Smith College

Final Project

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CSC 109: Communicating With Data

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Abstract:

- City support for LGBTQ is more predicted by the state's political lean rather than the percent of population that is strongly religious as defined by Pew.
- Across the southern region of the United States, the median score of all the cities in the states increases towards the east. Maryland and Florida have the highest scores in the region.
- High and low scoring cities are scattered across the south. When you look at the extremely high and low scoring cities, the highest cities are scattered around the edge of the southern region and the lowest scoring cities are grouped in the center of the southern United States.

Data sources:

I used four different data sources for this project, joining them all by the "state" column in Tableau.

First, I used a Github user's, Radcliffe's, Python web scraping code to make a spreadsheet of the 506 cities that the Human Rights Campaign (HRC) rated on LGBTQ resources.

The HRC serves as America's largest civil rights organization working to achieve LGBTQ equality, representing 3 million members and supporters nationwide (The Human Rights Campaign, 2020). The organization has a mission statement:

> By inspiring and engaging individuals and communities, HRC strives to end discrimination against LGBTQ people and realize a world that achieves fundamental fairness and equality for all. The Human Rights Campaign envisions a world where lesbian, gay, bisexual, transgender and queer people are ensured equality and embraced as full members of society at home, at work and in every community.

The HRC annually rates over 500 cities across the United States using 49 different measures, including citywide non-discrimination protections, policies for municipal employees, city services, law enforcement and the city's leadership on LGBTQ equality.

I used a Github user's, Radcliffe's, Python code to scrape the city scores for 2019 (Github.com/Radcliffe, 2019). The Municipal Equality Index scores, rating cities and municipalites on LGBTQ inclusion, were released in a November 2019 article (The Human Rights Campaign, 2019).

Second, I used a spreadsheet from a Medium tutorial that listed each region of the United States that each state is considered (Tomoff, 2018).

Third, I used a Pew survey that ranked the religious habits of each state. I made a spreadsheet with the state name and the percent of that state's residents that are "highly religious," as defined by a Pew study (Lipka &Wormald, 2016).

Fourth, I used a World Population Review data set that summarized the results of the 2016 presidential election by state, including what percent of each state voted for each political party (World Population REview, n.d.).

Communication strategies:

- I used only two color palettes throughout the Tableau workbook for easy readability. In one case, this went against traditional political coloring. I continued to use a blue-orange diverging color pallet to show how much each state voted Democrat in 2016 rather than the traditional red-blue color palette: my goal was to preserve my motif of dark blue as strong supporters of LGBTQ, and shades of orange and light blue to indicate a lack of support.

- I am using the technique from Chapter 1 of the Yau textbook (Yau, 2013) about focusing on a few stories to go along with a dataset that has a large overview. In this project I did this by looking at the local newspapers of a few Southern cities: Atlanta, Georgia; Southaven, Mississippi; and Laredo, Texas.

- I summarized the real world effect when explaining what the slope of the trend line means in the "HRC Score and % that voted Democrat" graph.

- I used trend lines to clarify the relationship between median city score in each state, the state's percent of "highly religious" people, and percent of the state that voted Democrat in 2016.

- I focused in on subcategories analyzing cities in the southern United States, and cities in the southern United States with extremely high and extremely low scores.

- I used color and a key to show the data significance of the corresponding hue and saturation.

- I used maps and scatterplots to show national and regional trends. I used Tableau dashboards to compare two graphs.

- I am using the HRC and Associated Press (AP) grammatical style of LGBTQ throughout this project, except for preserving the grammar when a direct quote uses a different acronym. There is controversy within the LGBTQ community on how to use the most inclusive initialism, with LGBTQ standing for lesbian, gay, bisexual, transgender, and queer/questioning. My use of LGBTQ is based on the
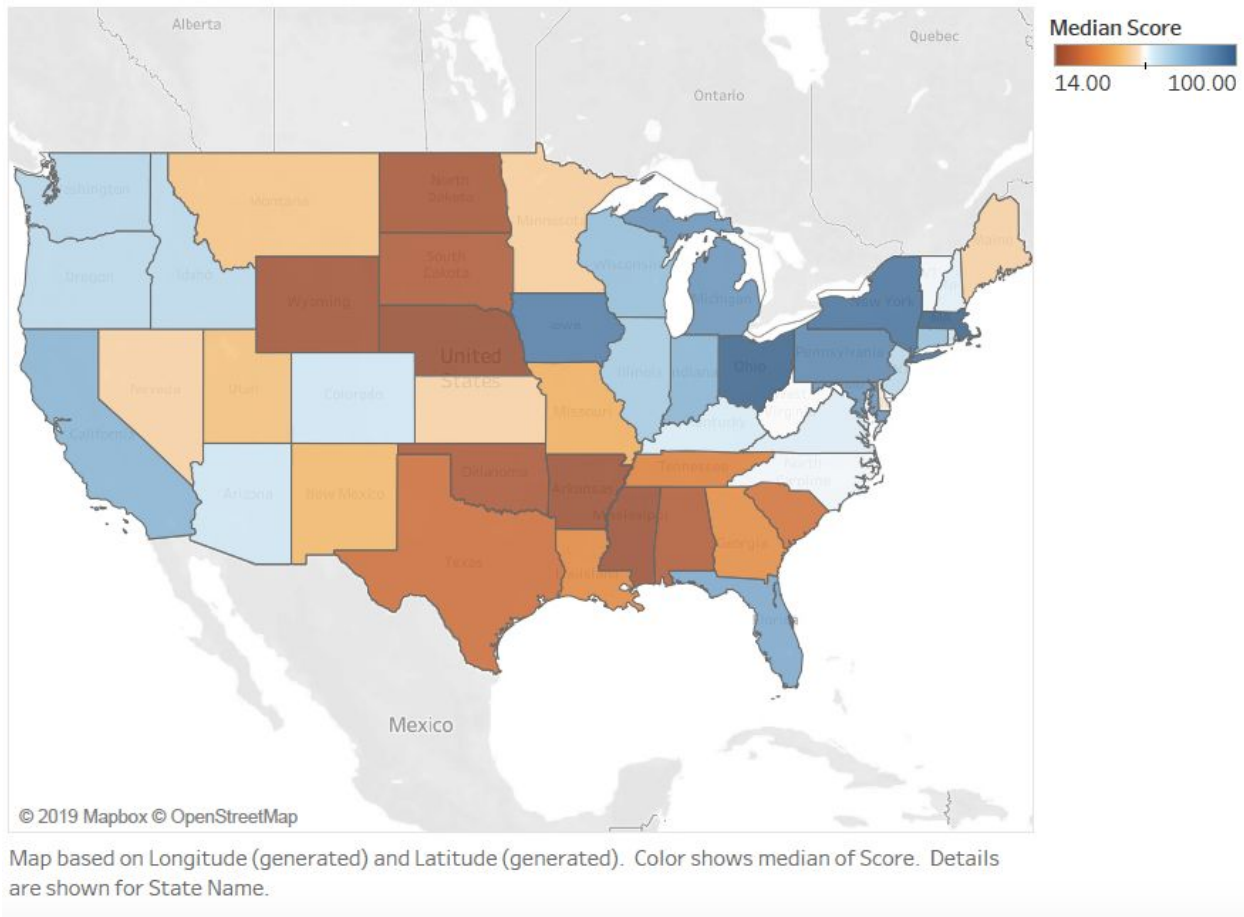
HRC and Associated Press usage. The journalism authority announced the usage of LGBTQ as acceptable in a 2017 Tweet (AP Stylebook, 2017).

Analysis:

The Human Rights Campaign (HRC) is the largest LGBTQ advocacy group in the United States. This nonprofit organization was founded in 1980 with a mission to advocate for equal rights for the LGBTQ community. One aspect of this is comparing the support many cities provide for their LGBTQ community members. The HRC does this by analyzing 49 factors to provide a Municipality Equality Index score for each analyzed city. This will be abbreviated to just "score," and when looking on a national level, the value assigned to the state is the median score of all the analyzed cities in each state.
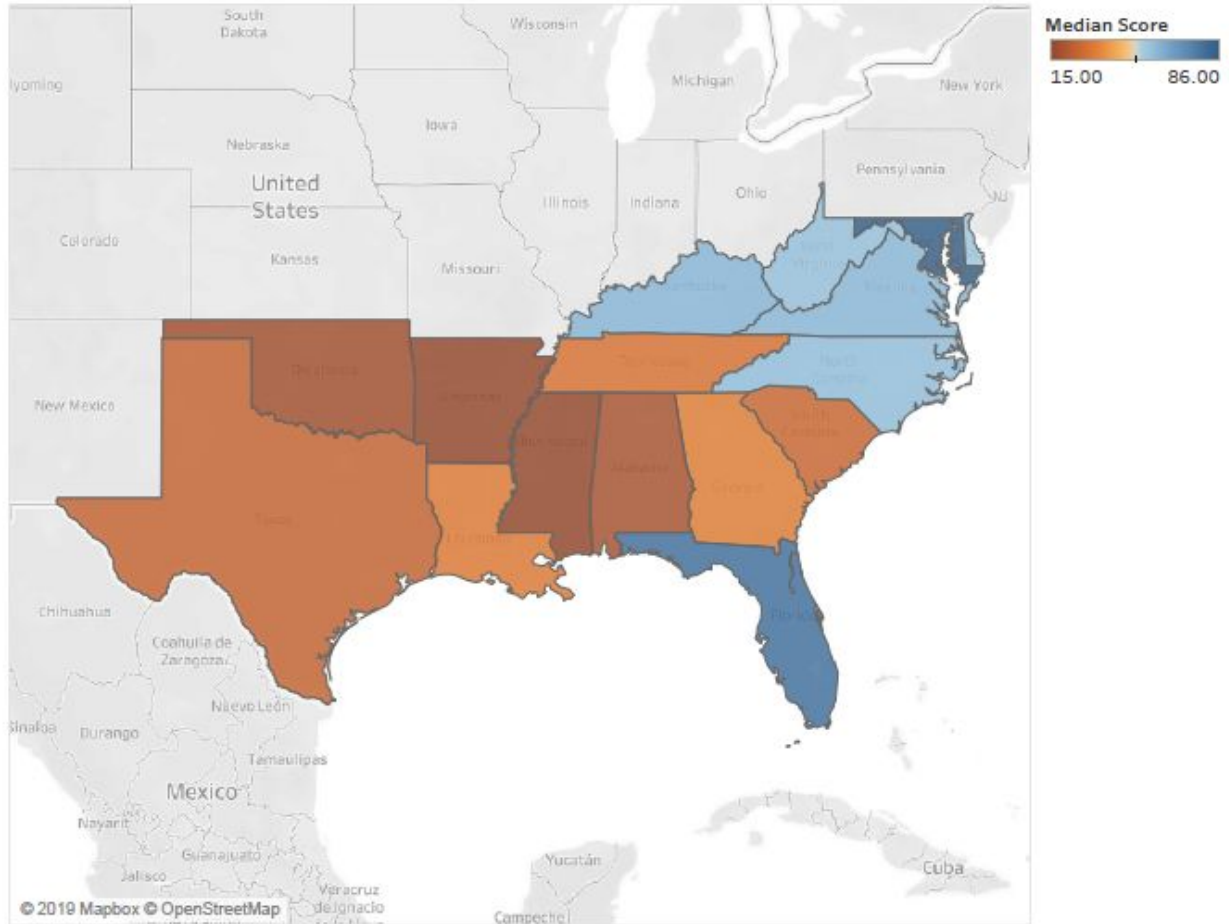
This graph looking at the median score of the analyzed cities is unsurprising. The West Coast and Northeast provide strong support for their LGBTQ communities, while there is significantly less support in the Midwest and South. The South is interesting because there is variation in the support that region provides, with some states' support above average.

Median score of each state's cities

Map based on Longitude (generated) and Latitude (generated). Color shows median of Score. Details are shown for State Name.

Within the South, the median scores appear to be a west-to-east trend of increasing LGBTQ support for states closer to the coast.

Southern U.S.: Median score of each state's cities

Map based on Longitude (generated) and Latitude (generated). Color shows median of Score. Details are shown for State Name. The data is filtered on Region, which keeps South Region.

When looking at the actual score for each city, the trend is less clear. There seems to be evenly distributed scattering of high, middle and low scoring cities throughout the region.
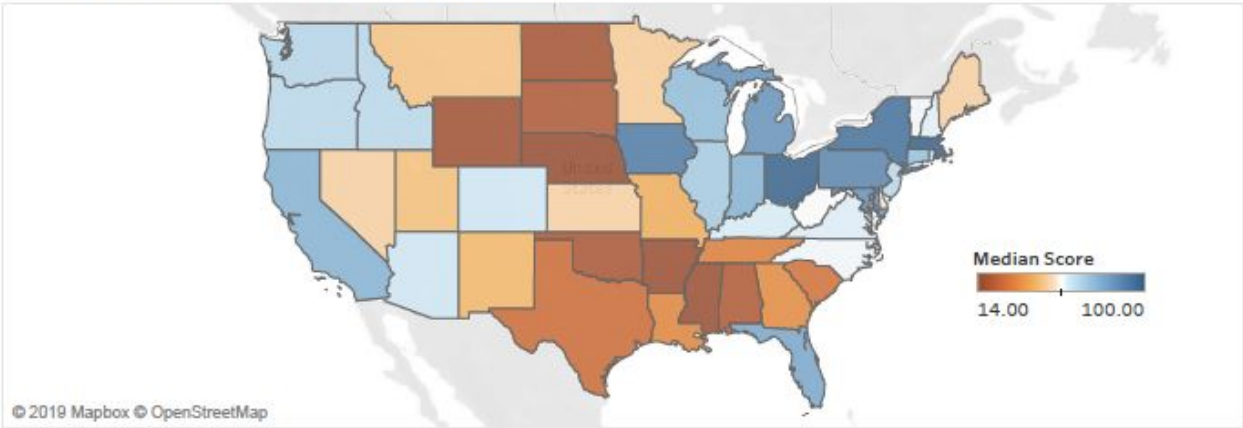
Cities chosen by the HRC are not arbitrary (Human Rights Campaign & Equality Federation Institute, 2019):

> This year, the cities rated are: the 50 state capitals, the 200 largest cities in the United States, the five largest cities or municipalities in each state, the cities home to the state's two largest public universities (including undergraduate and graduate enrollment), 75 cities & municipalities that have high proportions of samesex couples (see page 19 for more information) and 98 cities selected by HRC and Equality Federation state groups members and supporters. (p. 2)
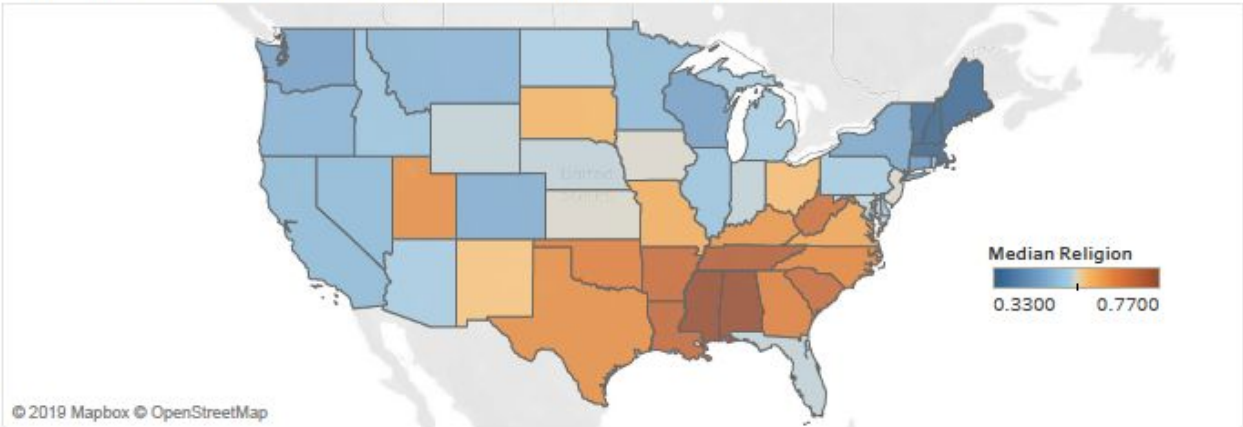
A reoccuring statement I heard in my community before 2015 when same-sex marriage was granted as a right across the United States was that people's religion did not allow same-sex marriage and variations of that same sentiment. Even after Obergefell v. Hodges, that same sentiment was and is used as justification to not support other forms of LGBTQ equality. While some Christian-based religions are considering or enacting schisms over marriage equality (Boorstein, 2016), I assumed that the most significant indicator and negative correlation between a city or state's support for LGBTQ individuals would be how religious the city or state is. I decided to look at this with some high quality data from reliable sources.

I found that while having a more "highly religious" population, categorized as that by Pew Research Center, is correlated to a smaller support system for LGBTQ systems, a stronger correlation is a higher percent of the state voted Republican and a smaller support system for LGBTQ community members.
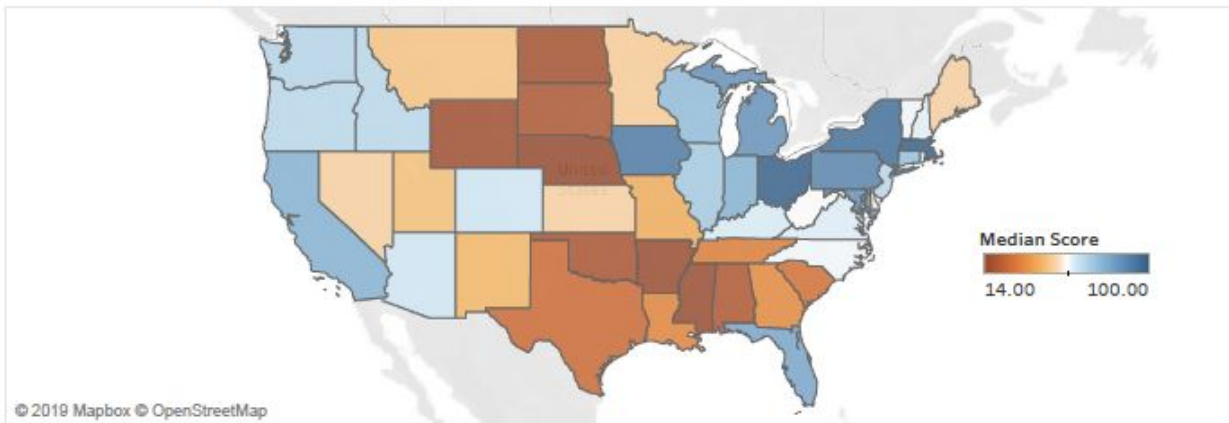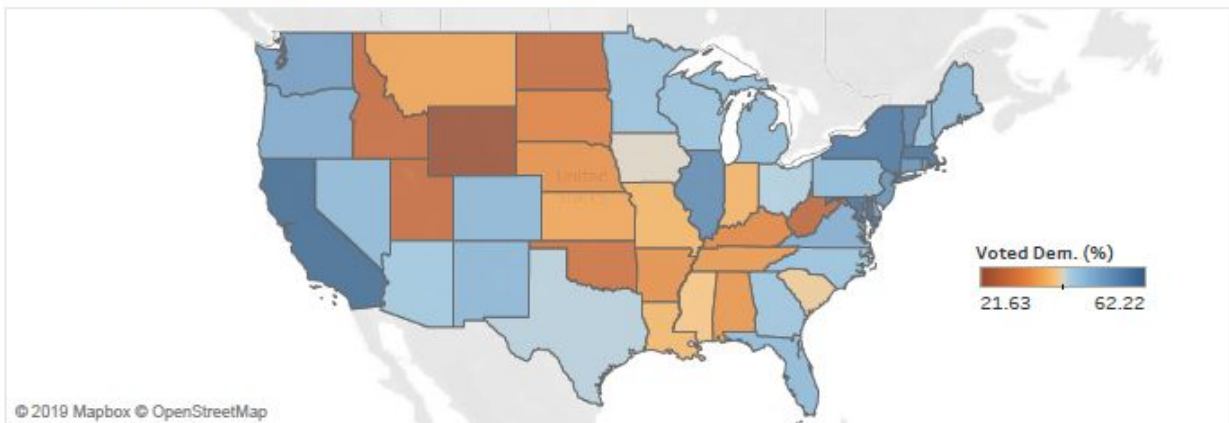
Median score of each state's cities

© 2019 Mapbox © OpenStreetMap

Median Score

14.00   100.00

Percent of state that is considered "highly religious"

© 2019 Mapbox © OpenStreetMap

Median Religion

0.3300   0.7700

Median score of each state's cities

Median Score
14.00 — 100.00

© 2019 Mapbox © OpenStreetMap

Percent of state that voted Democrat in November 2016

Voted Dem. (%)
21.63 — 62.22
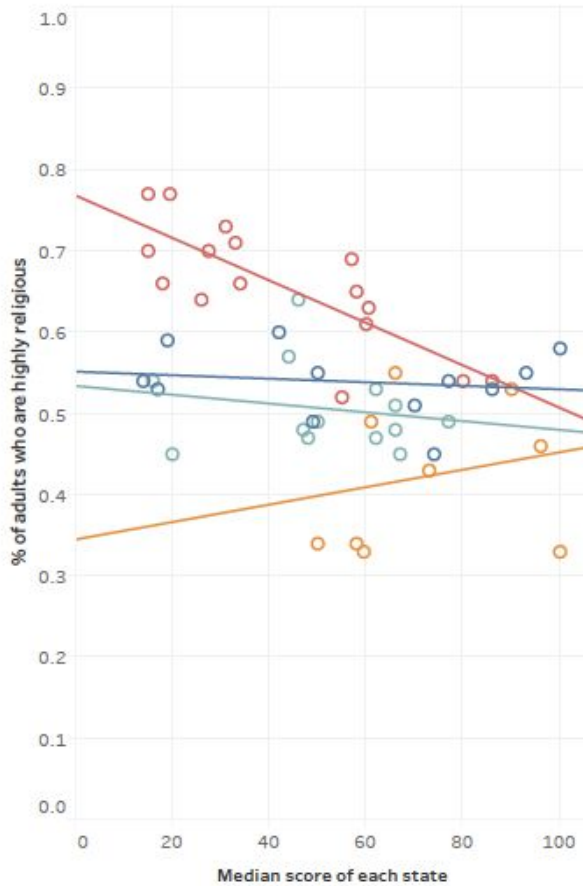
© 2019 Mapbox © OpenStreetMap

When looking at the regional trend lines (on the graph below) for religion compared to median score, the Midwest and West trendlines are nearly flat. While the South region line slopes sharply downward, indicating that having fewer people who are highly religious is correlated with a higher score for cities in that region, the Northeast trend line slopes upward, indicating the opposite and actually a positive correlation between the percent of the population that is strongly religious and support systems for the region's LGBTQ communities. We can conclude there is no clear national trend between the percent of state that is "highly religious," according to the Pew research, and the median score of that state's cities in these two data sets.

What does have a clear national trend is the percent of the state that voted Democrat in 2016 and the median score of that state's cities. All four regions have steep trend lines showing that a higher percent of the state that voted Democrat correlates to a higher median score for that state. If we focus on the south region, the equation of the trend line is (% that voted Democrat) = 0.228*(Median Score) + 31.4. We can rewrite this equation as
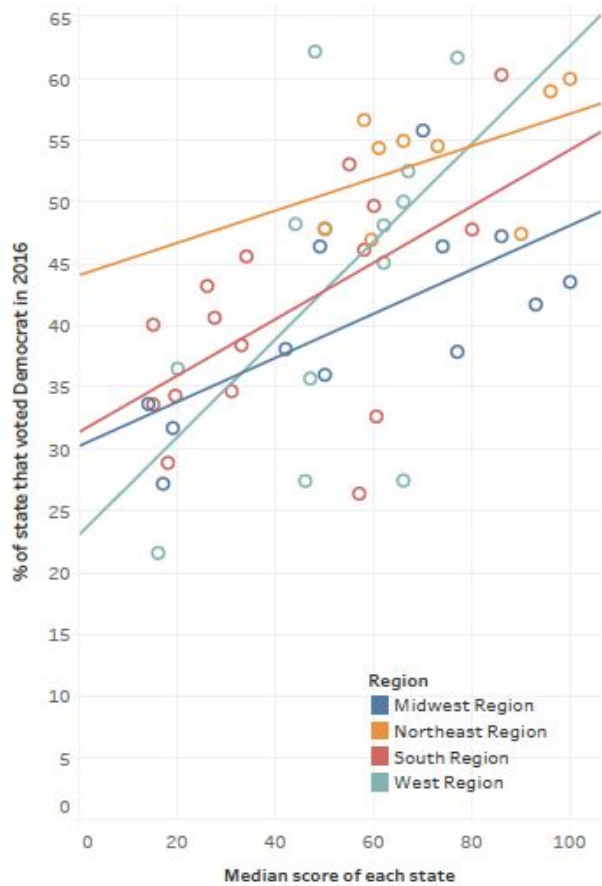
$$Median\ Score\ =\ \frac{\%\ that\ voted\ Democrat}{0.228}\ +\ 137.7$$

This means every additional percent a state voted for a Democrat in the South was correlated to an HRC score approximately 4.4 points higher.

HRC Score and Religion

Y-axis: % of adults who are highly religious (0.0 to 1.0)
X-axis: Median score of each state (0 to 100)

HRC Score and % that voted Democrat

Y-axis: % of state that voted Democrat in 2016 (0 to 65)
X-axis: Median score of each state (0 to 100)

Region
- Midwest Region
- Northeast Region
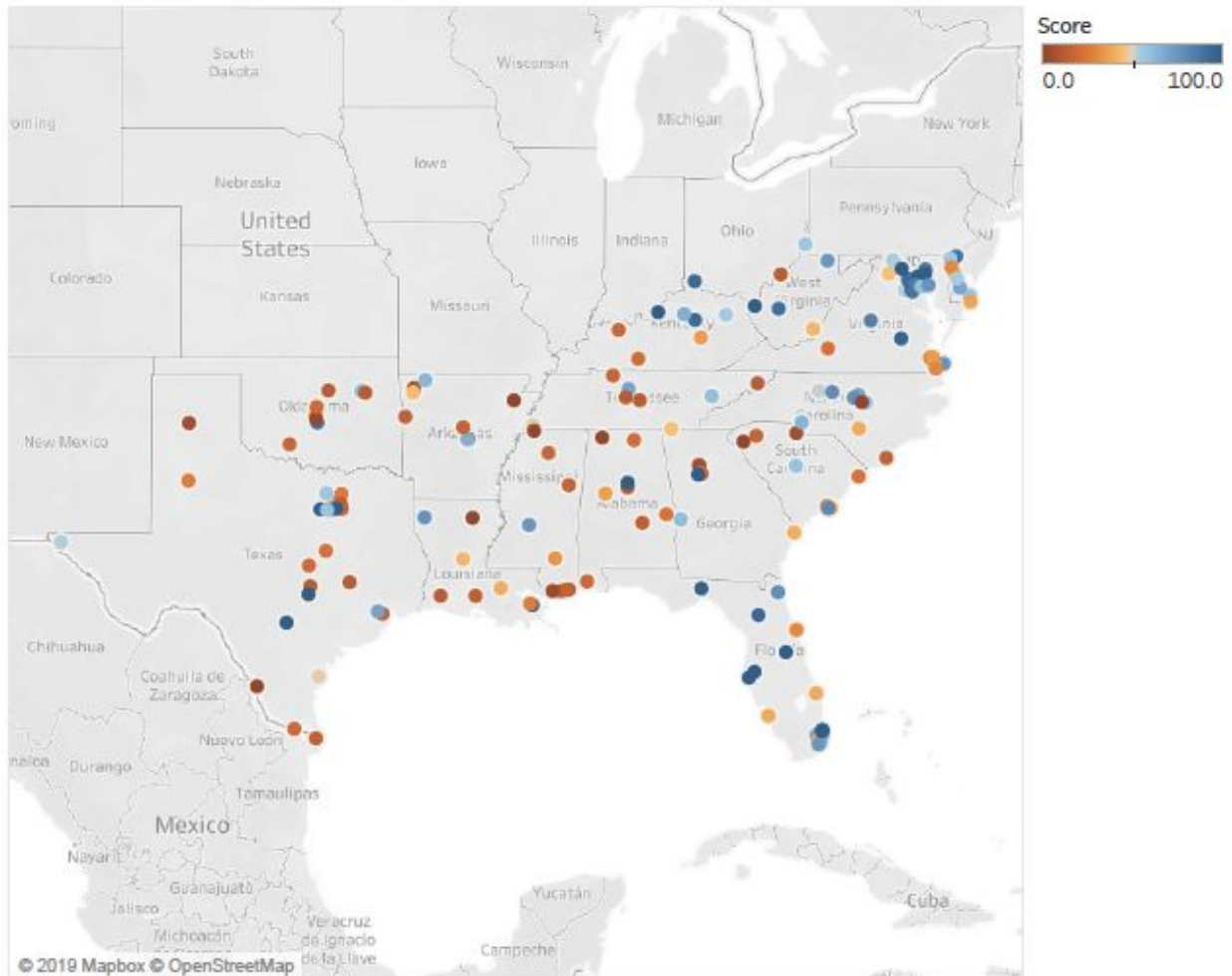- South Region
- West Region

We can look to the Southern United States to see that municipality support for LGBTQ people is not homogeneous across a region or even state.

Southern U.S.: Score by City

Map based on Longitude (generated) and Latitude (generated). Color shows median of Score. Details are shown for State and City. The data is filtered on Region, which keeps South Region.

Some cities score extremely high and others extremely low. We can see some of a trend emerge: there is a cluster of incredibly high scoring cities in Maryland and northern Virginia and a cluster of low scoring cities along the coast of Mississippi. There are many low scoring cities inland and a handful of high scoring cities. It's interesting how there can be such extreme differences of LGBTQ support when the cities are all relatively close to each other.

Southern U.S.: Cities with a score >80 points

Southern U.S.: Cities with a score <20 points

I focused in on three arbitrarily chosen cities: one with a score of 100 and two with a score of 0. I looked up the most LGBTQ postive stories I could find in the city's local newspaper to see what the writing could tell me about the culture of the community.

The main newspaper for Atlanta, Georgia (MEI score for 2019: 100) highlighted their 49th annual Atlanta Pride Festival, attended by tens of thousands of people and many corporations in October 2019. The article mentioned the political divide with Democrat's support of LGBTQ causes and Republicans having a noticeable absence (Bluestein & Prabhu, 2019).

"[Atlanta Pride Festival] has transformed from an afterthought to a must-attend for every serious Democratic contender for office in Georgia," according to Greg Bluestein and Maya T. Prabhu, The Atlanta Journal-Constitution. "No high-profile Republicans were expected to march in the Sunday parade."

One exception is Jamie Ensley, president of Georgia Log Cabin Republicans who had a booth at the Atlanta Pride Festival with Republican politicians during election years. According to their website, the Log Cabin Republicans (n.d.) is "the nation's largest Republican organization dedicated to representing LGBT conservatives and allies." Ensley said in the Atlanta Journal-Constitution article that his organization is working to involve more GOP politicians in pride events, and the group has "friends of the LGBT community that are Republicans." In election years, the group has a booth where Republican politicians visit and speak with festival attendees.

Southaven, Mississippi (MEI score for 2019: 0) has a significant shortage of articles in their local newspaper, the DeSoto Times-Tribune, mentioning their LGBTQ community in a non-political way. Nine articles came when I searched "LGBTQ" and variations of the initialism: all on politics and from 2018 and earlier. Most of the articles were editorials published in 2016 regarding an unsuccessful Mississippi state senate bill that

aimed to allow personal belief to prevent same-sex marriage licenses from being issued in the state, even after the 2015 Supreme Court decision that legalized same-sex marriage nationwide. Searching for "gay" overwhelmingly brought up obituaries of people with the last name Gay and basketball season news. "Lesbian" and "bisexual" brought up nothing since 2016. "Transgender" brought up nine articles, all political and primarily opinion articles, hitting topics that spanned from banning transgender people from bathrooms that match their gender identity, praising Trump, and general criticism in the article titled "Liberal struggle against reality."

In Laredo, Texas (MEI score for 2019: 0), the local newspaper highlighted an LGBTQ community event at Texas A&M International University, organized by Chema Villarreal, co-founder of TAMIU's Campus Ally Network with the goal of building a support network (Wallace, 2019). This event was held to counter a conversion therapy seminar that was held simultaneously at the university's campus and to celebrate Laredo's LGBTQ community. A unique aspect of this gathering was the presence of local Catholic sisters who both sit on the local equality committee and run a domestic violence shelter.
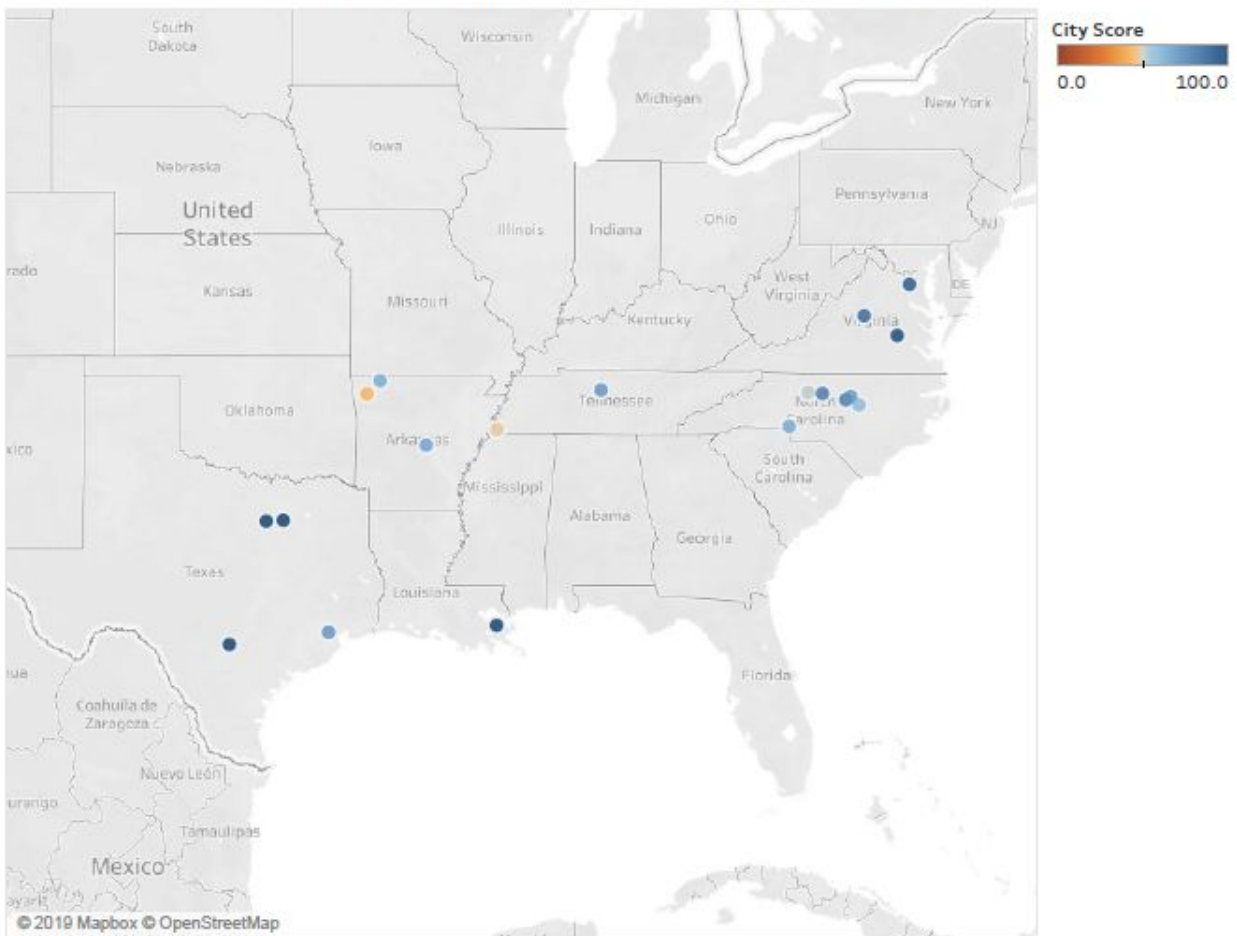
"Sister Rosemary Welsh is also a new committee member for Equality Texas Laredo," according to Julia Wallace from the Laredo Morning Times. "She said she and the rest of Laredo's Sisters of Mercy want every single person who comes through the doors of their domestic violence shelter, Casa de Misericordia, to know that they are welcome."

One category the HRC considers is to award bonus points to the overall score if a city "tests limits of restrictive state law," as explained in the Standards for Credit on the MEI (The Human Rights Campaign, 2020).

> This category (formerly called "Resisting Dillon's Rule") only applies to cities located in states with statewide laws that restricts cities' authority to pass LGBTQ-inclusive ordinances. Such cities that take distinct actions to push back against state limits to their ability to pass pro-equality laws will qualify for four bonus points in this section. Cities can advocate against restrictive state law through council resolutions or declarations and engagement with state legislators.

Not all cities go along with what is categorized by the HRC as restrictive state law that may be imposed in the South. As well as an overall score, the HRC looked at cities that test restrictive state law. Most of the states have a high overall score, a median of 70, compared to the much lower median city scores of most of the region's states. Just two out of twenty cities have a score below 50. This graph does not appear to have a significant geographic pattern.

Southern U.S.: Score of cities that test restrictive state law

Map based on Longitude (generated) and Latitude (generated). Color shows average of Score. Details are shown for State and City. The data is filtered on Region and average of City test limits of restrictive state law -- City. The Region filter keeps South Region. The average of City test limits of restrictive state law -- City filter includes values greater than or equal to 1.

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