

Team Number: DC20075

Dataset: Ocean Cleanup

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<https://github.com/privat33r/dc20075-ocean>



Assumptions About Dataset

1. Each piece of garbage collected was a whole piece
2. Each person in a group does equal amount of work
3. Each person only participated in one event

Data Preparation

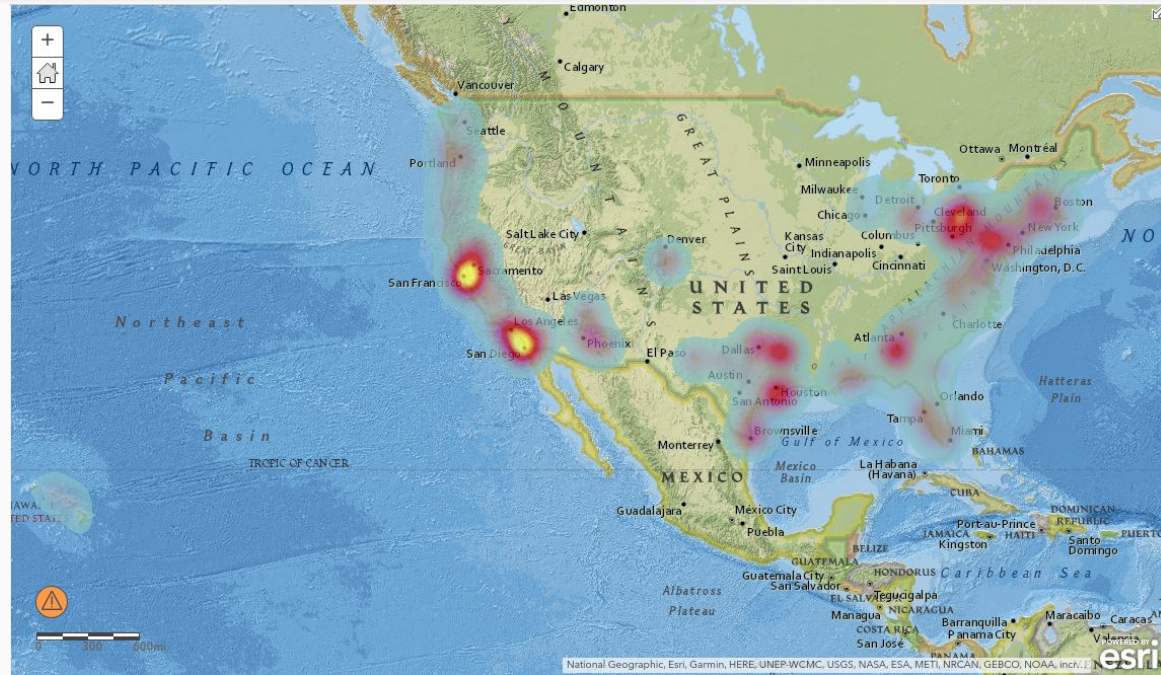
- Dataset is input by any person who has the app, so there is a greater chance for error
- Went through and eliminated all outlier data, such as a single person picking up a single piece of trash weighing 10,000 pounds
- Gathered 2019 U.S. population estimates from the U.S. Census Bureau

<http://arcg.is/0zOzWC>

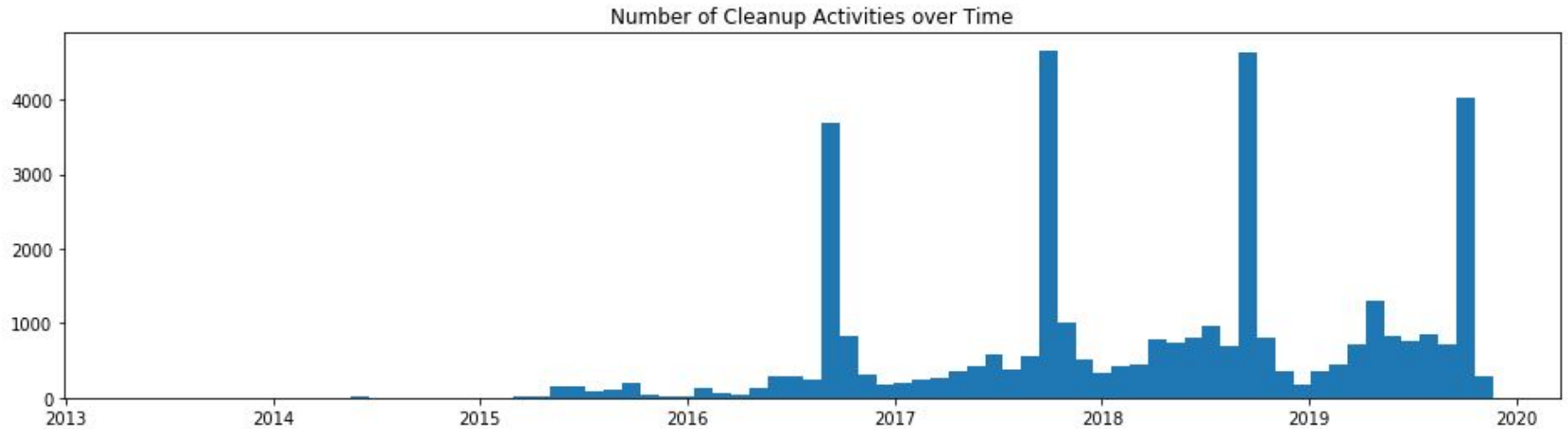
Locations of Trash Cleanups



Concentration of Trash by Pounds Collected

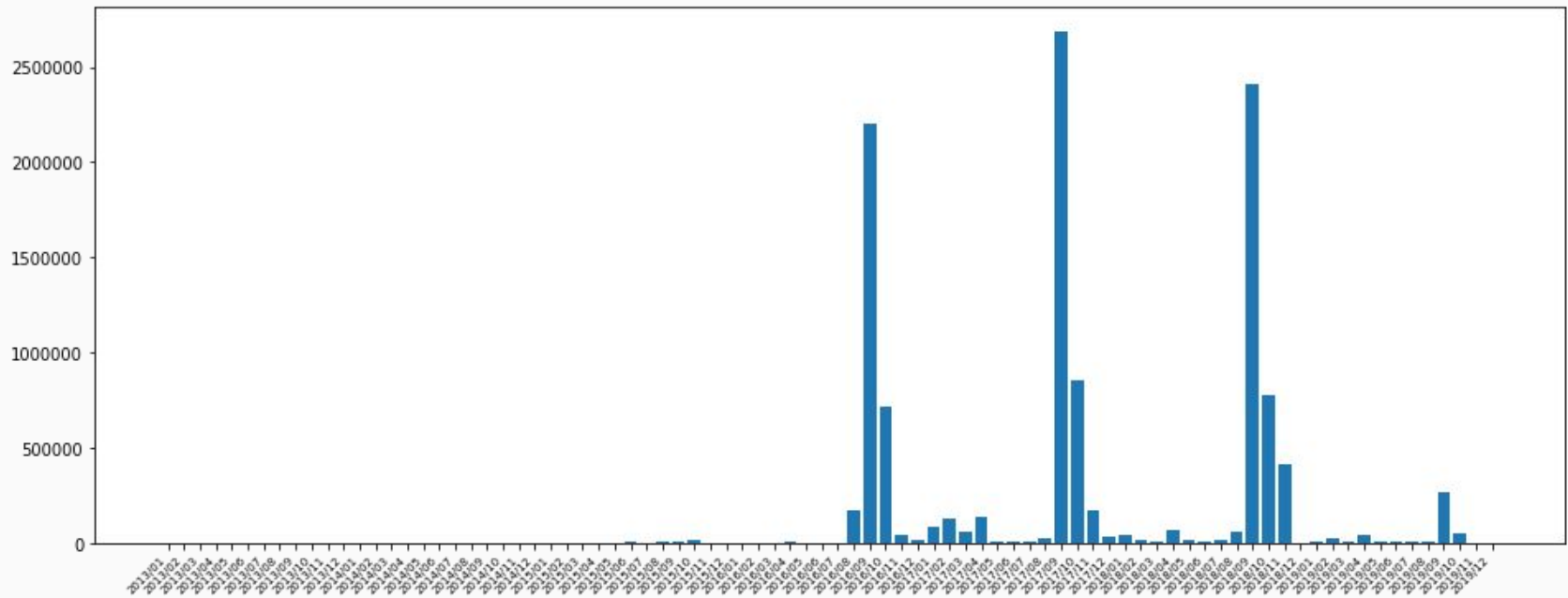


Number of Events by Month



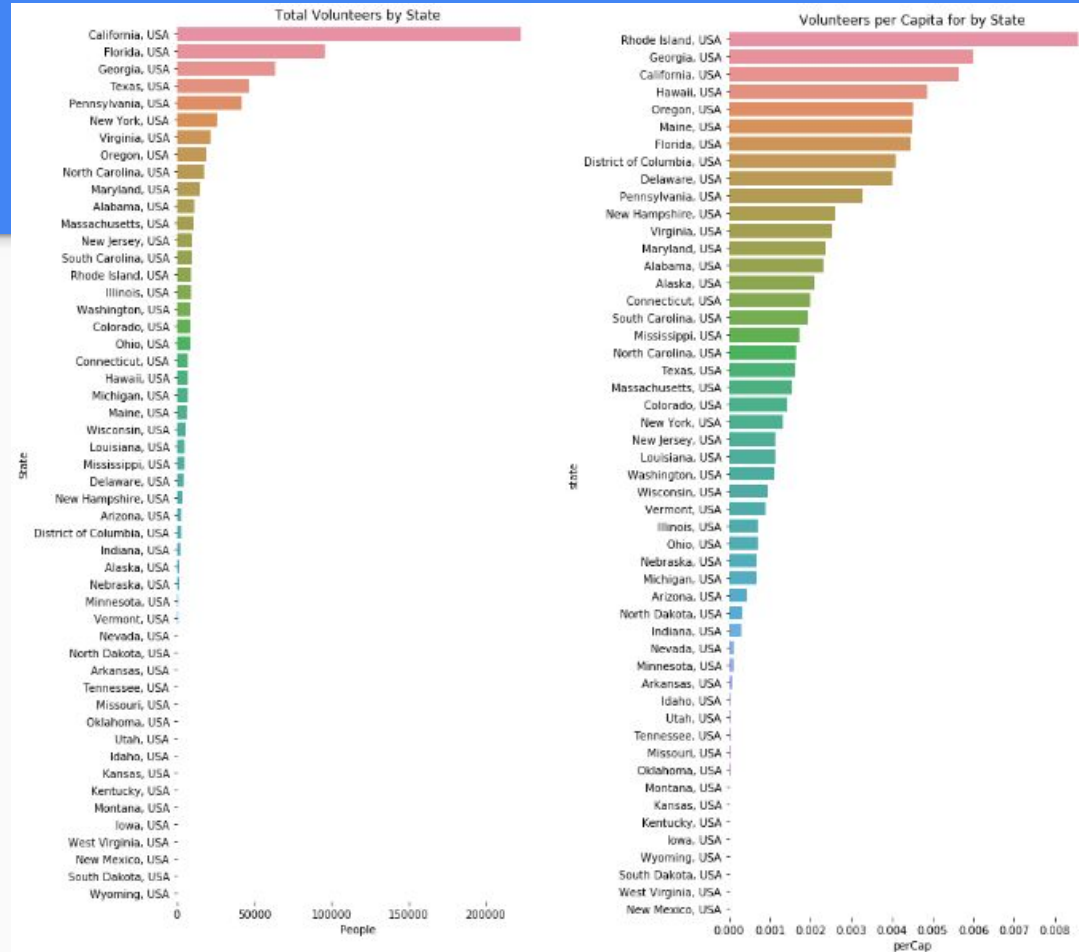
Pounds Per Month

Cleanup Pounds by Months from 2013-2019

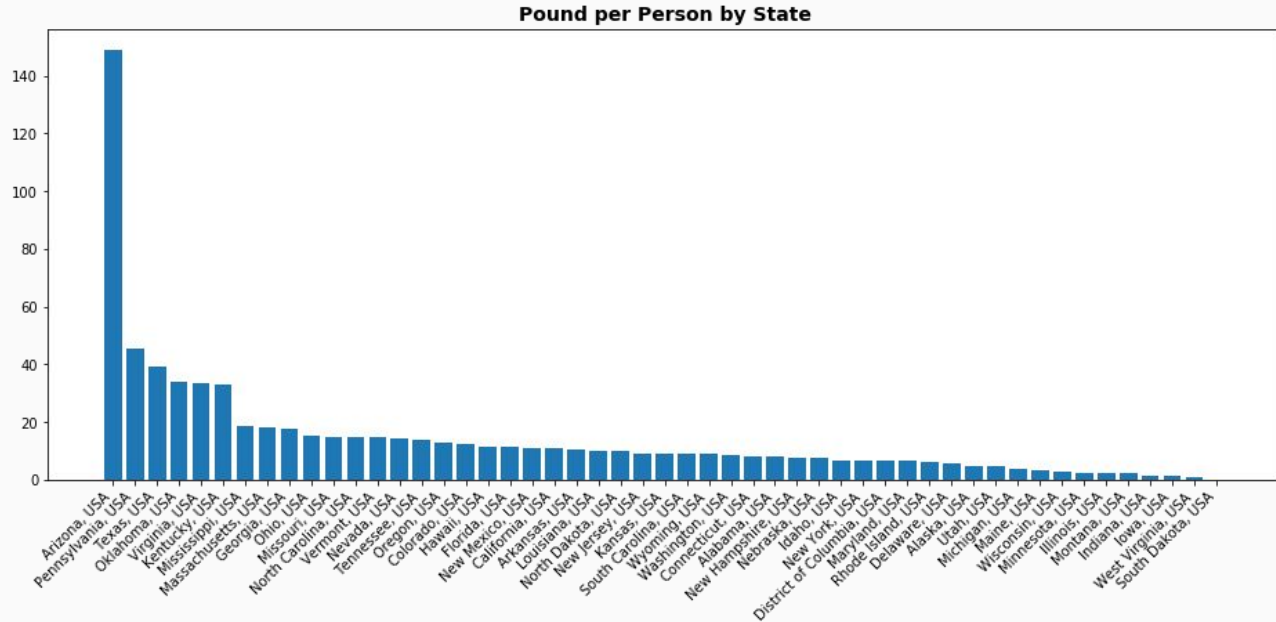


Volunteers by State

State Population taken from
2019 Population Estimates
by U.S. Census Bureau

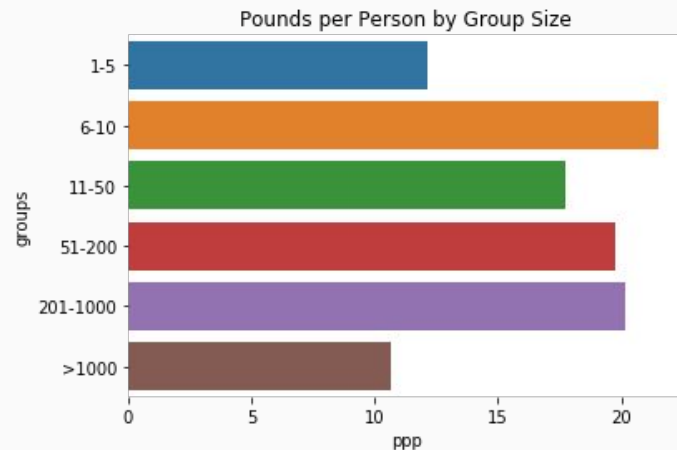
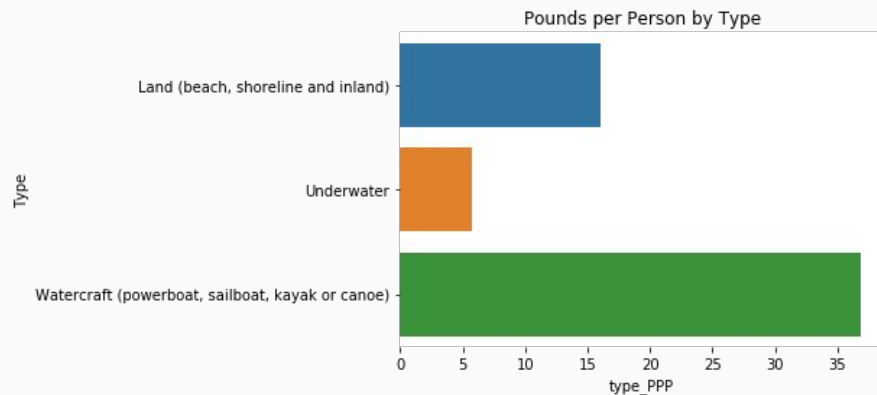


Pounds Per Person for Each State



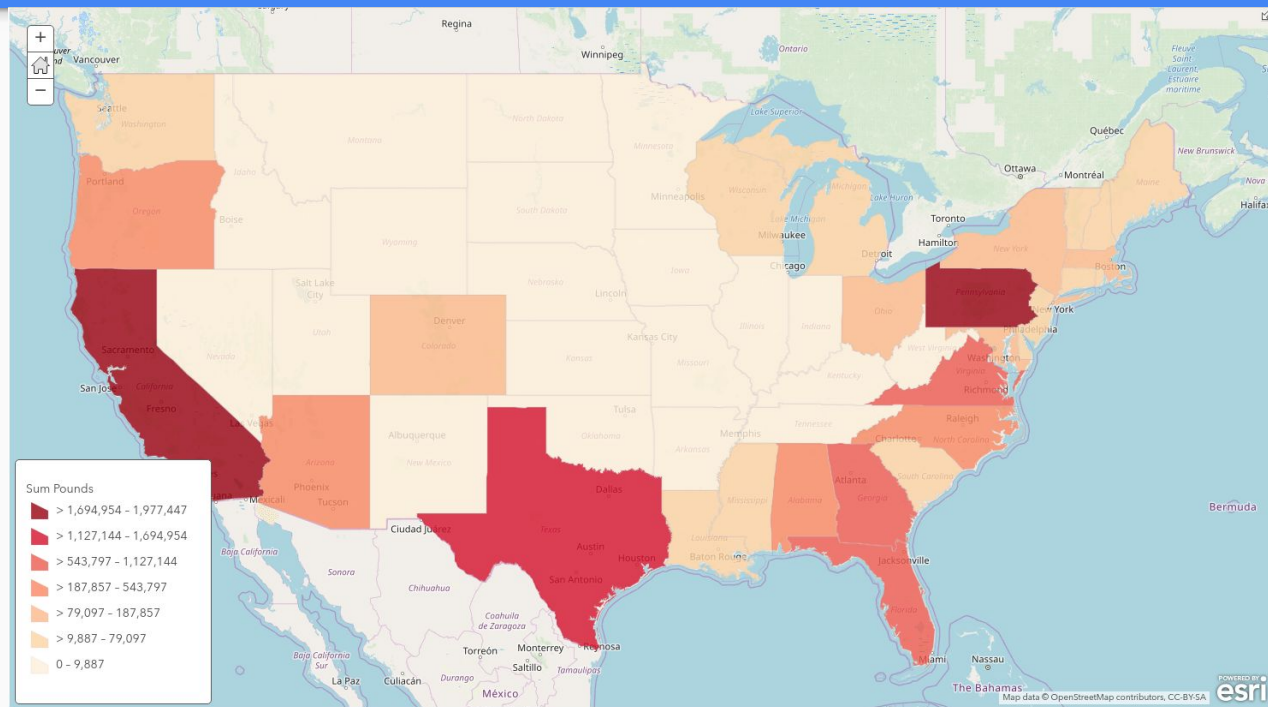
Effective Group Sizes/Cleanup Types

Effectiveness measured by pound per person

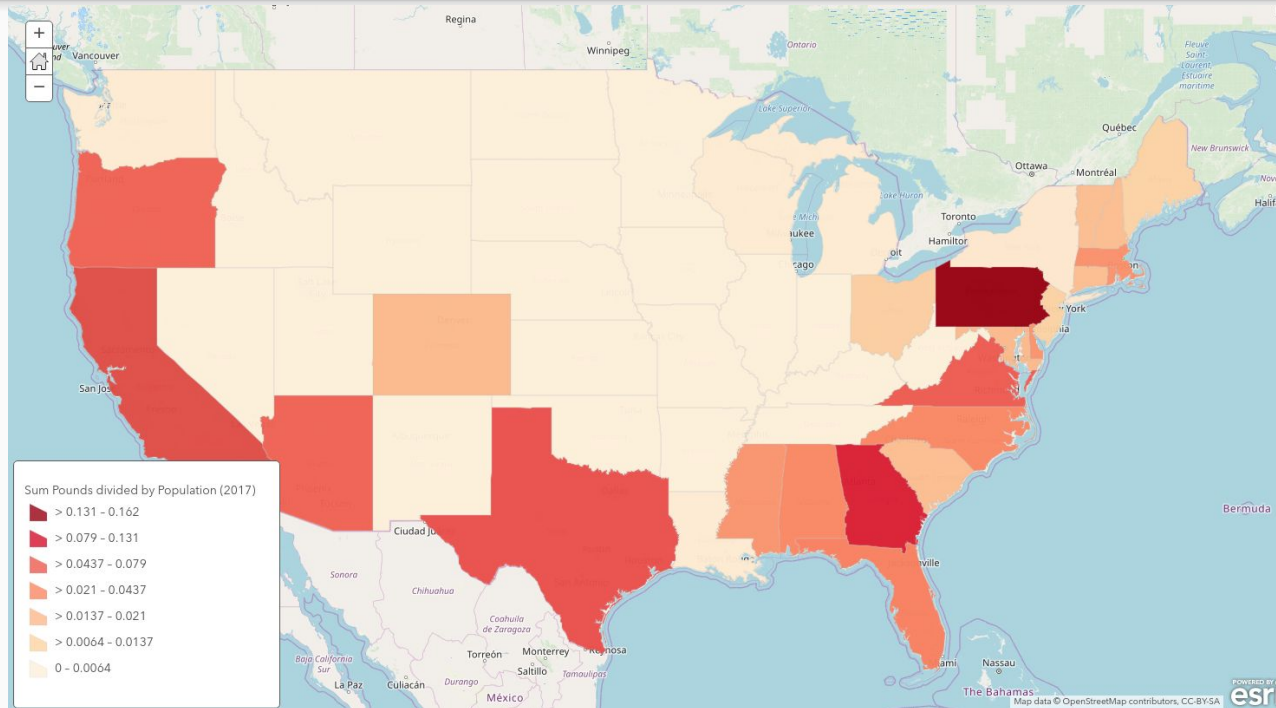


<http://arcg.is/19GqXC>

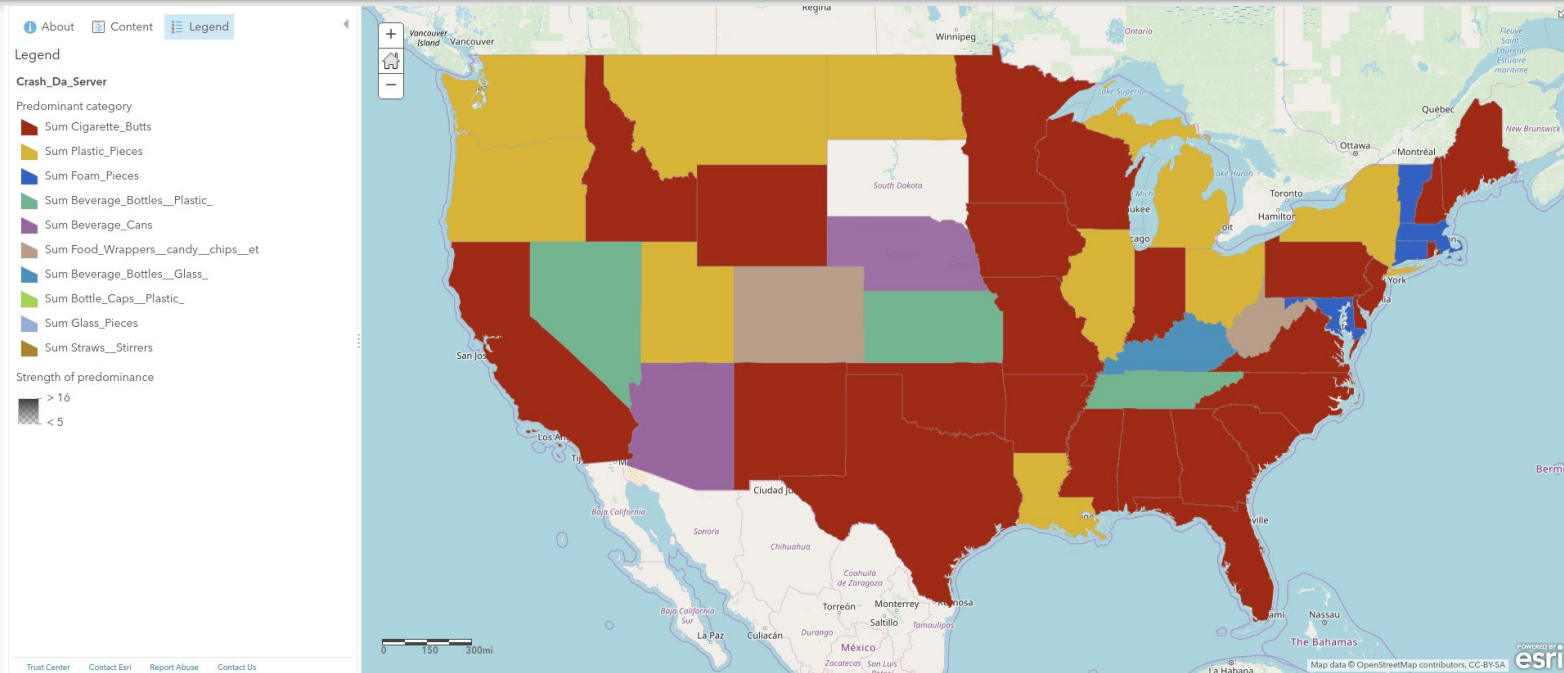
Volume of Garbage Collected by State



Garbage Volume Collected Per Capita



Most Common Trash Item for each State



Related Items (K-nearest Neighbors)

Cigarette Butts:

Food Wrappers (candy,
chips, etc.)
Bottle Caps (Plastic)
Beverage Bottles (Plastic)
Glass Pieces
Straws, Stirrers
Bottle Caps (Metal)
Beverage Bottles (Glass)

Take Out/Away Containers (Foam):

Cups, Plates (Foam)
Cups, Plates (Plastic)
Cups, Plates (Paper)
Tobacco Packaging/Wrap
Paper Bags
Construction Materials
Forks, Knives, Spoons

Fishing Net & Pieces:

Fishing Buoys, Pots &
Traps
Cigarette Lighters
Condoms
Appliances
(refrigerators,
washers, etc.)
Syringes
Diapers
Personal Hygiene
(Clean Swell)

Tampons/Tampon Applicators:

Syringes
Condoms
Appliances
(refrigerators, washers,
etc.)
Cigarette Lighters
Diapers
Personal Hygiene
(Clean Swell)
Toys

Education/Outreach

Maine, Rhode Island, Oregon, Hawaii, Delaware, Alaska and New Hampshire are the leading states in getting children involved in these Cleanup activities.

