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INTRODUCTION

- WHAT IS OPPORTUNITY ZONE?**
- There are more than 8760 qualified opportunity zones located in all 50 states of the United State.
 - Communities inside these opportunity zones usually face risks such as low income, inconvenient transportation, and broken infrastructure.
 - The U.S. government provides tax relief for investments in these zones to attract investments.

- WHAT IS THE PROBLEM?**
- The issues and challenges of these opportunity zones are complex.
 - It is difficult for investors to make a targeted investment plan for each opportunity zone

- WHAT IS THE PROJECT TARGET?**
- Risk Model:** Figure out the factors that lead to the economic distressed of these zones and build a model to provide investment suggestions for different zones.
 - Visualization:** Visually display all collected data, model results, and the location of Opportunity Zones on a United State map.

THE MOST SIGNIFICANT STEP – DATA COLLECTION

Data Recourses: Include but not limited to above government platforms.

Data Process: We firstly use Microsoft Access to split data of Opportunity Zones and Non-Opportunity Zones. Since the data is usually in scale of ten thousands, we use statistic tools of Python to make regression and modeling.

```

In [79]: df_oz.isnull().sum()
Out[79]: GEOID      0
        STATE      0
        COUNTY     0
        COUNTY_NAME 0
        pov_idx     6
        ltr_idx     5
        haz_idx    2005
        toost_idx   876
        trans_idx   876
        dtype: int64

In [80]: # Fill all data with the mean
        pov_idx_mean = df_oz['pov_idx'].mean()
        place = True
    
```

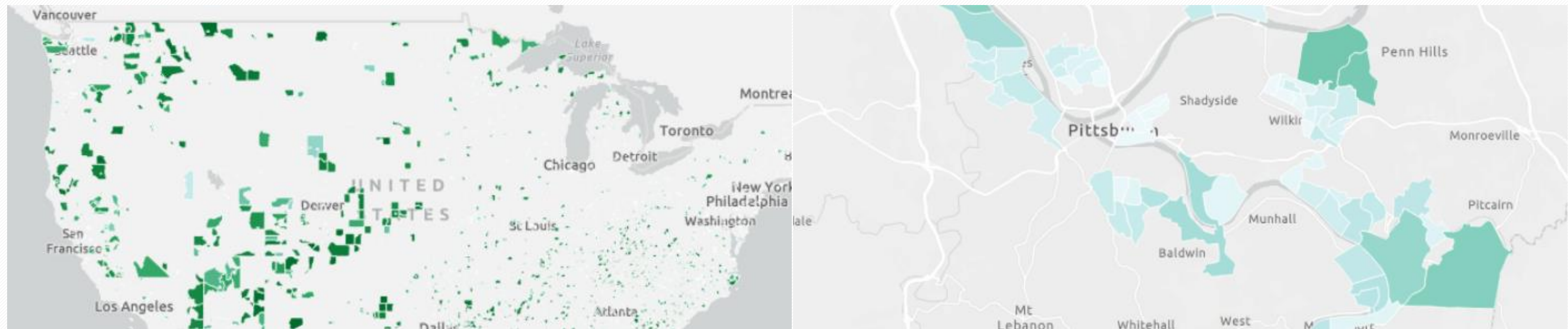
Notes about the Food Access Research Atlas download data:

- This file contains multiple spreadsheets:
- A variable lookup that provides explanatory names for all Food Access Research Atlas variables.
- A table of all Food Access Research Atlas data.
- Data explanations and data sources are available on the Food Access Research Atlas data and doc <https://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data/>

Release history:

- Initial release: January, 2017
- Update: May, 2017: Modified HUNVFlag variable to indicate only that the tract has a high number of
- Added LATractsVehicle_20 variable for low access tract using vehicle access and at 20 miles
- Added variables for total tract counts of subpopulations: TractLOWI, TractKids, TractSeniors, TractW

VISUALIZATION EXAMPLE – COLORED MAP



- Colored areas are Opportunity Zones. The left map shows the U.S. mainland, and the right map shows Pittsburgh area.
- Two map show the transportation convenience index for OZs. Darker color represents more inconvenient (higher risks).

