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Calgary Census Analysis

DATA 512 Final Project
Riley Waters

City Background

- Highest population growth rate of large Canadian cities since 2011
- Few space limitations lead to high sprawl and low density
- Recent efforts for densification and new rail lines

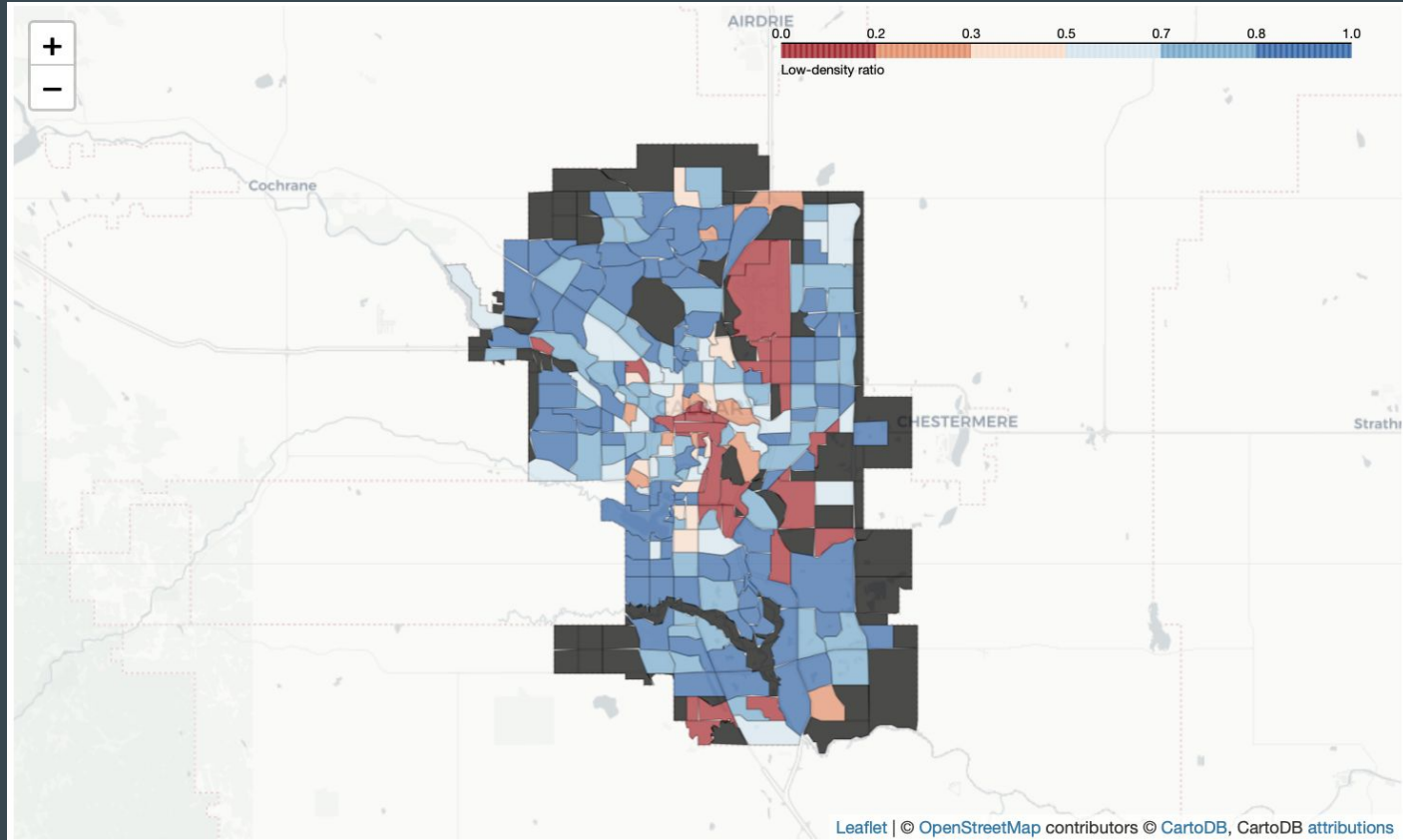
Research Questions

- How do dwelling construction trends differ by community in 2019?
- How has city population and construction changed over time?
- How do demographics differ by community?
- Could releasing this data pose a privacy risk?

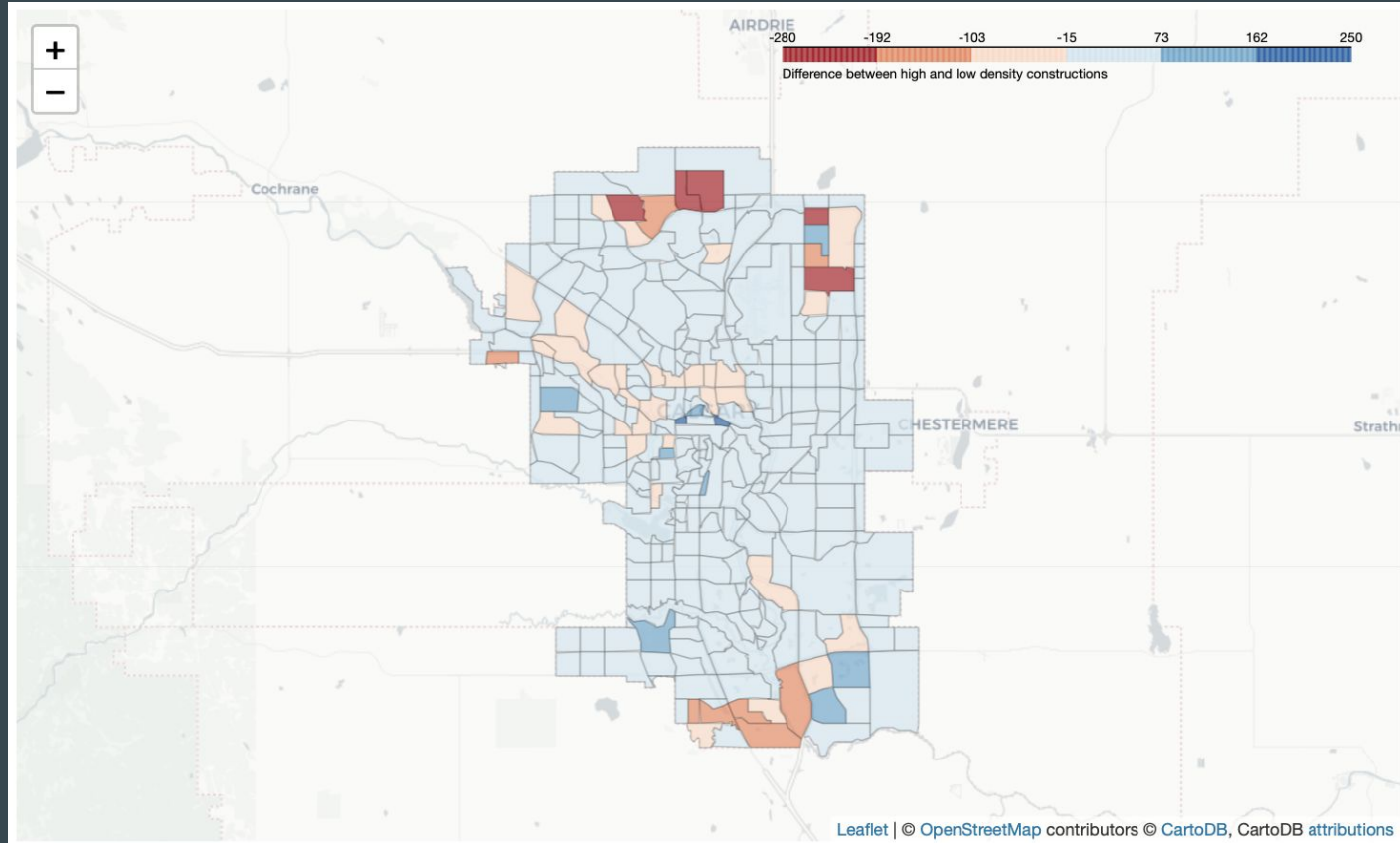
The Data

- Census by Community 2019
 - 142 rows x 306 columns
 - Each row is a community
 - Fields on counts of each dwelling type and demographics
- Civic Census Results 1958-2019
 - 701 rows x 8 columns
 - Counts of dwellings and residents in different wards each year

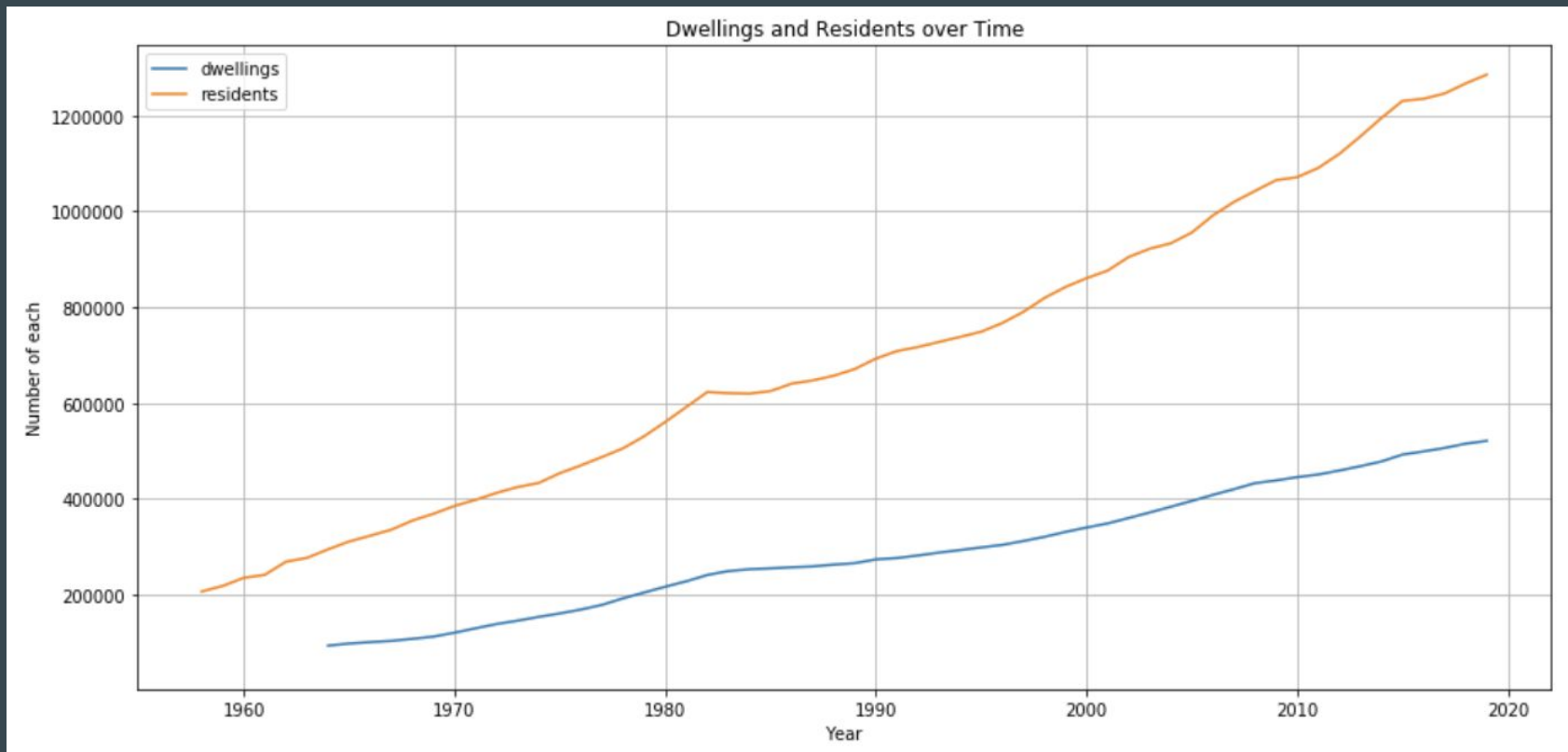
Construction by Community - Low/High density ratio

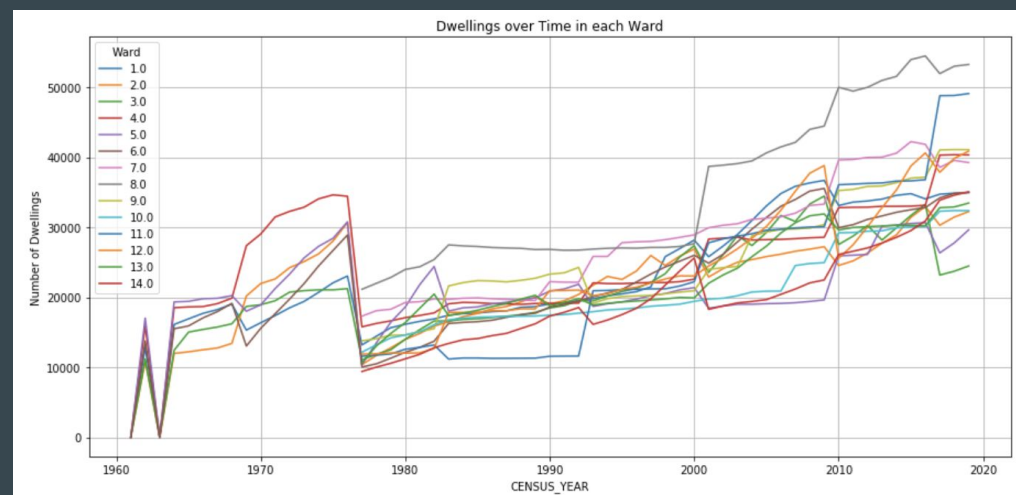
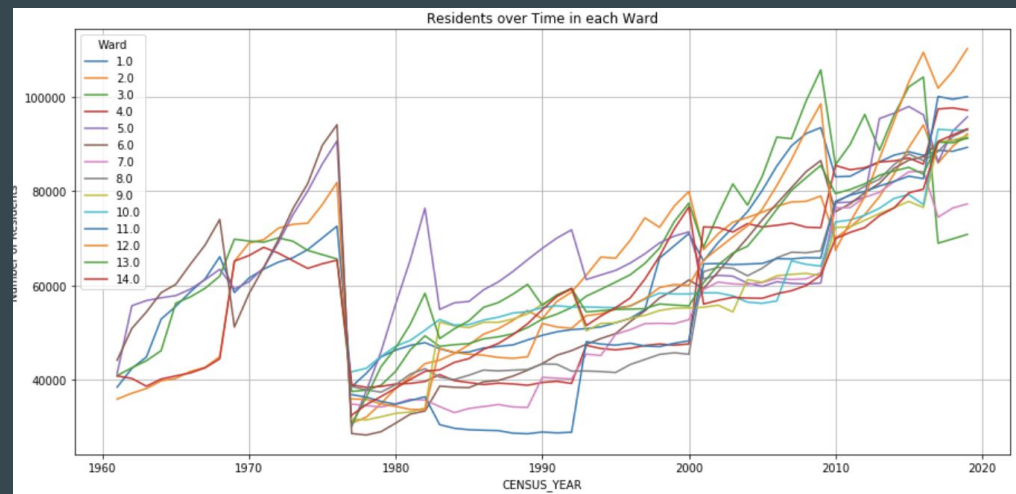


Construction by Community - High Low construction diff

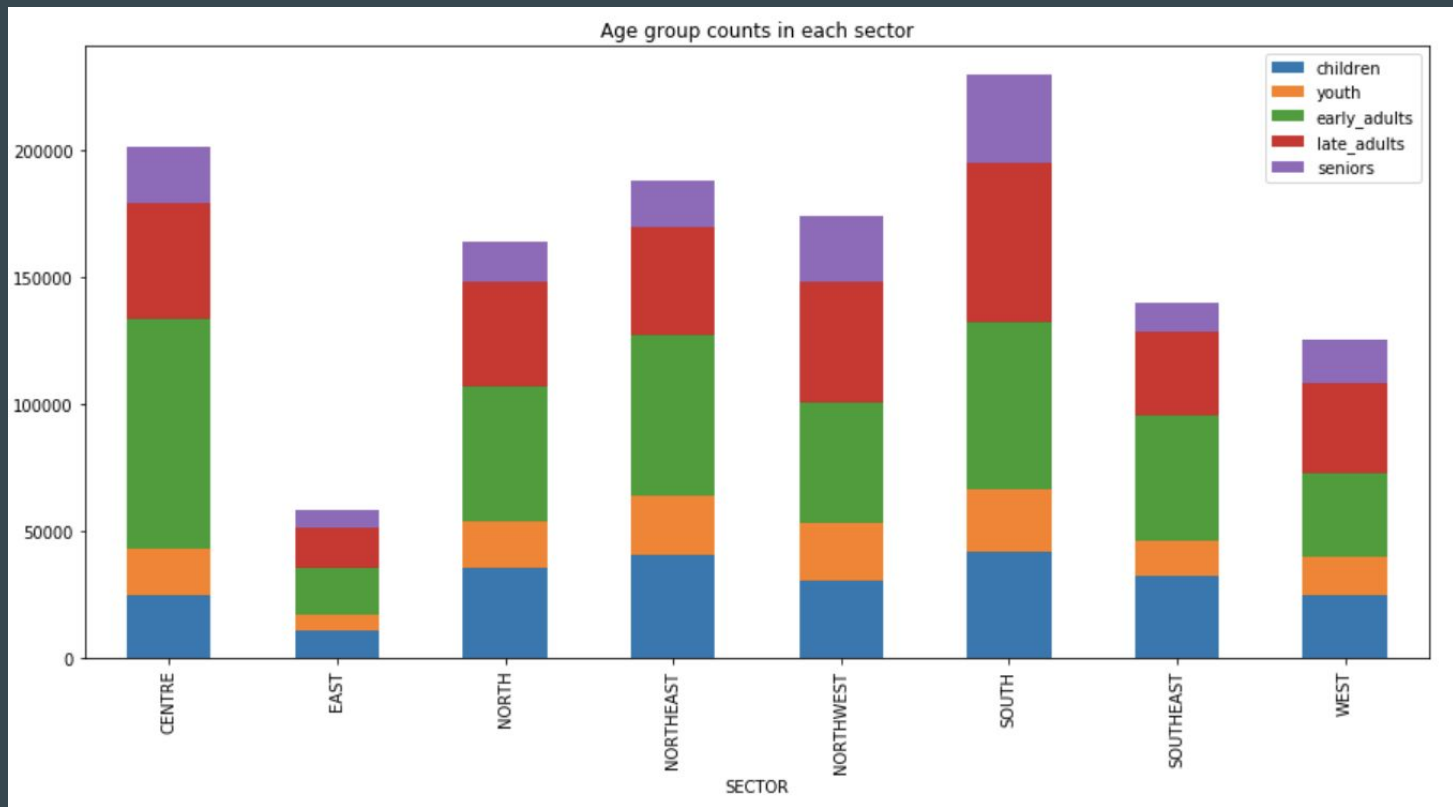


City-wide time series





Demographics - A quick look



Conclusion

- New communities are building more high-density housing despite being far from the city core
- Calgary growth is closely tied to the natural resource economy
- Unable to find much given current demographics in census but that might change
- Privacy is currently not at risk due to aggregation and unfilled fields

Thank you!