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All the maps were made with ArcGIS software. Note that the data was pre-processed first using RStudio (see ‘/R Code/OGPE\_Data\_Cleaning\_Analysis.rmd’ for more details).

* See lines *141-173, 411-453*

The ArcGIS project is in the ‘/ArcGIS Mapping/PR\_Studio\_2024\_G3\_Mapping’ folder.

**Mapping instructions:**

* Converted permit spatial coordinates (CSV format) to point data using the ‘Add XY Point Data’ function
  + Spatial permit data located in ‘/Datasets/OGPE/Clean/Spatial Data’ folder
* Summed populations from the block level to the census tract level using the ‘Summarize Within’ function
  + Summed over ‘POP20’ field of ‘tl\_2023\_72\_tabblock20’ shapefiles
  + Used census tract shapefiles ‘cb\_2020\_72\_tract\_500k’
* Binned permits into census tracts using the ‘Aggregate Points’ function
  + Generated ‘cb\_2020\_72\_tract\_500k\_With\_Population\_Sums’ shapefiles
* Calculated the permit count per 100k capita using the following expression: “($feature.COUNT/$feature.sum\_POP20) \* 100000”
* Distributed the counts into equal-frequency categories using the ‘Quantile’ distribution.
  + Note: in each case, I manually added one more category (> 1000, > 5000) to capture outliers.