

# qgis wrap up

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## outline

ps4 comments

example: density in Camden county

example: apts close to episcopal church in Philly

example: hwys in NJ



## outline

ps4 comments

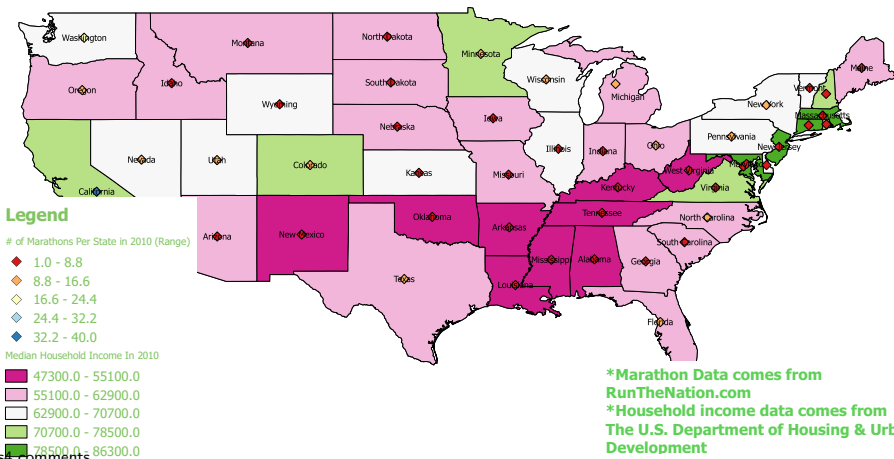
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# marathons

## Number of Marathons Per State Compared to Median Household Income in 2010.



## marathons

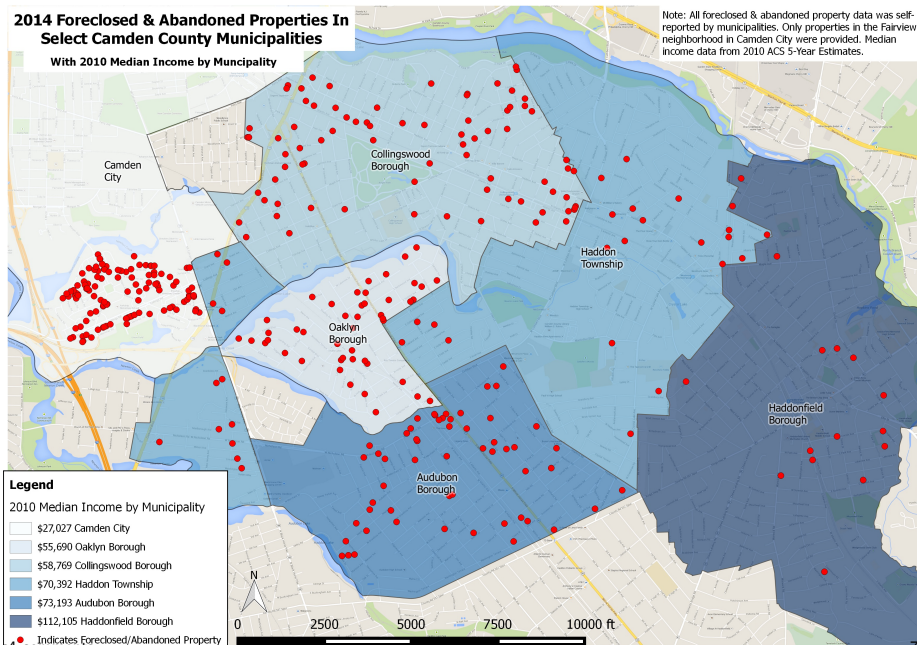
- ◇ could use space better
- ◇ diamonds are on the top of labels
  - (can specify where to put labels, i think)
- ◇ need to make diamonds bigger
- ◇ income could relate to marathons...
- ◇ but can come up with something closer like obesity or gyms pc etc
- ◇ states vary greatly, need to do marathons pc

# properties

## 2014 Foreclosed & Abandoned Properties In Select Camden County Municipalities

With 2010 Median Income by Municipality

Note: All foreclosed & abandoned property data was self-reported by municipalities. Only properties in the Fairview neighborhood in Camden City were provided. Median income data from 2010 ACS 5-Year Estimates.



### Legend

#### 2010 Median Income by Municipality

- \$27,027 Camden City
  - \$55,690 Oaklyn Borough
  - \$58,769 Collingswood Borough
  - \$70,392 Haddon Township
  - \$73,193 Audubon Borough
  - \$112,105 Haddonfield Borough
- Indicates Foreclosed/Abandoned Property

## properties

- ◇ superb use of space! labelling neatly in corners
- ◇ pretty map!
- ◇ interesting map—clearly foreclosures correlate negatively with income



## properties

- ◇ guess some data missing in top right corner? should be indicated more clearly...
- perhaps make it reddish or cover with dashed or dotted pattern
- so that we know clearly for which areas there are no data
- ◇ 2014 is still going—should mention months
- ◇ note how hi resolution google map is! can zoom in and see all road names
- ◇ is it median hh income? (it is explained in journal though)

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## census

- ◇ i feel we did not explore low-level (e.g. tract) data and census data
- ◇ let's do it now
- ◇ census has lots of information
- ◇ there are many ways to access it
- ◇ you can play with some of them here
- ◇ <http://www.census.gov/data/data-tools.html>

## census website

◇ http:

`//www.census.gov/geo/maps-data/data/tiger.html`

◇ click tiger/line shapefiles: `http://www.census.gov/geo/maps-data/data/tiger-line.html`

◇ “2010”-Download-web interface (HTTP)

- HTTP is good for web browsing
- FTP is good for automated download when you know what you are looking for

◇ and download: census tracts: new jersey 2010: Camden County

◇ load goog maps to see where boundaries are—rivers, hwys etc

## let's map population density

- ◇ goggling “census tract population”
- ◇ yields
- ◇ https:  
`//www.census.gov/geo/maps-data/data/tiger-data.html`
- ◇ 2010 Census-Census Tracts
- ◇ load it; it's big
- ◇ if there were counties in table could do sql...
- ◇ vector-research tools-select by location
- ◇ select in tract that intersects in county
- ◇ then right click on all tract layer and save as—it will save selection
- make sure you selected “save selected”!!
- ◇ and add it to toc; and then can map it

## mapping pop dens

- ◇ <https://www.census.gov/geo/maps-data/data/tiger-data.html>
- says that “DP0010001” is total population
- ◇ calculate  $popDen = DP0010001 / ALAND10$

# let's map population density

◇ quick check...

◇ [http://3.bp.blogspot.com/-qMESeAAP05c/UDBc0zU0idI/AAAAAAAAAHOM/wcV5o8StkeQ/s1600/  
New\\_Jersey\\_Population\\_Map\\_2000.png](http://3.bp.blogspot.com/-qMESeAAP05c/UDBc0zU0idI/AAAAAAAAAHOM/wcV5o8StkeQ/s1600/New_Jersey_Population_Map_2000.png)

◇ [http://www.statemapsonline.com/images/maps/new-jersey/  
New-Jersey-State-Population-Density-Map.jpg](http://www.statemapsonline.com/images/maps/new-jersey/New-Jersey-State-Population-Density-Map.jpg)

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## example: apts close to episcopal church in Philly

- ◇ google 'list of philadelphia episcopal churches'
  - [https://en.wikipedia.org/wiki/List\\_of\\_church\\_buildings\\_in\\_Philadelphia](https://en.wikipedia.org/wiki/List_of_church_buildings_in_Philadelphia)
- ◇ copy table, put into excel, clean up a bit,
  - drop pics, add cols with 'philadelphia' and 'pa'
  - save as csv and geocode with MMQGIS
- ◇ then geocode apt:
  - <http://philadelphia.apartmenthomeliving.com/apartments-for-rent.xls>
- ◇ make buffers: vector-geoprocessing tools-buffer; say on apt .01
- ◇ analysis tools-points in polygon
  - input polygon: apt buffer; input point: churches

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## a question

- ◇ say we want to find out which county has the longest interstate hwy network...

## nj roads

- ◇ `http://www.state.nj.us/transportation/gis/data.shtm`
- ◇ and get
- ◇ NJ Roadway Network
- ◇ `http://www.state.nj.us/transportation/gis/zip/NJ_Roads_shp.zip`
- ◇ `SQL ROUTE_SUBT=1` (interstate hwys)
- ◇ and save selection as `hwy.shp`
- ◇ `VECTOR-ANALYSIS TOOLS-SUM LINE LENGTH`
  - Input polygon: `'nj_counties'`
  - Input line vector: `'hwy'`
- ◇ and the winner is... Morris county

## getting creative with lines

- ◇ say you work for a local govt...
  - and want to lobby state to build more roads
  - may produce a map showing miles of roads per capita
- ◇ or say you want to build more bike lanes
  - calculate length of them per capita
  - and compare to other leading cities, say Portland, OR