Analysis to Action Model:
Roadmap to Equity

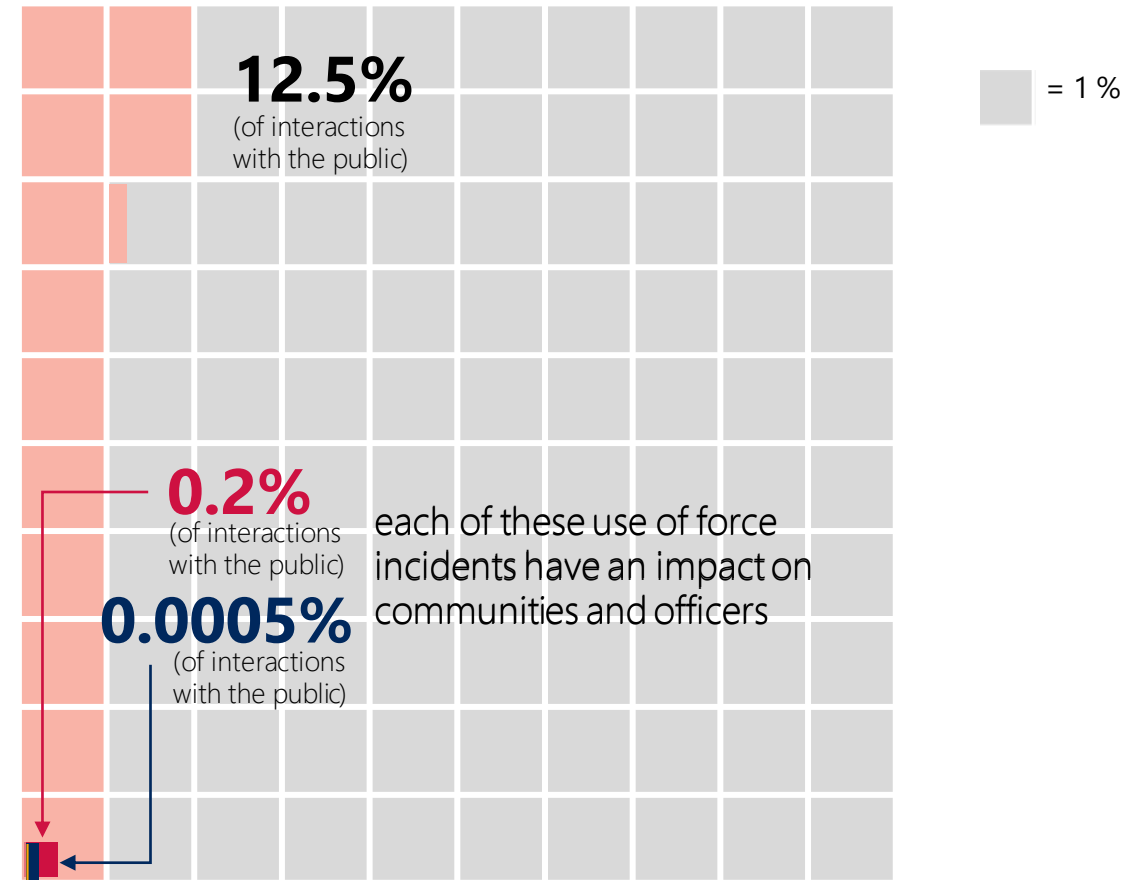*Use of Force: Measurement & Outcomes*

Data Considerations

1. The level of analyses are incidents of reported use of force. If an incident involves people perceived as a different race from each other, it is categorized as "multiple race group".

2. The small number of use of force incidents limits how finely we can cut the data.

3. Challenges with the provincial use of force report limits understanding of the dynamic contexts for uses of force. Connecting use of force with occurrence data expands our capability to explore deeper questions.

4. We were able to connect 889 (93.7%) Use of Force incidents to general occurrence data. Unconnected reports were due to data entry errors or locked occurrences (i.e. serious ongoing criminal investigations).

5. To understand the nature of incidents before and after officers arrive on the scene, we gathered dispatcher information (Calls for Service) as well as information recorded by officers. Calls for Service and primary offence/incident types are categorized in groups to identify meaningful trends.

6. The unit for spatial analysis is occurrence location that resulted in a use of force incident (for use of force analysis); and, arrest location (for strip search analysis).

In 2020, there were **692,837** interactions with the public in response to 911 calls, traffic and pedestrian stops, and other policing activities

leading to

86,520 enforcement actions*

and

949 reportable use of force incidents involving 1,224 members of the public
(a use of force report may involve more than one officer & more than one member of the public)

of which

in **371** incidents firearms were pointed
in **4** incidents firearms were discharged
and in **2** incidents injuries were fatal

12.5%
(of interactions with the public)

0.2%
(of interactions with the public)

0.0005%
(of interactions with the public)

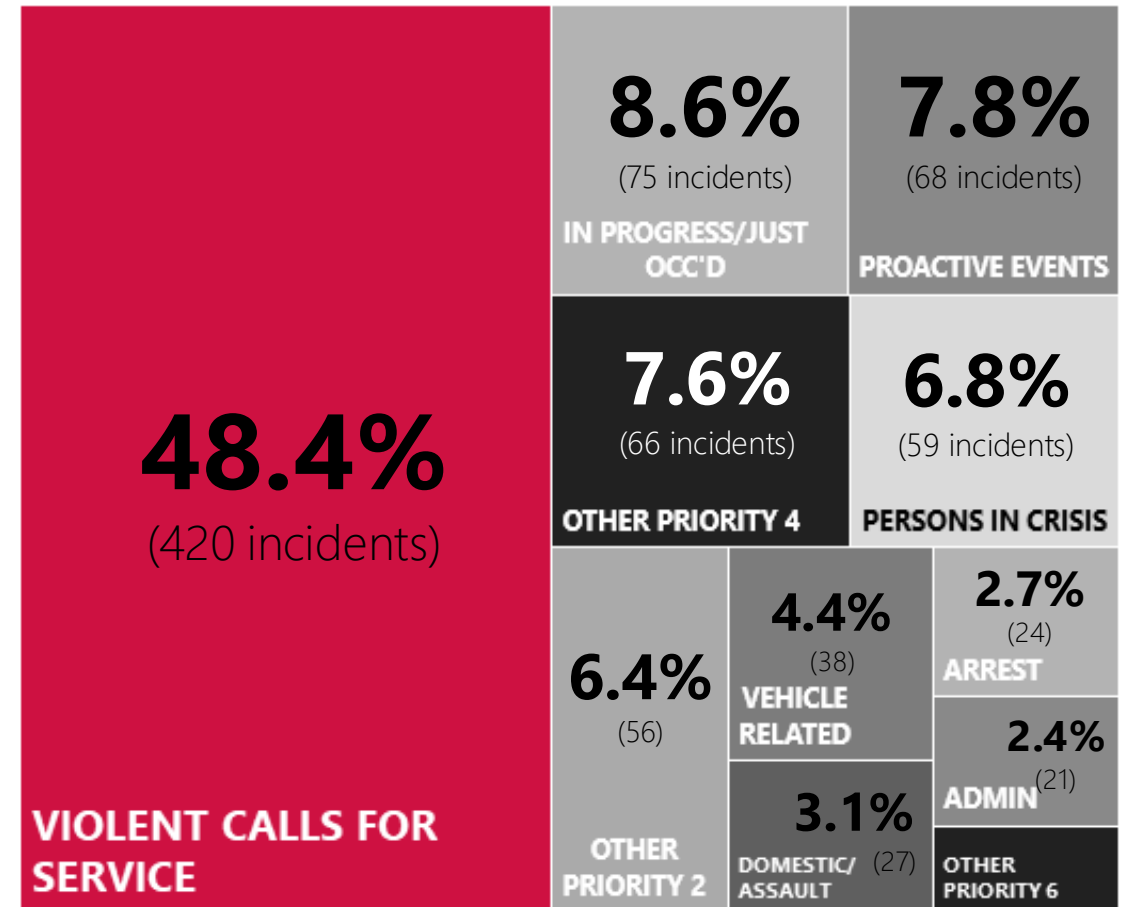each of these use of force incidents have an impact on communities and officers

= 1 %

* **enforcement action** includes incident reports of arrests resulting in charges (including released at scene) or released without charges; *Provincial Offences Act* Part III tickets; summons; cautions; diversions; apprehensions, and those with role type "subject" or "suspect"

Association to Proactive Events and Calls for Service

Of the 949 reportable use of force incidents, we were able to collect calls for service information for 868 (91.5%) of them.

Violent Calls for Service made up the largest group of reported Use of Force incidents.

48.4%
(420 incidents)

VIOLENT CALLS FOR SERVICE

8.6%
(75 incidents)
IN PROGRESS/JUST OCC'D

7.8%
(68 incidents)
PROACTIVE EVENTS

7.6%
(66 incidents)
OTHER PRIORITY 4

6.8%
(59 incidents)
PERSONS IN CRISIS

6.4%
(56)
OTHER PRIORITY 2

4.4%
(38)
VEHICLE RELATED

3.1%
(27)
DOMESTIC/ ASSAULT

2.7%
(24)
ARREST

2.4%
(21)
ADMIN

OTHER PRIORITY 6

Relationship to Time of Day

To look at relationships between enforcement actions and reported use of force incidents at different times of the day.

Enforcement actions and use of force incidents varied by time of day and peaked at different times.

Reportable use of force incidents were more likely to occur in the evening and night, compared to enforcement actions
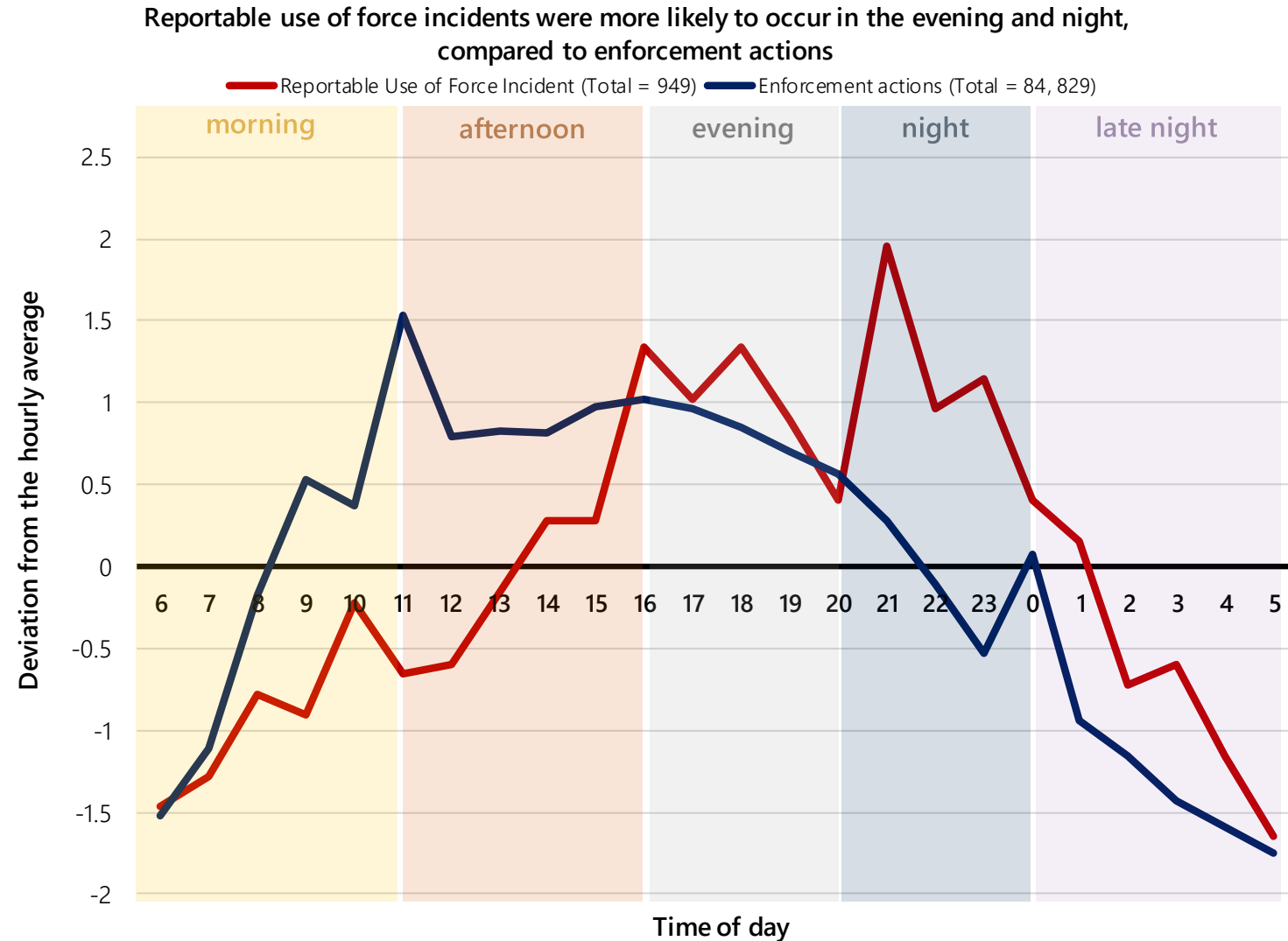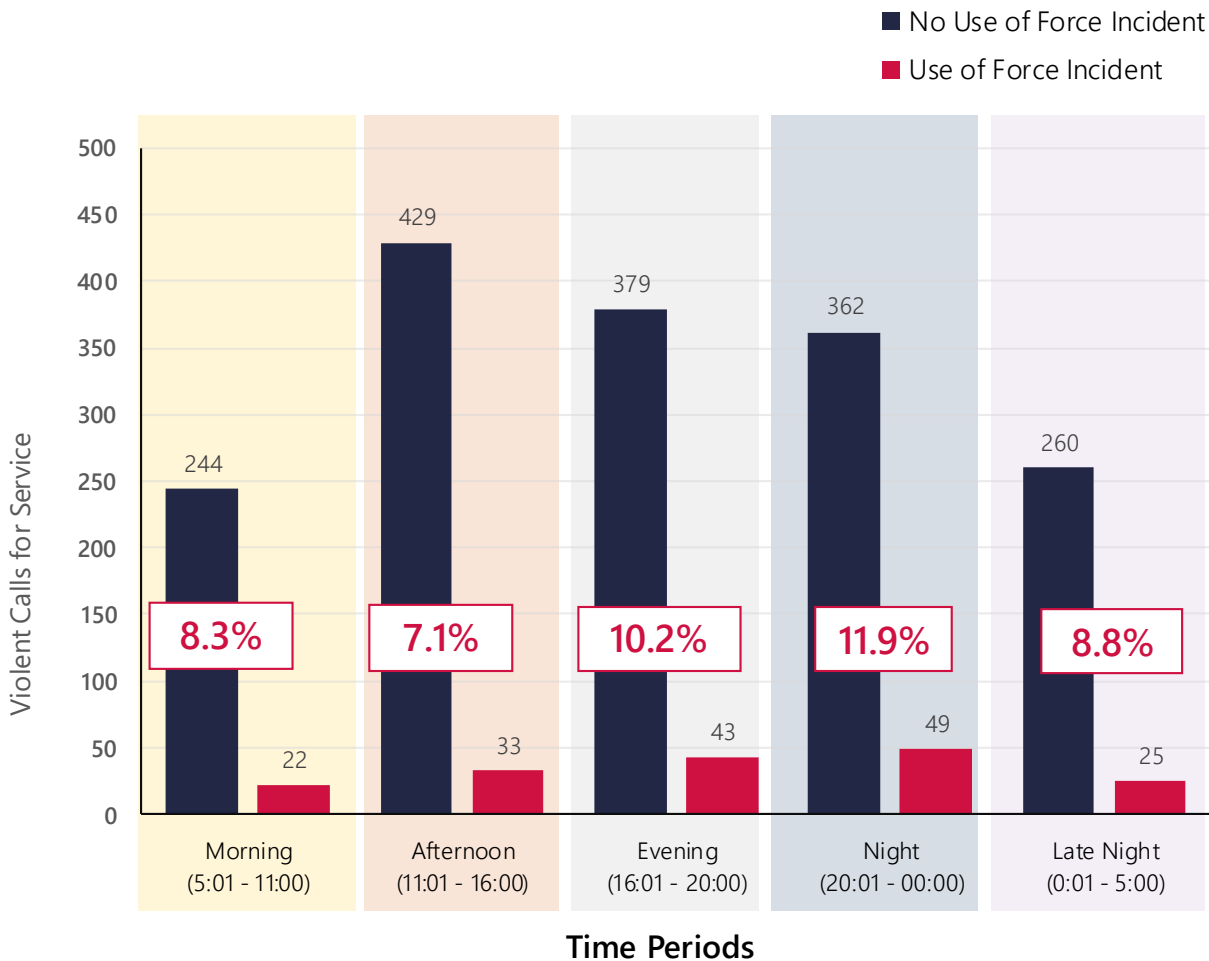
Relationship to Violent Calls for Service

To look at relationships between the time of day of violent calls for service involving weapons and reported use of force incidents.

Enforcement actions related to **Violent calls for service** involving weapons were more likely to occur between afternoon and late night.

Use of force was more likely for violent calls for service that occurred in the evening (10.2%) and night-time (11.9%).

Enforcement actions related to violent calls for service involving weapons includes: Person with a gun, person with a knife, shooting, sound of shotgun, stabbing, and wounding.

Legend:
- No Use of Force Incident
- Use of Force Incident

Y-axis: Violent Calls for Service (0 to 500)

X-axis: Time Periods

Time Period	No Use of Force	Use of Force	Percent
Morning (5:01 - 11:00)	244	22	8.3%
Afternoon (11:01 - 16:00)	429	33	7.1%
Evening (16:01 - 20:00)	379	43	10.2%
Night (20:01 - 00:00)	362	49	11.9%
Late Night (0:01 - 5:00)	260	25	8.8%

Association to General Occurrence Reports

Of the 949 reportable uses of force incidents, we were able to get general occurrence information for 889 (93.6%) of them.*

Occurrences for **Assaults & Crimes against Persons** and **Weapons & Homicide** made up the largest groupings of Use of Force incidents

28.4%
(253 incidents)
ASSAULT & CRIMES AGAINST PERSONS

23.6%
(210 incidents)
WEAPONS & HOMICIDE

15.4%
(137 incidents)
MENTAL HEALTH

9.6%
(85 incidents)
OTHER STATUTE

9.3%
(83 incidents)
ROBBERY

8.7%
(77)
OTHER OFFENCE

6.9%
(61)
MISCHIEF & FRAUD

6.4%
(57 incidents)
VEHICLE RELATED

11.4%
(101 incidents)
FTA/FTC/PAROLEE

8.4%
(75)
HARRASSMENT & THREATENING

5.6%
(50)
DRUG RELATED

5.0%
(45)
WARRANT

4.2%
(37)
BREAK & ENTER

1.0%
(9)
SEX CRIMES

* Each incident may involve more than one type of Primary Offence.

Relationship to Overall Crime Rate

The crime rate in a division may impact police use of force within that division.

The Use of Force Form does not allow us to identify where the use of force incident took place. We looked at the location where the original occurrence took place as noted in the occurrence and aggregated it to a divisional level, to compare with local crime rate.

The Use of Force rate is the percentage of enforcement action incidents that are associated with a use of force incident. They range across the city from 0.8% to less than 1.5% of all enforcement actions.

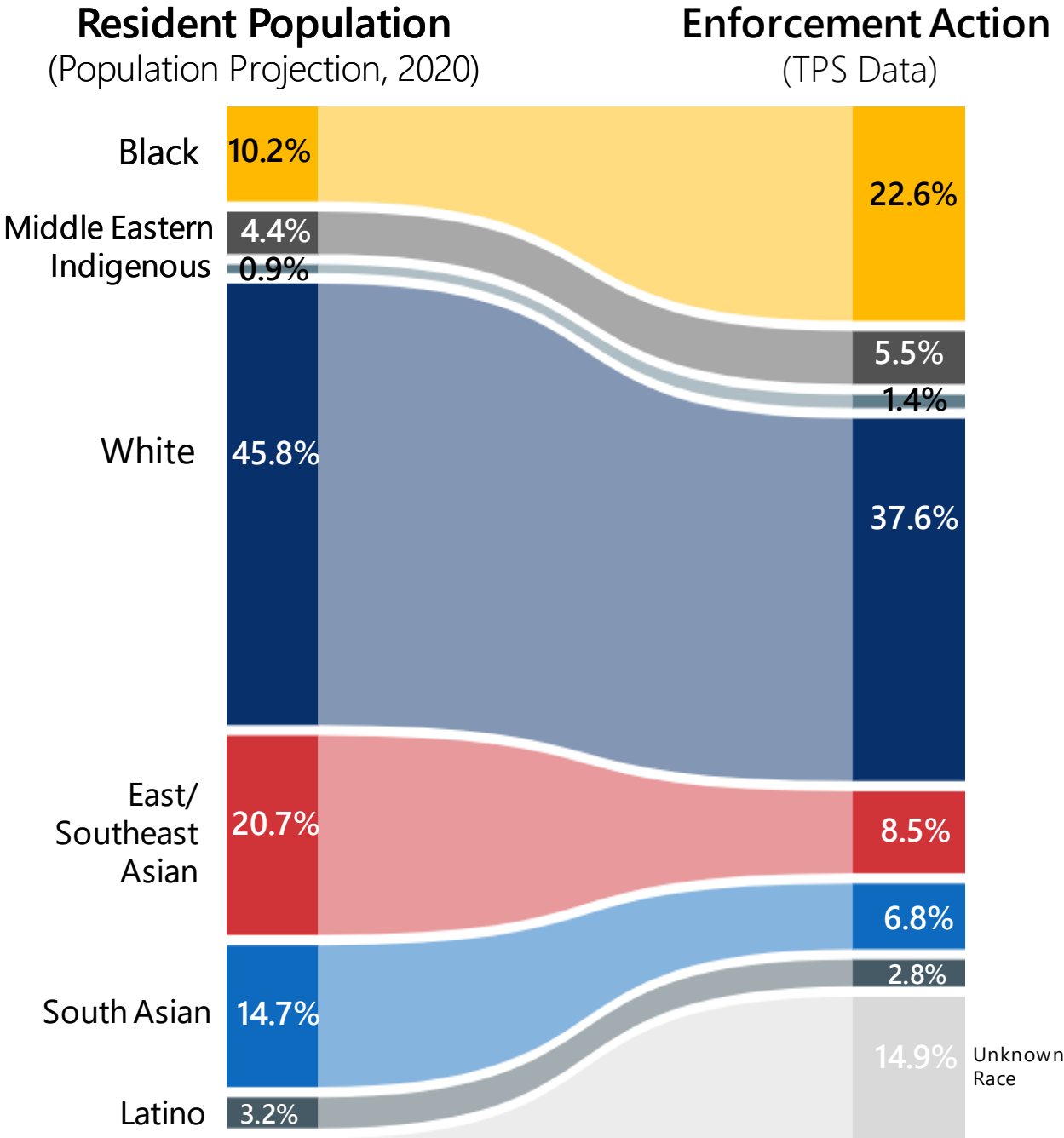Use of force incidents and crime rate usually increase or decrease together at the same time.

correlation coefficient 0.230

Use of Force Rate vs Overall Crime Rate per 100,000 people (2020)
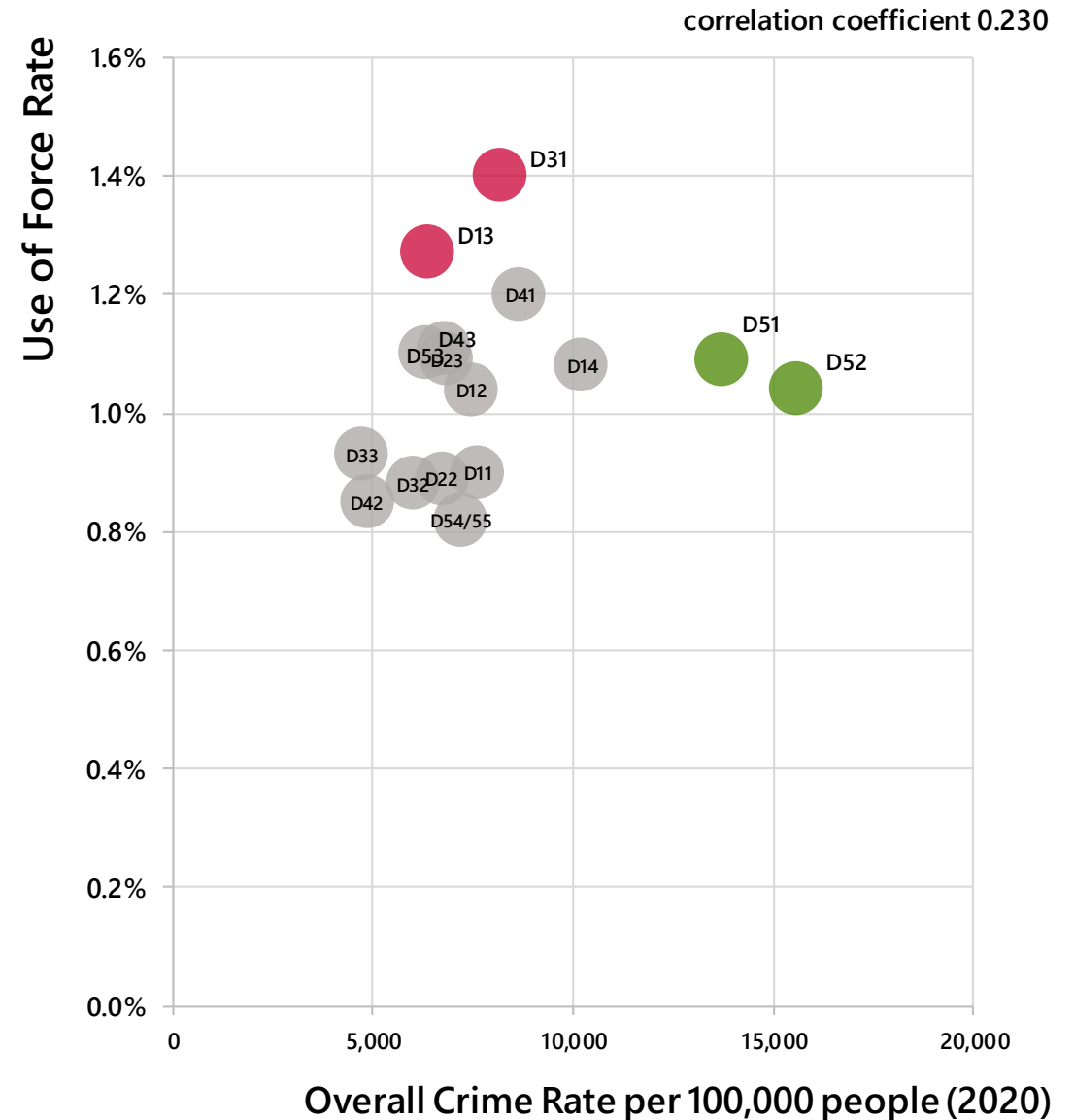
Benchmarks

We looked at the resident population of Toronto compared to the number of people involved in enforcement actions. This helps us see if a group is over or under-represented in police contacts, prior to any potential use of force.

In order to be subjected to a use of force, a person must first encounter police; therefore, Enforcement Action is the benchmark used for the analysis of Use of Force reporting.

While a person may experience more than one enforcement action per year, for comparison to resident population, we counted unique individuals, as population counts one person, one time.

Black People were **2.2x**
Indigenous People were **1.6x**
Middle Eastern People were **1.3x**

Over-represented in enforcement actions compared to their presence in Toronto

Resident Population
(Population Projection, 2020)

Enforcement Action
(TPS Data)

Black 10.2%
22.6%

Middle Eastern 4.4%
Indigenous 0.9%

5.5%
1.4%

White 45.8%
37.6%

East/ Southeast Asian 20.7%
8.5%

6.8%
2.8%

South Asian 14.7%
14.9% Unknown Race

Latino 3.2%

Finding

1

There were differences by race in use of force incidents showing distinct patterns for different race groups. Black, East/Southeast Asian, Middle Eastern and Latino people were over-represented in reported use of force incidents *compared to their presence in enforcement action*.

There were differences in Use of Force by race

We looked at the number of people involved in reported use of force incidents by race.

In 2020, there were **1,224** members of the public involved in use of force incidents.

(a use of force report may involve more than one member of the public)

482 (39%) people were perceived as Black
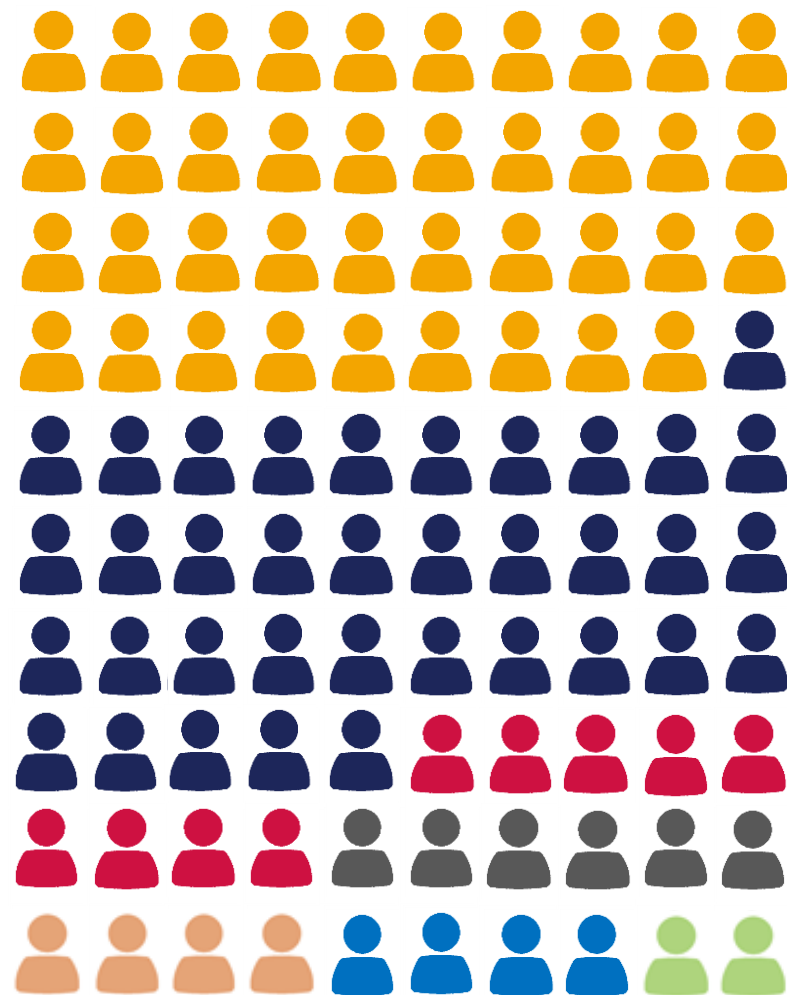
442 (36%) people were perceived as White

104 (9%) people were perceived as East/Southeast Asian

72 (6%) people were perceived as Middle Eastern

49 (4%) people were perceived as Latino

49 (4%) people were perceived as South Asian

26 (2%) people were perceived as Indigenous

= 1 %*

*percentage rounded to the nearest whole number

There were differences in Use of Force by race

We looked at the number of people involved in use of force incidents compared to the group's population in enforcement actions. This helps us see to what extent a group may be over or under-represented in uses of force

Black People were **1.6x**
East/Southeast Asian People were **1.2x**
Middle Eastern People were **1.2x**
Latino People were **1.6x**

over-represented in Use of Force incidents compared to their presence in enforcement action

A person may experience more than one enforcement action per year and may experience more than one reportable use of force. For comparison of enforcement action to use of force,, we did not remove duplicate enforcement actions (as was done for the comparison to resident population). The Use of Force Report form does not allow us to know how many use of force incidents a specific member of the public was involved in, as it is anonymized.

Enforcement Action (TPS Data) → Use of Force (TPS Data)

Black 24.4% → 39.4% (482)
East/Southeast Asian 7.1% → 8.5% (104)
Middle Eastern 4.9% → 5.9% (72)
Latino 2.6% → 4.0% (49)
White 40.5% → 36.1% (442)
South Asian 5.7% → 4.0%
Indigenous 2.3% → 2.1%
Unknown Race 12.5%
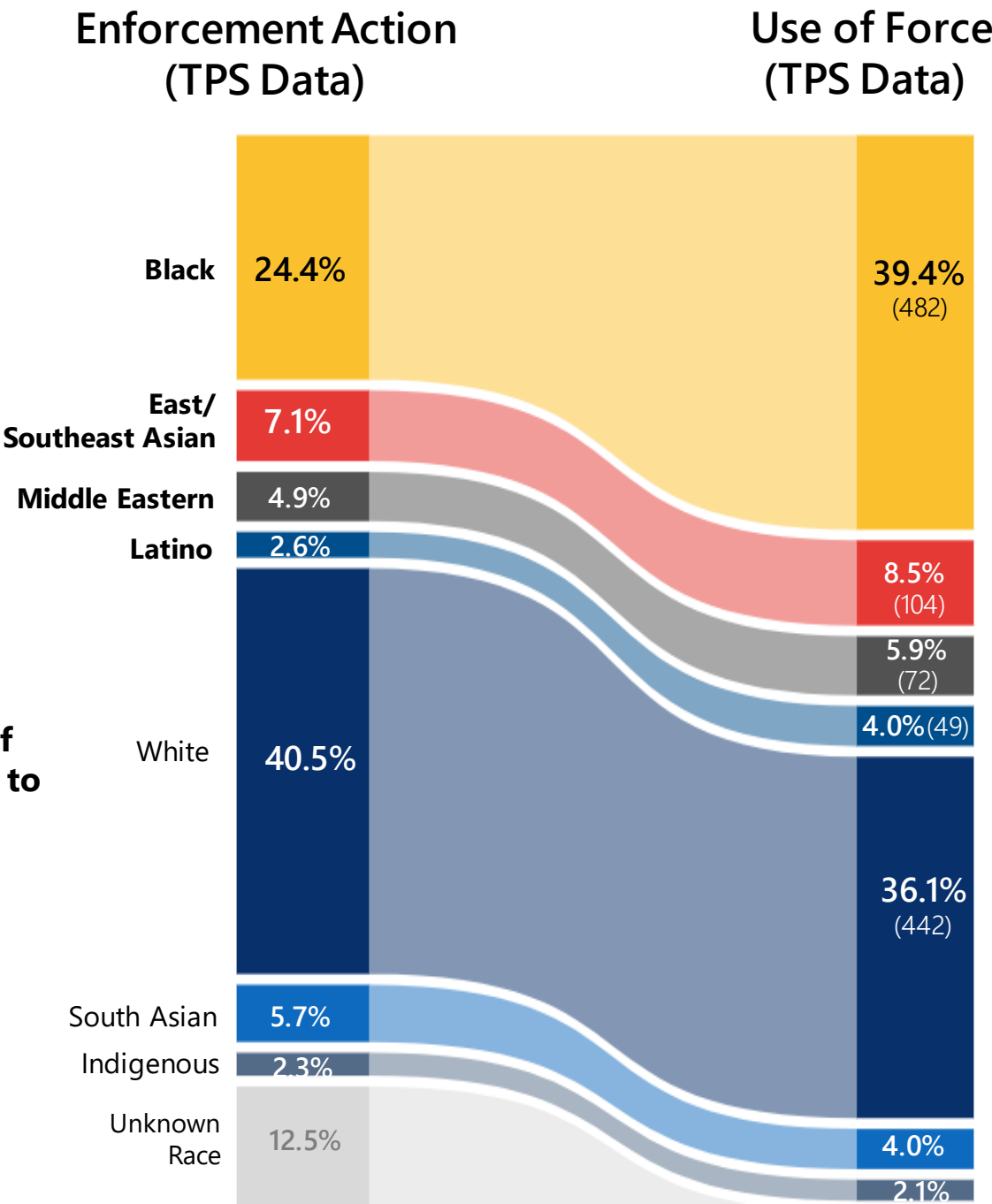
A multiple benchmark approach lets us see the different outcomes in the police pathway for each race group. Identifying these patterns helps us to know where there may be opportunities for improvement to reduce use of force outcomes.

Each race group showed distinct data patterns. For example:

Indigenous People were over-represented in enforcement action **1.5x** their presence in Toronto, but were under-represented in use of force incidents **0.9x** (26 incidents) once they had an enforcement action. This data pattern may be characterized as **high** contact, low conflict.

Black People and **Middle Eastern People** were over-represented in enforcement action relative to their presence in Toronto, and over-represented in use of force incidents once they had an enforcement action. This data pattern may be characterized as **high** contact, **high conflict**.

East/Southeast Asian and **Latino** people were under-represented in police enforcement actions but over-represented in use of force once they had an enforcement action/police contact. This data pattern, low contact, **high** conflict, would have otherwise been missed if using a singular benchmark.

Each race group showed a distinct pattern when comparing their representation in enforcement action to their representation in reportable use of force incidents.

	Representation in Enforcement Action	Representation in Use of Force Incidents
Black People	over	over
Middle Eastern People	over	over
Indigenous People	over	under
Latino People	under	over
East/Southeast Asian People	under	over
South Asian People	under	under
White People	under	under

There were differences in Use of Force by race and *Time of Day*

We looked at the relationship between time of day and uses of force by race to see if there is disproportionality by race groups at different times of day.

Occurrences involving **White**, **East/South East Asian**, **Latino,** and **Middle Eastern** people were **under-represented** in reportable use of force incidents regardless of the time of day.

Occurrences involving **Black people** were **over-represented** in reportable use of force incidents regardless of time of day.

Occurrences involving Black People were over-represented in reportable use of force incidents regardless of time of day
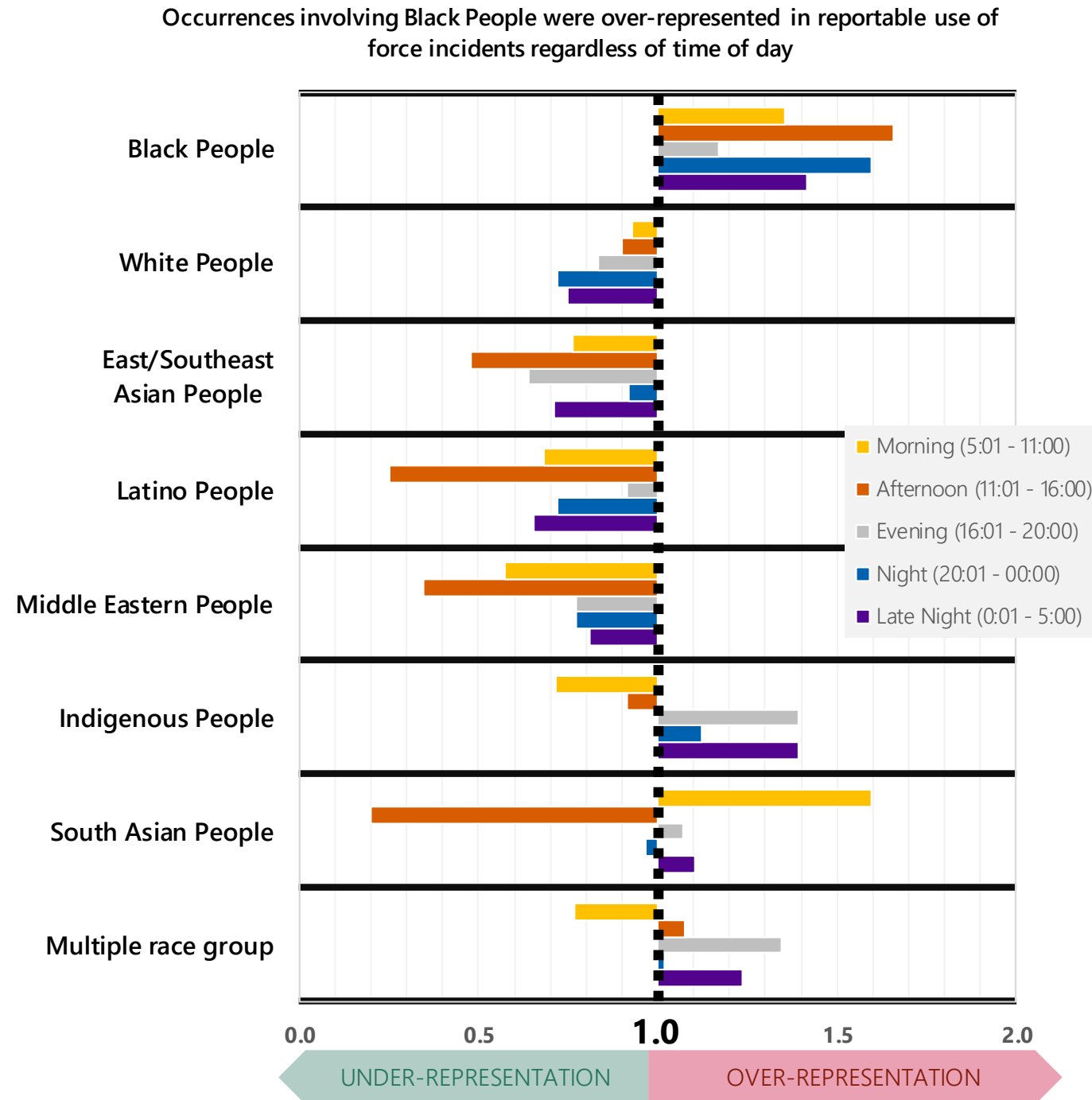
Finding

2

Officers may use different types of force in efforts to de-escalate or bring a situation under control, and we found that when force was used, Black people were over-represented in higher types of force used.

There were differences in *highest type of force* used by race

Officers may use multiple levels of force in an attempt to deescalate a situation. We looked at the highest level of force used across all officers in an incident to see if different race groups experience different levels of force.

Black, South Asian and **East/Southeast Asian** people were **more likely** to experience higher uses of force compared to White people across all use of force incidents.

Proportions of Black, East/Southeast Asian people and multiple race group increased in incidents with higher types of force used, compared to White people

	Black People	East/Southeast Asian People	White People	Multiple race group
Physical or Other type of force	28%	6%	54%	0%
Less than lethal force	33%	7%	43%	3%
Handgun drawn	38%	8%	37%	9%
Firearm pointed	40%	10%	26%	11%

■ Physical or Other type of force ■ Less than lethal force ■ Handgun drawn ■ Firearm pointed
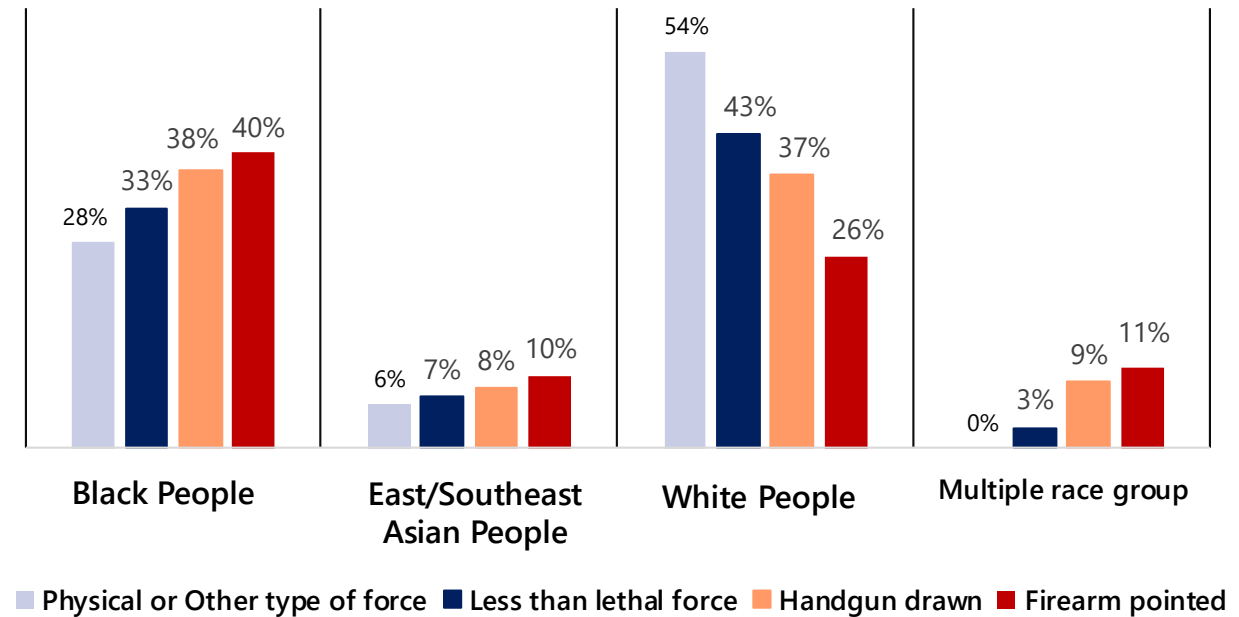
Finding

3

Differences by race remained in incidents after taking into account weapons, calls for service that result in an enforcement action, and frequency of police enforcement actions.

Differences by race remained after taking into account *perceived weapons*

We looked at the relationship between the perception of weapons by Race and Use of Force decisions.

Highest types of force used in incidents where officers perceived weapon(s) carried by people (Total = 949)

	Physical or Other force	Less than lethal force	Handgun drawn	Firearm pointed
Perceived weapon(s) carried (Total = 800)	2.2%	39.6%	14.5%	43.6%
No weapons (Total = 149)	22.1%	57.7%	5.4%	14.8%

Differences by race remained after taking into account *perceived weapons*

We looked at the relationship between the perception of weapons by Race and Use of Force decisions.

Black People were:

1.5x more likely	than White People to have <u>firearms pointed</u> where:	weapons were perceived
2.3x more likely		no weapons were perceived

White People were:

1.4x more likely	than Black People to have <u>less than lethal force</u> where	weapons were perceived
2.7x more likely	than Black People to have <u>physical or other force used</u> where	no weapons were perceived

Proportion of firearms pointed is higher in incidents involving Black people compared to White people, regardless of weapons perceived

No weapons (Total = 149)

- Physical or Other force: 14% / 29%
- Less than lethal force: 62% / 55%
- Handgun drawn: 6% / 8%
- Firearm pointed: 18% / 8%

Perceived weapons carried (Total=800)

- Physical or Other force: 2% / 3%
- Less than lethal force: 34% / 49%
- Handgun drawn: 15% / 15%
- Firearm pointed: 48% / 33%

■ Black People   ■ White People
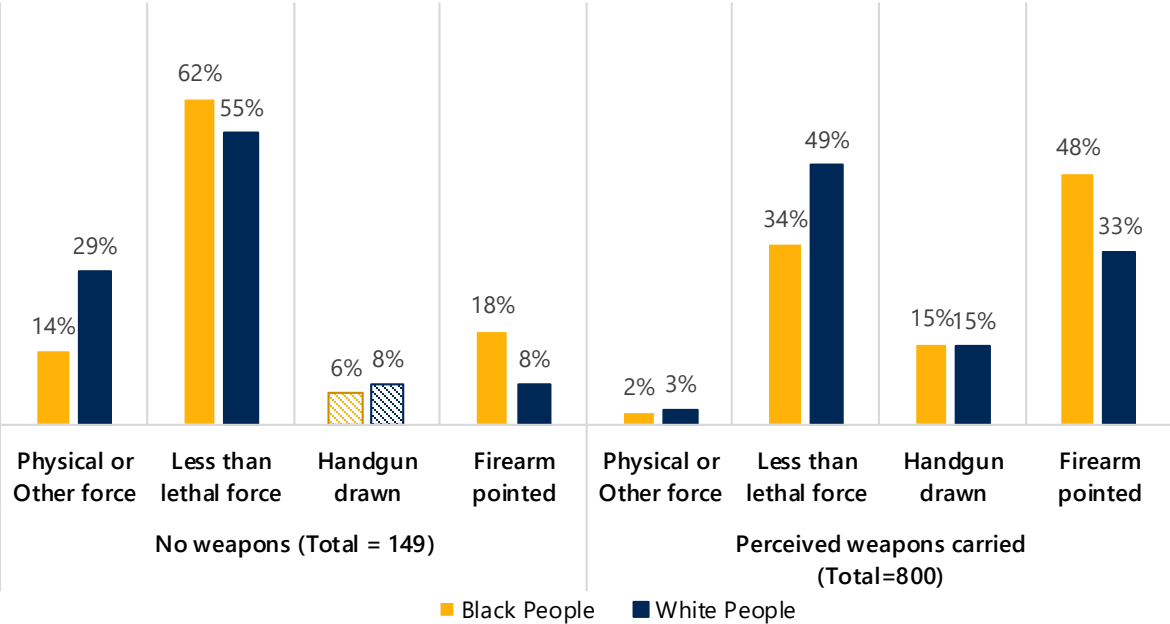
*Dashed lines for Handgun Drawn denote small number of incidents
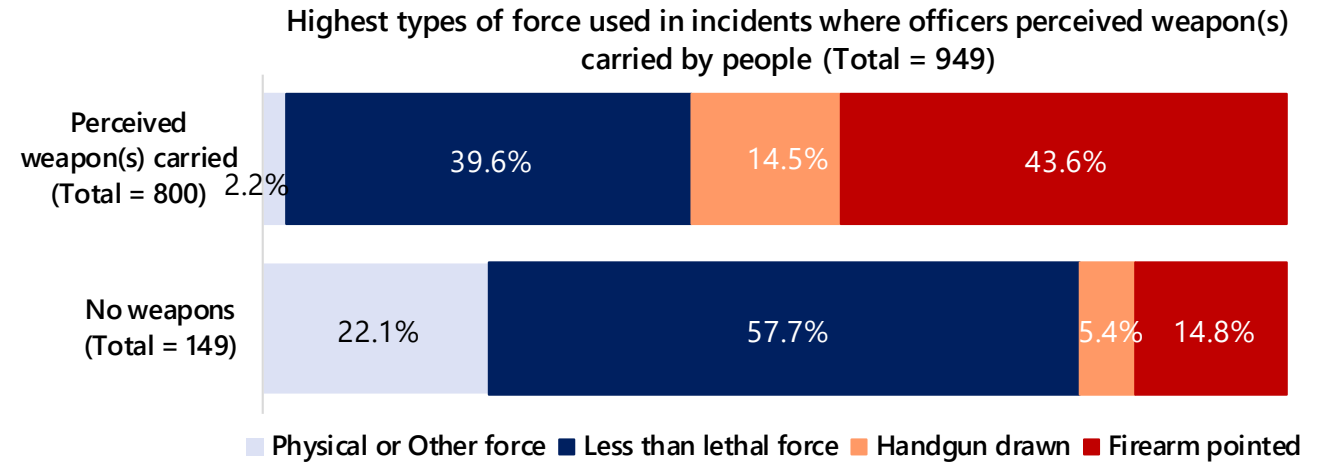
Differences by race remained after taking into account *types of Calls for Service that result in an enforcement action*

Types of Calls for Service may influence use of force, and this could have different effects on different race groups.

Violent Calls for Service (469 use of force incidents) involving:

- **Black people** were **more likely** to have a use of force by 1.2x
- **Indigenous people** were **more likely** to have a use of force by 1.4x

Person in Crisis Calls for Service (59 use of force incidents) involving:

- **Black people** were **more likely** to have a use of force by 1.9x
- **Indigenous people** were **more likely** to have a use of force by 1.4x

Disproportionality in Use of Force by Call for Service or Interaction Type Group

	Violent CFS	In Progress/ Just Occurred CFS	Other Priority 2 CFS	Proactive Events	Person in Crisis CFS	Other Priority 4 CFS
Black People	1.2	0.8	1.5	1.5	1.9	1.3
East/Southeast Asian People	0.6	1.6	0.8	0.5	1.0	0.6
Indigenous People	1.4	1.1	N/A	N/A	1.4	0.6
Latino People	1.0	N/A	1.7	N/A	N/A	N/A
Middle Eastern People	0.6	0.4	N/A	0.5	0.9	1.3
South Asian People	1.0	1.3	1.4	1.1	0.8	0.7
White People	0.8	1.1	0.9	0.3	0.8	0.9
Multiple race group	1.2	1.1	1.0	2.2	1.2	1.2

- Values over 1 indicate an over-representation in use of force for the calls for service
- N/A indicates the race group does not have any use of force incidents for that call for service/interaction type

Differences by race remained after taking into account *Primary Offence*

We looked at the relationship between primary offence and Use of Force incidents for each race group to see if the primary offence impacts disproportionality

In incidents related to Weapons & Homicide offences, there were small or no racial disproportionalities in use of force.

Black people were more likely to have a use of force in incidents in occurrences involving assault & crimes against persons, mental health-related, mischief & fraud, and robbery & thefts.

Across most categories, those involving **White people** and **Middle Eastern people** were less likely to have a use of force.

*Other Crimes Against Persons include: Criminal Negligence Bodily Harm or Death, Failure to Provide Necessaries of Life, Forcible Confinement, Kidnapping, and Administering Noxious Thing

Disproportionality in Use of Force by Primary Offence Groups

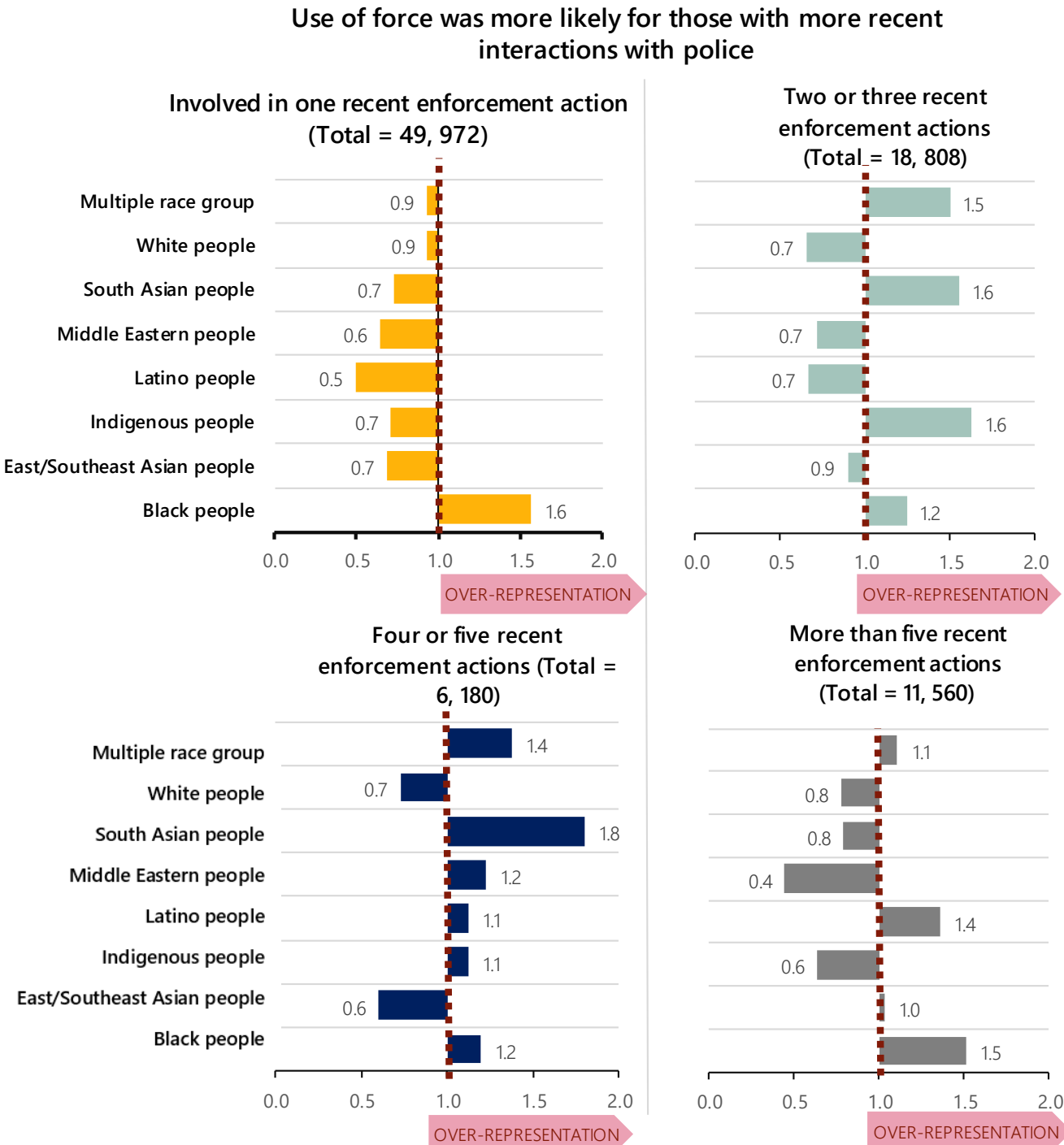|	Assault & Other Crimes Against Persons	Weapons & Homicides	Mental Health Related Incident	Robbery	Drug-Related	Failure to Appear/ Comply, Parolee & Warrant	Mischief & Fraud	Other Offence
Black people	1.4	1.0	1.3	2.0	1.0	1.2	1.8	1.1
White people	0.8	0.9	0.9	0.7	0.7	0.8	1.1	0.7
East/Southeast Asian people	0.6	0.9	0.5	1.0	0.4	1.3	0.3	1.9
Middle Eastern people	0.6	0.8	0.7	N/A	N/A	0.9	0.8	N/A
Latino people	1.2	0.7	1.0	N/A	N/A	0.3	N/A	0.6
South Asian people	1.2	1.0	1.3	0.6	2.3	1.7	1.2	1.0
Indigenous people	1.9	1.1	1.2	0.9	N/A	0.8	2.2	1.3
Multiple race group	1.0	1.2	1.5	0.9	1.8	1.3	0.3	1.5

- Values over 1 indicate an over-representation in use of force for the primary offence type
- N/A indicates there were no use of force incidents for that race group and primary offence

Differences by race remained after taking into account *frequency of enforcement action*

We looked at the frequency of involvement in enforcement actions and the relationship to Use of Force incidents.

Recent enforcement actions include enforcement actions within 2020. The graphs to the right show the relationship between recent enforcement action and uses of force.

	Among those with one recent enforcement action:	Five or more recent enforcement actions:
Those involving **Black people** were **more likely** to have a use of force by:	**1.6x**	**1.5x**
Those involving **Indigenous People** were **less likely** to have a use of force by:	**0.7x**	**0.6x**
Those involving **White People** were **less likely** to have a use of force by:	**0.9x**	**0.8x**

Use of force was more likely for those with more recent interactions with police

Involved in one recent enforcement action (Total = 49, 972)

Race group	Value
Multiple race group	0.9
White people	0.9
South Asian people	0.7
Middle Eastern people	0.6
Latino people	0.5
Indigenous people	0.7
East/Southeast Asian people	0.7
Black people	1.6

OVER-REPRESENTATION

Two or three recent enforcement actions (Total = 18, 808)

Race group	Value
Multiple race group	1.5
White people	0.7
South Asian people	1.6
Middle Eastern people	0.7
Latino people	0.7
Indigenous people	1.6
East/Southeast Asian people	0.9
Black people	1.2

OVER-REPRESENTATION

Four or five recent enforcement actions (Total = 6, 180)

Race group	Value
Multiple race group	1.4
White people	0.7
South Asian people	1.8
Middle Eastern people	1.2
Latino people	1.1
Indigenous people	1.1
East/Southeast Asian people	0.6
Black people	1.2

OVER-REPRESENTATION

More than five recent enforcement actions (Total = 11, 560)

Race group	Value
Multiple race group	1.1
White people	0.8
South Asian people	0.8
Middle Eastern people	0.4
Latino people	1.4
Indigenous people	0.6
East/Southeast Asian people	1.0
Black people	1.5

OVER-REPRESENTATION

Finding

4

There were differences across locations in use of force incident rates after taking into account crime rates and resident population.

There were differences by race across locations

We looked at the use of force rate by location of occurrences to see how it is spread out across the city.
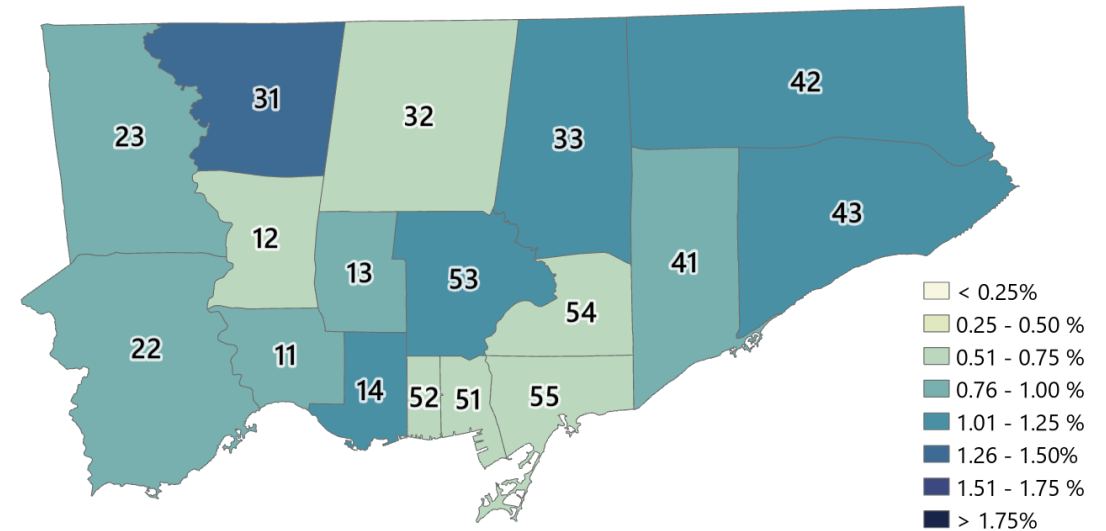
The maps on the right show the use of force rate compared to enforcement action by location. <u>The location is based on the division where the occurrence happened, and may not necessarily reflect the use of force location.</u>

We focus on findings for Black and White people for 2020 given the small number of use of force incidents across 17 Divisions.
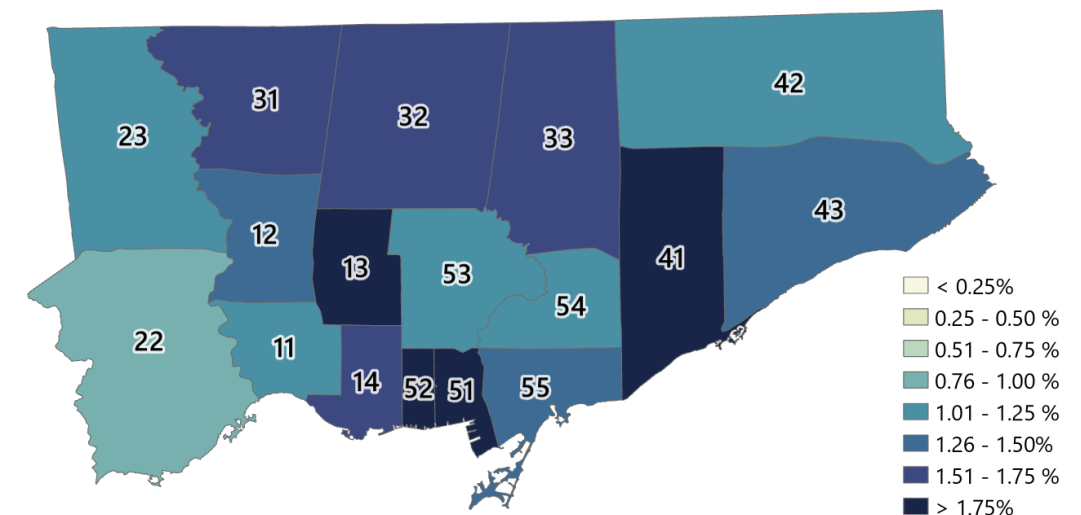
Overall, incidents involving **White people** had lower uses of force rates, while those involving **Black people** had higher use of force rates, with variations across locations.

*Use of Force Rate is the percentage of enforcement action incidents that are associated with a use of force incident

Use of Force Rate for incidents involving **White people**:

☐	< 0.25%
☐	0.25 - 0.50 %
☐	0.51 - 0.75 %
☐	0.76 - 1.00 %
☐	1.01 - 1.25 %
☐	1.26 - 1.50%
☐	1.51 - 1.75 %
☐	> 1.75%

Use of Force Rate for incidents involving **Black people**:

☐	< 0.25%
☐	0.25 - 0.50 %
☐	0.51 - 0.75 %
☐	0.76 - 1.00 %
☐	1.01 - 1.25 %
☐	1.26 - 1.50%
☐	1.51 - 1.75 %
☐	> 1.75%

These differences were *not explained* by the demographic make-up of the local resident population

Each TPS Division differs in their resident population. We looked at use of force incidents by location to take area-level information into account, including the racial make-up of the local resident population.

The graph on the right shows the relationship between the disproportionality in Resident Population (relative to the City of Toronto) and Use of Force (relative to Enforcement Action) for each race group.

Each dot depicts a race group by location (Division). As there are 17 Divisions, there are 17 dots per race group indicated on the chart. Race groups are denoted by the colours identified in the legend.

Divisions with the highest over-representations in use of force incidents involving Black, South Asian, Latino, East/Southeast Asian people, had lower proportions of that group in the local population

Legend:
- Black
- White
- East/Southeast Asian
- Latino
- South Asian
- Middle East
- Indigenous

Y-axis: Use of Force Disproportionality — OVER / UNDER — 0.0, 1.0, 2.0, 3.0

X-axis: 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5 — UNDER / OVER-REPRESENTATION

Divisional Resident Population Disproportionality