

4 Trending Diets On 

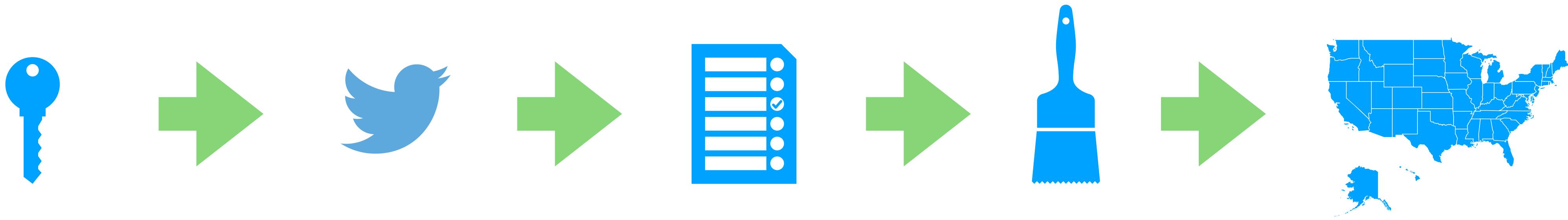
# Objective

Where were Twitter hashtags for these diets trending in the US, within the last 30 days?



Keto  
Paleo  
Weight Watchers  
Whole30

# Process



# Tools

- Twitter API
- Libraries: Pandas, NumPy, Matplotlib, Requests, JSON, pprint, Tweepy, Geocoder, gmaps
- Export/Read CSVs to prevent maxing out API requests
- Google maps to create the heat map
- Tableau was utilized to create bar graphs and overall activity map

# Roadblocks

- Maxed out API requests for our API key
- Locations were inaccurate (ex: State,Country instead of City,State, and “from the sports grille”)
- Trying to grab the latitude longitude coordinates by using the Google Maps API, but then found the Geocoder library
- Number of locations and weights had to match to build heat map
- Only allowed us to pull 100 results, and only 70-75 results per diet had location values

# Snippets

For loop to grab results from the Twitter API, and collect the correct location data. The geocoder library was extremely useful in pulling the lat/lng.

```
for tweet in r.json()["results"]:

    try:
        #Get and print location of tweet
        user_name = tweet["user"]["screen_name"]
        location = tweet["user"]["location"]
        tweet_location = tweet["place"]["full_name"]
        lat, lng = geocoder.arcgis(tweet_location).latlng
        print(f"The user, {user_name}, is located in {tweet_location}, {lat}, {lng}")

        #Build dictionary
        keto_location_dict = {
            "user": user_name,
            "tweet_location": tweet_location,
            "lat": lat,
            "lng": lng
        }

        # Add dictionary to list
        keto_location_list.append(keto_location_dict)

        # Increment count
        count = count + 1
    except:
        continue
```

# Snippets

Aligning the length of weights to the length of geo coordinates

```
# Groupby state to get the average lat lng as the location
keto_map_locations = keto_data_US_extract.groupby("State").mean()
keto_map_locations
```

# Snippets

Cleaning the location data, as not all users listed their location in the same format

```
# Update columns with city and state values as state and USA to blank columns
keto_data_US.iloc[9,5] = ""
keto_data_US.iloc[9,6] = ""
keto_data_US.iloc[15,5] = ""
keto_data_US.iloc[15,6] = ""
keto_data_US.iloc[20,5] = ""
keto_data_US.iloc[20,6] = ""
keto_data_US.iloc[29,5] = ""
keto_data_US.iloc[29,6] = ""
keto_data_US.iloc[35,5] = ""
keto_data_US.iloc[35,6] = ""
keto_data_US.iloc[39,5] = ""
keto_data_US.iloc[39,6] = ""
keto_data_US.iloc[42,5] = ""
keto_data_US.iloc[42,6] = ""
keto_data_US.iloc[43,5] = ""
keto_data_US.iloc[43,6] = ""
keto_data_US.iloc[48,5] = ""
keto_data_US.iloc[48,6] = ""
keto_data_US.iloc[49,5] = ""
keto_data_US.iloc[49,6] = ""
keto_data_US.iloc[59,5] = ""
keto_data_US.iloc[59,6] = ""
keto_data_US.iloc[70,5] = ""
keto_data_US.iloc[70,6] = ""

# Replace all blanks in the state column with correct state
keto_data_US.iloc[9,6] = " PA"
keto_data_US.iloc[15,6] = " AZ"
keto_data_US.iloc[20,6] = " AZ"
keto_data_US.iloc[29,6] = " AL"
keto_data_US.iloc[35,6] = " AL"
keto_data_US.iloc[39,6] = " OH"
keto_data_US.iloc[42,6] = " WV"
keto_data_US.iloc[43,6] = " AL"
keto_data_US.iloc[48,6] = " NY"
keto_data_US.iloc[49,6] = " WA"
keto_data_US.iloc[59,6] = " NY"
keto_data_US.iloc[70,6] = " TX"
```

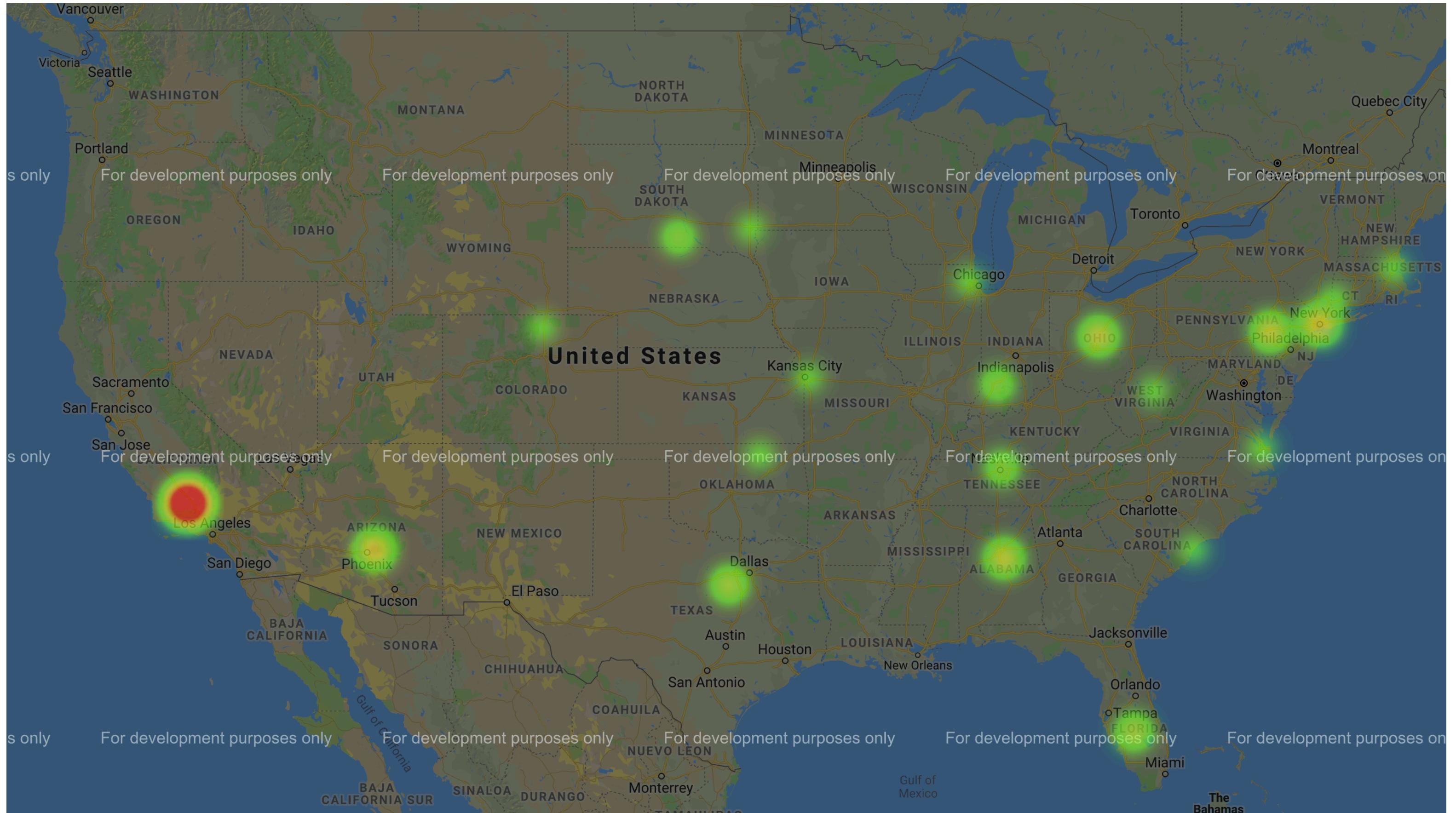
# Snippets

Sorting the tweets per state and aligning with the geo coordinates for that state

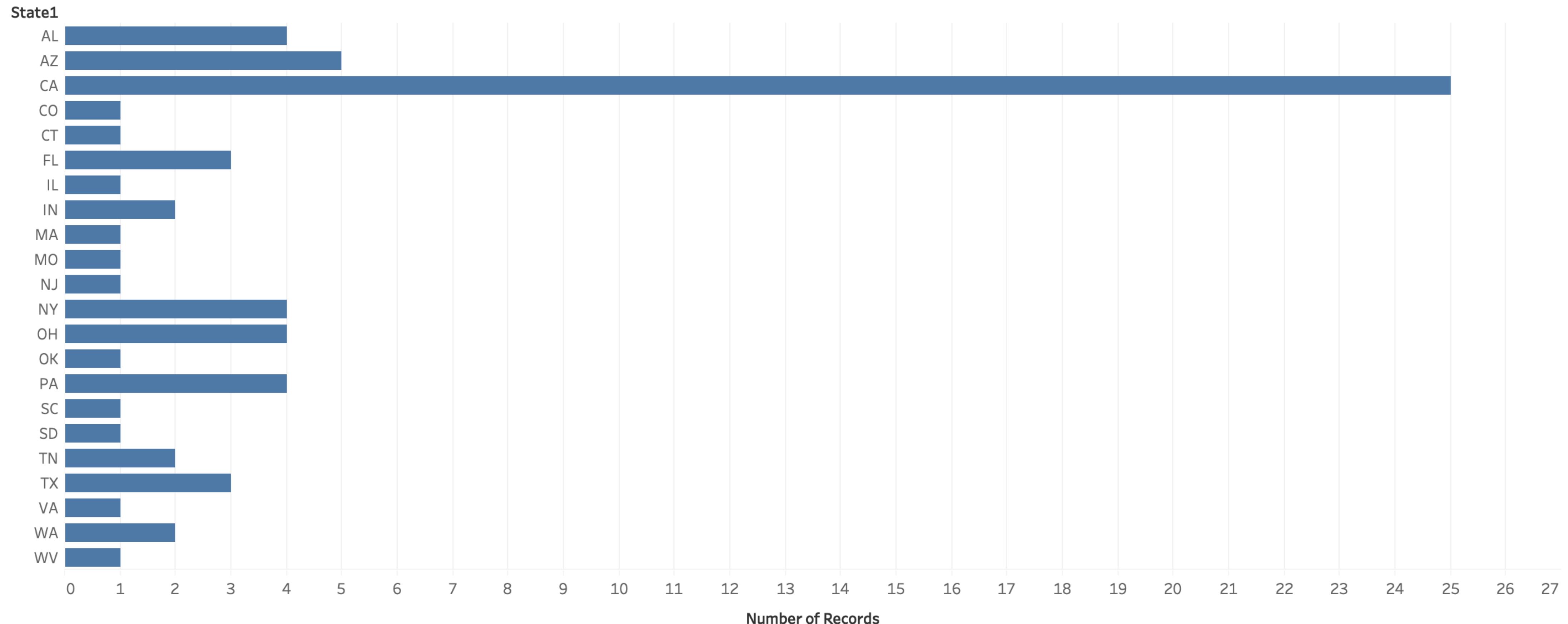
```
# Count the locations (number of states) and use as weights for heatmap
keto_map_locations_count = keto_data_US[ "State" ].value_counts()
reorg_keto_location_count = keto_map_locations_count.sort_index()
reorg_keto_location_count
```

# Keto

Heat map of  
tweets  
with Keto hashtags

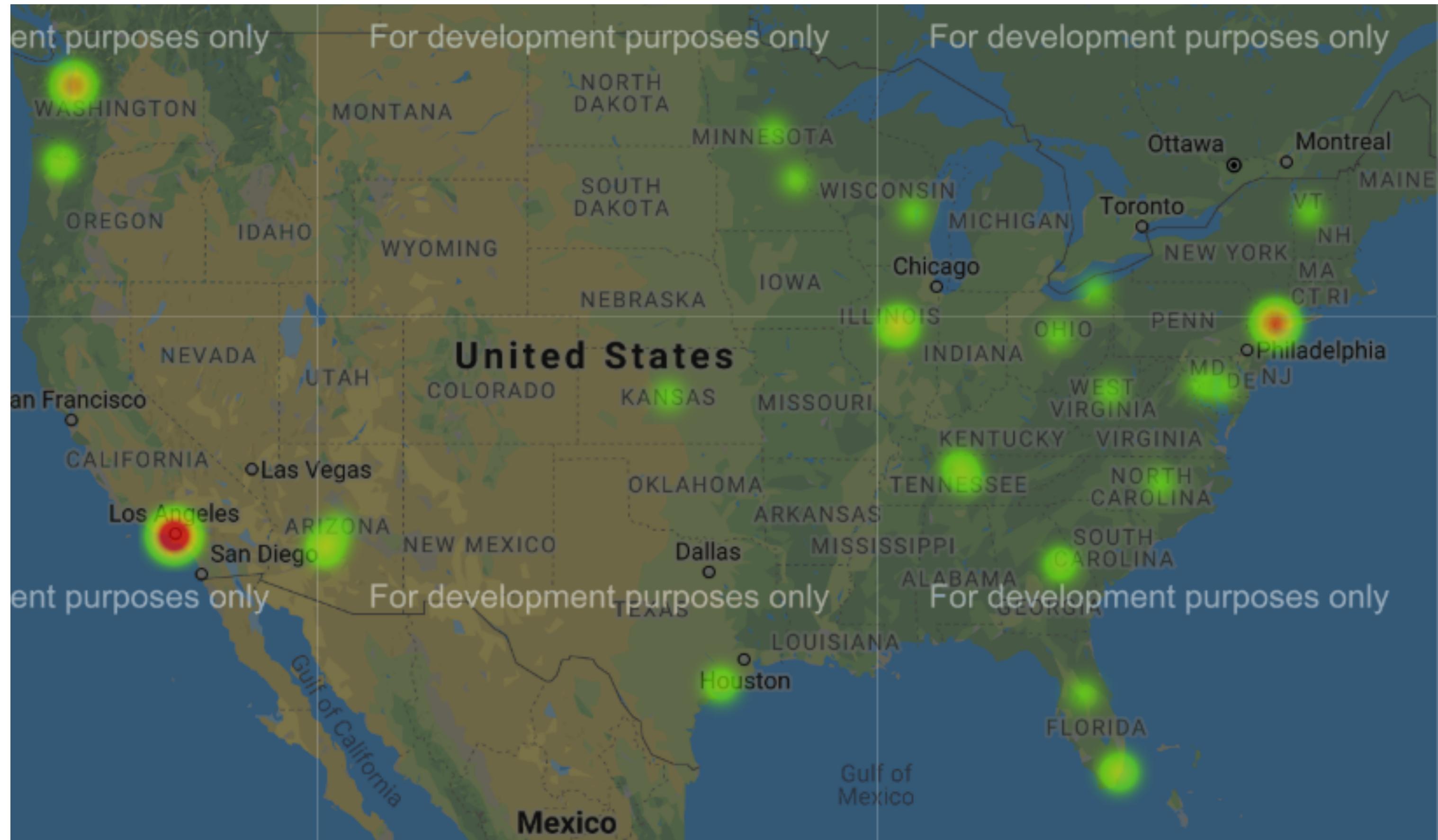


# Keto

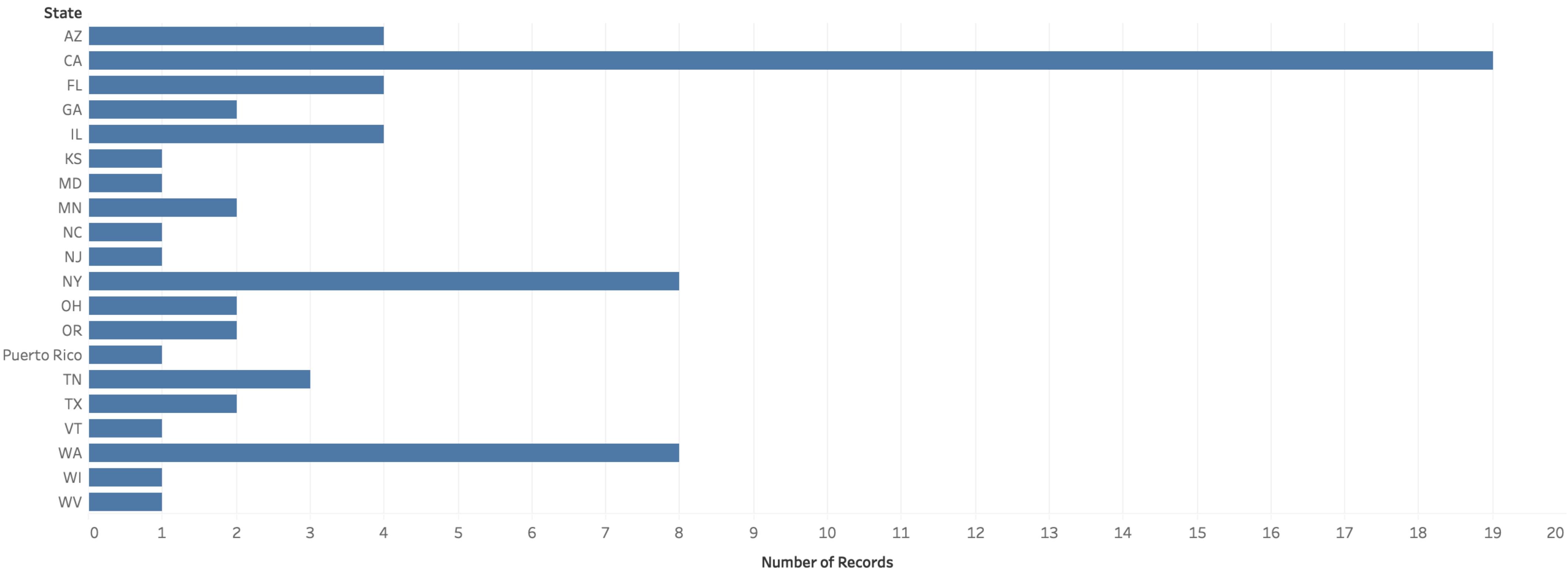


# Paleo

Heat map of tweets  
with Paleo  
hashtags

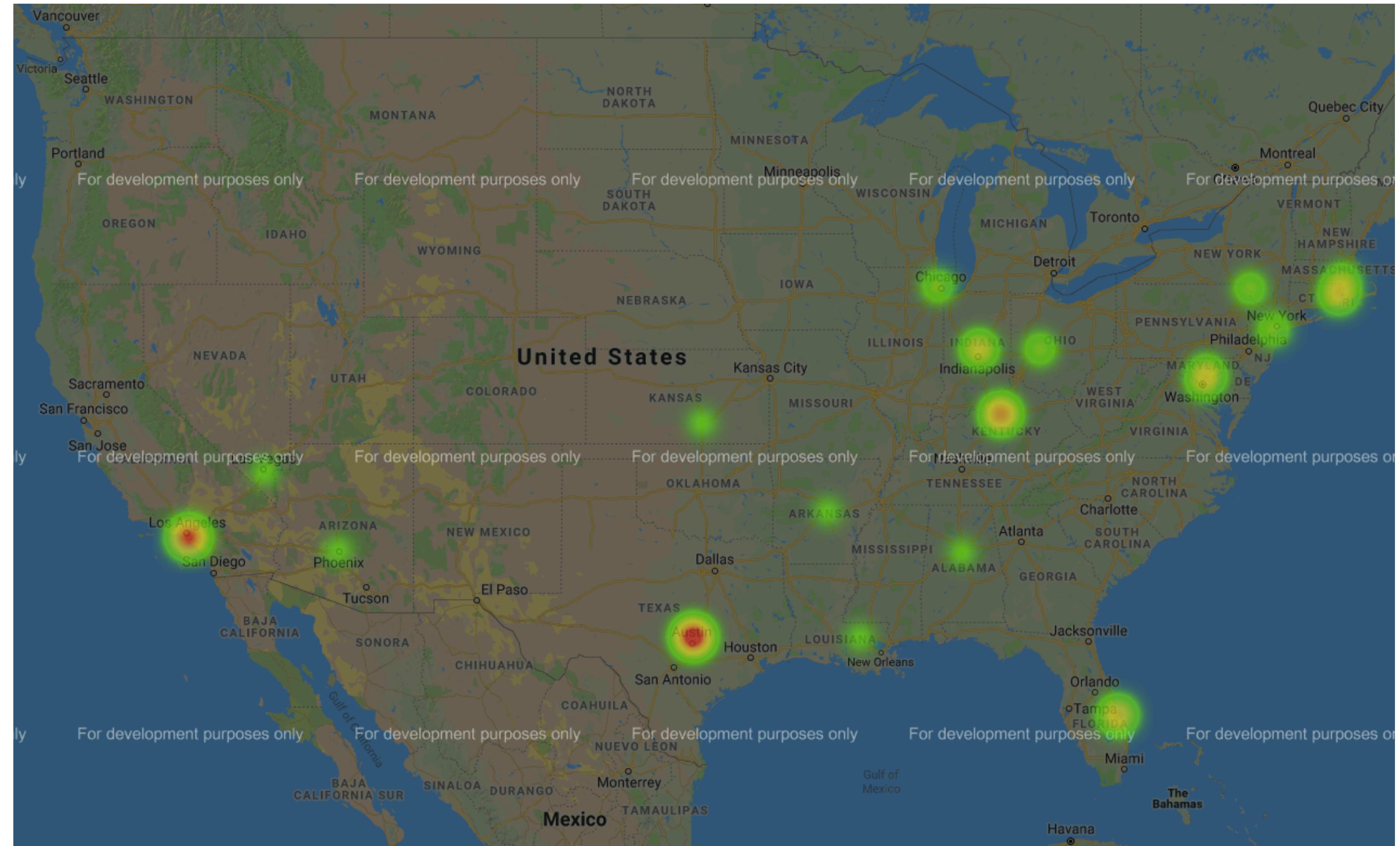


# Paleo

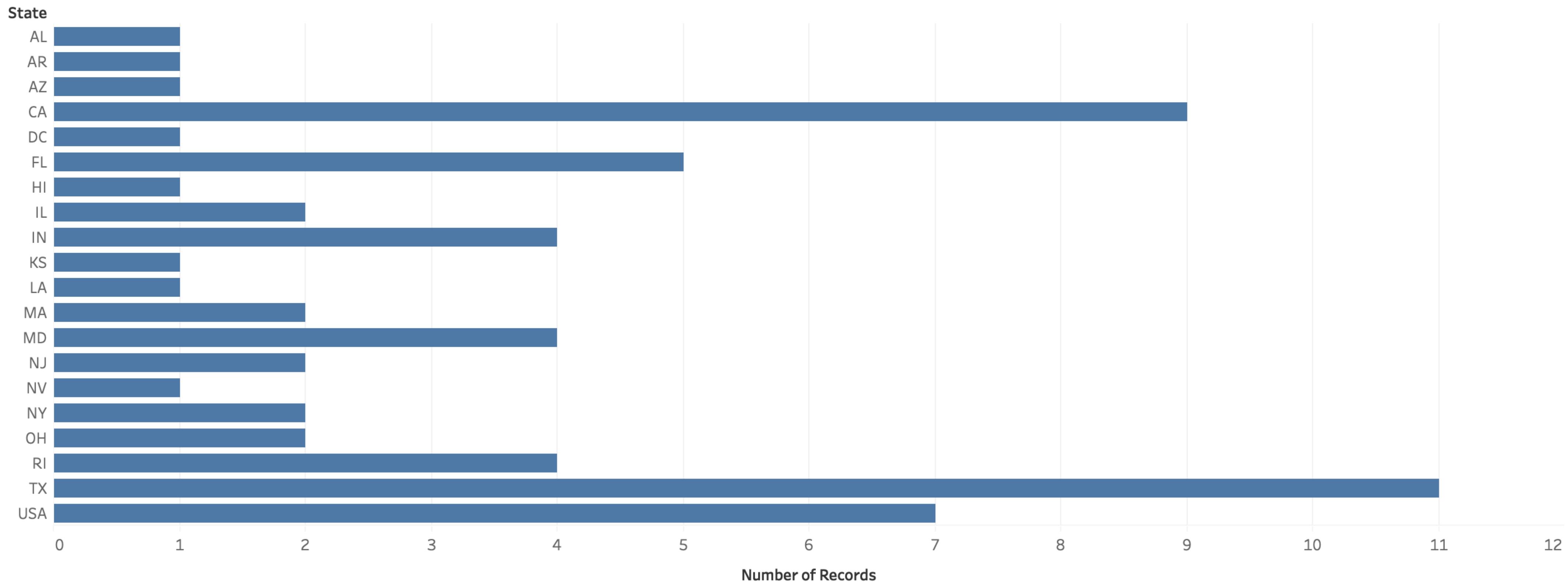


# Weight Watchers

Heat map of tweets  
with Weight  
Watchers hashtags

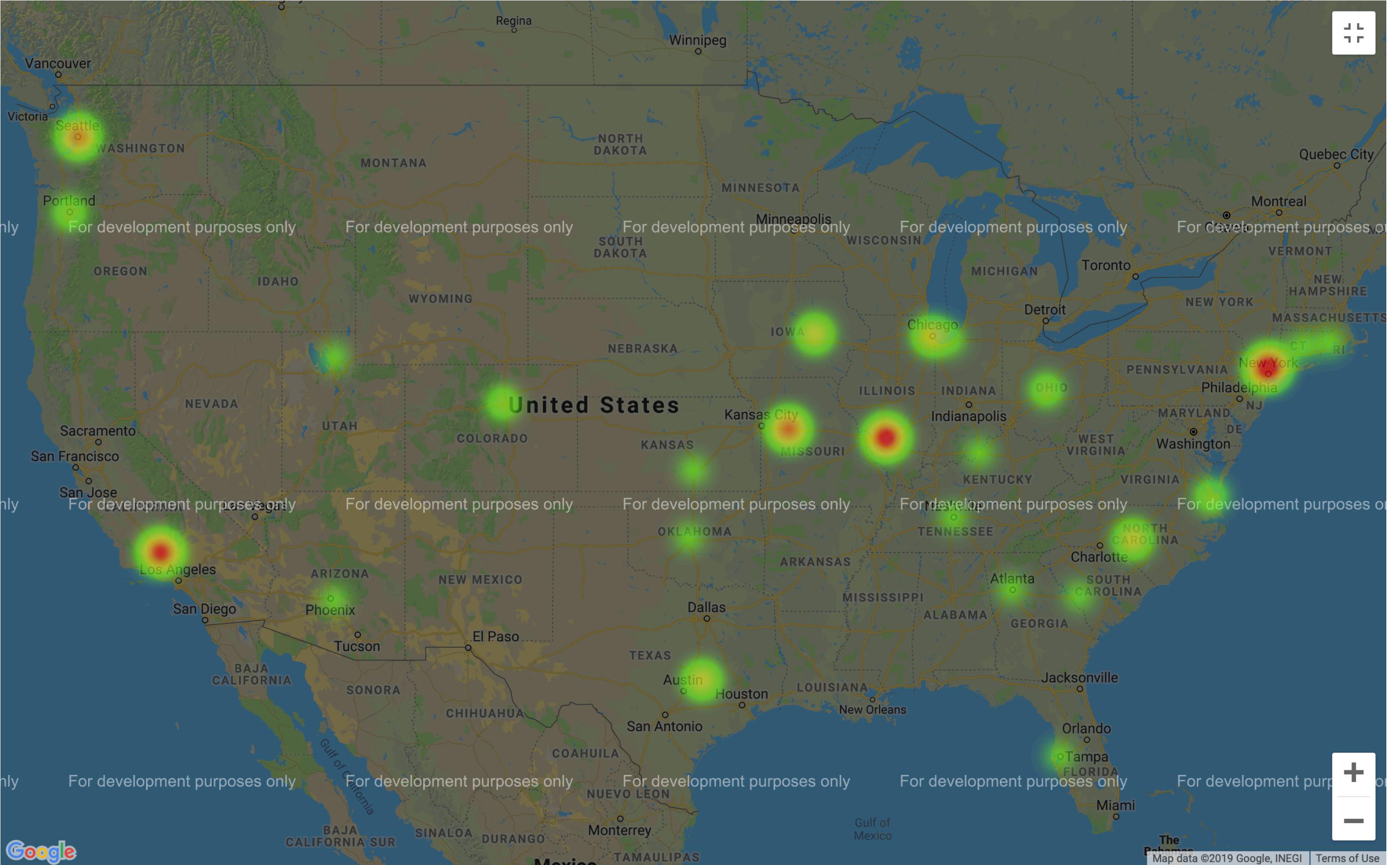


# Weight Watchers

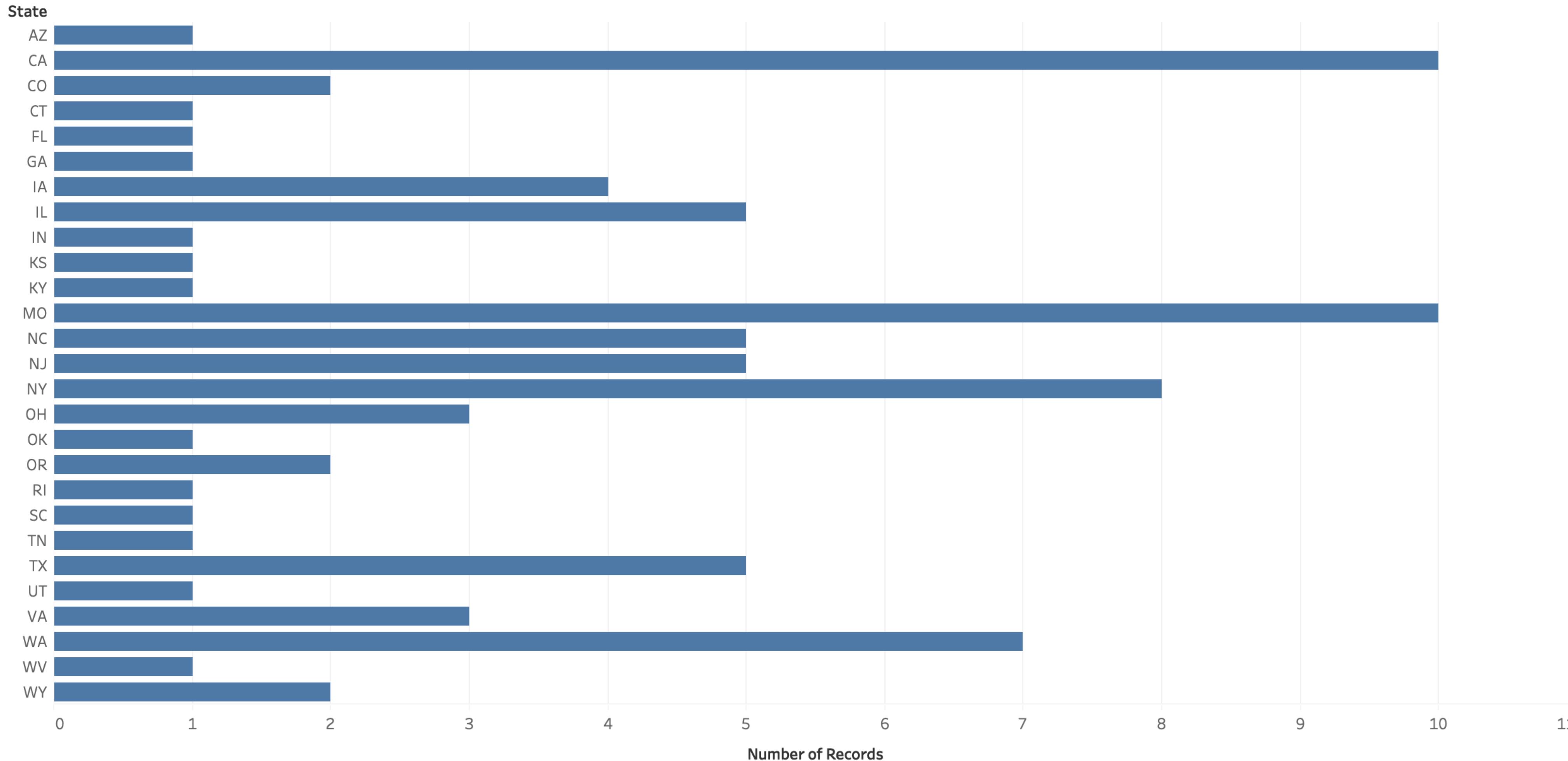


# Whole30

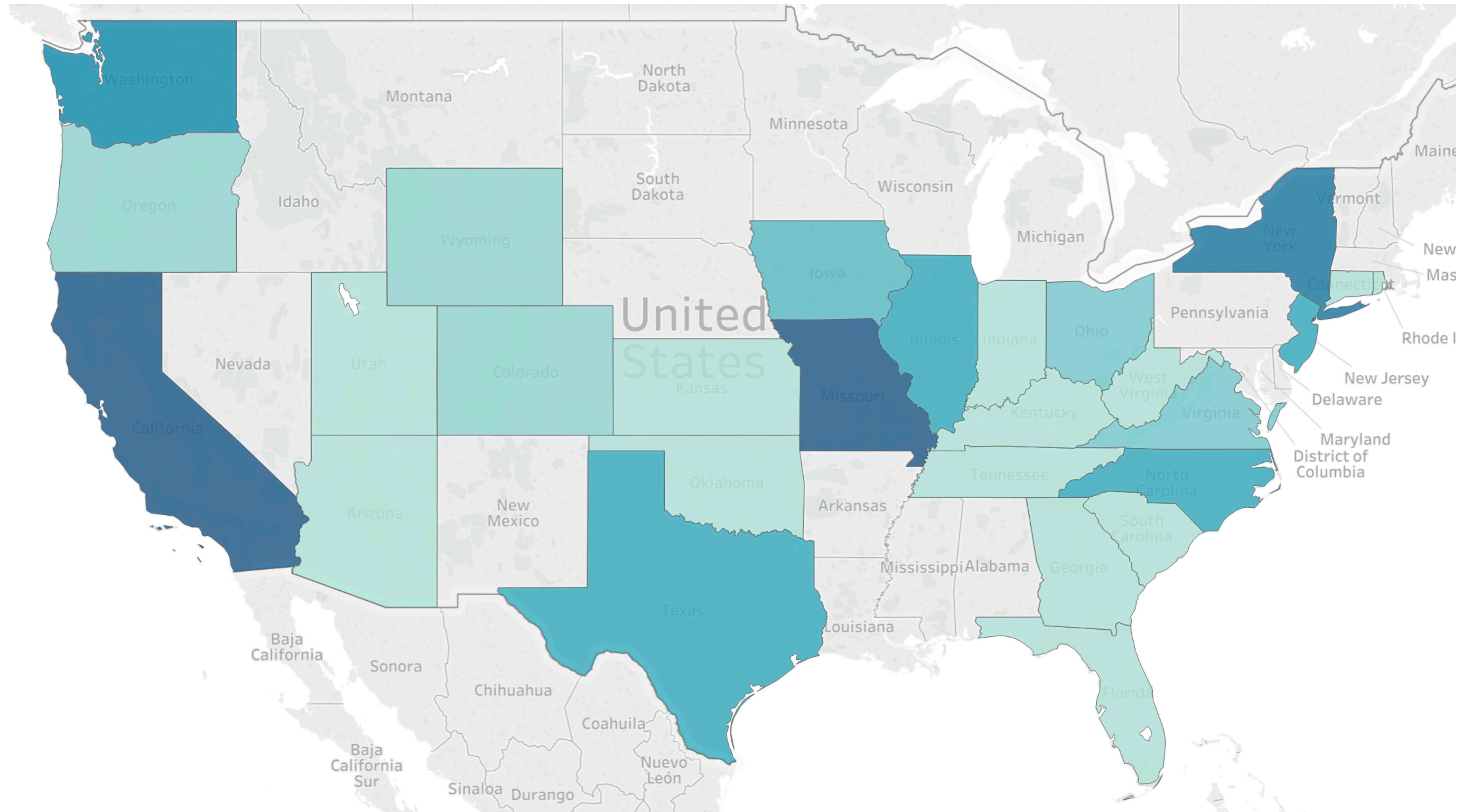
Heat map of  
tweets  
with Whole30  
hashtags



# Whole30



# Overall Activity



# Conclusion

Using Twitter to gather data on tweets based on location in regards to the 4 types of diets fads that were trending, we found:

- Weight Watchers was heavily trending in TX and CA. This could be because these two states are highly populated compared to the other 48 states.
- Whole30 was trending higher in CA and MO. It seems like MO is an outlier given its small population.
- Keto was trending highest in CA. When plotting by cities in CA, we noticed that SF and LA had a cluster of hits. These metros are more tech-savvy as compared to other cities in CA, which likely lead to more Twitter activity.
- Paleo was heavily trending in CA, NY, and WA. In this case, WA seems like an outlier against the large populations of CA and NY.

