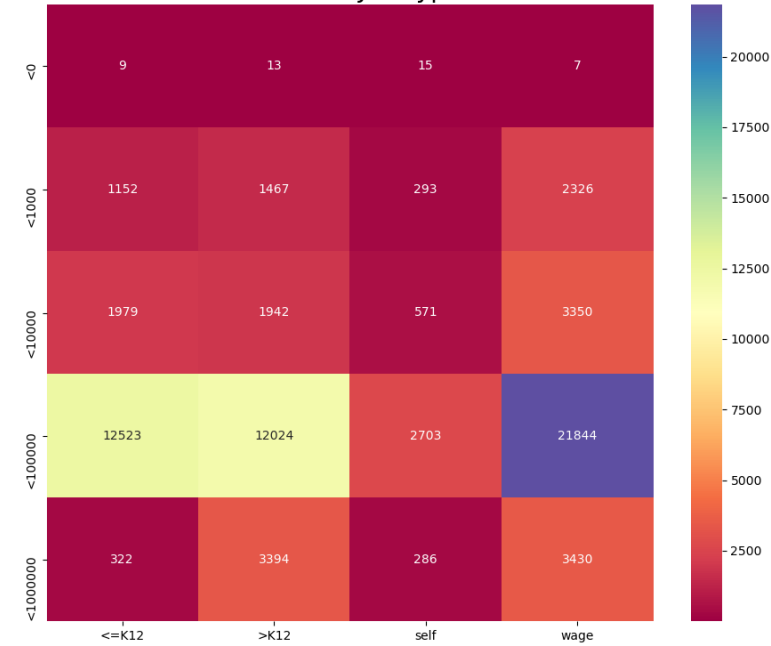


Effects of Educational Level and Job Type on Earnings Between Citizens and Noncitizens

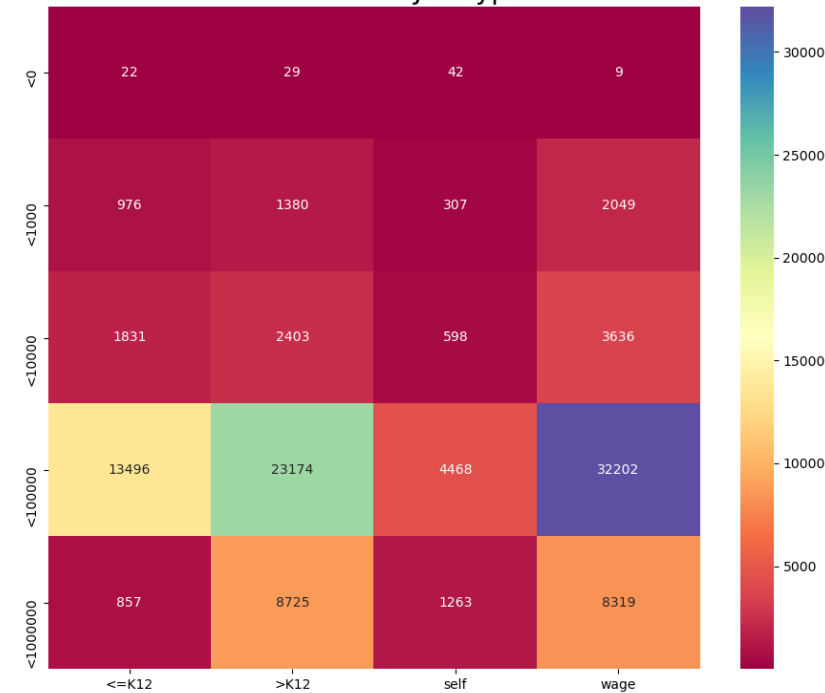
Xinyu Yu

1. Main Figure:

Effects of Educational Level and Job Type on Non-citizen Income



Effects of Educational Level and Job Type on citizen Income



2. Legend explanation:

The columns of the image represent different education levels and job types (divided into those who have not received education above K12, those who have received education above K12, work for themselves and work for wages). The rows of the image represent different salary levels (divided into less than \$0, less than \$1,000, less than \$1,000, less than \$100,000, and less than \$1 million)

The different colors represent different numbers of people in this square. As we can see in the figure, the number of people is arranged in the form of a spectrum. The more people are in this square, the closer the color of this square will be to blue. , fewer people will make the color of the square closer to red.

3. Bulletin Points

According to the picture, among all the non-citizens, most of them have a salary between US\$10,000 and US\$100,000, and non-citizens are more inclined to choose work for wages. Most non-citizens earn between \$10,000 and \$100,000. When the income is less than \$100,000, the level of education does not seem to have much relationship with income, but when the income exceeds \$100,000, the proportion of people with higher education increases greatly.

Judging from the graphs related to citizens, although there are still more citizens who choose to get a salary instead of self-employment, the proportion is not as disparate as that of non-citizens. Clearly, higher education is of great help to citizens' income. Most highly educated citizens earn annual salaries above \$10,000.

4. Data and methods used in process

Data is from IPUMS. IPUMS provides census and survey data from around the world integrated across time and space. IPUMS integration and documentation makes it easy to study change, conduct comparative research, merge information across data types, and analyze individuals within family and community contexts. Data and services available free of charge. Because the data in 2020 was affected by the pandemic, the data in 2019 was used for plot.

In the process of processing data, I used `sns.heatmap` to draw images, `csv` package to read data and deal with some format issues

5. Why the presented figure is an important topic

We may find that immigration status and citizenship often offer different rewards and options. Citizens can get more government benefits. These

two graphs are intended to illustrate the difference in income levels between immigrants and citizens given the same level of education and job choices. And whether immigrants and citizens choose differently when faced with job choices. These two figures clearly reveal that the income of citizens is generally higher than that of immigrants, and they have more opportunities for self-employment.

GitHub Page: <https://github.com/YxyPitt/InfoVizFinal.git>