***GIS Final Project Spring 2021***

**Abstract**

12.7 percent of all Americans identify as being handicapped. Those with disabilities often rely on public transportation. Is there a higher percentage of individuals identifying as handicapped in the areas where high amount of public transportation is available? Using the Census information by Congressional districts for both the district areas and the population of those identifying as disabled along with the US fixed transportation, a map of this information was created.

**Purpose**

Determine the population per Congressional District overall and the sub population that has identified as handicapped in those districts. Compare this with the national average of 12.7 percent. This data will be compared to the national average of handicapped individuals to see how that matches up. The data can be used to determine funding needs, areas that should be redistricted, and areas where transportation is needed.

**Background/Rationale and Sources**

<https://data.census.gov/cedsci/table?q=disability&tid=ACSST1Y2019.S1810> <https://www.census.gov/cgi-bin/geo/shapefiles/index.php?year=2020&layergroup=Congressional+Districts+%28116%29>

<https://www.bts.gov/geography/geospatial-portal/NTAD-direct-download>

**Analysis Steps**

National Average for Disability is 12.7% +/-.1$ based on the 2019 Community Survey according to the US Census Bureau

Article I, Section II of the Constitution says that each state shall have at least one U.S. Representative, while the total size of a state's delegation to the House depends on its population. The number of Representatives also cannot be greater than one for every thirty thousand people.

Using this data, determine totals population per district and then the comparative of that population as a shole and then the sub portion of the data for those identifying as being handicapped. Determine by comparing those with the transportation availability to determine how that compares to other areas.

**Results and Discussion**

See Conclusion

**Conclusions**

Unfortunately, I didn't have much time to investigate the details as I was depending on merged table data and found out that I needed to have the

**Limitations**

I was unable to find good Rail information as the only information I was coming up had combined commuter, passenger, and freight lines.

**Future Research**

Additional data could be gathered to determine the volume of riders using reduced fare in on specific transit systems.

Funding by State and/or Congressional district could be gathered and analyzed.

Try to find some good passenger rail data.

**Work Process Log**

Gathered Census Data for Disability Characteristics from <https://data.census.gov/cedsci/table?q=disability&tid=ACSST1Y2019.S1810>

[image](<https://user-images.githubusercontent.com/68611213/117737490-0297a400-b1c8-11eb-919f-300dfcf7d397.png)>

Gathered Data for Congressional Districts From

<https://www.census.gov/cgi-bin/geo/shapefiles/index.php?year=2020&layergroup=Congressional+Districts+%28116%29>

[image][(https://user-images.githubusercontent.com/68611213/117737859-b9941f80-b1c8-11eb-808e-1124f478a04d.png)](https://d.docs.live.net/cfaff7d42601d931/Documents/(https:/user-images.githubusercontent.com/68611213/117737859-b9941f80-b1c8-11eb-808e-1124f478a04d.png))

Gathered Data for Fixed Transit from

<https://www.bts.gov/geography/geospatial-portal/NTAD-direct-download>

[image][(https://user-images.githubusercontent.com/68611213/117738260-a03fa300-b1c9-11eb-8fba-741250b52133.png)](https://d.docs.live.net/cfaff7d42601d931/Documents/(https:/user-images.githubusercontent.com/68611213/117738260-a03fa300-b1c9-11eb-8fba-741250b52133.png))

Cleaned data

Using QGIS:

created the base map with USGS Topgraphic Map

created shapefile with the Congressional Districts Info

updated to outline only, green, .56 milimeters

created vector layer containing the Fixed Transit Info

updated the Agencies to be blue dots and only 1mm

added labeling

added scale

added title

performed join attributes by nearest on the shape files----this is where I ran into trouble as I thought I could join the files because they were both the same data type, but found out that you can't do that on shape files.