# qgis wrap up

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old ps comments

example: density in Camden county

example: apts close to episcopal church in Philly [may skip if short on time]

example: hwys in NJ

animations

## old ps comments

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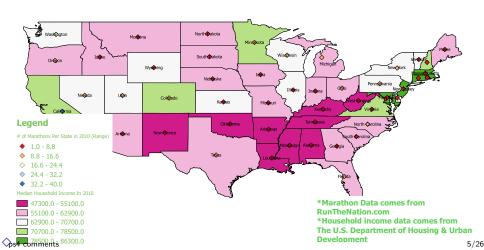
example: hwys in N.

animations

ps4 comments 4/2

#### marathons

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

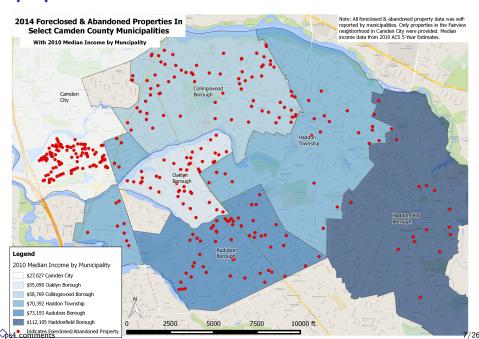


### marathons

- diamonds are on the top of labels
- ·(can specify where to put labels, i think)
- oneed 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

ps4 comments 6/

## properties



## properties

- superb use of space! labelling neatly in corners
- opretty map!
- interesting map—clearly foreclosures corrleate negatively with income

ps4 comments 8/2

# properties

- ⋄guess some data missing in top righ corner? should be inicated more clealy...
- perhaps make it reddish or cover with dashed or dotted pattern
- $\cdot$ so that we know clearly for which areas there are no data
- ♦ 2014 is still going—should mention months
- onote 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)

ps4 comments 9/2

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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
- ocensus 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:</pre>

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

oclick tiger/line shapefiles: http://www.census.gov/geo/

·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
```

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## 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

- ♦ http://3.bp.blogspot.com/-qMESeAAPO5c/UDBcOzUOidI/AAAAAAAAHOM/wcV5o8StkeQ/s1600/New\_Jersey\_Population\_Map\_2000.png
- ♦ http://www.statemapsonline.com/images/maps/new-jersey/

 ${\tt New-Jersey-State-Population-Density-Map.jpg}$ 

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example: apts close to episcopal church in Philly

    ogoogle 'list of philadelphia episcopal churches'

·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
                                                          17/26
```

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example: hwys in NJ 18/26

## a question

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

example: hwys in NJ 19/26

## nj roads

♦ and get

- ♦ http://www.state.nj.us/transportation/gis/data.shtm
- ♦ NJ Roadway Network
- http://www.state.nj.us/transportation/gis/zip/NJ\_Roads\_ shp.zip
- ♦ and save selection as hwy.shp

♦ SQL ROUTE\_SUBT=1 (interstate hwys)

♦ VECTOR-ANALYSIS TOOLS-SUM LINE LENGTH

- Input polygon: 'ni counties
- ·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 reads 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

example: hwys in NJ 21/26