yellow-street

April 26, 2020

1 Yellow Street

CSER 1010: Introduction to Comparative Ethnic Studies William Xie

[13]:
```
import matplotlib.pyplot as plt
import os
import pathlib
import urllib.request
import sys
%matplotlib inline

from bokeh.plotting import figure, save
import geopandas as gpd
import networkx as nx
import pandas as pd
import rasterio

# census_mapper is adapted for Python 3 from:
# https://github.com/agaidus/census_data_extraction
# as seen in: http://andrewgaidus.com/Dot_Density_County_Maps/
from census_mapper import *
```

1.1 Test

[15]:
```
states_filename = "tl_2017_us_state.zip"
states_url = f"https://www2.census.gov/geo/tiger/TIGER2017/STATE/
 ↪{states_filename}"
states_file = pathlib.Path(states_filename)

zipcode_filename = "tl_2017_us_zcta510.zip"
zipcode_url = f"https://www2.census.gov/geo/tiger/TIGER2017/ZCTA5/
 ↪{zipcode_filename}"
zipcode_file = pathlib.Path(zipcode_filename)

for data_file, url in zip([states_file, zipcode_file], [states_url,␣
 ↪zipcode_url]):
```

```
    if not data_file.is_file():
        with urllib.request.urlopen(url) as resp, \
                open(data_file, "wb") as f:

            f.write(resp.read())
```

[16]:
```
zipcode_gdf = gpd.read_file(f"zip://{zipcode_file}")
states_gdf = gpd.read_file(f"zip://{states_file}")
```

[17]:
```
zipcode_gdf.head()
```

[17]:

	ZCTA5CE10	GEOID10	CLASSFP10	MTFCC10	FUNCSTAT10	ALAND10	AWATER10	\
0	43451	43451	B5	G6350	S	63411475	157689	
1	43452	43452	B5	G6350	S	121783674	13437380	
2	43456	43456	B5	G6350	S	9389362	999166	
3	43457	43457	B5	G6350	S	48035540	0	
4	43458	43458	B5	G6350	S	2573816	39915	

	INTPTLAT10	INTPTLON10	\
0	+41.3183010	-083.6174935	
1	+41.5157923	-082.9809454	
2	+41.6468445	-082.8226641	
3	+41.2673266	-083.4274645	
4	+41.5304461	-083.2133648	

	geometry
0	POLYGON ((-83.70873 41.32733, -83.70815 41.327…
1	POLYGON ((-83.08698 41.53780, -83.08256 41.537…
2	MULTIPOLYGON (((-82.83558 41.71082, -82.83515 …
3	POLYGON ((-83.49650 41.25371, -83.48382 41.253…
4	POLYGON ((-83.22229 41.53102, -83.22228 41.532…

[ ]:
```

```