Rural Surge

Fernando, Mindy, Sebastian, Teresa

Tools Used on Project

- GitHub
  - The largest and most advanced development platform in the world.
  - https://github.com/
- Pandas
  - A fast, powerful, flexible and easy to use open source data analysis and manipulation tool, built on top of the Python programming language
  - https://pandas.pydata.org/ built on top of the Python programming language.
- Python
  - A general-purpose, versatile, and powerful programming language.
  - https://www.python.org/
- QuickDBD
  - A simple online tool to quickly draw database diagrams.
  - https://www.quickdatabasediagrams.com/
- GeoJSON
  - A format for encoding a variety of geographic data structures.
  - https://geojson.org/
- Tableau
  - A visual analytics platform transforming the way we use data to solve problems—empowering people and organizations to make the most of their data.
  - https://www.tableau.com/

Topic

- The 2020 pandemic highlighted a dearth of high-speed internet connection in Kansas' tiny rural areas.
- In the fall of 2020, schools were shuttered, and emergency remote teaching became the means of addressing educational delivery.
- It became clear that not all internet is created equal.
- Many members of the community only had access to cellphone data, making participation in an online learning environment unfeasible.
- Those who did have access to the internet had so slow download speeds that they couldn't engage in online class activities.
- Our team decided to look into the internet's availability and quality in Kansas.

Data Gathering

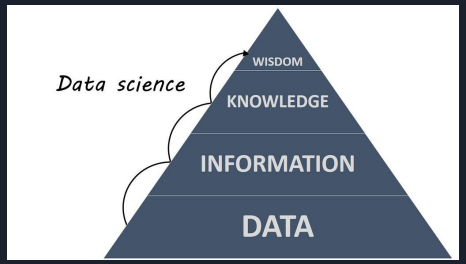
- Looked at FCC (Federal Communications Commission)
  - Internet Providers and speeds correlated with location
- US Census Bureau
  - Population Density
- Kansas State Library
  - Ks_county_codes.csv, ks_county_lat_long.csv, ks_county_lat_long_txt_format.csv, ks_county_population.csv, ks_poverty_by_county.csv, ks_school_dist_codes.csv, ks_school_dist_county_pop_poverty.csv

Questions we hope to answer with the data

- How does internet access support (quality, availability, etc) compare between rural and urban areas in Kansas?

- What Internet Service Providers (ISPs) are available in Kansas? How does their support vary between rural and urban communities?

Data Exploration Phase



- Our team decided to use Tableau to do our data exploration.
- Placeholder

Analysis Phase

- Placeholder