, there are variations in outcomes among race groups. Table 15 below reveals that White and Indigenous Drivers (both 62%) are most likely to be charged.

TABLE 15: Traffic Stop Outcomes by race in 2017-2018

Race Groups	Charged	Warned	No Action (Final)

Middle Eastern	53%	28%	19%
Black	51%	29%	20%
Other racialized minorities	57%	27%	16%
White	62%	24%	14%
S. Asian	54%	31%	15%
E. Asian/ S.E. Asian	60%	26%	14%
Indigenous peoples	62%	20%	18%

Discussion

The lack of disproportionate differences in charges, warnings, and no action for racialized minority groups in Ottawa when compared with the White group from 2015 to 2018 suggests that, as individuals, when stopped, racial minority groups are treated more or less the same as the White group, as far as warnings and charges are concerned. Some variations are noted, but they are not disproportionately high or low.

The more notable trend in the outcomes of traffic stops in the five-year period from 2013 to 2018, as evident in Table 16 below, is the very significant overall increase in charges. Over the five-year period, there is more than a 30% increase in charges resulting from a traffic stop. During the same period, there is also a corresponding decrease in drivers receiving warnings. No action outcomes have remained steady across the five years.

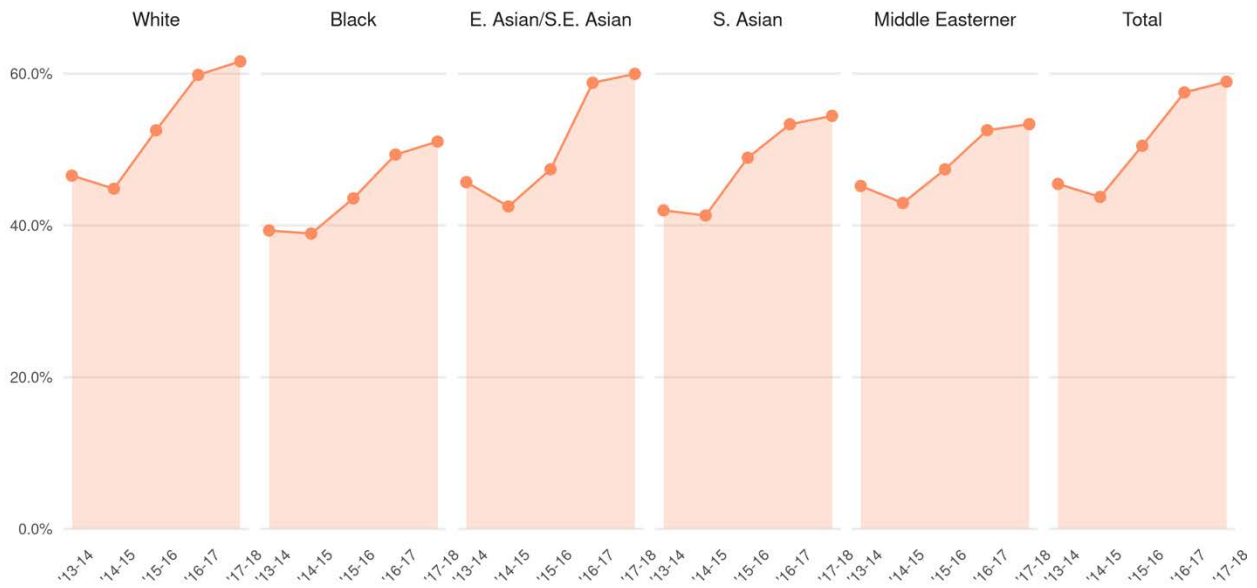**TABLE 16: Changing Patterns of Outcomes of Traffic Stops from 2013 to 2018**

Time Period	No Action (Final)	Warned	Charged
June 27, 2013 – June 26, 2015	14%	41%	45%
June 27, 2015 – June 26, 2016	17%	32%	51%

June 27, 2016 – June 26, 2017	15%	27.5%	57.5%
June 27, 2017 – June 26, 2018	15%	28%	59%

It is possible that the increase in charges resulting from a traffic stop by the Ottawa Police Service is directly connected to the declining frequency of traffic stops noted above. When officers do engage in a traffic stop, the traffic stop may be more serious and involve a violation of a Provincial or Municipal Offence where the officer does not have the discretion to issue a warning instead of a charge. This would indicate a trend toward a "deliberative service approach"[11] – involving a more conscientious practice of weighing the merits and ethics of policing action.

Diagram 9 shows the five-year pattern of charged data based on race as compared to the increasing frequency of charged outcomes across all drivers. White drivers have seen the greatest increases in likelihood of being charged and are the most likely to be charged.

Diagram 9: Patterns of Charged as an Outcome of Traffic Stops by Race, 2013-2018*

*The number of indigenous drivers is too small in the data sets to allow for reliable graphing of charged outcomes over time

OVERVIEW OF THE FINDINGS FROM SECTIONS A, B, AND C

The findings of Sections A, B, and C address respectively three sets of issues:

INCIDENCES OF TRAFFIC STOPS - Are there disproportionately high incidences of traffic stops for drivers of different race groups, when compared with their respective driver populations in Ottawa, in the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings for the two-year period of 2013-2015 reported in *TSRDCP I*? Are there significant or emerging patterns?

- **There is a clear pattern across the five years that the Ottawa Police Service are stopping fewer and fewer of its residents for traffic violations.** Traffic stops declined from 40,951 in 2013-2014 to 26,641 in 2017-2018, which is a 35% decline.

  o In many racialized communities in Ottawa, initial consultations and outreach by the Traffic Stop Race Data Collection Project found that these communities felt subject to excessive surveillance by the police, exemplified by the report of frequent traffic stops. This finding is significant especially for racialized communities in Ottawa because it means in absolute terms Middle Eastern and Black drivers are being stopped far less in 2018 than they were five years ago.

  o This finding is also important because it suggests that the Ottawa Police Service has become less reliant on traffic stops as an instrument to advance community safety.

- **Middle Eastern and Black drivers continue to experience disproportionately high incidences of traffic stops.**

  o In 2015-2016, Middle Eastern Drivers were stopped 2.9 times more than what you would expect based on their segment of the driving population while Black Drivers were stopped 2.2 times more than what you would expect based on their population. In 2016-2017, Middle Eastern Drivers were stopped 2.9 times more than what you would expect based on their segment of the driving population while Black Drivers were stopped 2.26 times more than what you would expect based on their population. In 2017-2018, Middle Eastern Drivers were stopped 3.18 times more than what you would expect based on their segment of the driving population while Black Drivers were stopped 2.3 times more than what you would expect based on their population. White Drivers were stopped at a

consistent rate of 0.9 times their ratio in the driver population over the five years of the study from 2013-2018.

o There has been only a very modest reduction in the overall disproportionality traffic stop rates for Middle Eastern and Black drivers by the Ottawa Police Service compared to the *TSRDCP I* report findings for 2013-2015.

o The reduction of racial disproportionalities in traffic stops requires innovative new approaches to conducting traffic stops that reduces the impact of implicit bias and systemic racism that adversely affect the Middle Eastern and Black communities in Ottawa.

o The continued adverse impact of traffic stop enforcement on certain racial communities strongly points to the importance of the Ottawa Police Service to explore alternative practices that can advance community safety.

- **There have been significant reductions since 2013 in the disproportionately high incidences of traffic stops for the two subgroups – Middle Eastern and Black Males aged 16-24 – identified in the 2016 *TSRDCP I* report as the most adversely affected by traffic stop practices by the Ottawa Police Service.**

   o The reductions over the five years from 2013 to 2018 averaged 30% for young Middle Eastern Males and 23% for young Black males. However, in 2017-2018, young male Middle Eastern Drivers were still stopped 8.7 times more than what you would expect based on their segment of the driving population while young male Black Drivers were stopped 6.7 times more than what you would expect based on their population.

   o Reductions on this scale suggest that at least some of the targeted measures adopted by the Ottawa Police Service during *TSRDCP I* and *TSRDCP II* have been impactful and that there are good reasons to be optimistic that the unacceptable high rates of disproportionality for these two sub-groups can be further reduced.

   o The patterns of disproportionately high traffic stop rates for young Middle Eastern and Black males by the Ottawa Police Service in the period from 2015-2018 cannot be justified and are consistent with findings of racial profiling by other police services.

REASONS FOR TRAFFIC STOPS - Do racialized minority drivers experience disproportionately high incidences of specific reasons for traffic stops by the Ottawa Police Service when compared with their White counterparts during the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings reported for *TSRDCP I*?

- **Provincial and Municipal oOfences was the reason for 98% of the traffic stops by the Ottawa Police Service for the three-year period from 2015 to 2018. Police officers did not utilize Provincial and Municipal Offenses for traffic stops in a disproportionally manner for any racial minority group.**

    - The findings about reasons for traffic stops in the three years from 2015 to 2018 are very similar to those findings in the 2016 *TSRDCP I* report regarding the period from 2013 to 2015.

    - The consistent finding that Provincial and Municipal Offenses is the cited reason for the traffic stop except in a tiny fraction of circumstances suggests that there is a genuine need in the future to develop a more robust data field that requires officers to identify in more detail the particular provincial or municipal offence at issue for the traffic stop.

    - In the three-year period from 2015 to 2018, Black Drivers were at least 3 times more likely to be stopped for both Criminal Offenses and Suspicious Activities than White Drivers. Likewise, Middle Eastern Drivers were at least 2 times more likely to be stopped for both Criminal Offenses and Suspicious Activities than White Drivers. Since the categories of Criminal Offense and Suspicious Activity were cited so infrequently as the reason for the traffic stop, reliable inferences about these racial disproportionalities are difficult to make and reinforce the importance in future data collection to further disaggregate the reasons for stop data field.

OUTCOMES OF TRAFFIC STOPS - Do racialized minority drivers experience disproportionately high incidences of specific outcomes for traffic stops by the Ottawa Police Service when compared with their White counterparts during the three one-year periods of 2015-2016, 2016-2017, and 2017-2018? How do these findings compare to the findings reported for *TSRDCP I*?

- **The clear upward trend in the outcomes of traffic stops in the five-year period from 2013 to 2018 is the very significant overall increase in charges. Over the five-year**

period, there is more than a 30% increase in charges resulting from a traffic stop by the Ottawa Police Service.

- o During the same period, there is also a corresponding decrease in drivers receiving warnings. No action outcomes have remained steady across the five years.

- o There is no evident disproportionate higher incidences in charges for racialized minority groups in Ottawa when compared with the White group from 2015 to 2018. White Drivers have seen the greatest increases in likelihood of being charged and are the most likely to be charged when stopped.

- o There may be a link between the increase in charges resulting from a traffic stop and the declining frequency of traffic stops by the Ottawa Police Service. Compared to 2013, when officers engaged in a traffic stop 2018, the traffic stop might have been more serious and involved a violation of a Provincial or Municipal Offence where the officer did not have the same degree of discretion to issue a warning instead of a charge.

PART III

TSRDCP II RECOMMENDATIONS

It is recommended that the Ottawa Police Service Board and the Ottawa Police Service:

1.   Create a formal policy directing officers to permanently track and report the races of people involved in traffic stop encounters.

I.   Use the Traffic Stop Race Data Collection 'Project' as the base for the new Traffic Stop Race Data Collection 'Policy'.

II.   Retain independent experts to tabulate, analyze and report annually or bi-annually on the data.

III.   Experiment with new data fields including neighbourhood level analysis, patrol zones, and time-of-day.

IV.   Refine the current data field for reasons for stops so that there are at least 4 sub-fields for Provincial and Municipal Offenses.

V.   Refine the data field for outcomes so that there are at least 3 sub-fields for No Action.

VI.   Establish annual public reporting.

VII.   Continue to release to the public raw and study data collected by the TSRDCP.

VIII. Analyze the TSRDCP data sets using newer, more innovative statistical methods including causal inference to better under the cause and effect relationship between the race of the driver and the traffic stop encounter.

IX.   Integrate experiments and pilots of new protocols and Artificial Intelligence technology for traffic stops into the analysis and reporting of the TSRDCP. (See Recommendations 4, 5,6, &7.)

2.   Set annual targets for the reduction of the high racial disproportionalities of Middle Eastern and Black traffic stops.

I.   Set 10% annual reduction targets for Middle Eastern and Black drivers as a group so that
   a. by 2025 there will be no longer high disproportionalities for these two race groups.

II.   Set 20% annual reduction targets for young male Middle Eastern and Black drivers as a group so that by 2030 there will be no longer high disproportionalities for these two race sub-groups.

III.   Require regular audits by first line supervisors of officer interactions with public.

IV.   Conduct operational reviews of race data collection monthly statistical totals.

V.   Monitor pattern changes and statistical anomalies in race data collection at the officer and district level.

3.   Develop police service procedures on racial profiling that includes a clear definition of bias neutral policing that is inclusive of explicit and implicit bias.

I.   Put policies and procedures in place to limit the impact of bias.

II.   Policies must extend to officer conduct, and must distinguish explicit from implicit bias.

III.   In cases of conduct involving possible implicit bias – patterns that might be occurring outside of the officers' conscious control – it may not be appropriate to formally discipline the officer. Instead, the best human rights practice is facilitating positive contact across groups, conversation, and training that aims to raise awareness of implicit bias.

IV.   Police officers should be required to take human rights training at least every three years, including effective training initiatives on racism, race relations, racial profiling, and unconscious/implicit bias.

V.   Leverage the OPS code ethics and value in order to inspire principled performance among officer employees and police management.

4. Experiment with new and innovative protocols for engaging in traffic stops.

I.   Retain external experts to design and analyze new protocols such as checklists for completion by the officer prior to undertaking a traffic stop modelled on Randomized Control Trials (RCTs).

II.   Pilot these protocols and analyze their impact on racial disproportionalities in traffic stops as well as on community safety.

III.   Analyze data from these experiments using the baselines from the *TSRDCP I and II*.

IV.   Scale up effective protocols.

4. Test the decision points that are most vulnerable to implicit bias during traffic stops and be innovative about how those decision points may be shifted, including using new Artificial Intelligence technology.

I.   A potential intervention for reducing the effects of implicit bias on disproportionality is to provide guidance in making unbiased discipline decisions in ambiguous or snap-decision situations.

II. General guidance (e.g. telling police officers to be less bias or bias-neutral) is not effective, but specific guidance may aid in such situations. Efficient and effective development of specific guidance requires a set of empirically-derived vulnerable decision points on which to focus training and implementation.

III. Identify the situations that are most likely to be affected by implicit bias – a few strategies can be used to address bias in these specific situations.

IV. Identify specific situations where disproportionality is more likely to occur – eg. time of day also substantially affects disproportionality.

V. Teach neutralizing routines for vulnerable decision points.

VI. Retain independent experts to guide experiments with new Artificial Intelligence technology such as front hood license plate scanners to provide bias-free reasons for traffic stops.

VII. In addition to clarifying procedures, research indicates that it may be effective to use the police service data to teach officers to identify when they are in a vulnerable decision point (e.g. fatigue, suspect demeanor, subjective behavior) and use a self-review routine just prior to making a discipline decision. Such if-then routines, frequently called "implementation intentions," may neutralize the likelihood of disproportionate discipline from implicit bias, especially in situations that are chaotic, ambiguous, or seem to demand snap judgments.

VIII. Analyze data from these tests and experiments using the baselines from the *TSRDCP I and II*.

6.   Using Artificial Intelligence (AI) technology, develop an Early Intervention System (EIS) that captures all necessary information to alert supervisors to potential racial discrimination by both individuals and platoons/units/divisions.

I. This AI system should capture and flag patterns related to racial disproportionalities and disparities, including in:
   ❖ Citizen complaints
   ❖ Lack of service situation
   ❖ All uses of force, broken down by level and type
   ❖ All stops of civilians
   ❖ Civil litigation,
   ❖ Resist-arrest incidents
   ❖ Charges and arrests.

II. Consider integration of appropriate EIS software options for supervisory caseload management.

III. The early warning and intervention technology should provide for the tracking of officer behavior through data analysis that can produce various types of 'alerts' that a problem exists.

- ❖ The software should provide for alert by type of incident, i.e., set different thresholds for different incident types, such as citizen complaints, use-of-force incidents, or lack-of-service situations.
- ❖ The software should provide for a 'monitored officer alert', which targets a specific employee/unit with an alert whenever the individual/unit is involved in an incident.
- ❖ The software should provide for a 'top percentile alert', which allows the OPS to identify instantly persons/units that appear in a designated top percentile for a specific time period.
- ❖ The software should provide for a 'detail alert' by allegation and by use-of-force type.
- ❖ The software should provide for an 'overall' alert that is triggered regardless of incident type.

7. Conduct a Body-Worn Camera Pilot Project.

I. Police body-worn cameras (BWCs) are being rapidly and widely adopted by law enforcement for their suspected capacity to increase police accountability and transparency.

II. Work with an independent expert to develop a pilot project to collect social scientific evidence of the positive benefits of the use of body-worn cameras as they relate to police-community interactions.

III. The study should employ a "mixed method approach" that collects quantitative and qualitative data, centred on race and race-related information, and be modelled on Randomized Control Trials (RCTs).

IV. Develop appropriate privacy guidelines for the use of body-worn cameras in consultation with the Information and Privacy Commissioner of Ontario.

V. Select two districts in the Ottawa Metropolitan Census Area to conduct the pilot project, with relatively dense urban populations.

VI. Require mandatory-use BWC policies.

VII. Require officers wearing the cameras to inform citizens that they are wearing a BWC and that the device is recording.

VIII. Hand out survey invitations to a minimum of 5000 motorists following police stops.

IX. The survey should include questions about the citizen's experience, as well as their opinions of police in general.

X. Compare body camera survey results (procedural justice policing) with Traffic Stop Race Data (regarding racial disproportionality) annually.

Part IV:
Technical Notes

Note 1: Race Categories

For the purpose of conducting this research, race data are divided into several race categories: Indigenous peoples, White, Black, East/Southeast Asian, South Asian, Middle Easterns, and other racialized minorities. The following chart is created for the purpose of cross-referencing the seven Ottawa Police Service' race categories and the 12 race categories of the Statistics Canada 2016 Census, along with some examples of these race categories.

Ottawa Police Service - Race Categories N: 7	Statistics Canada Census, 2016 - Race Categories N: 12	Examples
Indigenous peoples	Aboriginal persons	First Nation (North American Indian), Metis, Inuk (Inuit)
White	White	People of European origins
Black	Black	People of African and Caribbean origins
East Asian, Southeast Asian	Chinese	Chinese
	Filipino	Filipino
	Korean	Korean
	Japanese	Japanese
	Southeast Asian	Indonesian, Laotian, Malaysian, Singaporeans, Thais, Vietnamese, etc.
South Asian	South Asian	East Indian, Pakistani, Sri Lankan, Bangladeshi
Middle Eastern	Arab/West Asian	Afghan, Armenia, Egyptian, Iranian, Iraqi, Lebanese, Palestinian, Moroccan
Other Racialized Minorities	Latin American Other (Specify)	Mixed races, Pacific Islanders, and people from Latin and South Americans

Note 2: Methodology

This report consists of two types of analysis: one is representation analysis on incidences of traffic stops, the other one is distribution analysis of the reasons for and outcomes of traffic stops.

Representation Analysis on Incidences of Traffic Stops

The race data collected by the Ottawa Police Service on traffic stops is designed to answer the question: Which race groups, if any, are proportionately over-represented in the traffic stops?

For each year of analysis in TSRDCP II, two sets of race data were required - one is the race data in the traffic stops records from the Ottawa Police Service, the other is the race data in the commute-to-work segment of the labour force data as collected by the 2016 Census. The second data set was used for benchmarking purposes.

The 2016 Long Form Census was a mandatory survey undertaken by Statistics Canada in which 25% of Canadian households received the questionnaire. The survey provides social and economic information, covering such topics as: immigration, citizenship, place of birth, ethnic origin, visible minorities, religion, Aboriginal peoples, labour, education, place of work, commuting to work, mobility and migration, language of work, income, earnings, housing and shelter costs. The commuter data has been weighted to enable benchmarking against the traffic stop data. The micro data for the benchmark was provided by staff from Statistics Canada.

Based on the feedback from community members, a further breakdown of race data by sex (male and female) and age groups (aged 16-24, 25-54, and 44 and over) allowed for the analysis to be drilled down to the level of race subgroups. The reason why the term "representation" is used to describe this analysis is that our analysis uses an external benchmark for data comparison.

"Commute-to-work" persons are persons who usually drive to work during the week of May 1 to May 7, 2016 according to the data collected in Question 43(a) & (b) of the Long Form 2016 Census. By implication, these drivers are the employed and the data does not include drivers who drive for non-work purposes.

Being drivers in this data set does not mean that they drive all the time, 24 hours a day, and 365 days a year. The benchmark is not perfect for measuring against the driving population captured in the Ottawa Police Service's traffic stops records because that population

encompasses drivers for both work and non-work purposes. However, as there are no available comparable data on "non-work" drivers or driving population (people driving on the streets) by race groups within the entire boundaries of Ottawa under the jurisdiction of the Ottawa Police Service, the authors utilized the best benchmark available to provide a proxy for measuring the extent of representation of race in traffic stops in Ottawa.   This benchmark is more suitable for this kind of analysis than other data sets, based on its driver population size and the geographic boundaries the data covered.

Essentially, the traffic stop data, broken down by race, sex and age (as expressed in percentages of the total population in Ottawa) was then compared with the "commute-to-work" segment of the Ottawa residents (as expressed in percentages of the total "commute-to-work" population in Ottawa).
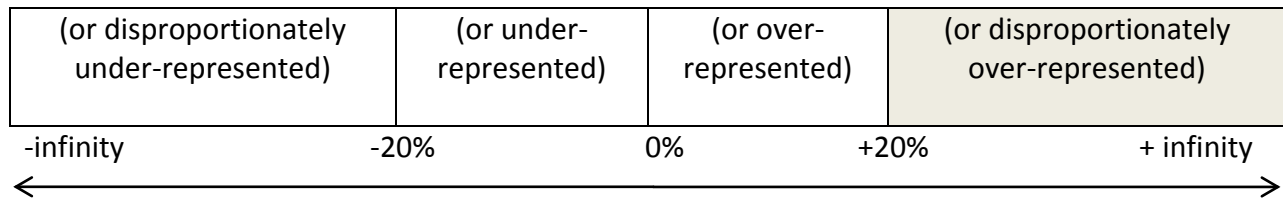
The values of the differences in comparison, holding race, sex and age constant, were expressed in positive or negative percentages. Positive percentages denote over-representation (that is, high incidences) of race groups in traffic stops, and negative percentages denote under-representation (that is, low incidences) of race groups in traffic stops).

How much attention one should pay to these percentages in these two data sets was determined by the "20% rule". This rule should not be construed as a measurement of statistical significance. Rather, it is an indication of the unlikelihood of errors when the 20% difference is reached, either positive or negative. It is used to increase the confidence level of how we interpret the data.   Data, either higher than +20% or lower than -20%, is viewed as better in quality. Percentages which are in range between +20% and -20% are considered less robust in data quality.

For our working purposes in interpreting the data, a zero percentage (0%) in the proportionality of incidences in traffic stops for a race group means the group's proportion in traffic stops corresponds to its proportion in the driver population (who commute to work). Data which is in the range between +19.99% and 0% is termed as "high incidences" and -19.99% and 0% is termed as "low incidences". Data which is +20% or over are termed as "disproportionately high incidences", and -20% or less are termed as "disproportionately low incidences".

The following diagram may help to put proportionalities of incidences in perspectives:

Disproportionately low incidences	Low Incidences	High Incidences	Disproportionately high incidences

(or disproportionately under-represented)	(or under-represented)	(or over-represented)	(or disproportionately over-represented)

-infinity	-20%	0%	+20%	+ infinity

Although the "20% rule" allows our data analysis to be more robust; it has a conservative implication. It puts aside a pool of "high incidences" and "low incidences" between +19.99% and -19.99% as cushion of research errors, and reserves "disproportionalities" to those incidences with percentages of differences +20% or higher and those -20% or lower.

Distribution Analysis of Reasons for and Outcomes of Traffic Stops

The race data collected by the Ottawa Police Service on traffic stops also provide answers to the following two questions:

- Which race groups, if any, have disproportionately high incidences in specific reasons for traffic stops?
- Which race groups, if any, have disproportionately high incidences in specific outcomes of traffic stops?

This distribution analysis of reasons for traffic stops focuses only on race. The data are not broken down by sex and age. The reason why the term "distribution" is used in this analysis is that our analysis focuses on the internal distribution patterns of data, using an internal benchmark (and that is, the White group) for measurement, and not an external benchmark.

(a) Reasons for traffic stops

In this analysis, three categories of reasons are used: criminal offences, provincial and municipal offenses (or non-criminal offences) and suspicious activities.

- "Criminal offenses"
- "Provincial and municipal offenses"
- "Suspicious activities"

These three categories cover all the reasons why police officers traffic-stop. To answer the question on the proportions of race groups distributed among these three categories, it follows a two-tiered calculation: First, holding each race group constant, the percentages of traffic stops in which police officers used each of these categories of reasons is calculated. Second,

holding each category of reasons constant, the percentages of each race group in these categories are then compared with those of the White group. As there is a perception that racial profiling exists, the White group is therefore used as the benchmark. The differences in percentages between each of the racial minority groups and the White group under each of the reasons are expressed in percentages.

Once again, using the "20% rule", this research considers only the differences between the White group and each of the racialized minority groups that are +20% or higher. Incidences with "+20% or higher" percentages are termed as "disproportionately high incidences". Data on these incidences are more robust and are relatively error-free.

(b) Outcomes of traffic stops

In this analysis, three categories of outcomes are used: "final (no action)", "warned" and "charged". These three categories cover all the outcomes of traffic stop.

- "Final (no action)" -
- "Warned"
- "Charged" – includes criminal and non-criminal offences.

To find out the proportions of race groups distributed among these three categories, the distribution of each of these three outcomes is tabulated for each race group and these proportions are expressed in percentages.   As there is a perception that racial profiling exists, the White group is the benchmark. The percentage of each of racial minority groups under these three outcomes is then compared with that of the White group under each of the same three outcomes. The differences of these two data sets are expressed in percentages.

Once again, using the "20% rule", this report focuses on the differences between the White group and each of the racialized minority groups which are +20% or higher in percentages. The outcomes of traffic stops with these percentages are considered to be "disproportionately high incidences".

Benefits

The methodology used in this study has several benefits:

- Unlike other methodologies, this methodology provides an overview of how race groups fare in traffic stops, covering not just a limited sample of people in a few locations in Ottawa, but all drivers-to-work in the entire City of Ottawa.   Research results based on

local studies or those with limited sample usually beg for more studies to determine their capability of generalization.

- Data generated from this methodology are simple statistics based on a simple comparison of race groups using traffic stops data and data on those who drive to work.

- This methodology shows, in a relatively simple way, the anomalies among race groups traffic-stopped by police officers. These anomalies are measured in percentages of differences, and they are not skewed by the size of the race groups. The "20% rule" enables the readers to determine which anomalies among race groups are less prone to errors. The rule also enables Ottawa Police Service to set priorities in addressing these anomalies as they have been quantified. While this methodology does not determine the causation of traffic stops, the anomalies suggest areas for deeper analysis.

Limitations

Scholars have been attempting to "prove" or "debunk" racial profiling. Not only is the concept vague or ambiguous at times, it is also a concept without much of a consensus among scholars. Therefore, in demonstrating the existence or the extent of racial profiling, numerous approaches and research tools have been adopted mostly on traffic stops in the U.S., and to a much lesser extent in Canada. These studies brought forward some new insights, and yet, they have been criticized for their inadequate methods, measuring tools, and/or benchmarking.

This status quo of research in racial profiling reflects largely the multiple "moving parts" of the subject matters. Research is also hindered by the lack of comparable data or information (for benchmarking purposes), the availability or limitations of feasible tools, the sensitivity of the subject matters, and the difficulty of having a representative sample of the driving population, timewise and location-wise.

The methodology utilized in this study is not able to escape from some of the above-mentioned realities. Here are highlights of a few limitations:

- It provides a correlational (not causal) relationship on race and incidents of traffic stops. It does not examine the motives of police officers behind the traffic stops and offers no definitive explanations on why certain race groups are over-represented in traffic stops or why they are more prone to be stopped based on specific reasons or have certain outcomes based on the traffic stops.

- It compares Ottawa Police Service' traffic stops data based on the "other identification" method (that is, police officers identified the races of the drivers) with the Statistics Canada's "commute-to-work" driver population data based on the "self-identification" method (that is, drivers identified their own races). Studies in racial identification suggested that these methods often yielded different results, and an "other identification" method is preferred only under limited circumstances.

- The external benchmark used in the methodology is the "commute-to-work" segment of the labour force data collected in the 2016 Census.   This benchmark is based only on the individuals who drive to work, not when they use their cars for non-work purposes. In addition, it is not clear the extent to which the data cover unemployed individuals and those not in the labour force. However, reliance on commute-to-work data for constructing a portrait of the driving population in Ottawa has been reinforced by micro-data from Statistics Canada General Social Surveys for two of the racial groups (White Drivers, Black Drivers).

Note 3: Ottawa Police Service' Traffic Stops Data Sets

The *TSRDCP II* report is based on the traffic stop data collected by the Ottawa Police Service from June 27, 2015 to June 26, 2018. All traffic stops undertaken by the Ottawa Police Service during this period were the subject of the data collection project. The individual police officer conducting the stop entered the data fields. A total of 149,222 traffic stops was reported.

The analysis in this report only uses of 96,436 of these traffic stops. Not all of the 149,222 traffic stops records were used for analysis principally because of the following reasons:

- As the analysis covers only persons 16 years and old, all traffic stops with drivers under 16 years of age have been filtered out.

- The representation analysis involved only traffic stop records with complete information on the fields of sex, age, and geographic locations in addition to race. Stops with incomplete information for any of these fields have been filtered out.

- As data on the commute-to-work drivers in Ottawa is based on Ottawa residents only, all traffic stops with non-Ottawa residents have been filtered out.

As a result of these filters, the representation analysis in the report is based on 96,436 traffic stop records. For the sake of consistency, the distribution analysis of the reasons for and outcomes of traffic stops used the same data set.

It is important to note that when the data is broken down by race, sex, and age, or by police districts with reasons for or outcomes of traffic stops, there are cases in which the numbers in various tabulated data cells become small (as in the case of Indigenous peoples). Such small numbers reduce data reliability and impact on data interpretation.

ENDNOTES

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