//FOOD DESERTS AWARENESS//

project No. 2 team 5

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Georgia Institute of Technology
Data Science Boot Camp, Team: Five

06.29.19 | Project 02:
Food deserts & need for urban food forest

//DEFINITION

USDA's Economic Research Service previously identified approximately 6,500 food desert tracts in the United States based on 2000 Census and 2006 data on locations of supermarkets, supercenters, and large grocery stores. These food deserts **are areas where people have limited access to a variety of healthy and affordable food.** As policymakers consider interventions to increase food access, it is important to understand the characteristics associated with these areas, such as income, vehicle availability, and access to public transportation.

//HYPOTHESIS

Millions of Americans live in a food desert — a low-income community with little or no access to a supermarket or grocery store. Fresh fruits, vegetables, and meat can feel like a far-off mirage, so residents of food deserts tend to get their food at ubiquitous fast-food restaurants and corner stores. It's no surprise that food desert residents tend to have high levels of **obesity, diabetes, and cardiovascular diseases.**

According to the USDA, about **10 percent** of the 65,000 census tracts in the United States meet the definition of a food desert. Some 13.5 million people live in these food deserts, with the majority of this population—82 percent—living in urban areas.

The southeast is doing something about it; 7.1 acres has been identified as the new site in Atlanta that will become the city's first and the nation's largest food forest. In the Lakewood-Browns Mill community, which will house the

Urban Food Forest, more than a third of the population lives below the poverty line, according to the USDA, who has assisted in the project.

Our team's goal would be to illuminate the need for more urban food forests in response to the connection between a lack of access to quality foods in their organic state of enzyme composition and decline in health.

//IMPACT

When a human is afforded with the opportunity of consuming natural food in it's original, native state, their body experiences the benefits of receiving maximum nutrient value from the integrity of the plant's enzyme composition structure and removes the body's instinctive fight-or-flight response that can result in a default position of trapping fat for later use.

Our bodies are smarter than we are, when we consume processed foods it automatically traps fat to create a nutrient source that fuels vital organs when the need arises.

_//ALLOW
DATA
TO
INFORM
CHOICE//_

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project No. 25 team

//DATA TEAM

Sid

Huda

Dan

Lisa

Dan

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//ACTION PLAN

Target Population

Review of population in reference to proximity and availability of fresh produce, obesity, FIPS codes, and household income

Data Samples

Collection of data with accuracy and reputation top of mind

Desired Criteria

Input of criteria based upon proximity, state, county, obesity rates and household income

Munging/Learning

Munging driven by outcomes, outliers, and key data points that illuminate meaningful insights

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//DATA SETS

DATA TYPE

Integrity, accuracy and reputation of data source was prioritized in line with the eligible timeline that we could pull through a variety of datasets:

- Institute for Health Metrics and Evaluation
- USDA
- FIPS Data
- Chart.js
- Excel
- State Geo
- County Geo

Datatypes: CSVs and Json's

Approach:
Loop through the geo-Json's and within that loop we will loop through the CSV and take every occurrence of the FIPS code matches take to then the data from the CSV into the geo-Json

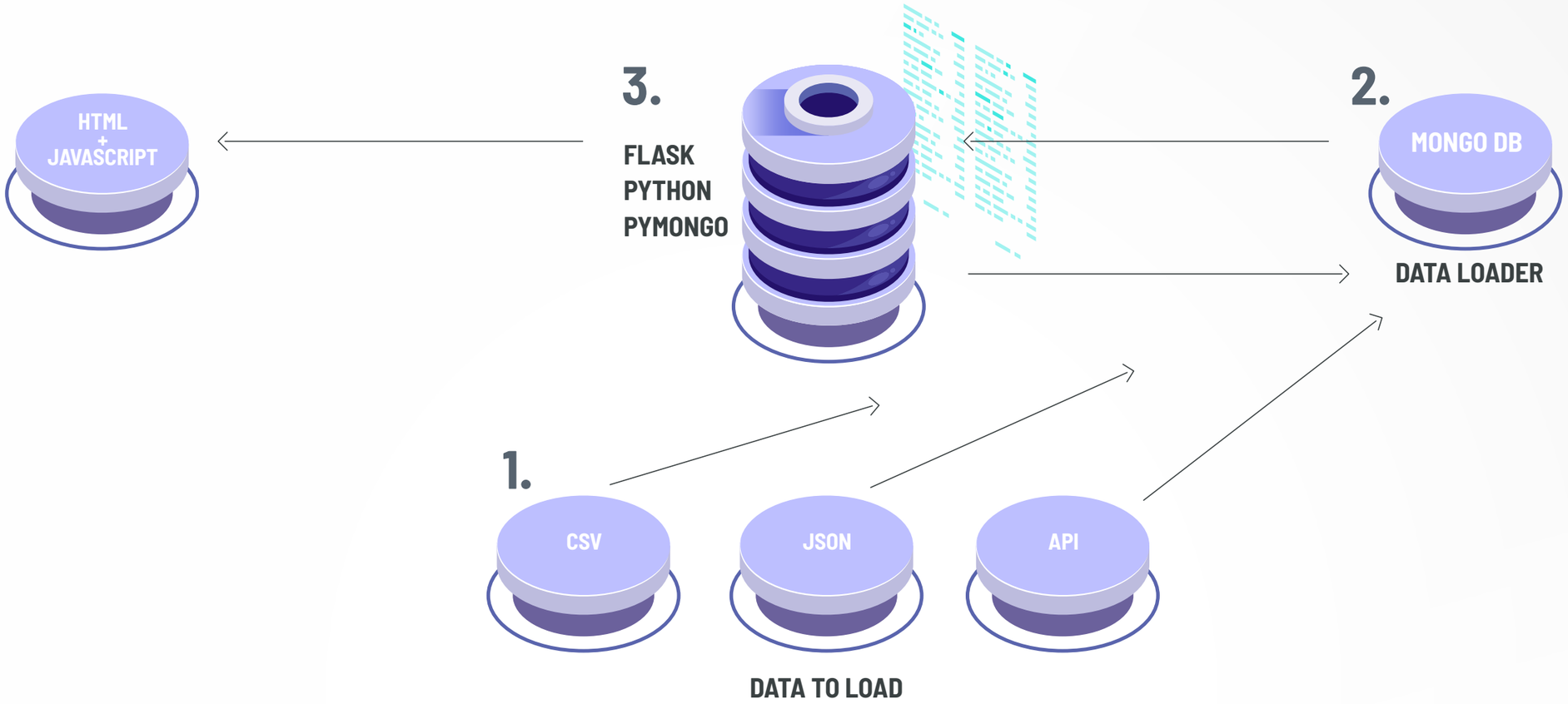
Technologies:
Python, Mongo, HTML, Bootstrap, JavaScript, CSS

Data Storage: Mongo

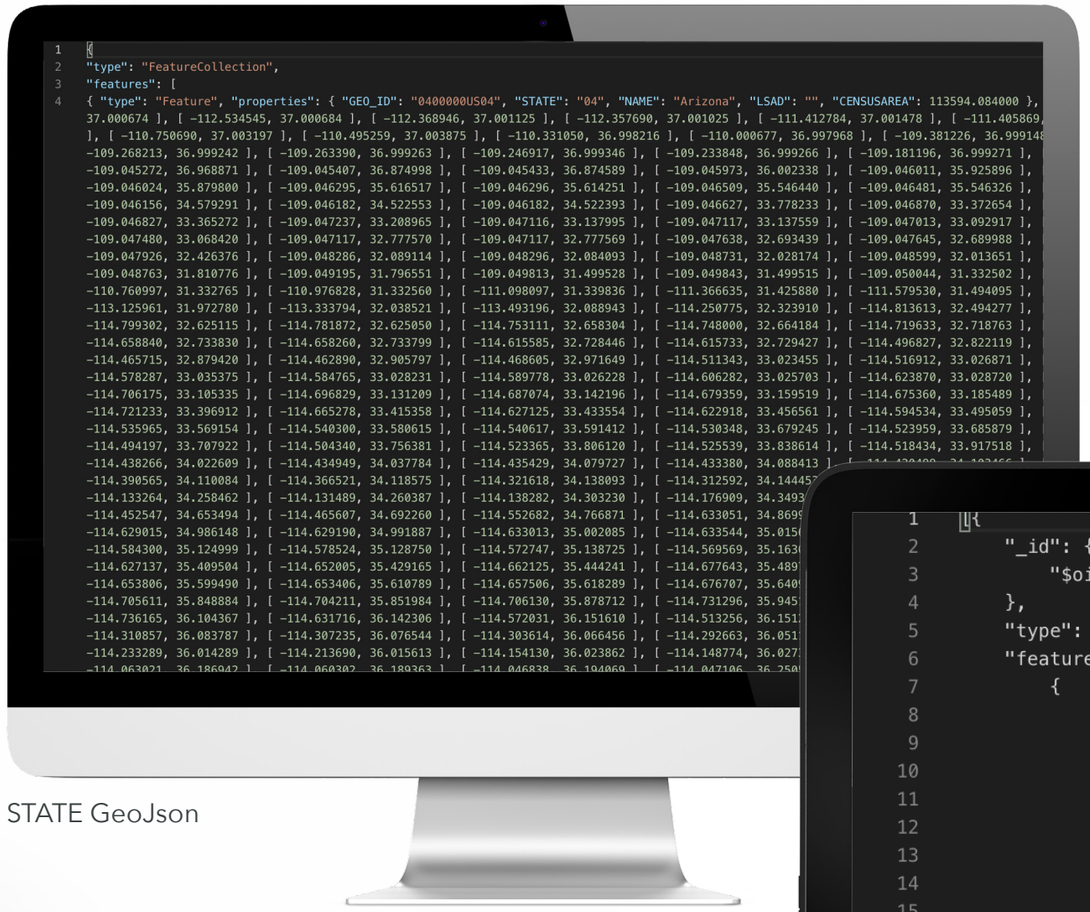
THE KINDS OF QUESTIONS WE'LL BE ASKING OF THAT DATA

- How/why can smaller states have such a high number of food deserts?
- Is there a direct connection to densely populated areas of US and increase in food deserts?
- How could all of this be impacted by ethnicity?

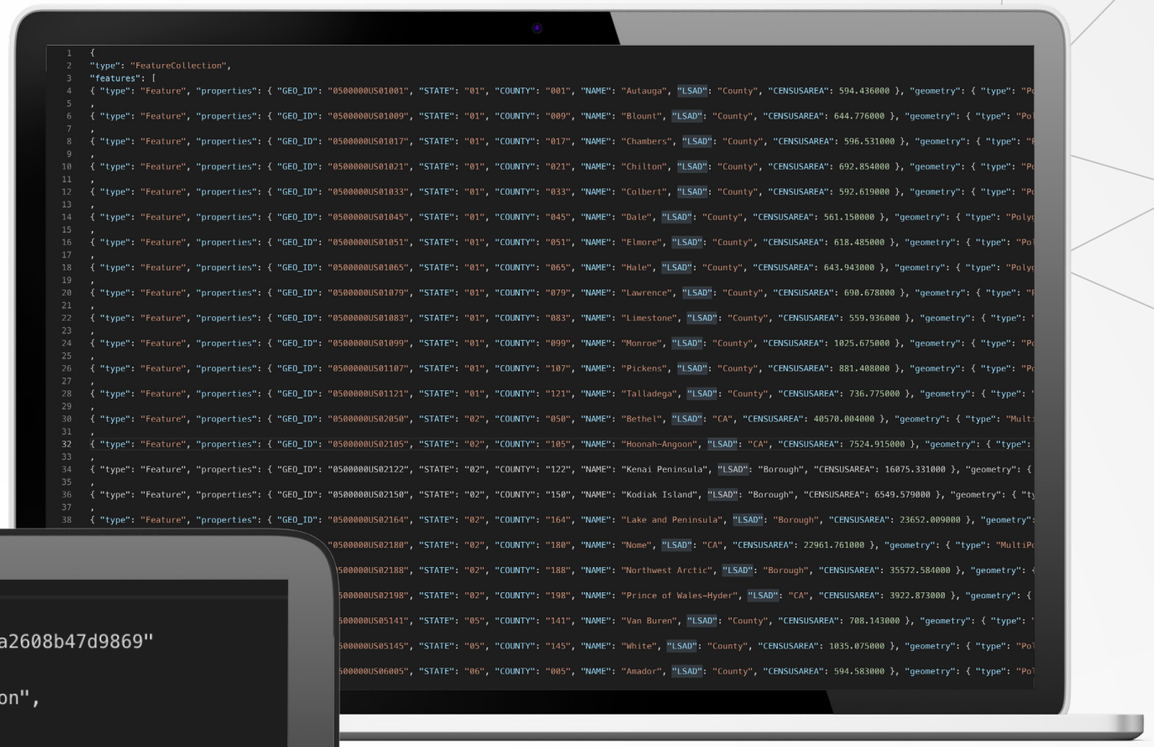
//DATABASE


HTML
+
JAVASCRIPT
3.
FLASK
PYTHON
PYMONGO
2.
MONGO DB
DATA LOADER
1.
CSV
JSON
API
DATA TO LOAD

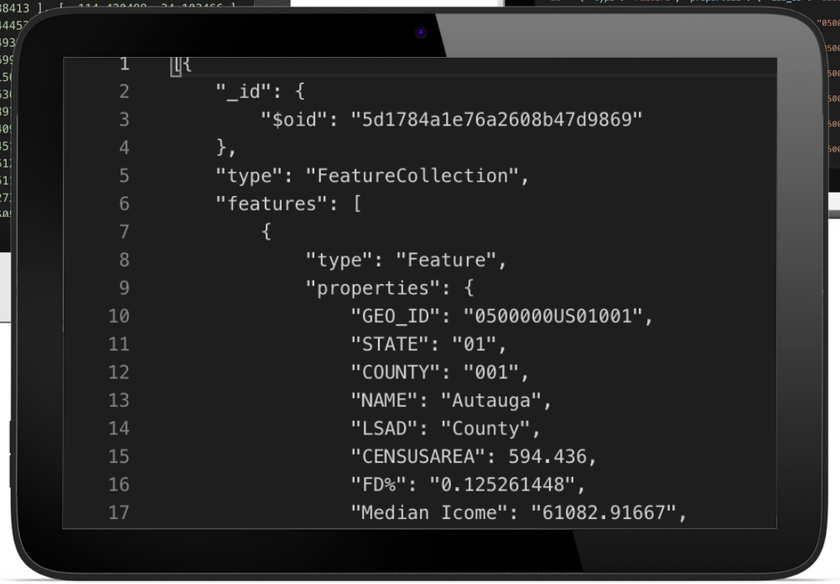
//DATA EXPLORE & CLEAN-UP



STATE GeoJson



County GeoJson



FDI DB Json

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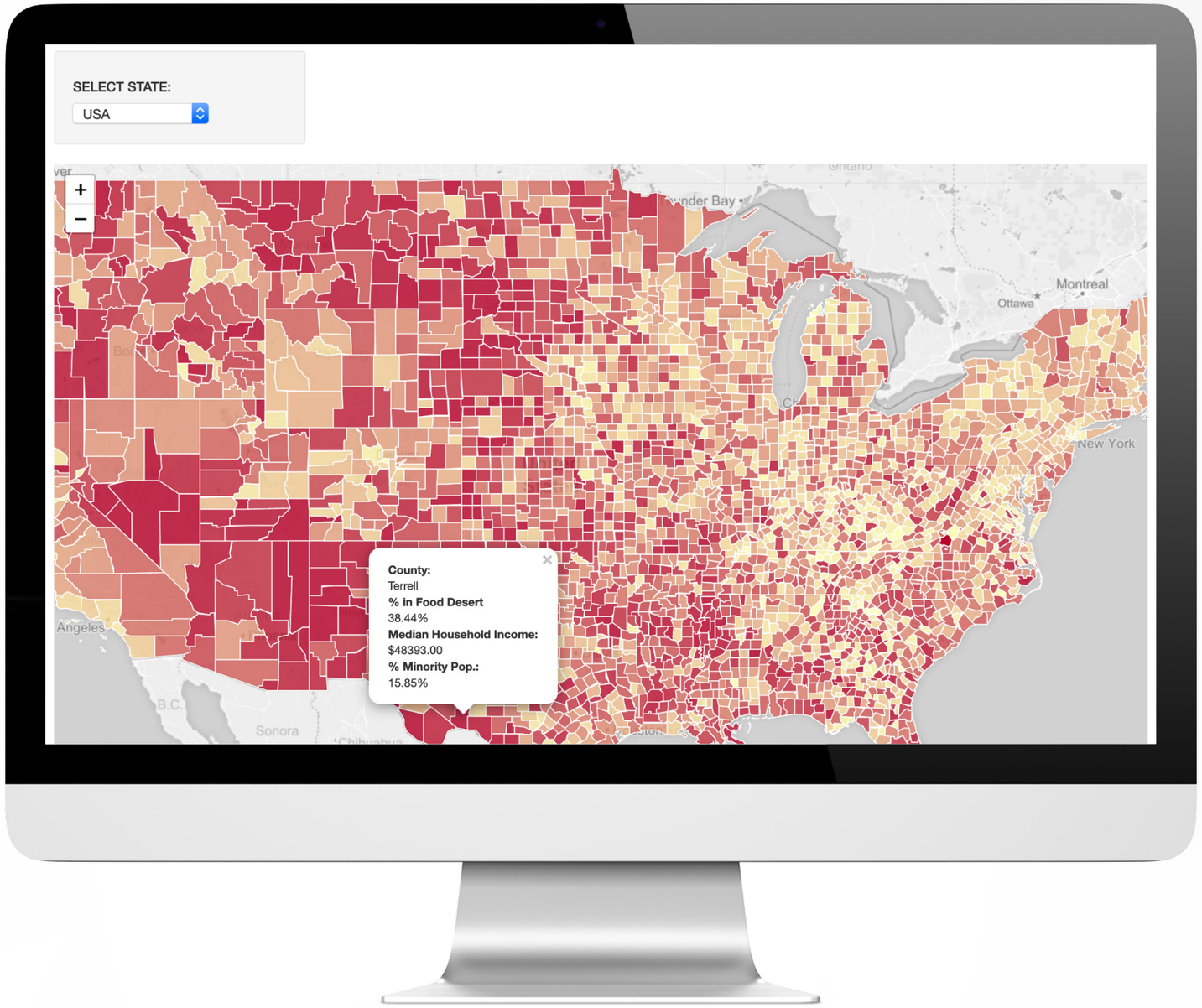
//NATIONWIDE COUNT



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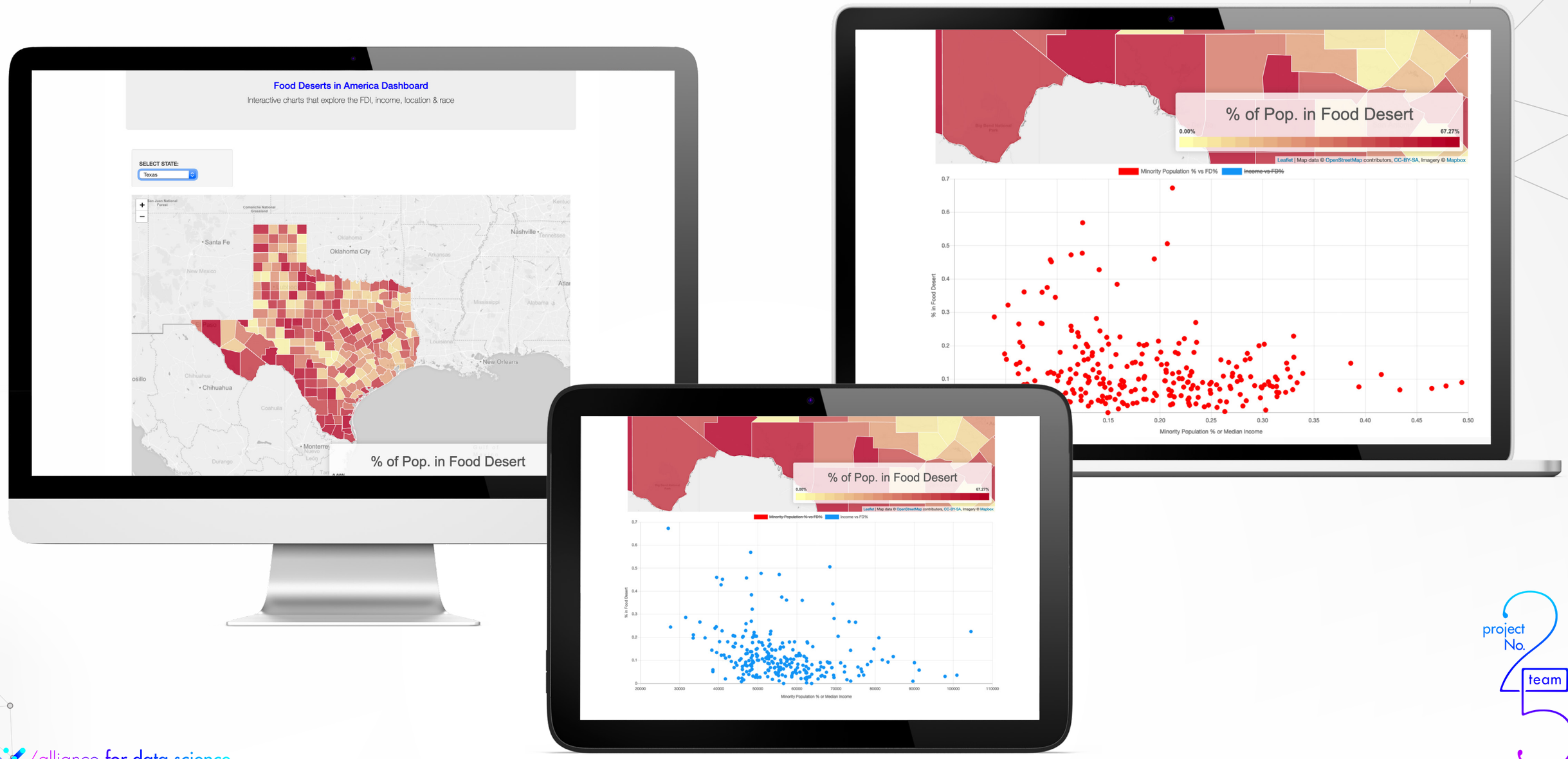
//STATE COMPARISON, (TEXAS)



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//FINDINGS

- Areas with higher levels of poverty are more likely to be food deserts, but for other factors, such as vehicle availability and use of public transportation, the association with food desert status varies across very dense urban areas, less dense urban areas, and rural areas.

- Areas with higher poverty rates are more likely to be food deserts regardless of rural or urban designation. This result is especially true in very dense urban areas where other population characteristics such as racial composition and unemployment rates are not predictors of food desert status because they tend to be similar across tracts.

- Residents in the Northeast are less likely to live far from a store than their counterparts in other regions of the country with similar income levels.

- Buffalo, South Dakota, (71.84%) had the highest percentage of food deserts in North America

//WITH ADDITIONAL TIME

Team Five's goal would be to continue analyzing reputable datasets and derive a deeper understanding of proximity in relationship to density within areas that are potentially so sparse that individuals are growing their own fruits and vegetables.

Would be interesting to delve deeper into the relationship between low density and low income in an attempt to identify individual farming efforts.

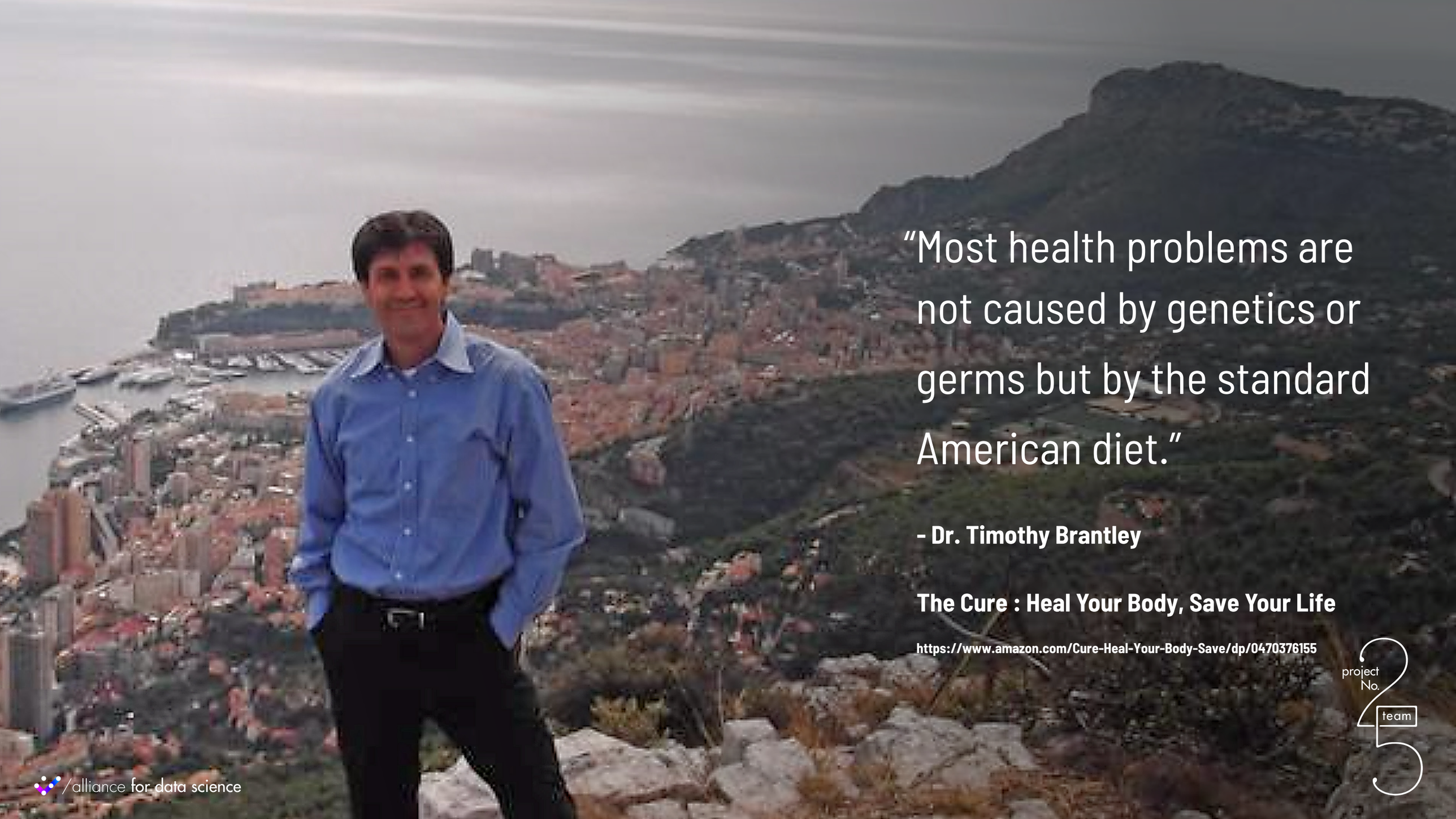
//ADDITIONAL CONSIDERATIONS

- Are there undocumented farmers growing own fruits & vegetables?

- More research is needed to determine how access influences the types of foods consumers purchase and eat?

- Does a link exists between access to affordable nutritious foods and the intake of those foods?

- How many consumers continue to make unhealthy choices based on personal preferences even with increased access to affordable nutritious foods?


“Most health problems are not caused by genetics or germs but by the standard American diet.”
- Dr. Timothy Brantley
The Cure : Heal Your Body, Save Your Life
https://www.amazon.com/Cure-Heal-Your-Body-Save/dp/0470376155
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