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County Buddy - Identifying Context for Jurisdictional Enclaves

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1 Purpose

County Buddy is a tool that allows users to extract select, curated insights from outlier county and census tract level data. Its purpose is to add context of whether these outlier data may exist due to their existence within institutions or jurisdictional enclaves. It analyzes data from the following categories: **Incarcerated population**, **Student population**, **Military population**, and **Native American population**. From these, it selects the counties or tracts which contain outlier data, and informs users of what nearby jurisdictional enclaves may be causing that outlier.

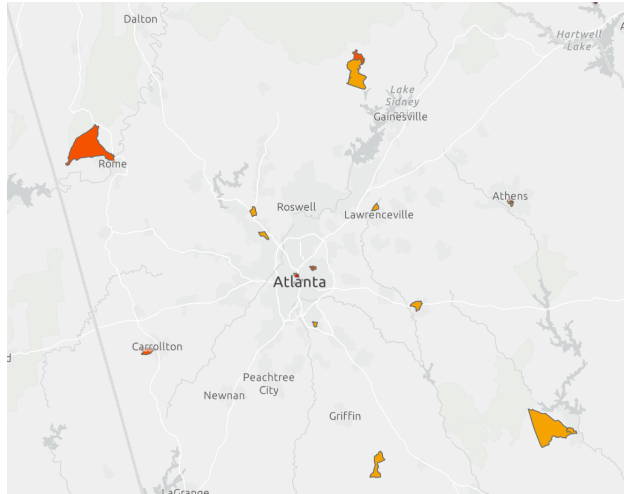Incarcerated Population   Student Population   Military Population   Native American Population

For instance, one may be studying areas with a high prevalence of a new viral disease. They find a census tract with a remarkably high rate of infection, despite the surrounding tracts having normal rates. County Buddy might inform the user that the outlier data point is the result of a prison located in that county, where the disease is widespread but isolated from the surrounding area.

Category	Total Number of Institutions	Total Population of Institution	Counties Affected
Prisons	6737	1978489	2656
Universities	3541	2794201	1218
Military Institutions	743	328615	514
Native American Reservations	611	3745005	415

Table 1. County Summary Statistics

Category	Total Number of Institutions	Total Population of Institution	Tracts Affected	Nearby Tracts Affected
Prisons	6737	1978489	4991	
Universities	3541	2794201	2577	7819
Military Institutions	743	328615	2074	
Native American Reservations	611	3745005	1445	

Table 2. Tract Summary Statistics

Fig. 1. Data Plotted

2 Usage

County Buddy simply comes in the form of two spreadsheets in csv format–one for county-level data, and one for census tract-level data. Each record contains data about a different county or tract. Within each record, any data categories (university student population data, military population data, etc.) has been zeroed out if it doesn't meet outlier criteria. Outlier data is defined as data where the demographic's percent of total population is greater than three standard deviations above the mean.

FIPS	State	County	Total Pop.	Prison Pop.	% Prison	Institutions	...
12043	Florida	Glades County	12126	1640	13.50%	FLORIDA ENVIRONMENTAL INSTITUTE; MOORE HAVEN CORRECTIONAL FACILITY; GLADES COUNTY DETENTION CENTER	...
12045	Florida	Gulf County	14192	0	0.00%		...
12047	Florida	Hamilton County	14004	2323	16.50%	HAMILTON WORK CAMP; PANTHER SUCCESS CENTER; HAMILTON CORRECTIONAL INSTITUTION; HAMILTON CORRECTIONAL INSTITUTION ANNEX; HAMILTON COUNTY JAIL	...

Table 3. Example County-Level Incarceration Data

3 Data

Field	Description / Notes
FIPS code	The county/tract's geographic identifier. For county data, this is 5 digits. For tract data, this is 11 digits.
State Name	Name of the state where the county/tract is located.
County Name	Name of the county where the county/tract is located.
Tract Name (only for tract data)	Name of the tract.
Total Population	2020 population of the county/tract.
Prison Population	Residential population of the county/tract registered as incarcerated by the Census Bureau's 2020 Group Quarters survey.
Prison Population as Percent of Total Population	Percent of the total population that is registered as incarcerated, 2020.
Prisons	Prisons whose physical boundaries are contained within the county/tract.
University Student Population	Residential population of the county/tract registered as a university student by the Census Bureau's 2020 Group Quarters survey.
University Student Population as Percent of Total Population	Percent of the total population that is registered as a university student, 2020.
Universities	Universities whose physical boundaries are contained within the county/tract. Only active public and private non-profit colleges (designated as type 1 or 2 by IPEDS) a student population of more than 500 as of 2020 are considered.
Nearby Universities	For tract data only. Universities whose physical boundaries are contained within the tract, or are within 1 kilometer of the border of the tract. Only active public and private non-profit colleges (designated as type 1 or 2 by IPEDS) a student population of more than 500 as of 2020 are considered.
Military Population	Residential population of the county/tract registered as active military by the Census Bureau's 2020 Group Quarters survey.
Military Population as a Percent of Total Population	Percent of the total population that is registered as in military, 2020.
Military Institutions	All Military Institutions whose borders contain some area within the region.
Native American Population	Residential population of the county/tract listed as Native American by the 2020 Census's demographic survey.
Native American Population as a Percent of Total Population	Percent of the total population that is surveyed as Native American, 2020.
Native American Reservations	All Native American Reservations whose borders contain some area within the region.

Table 4. County Buddy Data Dictionary

4 Sources