TECHNICAL BRIEF
Data journalism about university students’ perceptions of police in the Prairies

The challenge

Despite Canada’s dropping crime rate, incarceration rates of Indigenous people have been on the rise. Racial profiling is especially relevant in Prairie cities, where Indigenous people represent a growing subset of urban populations and often make up the largest minority populations. Racial profiling and police brutality claims have increased throughout the Prairies but often dismissed as isolated incidents by Police Departments.

We asked police departments in Regina, Winnipeg, Edmonton and Vancouver to provide racial data related to public intoxication and drug possession by submitting Freedom of Information (FOI) requests. The requests were made as part of a collaborative project between Discourse Media and Maclean’s Magazine looking into the disproportionate incarceration rates of Indigenous people in the Canadian justice system. Not one of the eight FOI requests we sent turned up a viable source of data. The Edmonton police estimated that preparing the data would cost Discourse Media $7,693, a figure out of the reach of a small journalism startup.

The response

Discourse Media designed, administered and analyzed an original survey to collect and analyze data that was not provided by police through the FOI process. The survey sought to explore whether or not the experience of Indigenous university students were mirroring racial profiling claims in the Prairies and to understand student perceptions of police better.

Data

Researchers on racial profiling by Canadian police forces are limited by their ability to carry out quantitative analysis because police statistics are either not consistently collected by Canadian police organizations or actively suppressed.

Discourse Media and Maclean’s Magazine collected responses from post secondary students in Regina, Saskatoon and Winnipeg over a six month period. This data was combined for the survey analysis. The sample size was 852 postsecondary students with 222 Indigenous responses. The sample is a convenience sample; thus, the results of this survey have limited generalizability beyond the sample but are strengthened by the agreement with similar studies in other contexts.

The Royal Commission on Indigenous People in Canada report on the Canadian justice
system found over-representation of Aboriginal people occurring at virtually every step of the judicial process, from charging to sentencing.

Researchers in Toronto polled high school students on racial profiling incidents, revealing evidence of racial profiling. Over the 50% of the black students in the study reported that they had been stopped and questioned by the police on two or more occasions in the previous two years, compared to only 23% of whites, 11% of Asians, and 8% of South Asians.

The student population was used for the analysis to control for a number of other causal variables, for example, students are generally from the same economic class, doing a lot of the same activities and are mostly a similar age.

The explanatory variables explored were gender (i.e., man, woman, other), age, student type (i.e., undergraduate and graduate student), year of study (i.e., 1st, 2nd, 3rd, 4th, 4+), racial group and being engaged in or close to an illegal activity. The response variables that were reported on by Maclean’s Magazine were:

- Have you ever had an involuntary interaction with police? (binomial)
- While you have been attending this school, how many times have you been involuntarily stopped on the street by police? (count)
- Certain racial groups are unfairly treated by police? (ordinal)
- Overall, my racial group is viewed positively by police? (ordinal)
- In general, I feel comfortable around police officers? (ordinal)

**Model**

We used ordinal, poisson and logit regression, and the Akaike information criterion (AIC) to find a statistical model to explain each response variable from the survey. AIC is a measure of the relative quality of a statistical model for a given set of data. It considers the tradeoff between the goodness of fit and the complexity of the model. This allows one to determine which explanatory variables to include in the model and which to exclude.

**Research protocols**

This research did not require ethics approval from the universities where the research was conducted, because Discourse Media and Maclean’s Magazine are independent from the university. However, the research did follow strict protocols for the collection of the survey responses. These protocols included:

- Informed Consent: All survey participants had to provide informed consent to participate in the survey by reading the consent form (first page of the survey) and checking the “I agree to participate” box. Any surveys without informed consent were not considered as valid responses.
- Anonymity and Confidentiality: All survey responses are kept confidential. All of the data
has been summarized so that individuals cannot be identified from the summarized results. We did not collect any information that can allow participants to be potentially identified. Respondents were given the choice to provide their email address on the consent form. This information was collected separately from the response data and was not be used in a way that will allow participants to be potentially identified.

- Voluntary Participation: Participation in the survey was voluntary. Students were given the liberty to decline to answer any questions and were able to withdraw their participation at any time by changing their response to the consent question on page one.

- Data Security: All surveys are stored in a secure cabinet at the Discourse Media offices. Confidential and sensitive data that contains survey responses is kept on file on a secure server.

- Control Sampling Bias: Researchers administering the survey were asked to avoid giving specific information about what was contained in the survey questions. They were asked to avoid telling respondents that the research is related to an investigation into racial profiling, as it may skew respondents’ perceptions of the survey and/or their responses. Researchers were asked to not be selective in who they invited to complete the survey. Anyone on the university campus was invited to complete the survey, regardless of whether they appear to be a student or not. Researchers were asked to stay neutral and avoid offering any opinions while the student was filling out the survey.

Limitations

This study collected a convenience sample - a method for collecting data where individuals are selected because of their convenient accessibility. The results of this survey have limited generalizability beyond the sample, because we cannot assume that a convenience sample produces representative results. This also has implications for how replicable the study is. However, with supporting research, the research may be indicative of a larger trend.

We asked students separate questions about whether they had been stopped by police and the number of times they have been stopped by police. These questions were self reported, which introduces the potential for reporting bias. The bias could exist in a number of forms: (1) Indigenous and non-Indigenous groups may be pressured to exaggerate or downplay in opposite directions (e.g., Indigenous downplay the number of times they have been stopped by police, and non-Indigenous exaggerate it, or vice versa); (2) Indigenous and non-Indigenous groups are biased in similar directions (e.g., Indigenous and non-Indigenous both exaggerate the number of times they have been stopped by police).

The only form of bias that would falsify the general finding of these two response variables is if the Indigenous group exaggerates the number of times they have been stopped by police, and the non-Indigenous group downplays the number of times they have been stopped by police. We have no reason to believe that this form of reporting bias took place in our study. The other forms of reporting bias could have very little effect on the overall findings and could actually bolster the findings.
Key findings  (as reported by Maclean's)

Claim

Indigenous post-secondary students surveyed in the prairies have greater odds of being stopped by police than non-Indigenous students – and they believe their race is a factor.

Evidence

The survey showed that Indigenous students had a greater probability of believing that their indigeneity was not viewed positively by police. This perception was consistent throughout the survey. For example, Indigenous students had a much greater probability of disagreeing than agreeing that they felt comfortable around police officers. Indigenous students also had a much greater probability of agreeing than disagreeing that certain racial groups are treated unfairly by police officers. These models showed that racial group was the greatest contributor to these model results. These results contrasted non-Indigenous response results considerably.

Claim

The survey found that among those surveyed, the odds of an Indigenous student being stopped by police were 16 times higher than a non-Indigenous student, holding all other explanatory variables (like gender and age) fixed.

Evidence

This was determined using a logit model and by interpreting the regression coefficients. The regression coefficients give the change in the log odds of the response variable for a one unit increase in the explanatory variable -- in this case a dichotomous variable. This interpretation assumes that all other explanatory variables are held constant.

Claim

Indigenous students were more likely to “disagree” or “strongly disagree” that their racial group is viewed positively by police. Depending on a student's age, an Indigenous student had a 69 to 84 per cent chance of “disagreeing” or “strongly disagreeing” while a non-Indigenous student had a 10 to 21 per cent chance of responding the same way.

Evidence

This was determined using a cumulative link model. We used the model to equate predicted probabilities of responding a certain way, holding other explanatory variables constant. Age and racial group were found to be the most influential variables for this model. The range of probabilities reported (69 to 84 per cent and 10 to 21 per cent) were taken for ages 18 to 32, which accounts for 90% of the ages reported in the survey.
Claim

Indigenous students sampled will be stopped more frequently while attending school, the study predicts, and being engaged in or close to an illegal activity when stopped by police had little influence in explaining the results. This suggests staying out of trouble does not shield young Indigenous students from unwanted police attention.

Evidence

We used a poisson regression model to predict the number of times Indigenous and non-Indigenous students from the sampled population would be stopped by police. Depending on age, the model predicts that an Indigenous male from the sampled population had been stopped by police between 0.95 to 1.31 times while attending school, in comparison to a non-Indigenous male, who had been stopped by police 0.39 to 0.53 times. We considered candidate models within the lowest 2 AIC points and averaged them relative to their AIC score. Through this process, we determined that being close to illegal activity when stopped by police should be excluded from the averaged model because it wasn’t found to be an influential variable.

Claim

The most common words non-Indigenous students associate with police—“helpful,” “authority”—differed dramatically from those chosen by Indigenous students: “racist,” “scary.”

Evidence

We asked students to share three words that they feel describe police officers. The words reported for Indigenous and non-Indigenous groups were the two most common words for each group.

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