INF2178 Final Project Group41 Writeup

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Colab link:
https://colab.research.google.com/drive/1EdtYn9pTTdcrxiCkYmUAqwY8rHGRnUfC?usp=sharing

1. Introduction

The Supreme Court of Canada decided that reasonable grounds for strip searches involve the police's subjective claim that the arrestee is hiding something (Canadian Broadcasting Corporation, 2020, p.1). Before resorting to strip searching the arrestee, police are first required to conduct a protective search known as a pat-down that would authorize their claim that there are reasonable grounds to conduct frisk-searching, which includes the removal of outer clothing such as a sweater. Nevertheless, in 2022, Toronto Police Chief James Ram issued an apology on behalf of the police force for the evident systemic bias, such as excessive and unreasonable grounds to use force, performed by police officers against minority groups of people (SyndiGate Media Inc, 2022, p.1). Furthermore, social pressure and Canadian media coverage have focused on concerns with Canada's police power and authority, which exposed a systemic bias against females in the use of force, such as strip searches. Police bias may be a contributing factor to using unreasonable or unlawful force .

This report will use data by the Toronto Police Service to explore differences in frequency of strip searches between sexes, male and female, and the contextual factors that influence an arrestee's likelihood of being strip searched by the Toronto Police. Our study intends to investigate trends in the occurrences of strip searches for various groups of people in order to determine whether police practices are consistent with policies and expected legal procedures.

1.1 Background

A new Race-Based Data Collection Strategy was implemented by the Toronto Police Service in 2020. This strategy is aimed in response to pressure for policy changes, such as the “Breaking the Golden Rule” report, to record strip search occurrences for different races and context of strip search incidents (Toronto Police Service, 2020, p.1). Legal strip searches by the police are conducted by the officer of the same gender as the arrestee, are required to follow a methodological manner, and secure the dignity and privacy of the arrestee facing a strip search. Section 1 of the Ontario Human Rights Code, which the Toronto Police is obliged and responsible for upholding, indicates that every person has the right for equal treatment for services without discrimination, including but not limited to sexual identity, sex, gender, ethnic

origin and race (Toronto Police, 2021. p.2). These socio-demographic factors are often protected by law from discrimination because they have historically been exploited by those in positions of authority as a method for power and control over certain populations (Mears, Craig, Stewart, Warren, 2017, p.18). As such, these methods have developed implicit or unconscious and explicit cognitive biases, or "cognitive shortcuts" for decision making to think fast when perceiving risk that can lead to errors (p.12).

Biases are entrenched in many organizational services and people and these framing and priming techniques result in contemporary forms of systemic discrimination, such as unfair treatment, that disadvantages people's life opportunities (p.16). Police biases generate assumptions about people's behaviours that may lead to unprofessional or procedural errors such as unnecessary or excessive use of force (p.13). One form of police bias is confirmation bias, which involves discrimination against people's identities, behaviour, or characteristics that creates social division by predicting future events based on certain subjective assumptions about a person that leads to false predictions of risks (p.16). Additionally, another type is availability bias whereby a person's perception of a situation or person is influenced by subjective factors that occupy their attention and fail to consider alternative possibilities. Reliance on these biases prove necessary to study trends in police use of force, such as strip searches, for different groups of people by exploring contextual circumstances and socio-demographic factors.

1.2 Literature Review

The post October 2020 policy change is useful to use as a baseline to consider changes in trends to police procedures when it comes to strip searches to explore trends in systemic police bias. The pre-policy period revealed 27% of arrests ended in a strip search, while the post-policy period revealed 4.9% of arrests ended in a strip search. In response to data presented revealing four out of ten arrests end up strip searched between the years of 2014 and 2016, the Canadian city of Toronto's chief police characterizes strip search occurrences by the Toronto police as a systemic practice (Canadian Broadcasting Corporation, 2020, p.1). The Race-Based Data Collection Strategy (RBDS) reveals that 63% of arrestees that were strip searched had only one arrest in the year of 2020 (Toronto Police Service, 2022, p.1). However, based on this data, the frequency of arrests has been found to increase the likelihood of being strip searched, specifically 13% were strip searched out of the 76% arrestees who had one arrest in 2020, while 31% were strip searched out of the 6% with four or more arrests.

There is an overrepresentation of female arrestees being subjugated to police use of force and strip searches compared to men. The R. v. Golden (2001) case revealed that the court found sufficient proof of police bias against women which "represent a significant invasion of privacy" and a "humiliating, degrading and traumatic experience" constituting sexual assault ((Phan, Dinca-Panaitescu, Rebelo, 2022, p.26). According to the 2020 report "Breaking the Golden Rule" that highlighted evidence of unlawful use of force against minorities conducted by the

Toronto Police, the seizure of bras from female arrestees became a matter of routine procedure in the years 2014 to 2016 that are not justified by law (Lemke, 2022). Additionally, in the year 2020, 19.2% of those arrested were females and 16.5% were strip searched, however, overall, men were more likely to be strip searched than women in every race group (Phan, Dinca-Panaitescu, Rebelo, 2022, p.21). In this study, we will control the frequency of arrests and contextual reasons for strip search to explore differences in strip search occurrences between sexes to indicate evidence of disparities in police treatment based on sex.

According to the RBDS report, the most common reasonable grounds for strip searches include the police's assumption of the arrestee concealing items that could cause injury (Toronto Police Service, 2020, p.6). About 79% of strip searches conducted in 2020 were recorded to ensure safety. The next most common reason provided for strip search incidents were potential weapons held by the arrestee, which was about 47%. The third was evidence, which was 41%, while assist escape made up 37%. Black, Latino, and Middle Eastern identifying arrestees were found to be overrepresented in strip search occurrences when it came to possession of weapons and homicide incidents (p.4). Those arrested for assault that ended in strip searches, Latino, Middle Eastern, Indigenous, and South Asian arrestees were overrepresented.

Some reports find that minority races including Black, Indigenous, and Middle Eastern, Latino, and Asian arrestees are more likely subject to police use of force and strip searches (SyndiGate Media Inc, 2022, p.1). About 10% of Toronto's 2.8 million population are Black, yet make up 40% of incidents by the Toronto police's use of force. Looking at the RBDS data by the year, for example in 2020, of the 7114 arrestees that were strip searched, 46% were perceived asWhite, while 31% were Black, 4% were Indigenous, 4% were East/Southeast Asian, 3% Middle Eastern, and 2% Latino (Toronto Police Service, 2022, p.2). Overall, there was an overrepresentation of Black and White arrestees being strip searched in the year 2021 compared to 2020 (Toronto Police Service, 2022, p.3).

While, the RBDS report argues that the frequency of arrests for minority races is not a contributing factor for chances of being strip searched, in this study, we will explore the existing data on contextual reasons for conducting a strip search, such as cause injury, assist escape, and possession of weapons, and evidence, as well as socio-demographic factors, like race and sex, that are associated with the probability of being strip searched by the Toronto Police once arrested. (p.4).

1.3 Research Questions

In this study, we will pose the question “Is there a significant difference in the sample mean of the number of strip searches by the Toronto Police Department based on different sex, after controlling for the effects of the number of an individual being arrested and the number of four

distinct strip searched reasons (e.g., CauseInjury, AssistEscape, PossessWeapons, PossessEvidence) be violated?" Next, we will explore "what strip search reasons (e.g., CauseInjury, AssistEscape, PossessWeapons, PossessEvidence) and socio-demographic factors (e.g., sex, races) are associated with the probability of being strip searched when an individual is arrested?"

2. Exploratory data analysis (EDA)

2.1 Descriptive Statistics

There are 65276 records in the Toronto Police Service's dataset on arrests and strip searches. Between April 2020 and December 2021, every arrest's socio-demographic characteristics and details on the strip search are included. The majority of this report's attention will be given to how many strip searches each arrest record had across all sex and race categories.

2.1.1 Frequency Distribution & Sample Mean

Table 2.1: below shows the frequency of each category for the sex of the person arrested[Sex], and the sample mean of the number of strip searches [StripSearchCount] for different sex groups [Sex].

Gender	Frequency	Sample Mean
Male	29664	0.22
Female	7675	0.17

Table 2.2: below shows the frequency of each category for the racial group of the person arrested[Perceived_Race]

Race	Frequency
White	14513
Black	9933
Unknown or Legacy	3537
East/Southeast Asian	3102
South Asian	2463
Middle-Eastern	2030
Indigenous	1095

Latino	666

Table 2.3: below shows the frequency of binary variable [CauseInjury]

CauseInjury	Frequency
Un-violated (0)	33228
Violated (1)	4111

Table 2.4: below shows the frequency of binary variable [AssistEscape]

AssistEscape	Frequency
Un-violated (0)	35211
Violated (1)	2128

Table 2.5: below shows the frequency of binary variable [PossessWeapons]

PossessWeapons	Frequency
Un-violated (0)	34612
Violated (1)	2727

Table 2.6: below shows the frequency of binary variable [PossessEvidence]

PossessEvidence	Frequency
Un-violated (0)	34742
Violated (1)	2597

2.1.2 Measures of Central Tendency & Measure of Variability

Table 2.6: below shows the central tendency and variability of the number of strip searches for the person arrested.[StripSearchCount]

Measurements	StripSearchCount
Sample size (N)	37339
Mean	0.21

Median	0.00
Mode	0.21
Variance	0.48
Standard Deviation	0.69

Figure 2.1 Number of strip searched among different gender

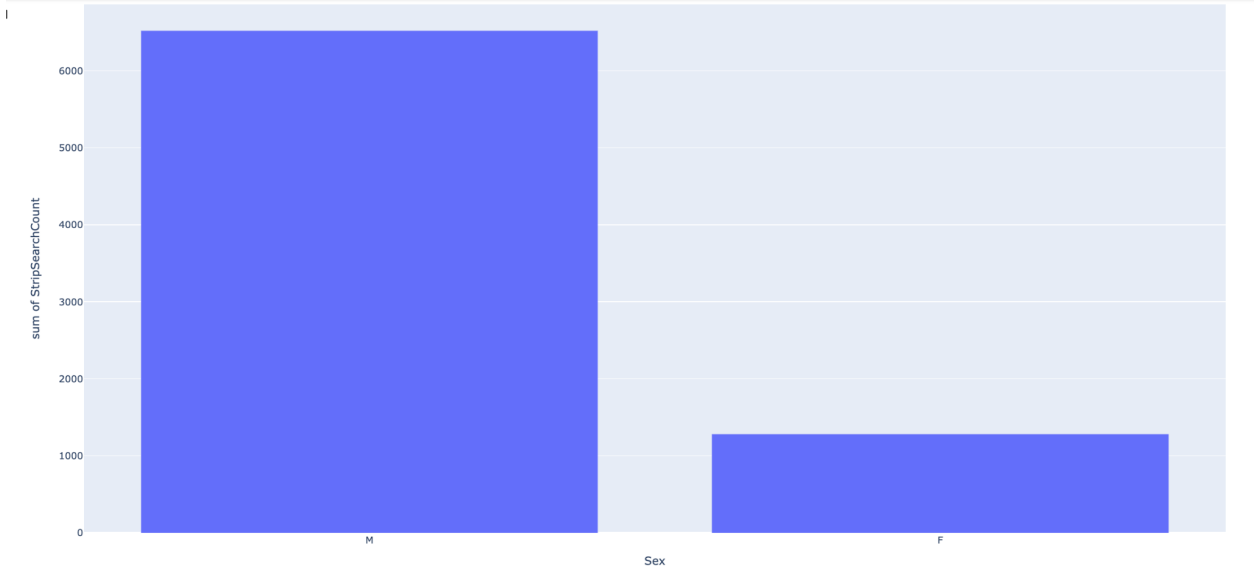


Figure 2.1 demonstrates that the number of male arrestees being strip searched is significantly larger than the number of female arrestees being strip searched.

Figure 2.2 Frequency of strip search result (0-unsearched, 1-searched) for different race groups

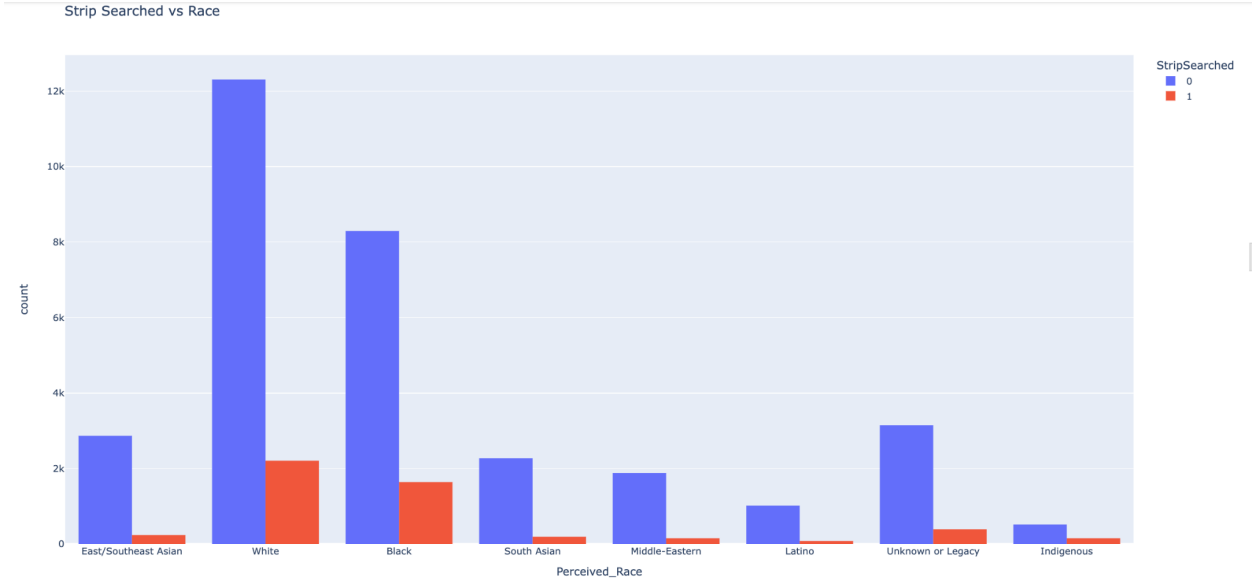
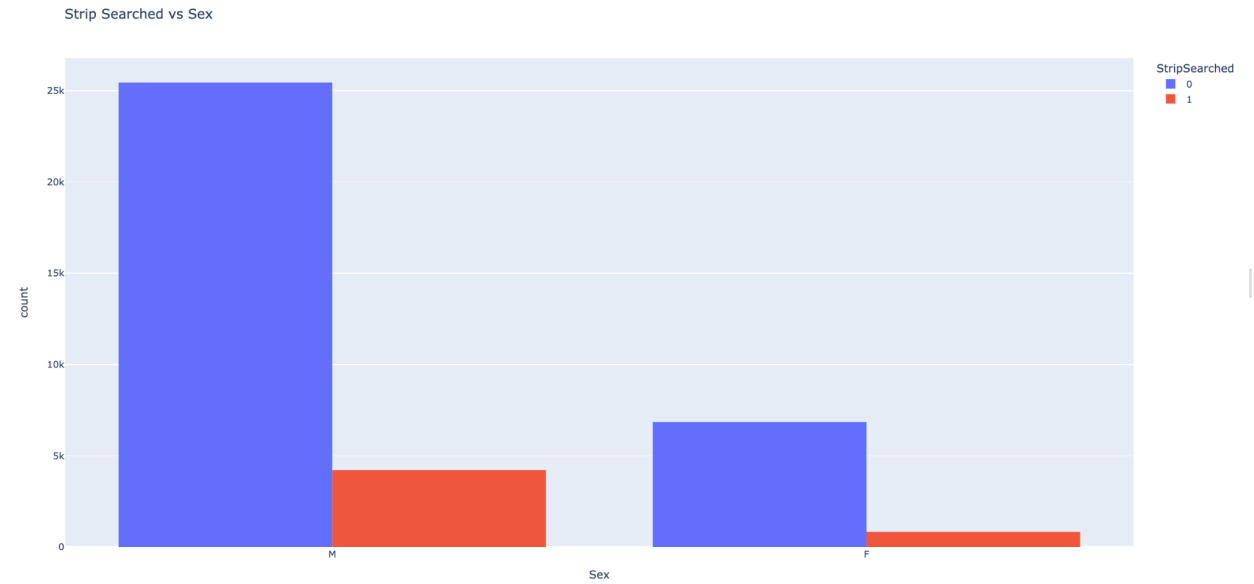


Figure 2.2 illustrates that the number of unstrip searches is alway larger than the search searched cases for different race groups.

Figure 2.3 Frequency of strip search result (0-unsearched, 1-searched) for different gender



In Figure 2.3, it can be observed that the number of unstrip searched cases is consistently higher than the number of strip searched cases across different genders. Additionally, male arrestees undergo more strip searches compared to female arrestees. However, the ratio of strip searched cases to total arrests is higher for females than males, which may be due to the fact that the total number of male arrestees exceeds the number of females.

2.2 T-Test

A statistical test called a t-test contrasts the means of two samples. It is used in hypothesis testing, where the null hypothesis is that there is no difference between the group means, and the alternate hypothesis is that there is a difference between the two. Here, a t-test is performed to examine the average number of strip searches an arrestee experienced across sex.

2.2.1 T-test for StripSearchCount and Sex

T-test is performed to evaluate whether there was a statistically significant difference in the means of number of strip searches conducted on the arrested person [StripSearchCount] between males and females [Sex].

Null Hypothesis(H0): the population means of females and males who have been strip searched are equal.

Alternative Hypothesis(HA): the population means of females and males who have been strip searched are not equal

Table 2.2.1: below shows the t-test results.

T-Test	Results
SD - male	0.71
SD - female	0.62
95% Conf. - male	0.21
95% Conf. - female	0.15
Difference (Male - Female)	0.05
Degrees of freedom	37337
t	5.97
p-value	2.36e-09
Point-Biserial r	0.03

The results from table 2.2.2 indicate that the mean number of strip searches for male arrestees (M=0.22, SD=0.71) is different from the mean number of strip searches for female arrestees (M=0.17, SD=0.62). With alpha established at 0.05, this is a statistically significant difference as the p-value (2.36e-09) is less than 0.05, 95% CI [0.21,0.15]. Therefore, we **can reject** the null hypothesis of the population that means that females and males who have been strip searched are

equal, which means there is **significant difference** of strip search times between male and female.

3. Methods

3.1 Data description

The dataset is derived from the Toronto Police Service published in November 2022. It includes 65,276 records related to all arrests and strip searches within Division boundaries. The data includes 25 columns indicated by variables such as arrest year, month, sex, anonymized person ID, perceived race, and strip search. We conduct a Power Analysis to capture the sample size needed for the experiment to generate statistically significant and meaningful results. We then conduct an ANCOVA test for analysis of covariance, by controlling the frequency of arrests to test if there is a statistically significant difference between means of strip searches between males and female arrestees. Next, we perform a Logistic Regression analysis to estimate the probability of an individual undergoing a strip search. The dummy variables [CauseInjury], [AssistEscape], [PossesWeapons], [PossesEvidence], and categorical variables [Sex], [Perceived_Race] are treated as the independent variables, and the results of strip-searches [StripSearched] as the binary dependent variable.

3.2 Power Analysis

A power analysis is a calculation used to estimate the minimum sample size required for an experiment, taking into consideration the desired significance level, statistical power, and effect size. It helps to determine if the results obtained from an experiment or survey are likely to be due to chance or if they are statistically significant and meaningful.

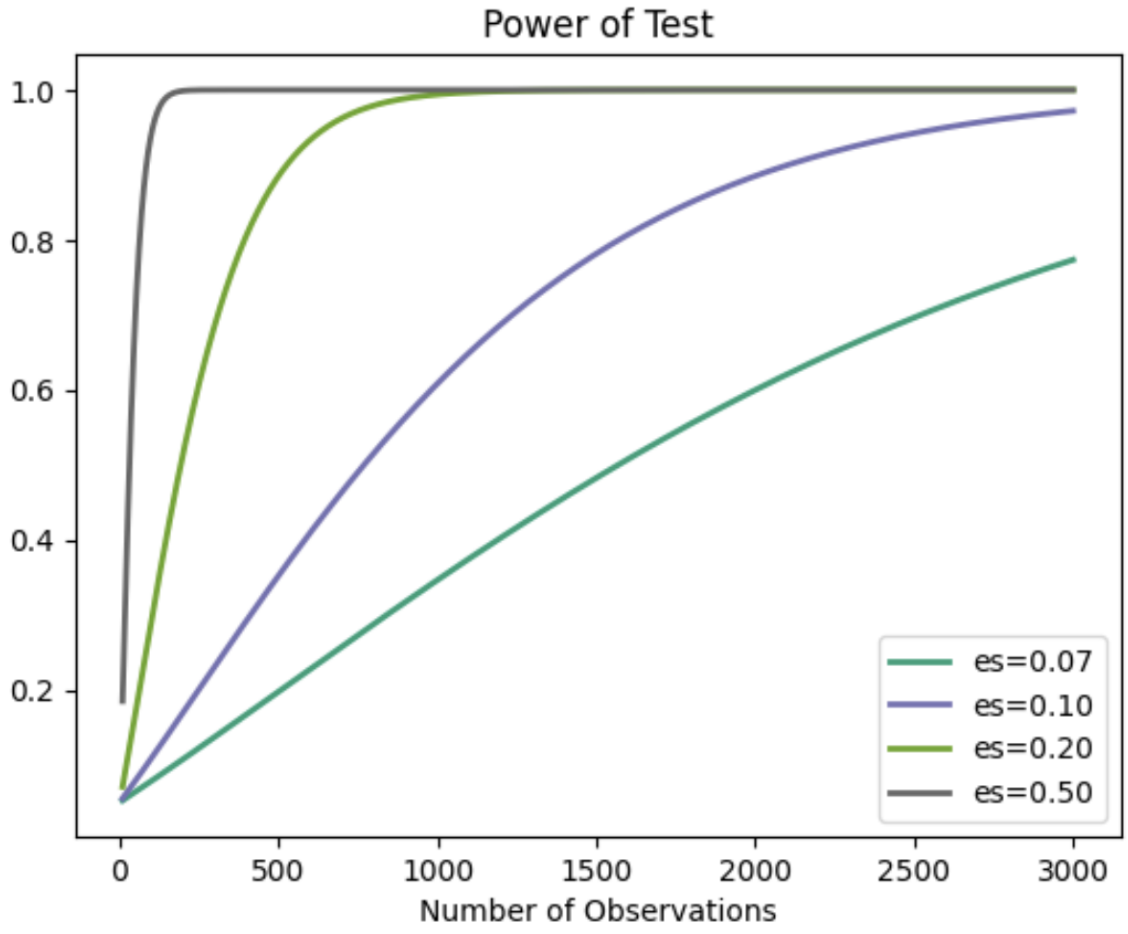
Table 3.2.1 Below show the inputs and results of power analysis

Alpha level	0.05
Power	0.8
Effect Size	0.76
Sample Size	2684

The test will compute a p-value, which can be interpreted to determine whether the samples are similar (failing to reject the null hypothesis), or if there is a statistically significant difference between the samples (rejecting the null hypothesis). Typically, a significance level of 5% or 0.05 is commonly used to interpret the p-value. Additionally, we utilize the default assumption of a minimum statistical power of 80% or 0.8. Moreover, the magnitude of the effect when comparing two groups can be quantified using an effect size measure. Cohen's d is a common measure used to compare the difference in means between two groups. It calculates a

standardized score that represents the difference in terms of the number of standard deviations. A Cohen's d value of 0.80 or higher is generally considered to indicate a large effect size, as commonly accepted in the literature. Since we have the dataset and are analyzing the StripSearchCount among different gender groups, the calculated effect size based on the research question and variables is 0.76. Finally, the calculated suggested sample size by the given information would be 2684 for different gender groups. The actual sample size we have for both groups is 29664 males and 7675 females, which is significant enough compared to the suggested minimum sample size of 2684.

Figure 3.2.1 Below shows the power graph of the power analysis



In Figure 3.2.1, we can observe the impact of sample size (x-axis) on statistical power (y-axis) for four different effect sizes (es). It is evident that as the sample size increases, the statistical power also increases. However, for larger effect sizes, there appears to be a point of diminishing returns in terms of statistical power, which occurs at around 2500 to 3000 observations.

3.3 ANCOVA Test

ANCOVA, which stands for Analysis of Covariance, is a statistical technique that allows for the comparison of means among three or more groups while accounting for the effects of one or more continuous covariates. Here the ANCOVA is performed to test if there is statistically significant difference between means of strip searches an arrestee experienced among different sex groups, after controlling for the effects of the number of an individual being arrested.

Null Hypothesis(H0): the population means of females and males who have been strip searched are equal, even after controlling for the effects of the number of individuals being arrested

Alternative Hypothesis(HA): the population means of females and males who have been strip searched are not equal, after controlling for the effects of the number of individuals being arrested

Table 3.3.1 Below shows the ANCOVA test results

Variable	**Statistics**	**p-value**
Sex	0.17	2.70e-01***
ArrestCount	2155.73	0.00***
CauseInjury	763.38	0.00***
AssistEscape	25.47	4.71e-42***
PossessWeapons	105.88	1.15e-167***
PossessEvidence	292.21	0.00***

The ANCOVA test indicates that we **can reject** the null hypothesis that the population means of females and males who have been strip searched are equal, after controlling for the effects of the number of an individual being arrested and the number of four distinct strip searched reasons (e.g., CauseInjury, AssistEscape, PossessWeapons, PossessEvidence) be violated with a significance p-value of 2.70e-01 (<0.05).

3.4 Logistic Regression

The logistic model is a statistical method used to estimate the probability of an event occurring, based on a linear combination of one or more independent variables. The log-odds (or logit) of the event serves as the response variable, and the coefficients estimated from the logistic model represent the strength and direction of association between the independent variables and the event of interest. In this analysis, the logistic model is applied to estimate the probability of an individual undergoing a strip search, based on the results of violations for strip search reasons

(such as CauseInjury, AssistEscape, PossessWeapons, and PossessEvidence) and socio-demographic factors (such as sex, race).

3.4.1 Logistic Regression Model Implementation

Table 3.4.1 Below shows the logistic regression

	Coefficient	Std err	p-value
Intercept	-4.62	0.17	0.000
Sex(Male)	0.45	0.16	0.005
Perceived_Race (East/Southeast Asian)	-0.16	0.27	0.008
Perceived_Race (Indigenous)	0.11	0.42	0.787
Perceived_Race (Latino)	1.11	0.20	0.00
Perceived_Race (Middle-Eastern)	-0.89	0.35	0.01
Perceived_Race (South Asian)	-0.75	0.30	0.01
Perceived_Race (Unknown or Legacy)	-0.63	0.25	0.01
Perceived_Race (White)	-0.11	0.14	0.42
CauseInjury	10.96	1.06	0.00
AssistEscape	26.06	1.58e+04	0.99
PossessWeapons	26.95	7517.24	0.99
PossessEvidence	28.83	1.27e+04	0.99

The intercept in the logistic regression analysis showed that when all categorical factors (Sex, Perceived_Race) and dummy variables (CauseInjury, AssistEscape, PossessWeapons, PossessEvidence) are held constant, the log of the odds of individuals undergoing a strip search is -4.62.

The coefficient for Sex was 0.45, indicating that the odds of an arrestee being strip searched were 57% higher for males compared to females, when all other variables were held constant. This coefficient was statistically significant with a p-value of 0.005 (<0.05), suggesting a significant association between sex and the likelihood of undergoing a strip search.

The coefficient for East/Southeast Asian Perceived_Race was -0.71, indicating that the odds of an arrestee being strip searched were 51% lower compared to other races, when all other variables were held constant. This coefficient was statistically significant with a p-value of 0.008 (<0.05), suggesting a significant association between East/Southeast Asian race and the likelihood of undergoing a strip search.

The coefficient for Indigenous Perceived_Race was 0.11, but it was not statistically significant with a p-value of 0.79 (>0.05), indicating that there was no significant association between Indigenous race and the likelihood of undergoing a strip search.

The coefficient for Latino Perceived_Race was 1.12, indicating that the odds of an arrestee being strip searched were 3 times higher compared to other races, when all other variables were held constant. This coefficient was statistically significant with a p-value of 0.00 (<0.05), suggesting a significant association between Latino race and the likelihood of undergoing a strip search.

The coefficient for Middle-Eastern Perceived_Race was -0.89, indicating that the odds of an arrestee being strip searched were 59% lower compared to other races, when all other variables were held constant. This coefficient was statistically significant with a p-value of 0.01 (<0.05), suggesting a significant association between Middle-Eastern race and the likelihood of undergoing a strip search.

The coefficient for South Asian Perceived_Race was -0.75, indicating that the odds of an arrestee being strip searched were 53% lower compared to other races, when all other variables were held constant. This coefficient was statistically significant with a p-value of 0.01 (<0.05), suggesting a significant association between South Asian race and the likelihood of undergoing a strip search.

The coefficient for Unknown or Legacy Perceived_Race was -0.63, indicating that the odds of an arrestee being strip searched were 47% lower compared to other races, when all other variables were held constant. This coefficient was statistically significant with a p-value of 0.01 (<0.05), suggesting a significant association between Unknown or Legacy race and the likelihood of undergoing a strip search.

The coefficient for White Perceived_Race was -0.11, but it was not statistically significant with a p-value of 0.42 (>0.05), indicating that there was no significant association between White race and the likelihood of undergoing a strip search.

The coefficient for CauseInjury was 10.96, indicating that the odds of an arrestee being strip searched were 57526 times higher for those who violated CauseInjury compared to those who did not, when all other variables were held constant. This coefficient was statistically significant

with a p-value of 0.00 (<0.05), suggesting a significant association between CauseInjury and the likelihood of undergoing a strip search.

Regarding the control variables of other three strip search reasons (AssistEscape, PossessWeapons, PossessEvidence), all coefficients showed p-values greater than 0.05 which indicates there are no statistically significant. Therefore, we are not diving in to explain each of these variables. Coefficient values are positive for all strip search reasons variables, so we can conclude that sex and race affect the odd ratio of an arrestee being strip searched; controlling for those strip search reasons shows a positive correlation.

3.4.2 Logistic Regression Model Fitting

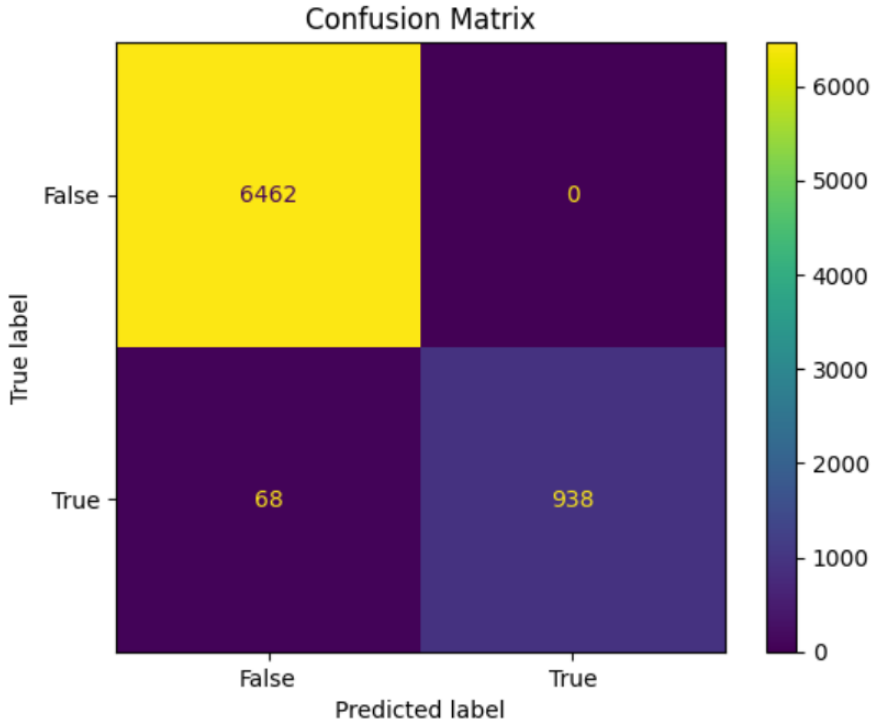
Table 3.4.2 Below shows the accuracy score of the model fitting

	Accuracy Score
Logistic Regression	0.99

The dataset was partitioned into a training set (80% of the data) and a test set (20% of the data) in a random manner. The logistic regression classifier was then applied to the test set, and the resulting accuracy of the model was found to be 0.99.

3.4.3 Confusion Matrix

Figure 3.4.3 Below shows the confusion matrix of the model



The confusion matrix tells that there are 7400 (6462+938) correct predictions and 68 (68+0) incorrect predictions.

4. Results & Findings

Regarding the first research question a ANCOVA analysis was conducted to investigate the association between sex and the number of strip searches, while controlling for the effects of the number of arrests and the violation of four distinct strip search reasons (CauseInjury, AssistEscape, PossessWeapons, PossessEvidence). The results revealed that sex was a statistically significant predictor of the number of strip searches ($p = 2.70e\text{-}01$, $p < 0.05$). After controlling for the effects of arrest numbers and strip search reasons, the population means females and males who have been strip searched are not equal.

Moreover, a logistic regression analysis was conducted to investigate the association between strip search reasons (CauseInjury, AssistEscape, PossessWeapons, PossessEvidence), socio-demographic factors (sex, races), and the probability of being strip searched when an individual is arrested. The results revealed that CauseInjury was a statistically significant predictor of the probability of being strip searched ($p = 0.00$, $p < 0.05$), indicating that individuals who violated CauseInjury were more likely to undergo a strip search compared to those who did not. Among socio-demographic factors, sex and race were also significant predictors of the probability of being strip searched, indicating that females were more likely to be strip searched compared to males, and the strip searched probability differs for different race groups.

These findings suggest that sex, race, and strip search reasons, specifically CauseInjury, are associated with the number of strip searches and the probability of being strip searched when an individual is arrested by the Toronto Police Department. These results highlight the importance of considering sex and the reason for the arrest when examining the frequency and probability of strip searches in the context of law enforcement practices

5. Discussion

Disparities in strip search occurrences between sexes is useful to explore to understand police bias in treatment. Our findings align with existing news coverage that indicate that sex is a useful indicator for being subjugated to a strip search. Moreover, sex and race proved to be contributing factors associated with the likelihood of being strip searched. In contrast to the data provided by the Toronto Police Service, we find that racialized females are more likely to be subjugated to strip searches than men in the same racial group, and this probability differs between racial groups. Furthermore, in contrast to the Toronto Police Service report in 2022, our research finds that White-identifying arrestees are not associated with a greater likelihood of being strip

searched. Instead, we agree with the SyndiGate Media Inc. 2022 report that Black identifying arrestees are associated with a greater likelihood of being strip searched, as well as Latino, Middle Eastern, and South Asian. Additionally, we can infer that biases exist when it comes to police perceptions to resort to the use of force, like strip searches, for minority groups of people.

Using logistic regression to investigate the circumstances that generate plausible justifications for conducting a strip search, we discovered that the most common reason for being strip searched is an arrestee's probable cause of injury. This finding aligns with the Race-Based Data Collection Strategy report that indicated cause of injury proved to be the most common reason for the Toronto police to conduct a legal strip search. This research suggests that predictions regarding the potential cause of injury from an arrestee may be attributed to cognitive biases or decision-making shortcuts by police (Mears, Craig, Stewart, Warren, 2017, p.12). Fast decision-making tied to subjective assumptions about an arrestee can lead to inappropriate use of force, such as strip searching, which may be misleading. This inference is justified since the dataset does not give enough information to determine if assumptions regarding the potential cause of injury were correct, and it does not provide enough context surrounding the behaviour of an arrestee for an officer to assume they pose a risk to injury. As a result, assumptions about the risk of injury from an arrestee may be subjective and unlawful in the context of resorting to excessive force.

We also recognize there are limitations to this study. For example, the total number of male arrestees recorded exceeds the number of female arrestees as indicated by the binary variable [Sex]. Since male arrestees are overrepresented, this may influence or skew the test results. Additionally, existing literature indicates police bias exists towards other minority groups of people that is not captured in this dataset. The Toronto Police has acknowledged its responsibility for recognizing the differences between birth-assigned identity and socially constructed gendered identities (Toronto Police, 2021, p.12). However, the dataset we have used provided by the Toronto Police Service excludes LGBTQ+ community by only indicating the binary variable sex, which violates the Section 1 of the Ontario Human Rights Code. The dataset does not allow us to provide a holistic understanding of disparities in gendered experiences in treatment by the police as it conflates self-perceived identities. Therefore our study is limited to police biases faced by biologically-identified males and female arrestees, which could skew our analysis of bias-led strip searches in our contemporary social climate.

6. Conclusion

Overall, our study reveals the existence of police bias towards minority arrestees. Firstly, females are overrepresented in strip search occurrences by the Toronto Police within Division boundaries. Nevertheless, we recognize that these findings may be flawed due to differences in sample sizes between sexes. Additionally, socio-demographic factors limited to sex and race are

associated with a greater likelihood of being strip searched. Lastly, the most common contextual reason presented from the dataset that justifies a strip search is an arrestee's potential cause of injury. However, the dataset does not provide enough contextual information about why the police assumed the arrestee poses probable harm or injury. Our findings enable us to infer that subjective assumptions performed by the police dominate circumstances of being strip searched. Therefore the Toronto Police Service should pay attention to providing further contextual information surrounding a strip search to ensure police practice aligns with procedures and policies.

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