Economist as a plumber with a body camera

Look at disability and work by local area

Tools:

Python 3.6 with pandas, numpy, calendar, matplotlib, and basemap

Data: CPS basic monthly microdata from past three years

Generic shapefile for US states

TIGER shapefile for center-based statistical areas (CBSAs)

Basic objective:

Calculate what share of the age 16 to 64 population is not in the labor force because of disability, for each of 260 local geographic areas. Graph the results.

Data constraint:

In any given month of data from the current population survey, nationwide estimates of how many people are not in the labor force due to disability or illness are very reliable, state-level estimates are pretty good, but local area estimates (with the exceptions of the NYC and LA areas) are not really representative of the people that live in the local area.

How to proceed:

First, use the 2017 CPS data dictionary to find the location of each of four relevant variables: the center-based statistical area code, the person’s age, the person’s labor market status, and the person’s composite weight. Read each month of data in python and keep only the rows that correspond to people age 16 to 64 with a valid sample weight, CBSA code, and labor market status. Combine the latest three years of these monthly datasets and make sure that the sample size for every local area is large enough for a meaningful calculation of age 16-64 disability nonparticipation.

Next, for each CBSA, calculate the share of the age 16-64 population that is not working because of disability, using the full three-year dataset. The result is a set of geographic codes and the corresponding share of the age 16-64 population that is not working due to disability. The Census department also provides information on the geographic shape of each of the areas as well as the area name.

Questions:

1. What is the overall trend with disability and employment?

From elsewhere:

Graph with overall in millions

Some context – Peak, had been distorting unemployment rate

2. Where is this a common occurrence, and how has the local picture changed since 2014?

3. What are the trends in major cities?