

Input/
 "Census data by block (2010)"
 Census/nhgis0043_ds172_2010_block.csv
 "Median Income data by block group (2010)"
 Census/nhgis0043_ds172_2010_block.csv
 "NO2 concentration by census block (2010)"
 Pollutant/NO2_2010.csv
 "Asthma IR by state (2006-2010)"
 Asthma/Asthma_IR_Input.xlsx
 "Asthma PR by state (2006-2010)"
 Asthma/Asthma_PR_Input.xlsx
 "500 Cities data"
 Cities.csv
 "State FIPS"
 FIPS.R

Script/BoD_State_1_DataSet.R

Inputs:
 -Census data with population counts,
 -Living location, and median income group.
 -NO2 data by census block.
 -Asthma IR and PR data by state.
 -Modeling variables CRF and CRF unit.

Output:
 burden "data set"

Script/BoD_State_8_NationalBoD.R

Inputs:
 -Census data with population counts,
 -Living location, and median income group.
 -NO2 data by census block.
 -Asthma IR and PR data from original analysis.
 -Modeling variables CRF and CRF unit.

Output:
 burden_c "data set"
 Table_c1.xlsx T
 Table_c2.xlsx.
 burden_by_state_c.xlsx.
 The script replicates the burden analysis using national asthma IR from the original analysis

**Output/Table/
 Table_c1.xlsx
 Table_c2.xlsx
 burden_by_state_c.xlsx**

**variable:
 burden**

**variable:
 burden_c**

Script/BoD_State_2_StateTables.R

Inputs:
 -burden

Output:
 Burden_by_state.xlsx table. The table provides complete burden estimates national and state level.

**Output/Table/
 Burden_by_state.xlsx**

Script/BoD_State_9_Comparison.R

Inputs:
 -burden
 -burden_c

Output:
 Table_7.xlsx
 Table_8.xlsx
 The script outputs tables that provide the comparison of the burden analysis between state-specific asthma IR analysis and National level IR analysis (original analysis)

**Output/Table/
 Table_7.xlsx
 Table_8.xlsx**

Script/BoD_State_3_Results.R

Inputs:
 -burden

Output:Table_1.xlsx through Table_6.xlsx.
 The script outputs multiple tables used in the results section

**Output/Table/
 Table_1.xlsx
 Table_2.xlsx
 Table_3.xlsx
 Table_4.xlsx
 Table_5.xlsx
 Table_6.xlsx**

Script/BoD_State_4_Plots.R

Inputs:
 -burden

Output:
 p1::p14.png
 The script outputs multiple plots used in the results section

**Output/Plot/
 p1.png
 :
 :
 p14.png**

Script/BoD_State_5_Datasets.R

Inputs:
 -burden

Output: multiple data sets at various geographical levels (County, City, Zip, and School districts)

**Output_Data/
 burden_county.csv
 burden_place.csv
 burden_zip.csv
 burden_elementary.csv
 burden_secondary.csv
 burden_unified.csv**

Script/BoD_State_6_CitiesTable.R

Inputs:
 -burden
 -Cities.csv

Output: Interactive Cities table

**HTML:
 Cities500.html**

Script/BoD_State_7_CountiesMaps.R

Inputs:
 -Burden data set
 -County shape file
 -FIPS

Output: Interactive Cities table

**HTML:
 StateSpecific_Counties_leaf.html**