

Crime Explorer

Team Ottawa

Presentation Outline

1. Project Goals

2. Challenges & Solutions

3. Product Demo

4. Conclusion

5. Test Drive

Goals

Main goal: Create a flexible system for a user to explore crime statistics with, that will freely adapt to their needs and questions.

- Answer the main questions from our deliverables
- Allow the user to find answers to questions of their own
- Create a fast, responsive program that is defended against improper usage

Challenges We Faced

- How to take input from the user with such a complex dataset.
- Improper input from the user
- Parsing French characters

Product Demo



Location Search

Version 0.1...

```
Search for a location: Ontario
(817937) LOCATION MATCH: Ontario
(870927) LOCATION MATCH: Ottawa-Gatineau, Ontario/Quebec
(923428) LOCATION MATCH: Ottawa-Gatineau, Ontario part
(975813) LOCATION MATCH: Kingston, Ontario
(1022189) LOCATION MATCH: Peterborough, Ontario
(1057324) LOCATION MATCH: Toronto, Ontario
(1110259) LOCATION MATCH: Hamilton, Ontario
(1162968) LOCATION MATCH: St.Catharines-Niagara, Ontario
(1214305) LOCATION MATCH: Kitchener-Cambridge-Waterloo, Ontario
(1265390) LOCATION MATCH: Brantford, Ontario
(1300876) LOCATION MATCH: Guelph, Ontario
(1335777) LOCATION MATCH: London, Ontario
(1388236) LOCATION MATCH: Windsor, Ontario
(1440819) LOCATION MATCH: Barrie, Ontario
(1476370) LOCATION MATCH: Sudbury, Ontario
(1527901) LOCATION MATCH: Thunder Bay, Ontario
Look for another location? (Yes/No): No
Select a location number from the search results: 1300876
```

It worked, but...

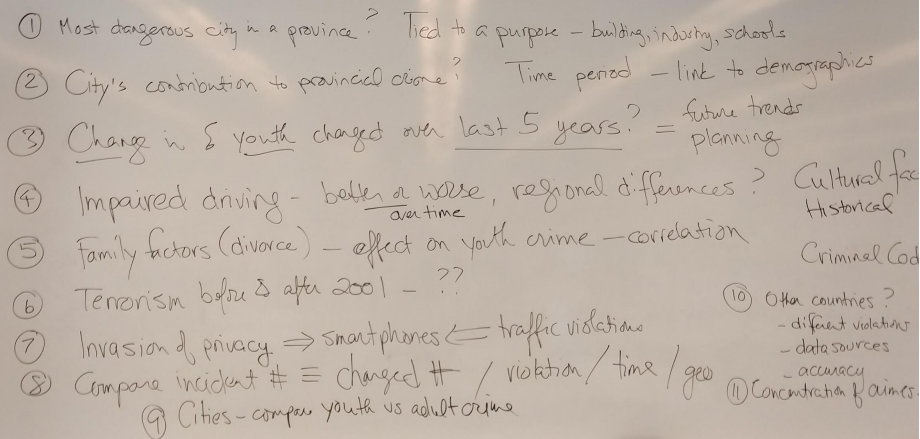
Not user-friendly!

Product Demo



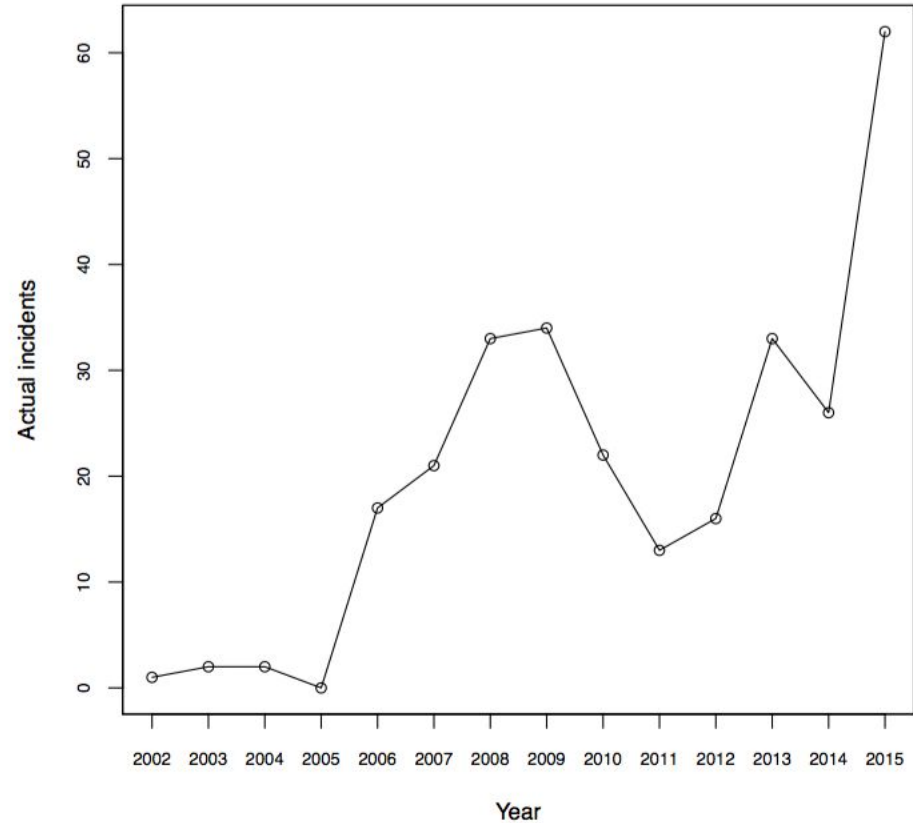
Questions from Class

- The flexibility of our program allows us to answer several of the original questions from class without any additional coding

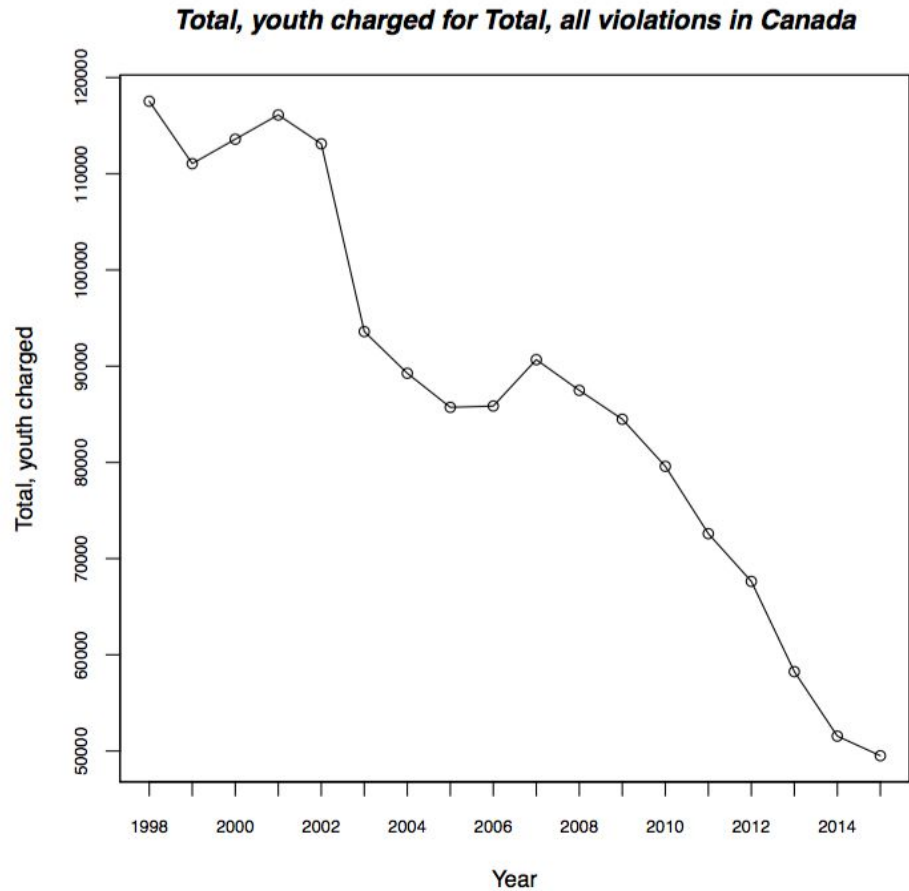
- 
- ① Most dangerous city in a province? Tied to a purpose - building, industry, schools
 - ② City's contribution to provincial crime? Time period - link to demographics
 - ③ Change in δ youth changed over last 5 years? = future trends planning
 - ④ Impaired driving - better or worse _{over time}, regional differences? Cultural fac
Historical
 - ⑤ Family factors (divorce) - effect on youth crime - correlation Criminal Cod
 - ⑥ Terrorism before & after 2001 - ??
 - ⑦ Invasion of privacy \Rightarrow smartphones \Leftarrow traffic violations
 - ⑧ Compare incident # \equiv changed # / violation / time / geo
 - ⑨ Cities - compare youth vs adult crime
 - ⑩ Other countries? - different violations
- data sources
- accuracy
 - ⑪ Concentration of crimes.

- Have terrorism-related crimes increased or decreased since 9/11?

Actual incidents for Participate in activity of terrorist group in Canada

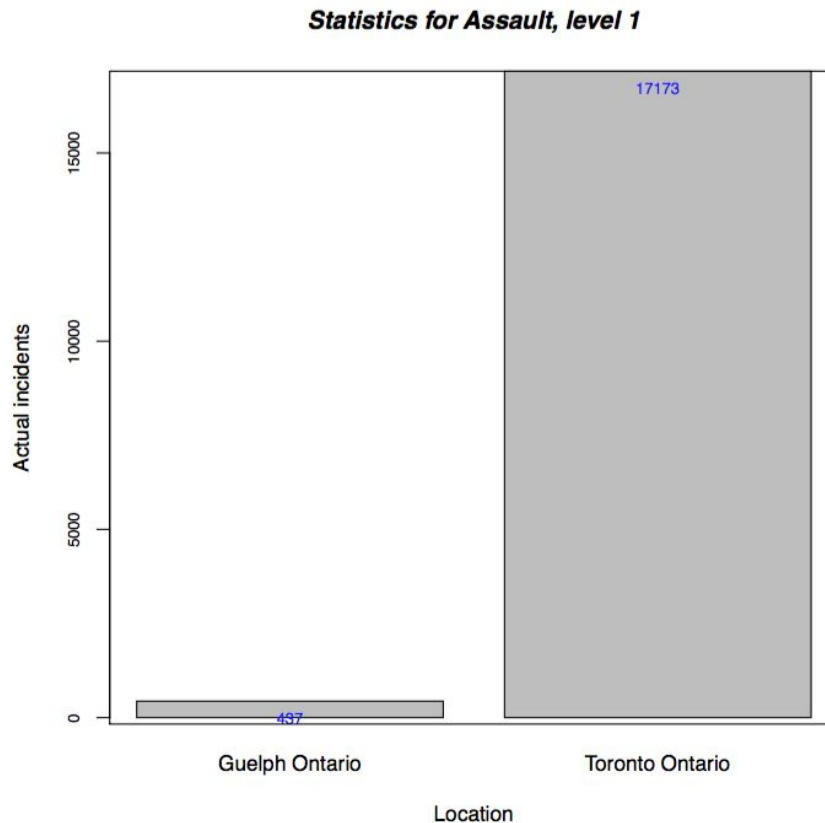


- Has youth crime in Canada increased or decreased over time?

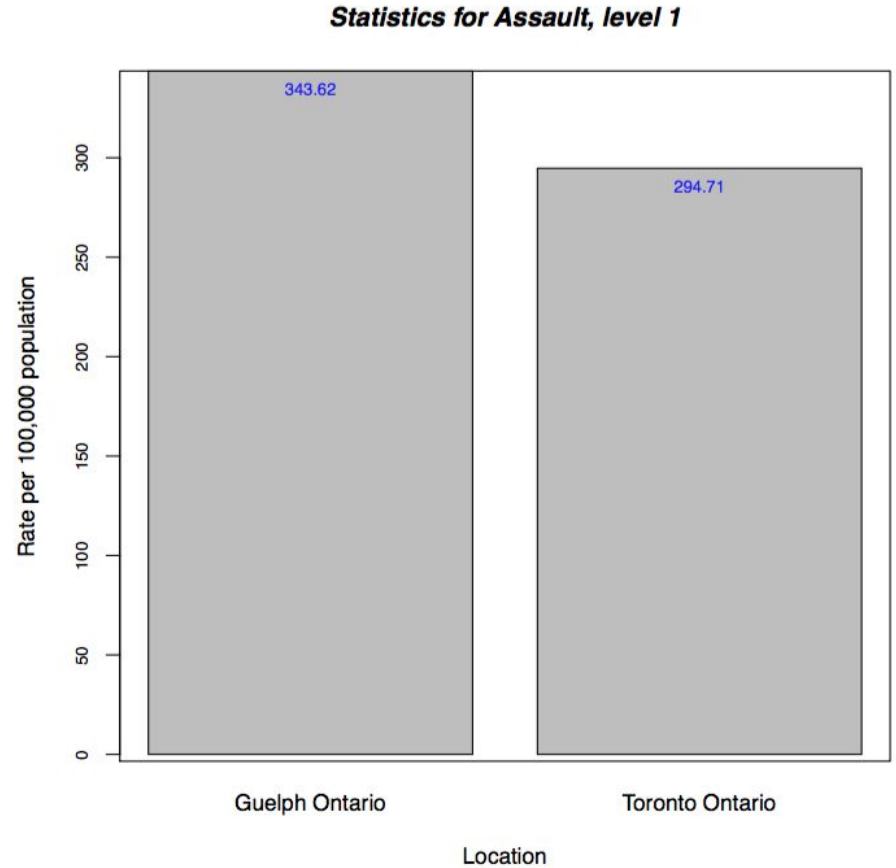


Additional Questions

- These were questions that arose after we created the program.
- How does a small town like Guelph compare to Toronto in terms of a crime?
 - For example, violent assault in 2012...



- However, when plotted after adjusting for population...The results can be interesting.



Deliverable Questions Answered

- ✓ *How many occurrences of a crime took place in one location?*
 - ✓ *In several locations?*
 - ✓ *A group/category of crimes?*
- ✓ *Is a crime more prevalent in one area versus another?*
- ✓ *Did a crime increase or decrease over time?*

Test Drive and Q&A