

Computational Thinking for Governance Analytics

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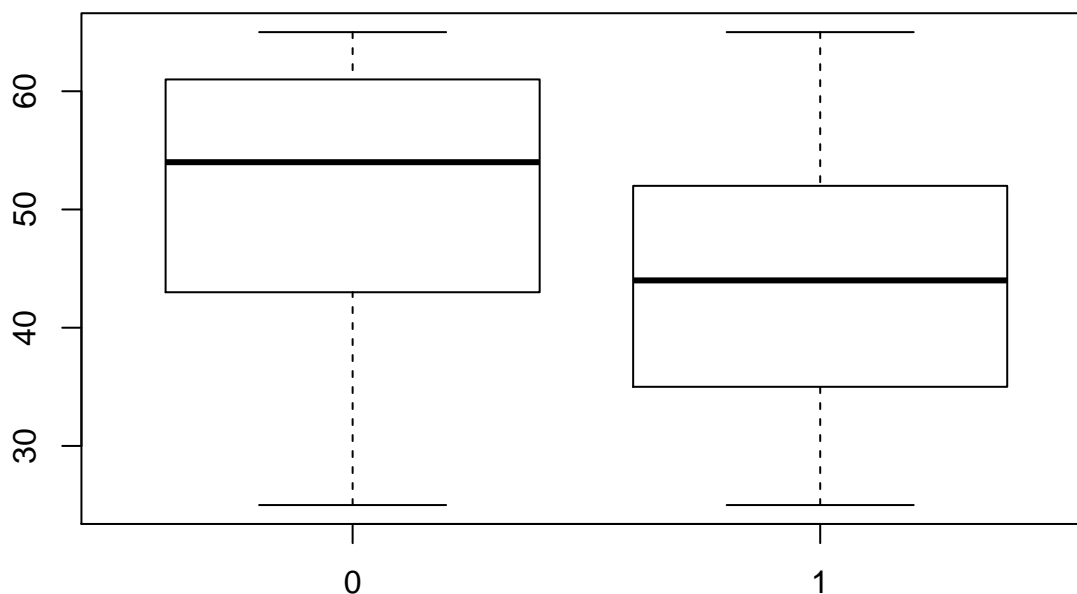
Introduction

In this report, I focused my research on the labor force market in Puerto Rico and the U.S. mainland. From the data, I found that the labor force participation rate in Puerto Rico(0.58) is far lower than it in the U.S. mainland(0.75). To find out the reason that caused such a huge difference, I took age and disability as two main variables and tried to explore the relationship between these variables and the labor force statue. The data I am using in this research is ACS¹ 2016 1-year data.

Exploration

For start, I computed the labor force participation rate in Puerto Rico and the U.S. mainland. There are 42% of people in Puerto Rico not in labor force, compared to the propotion in U.S. mainland (25%), it is far lower. So I want to find out the reasons.

First, I wanted to explore the relationship between age and labor force statues.

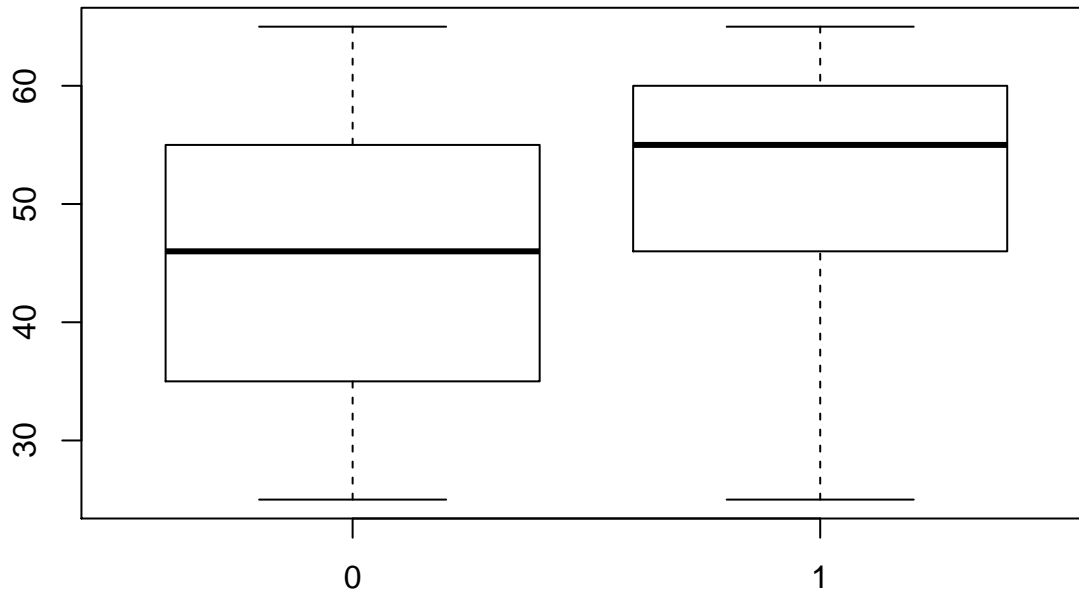


From Figure1 we can tell that, in PR, the average age of people not in labor force is higher than the average age of people in labor force, this means older people are less likely to be interested or able to work. So I seprated the age into two groups: 25-45,45-65, and compare them with data in the U.S. Mainland.

For young people (25-45), the U.S. Mainland is 9% higher in labor force participation rate. And despite the difference in both groups, the labor force participation rate of old people in PR is even far lower than that in the U.S. Mainland (23%).

Secondly, I want to explore the relationship between disability and labor market.

¹American Community Surveys, from IPUMS USA(<https://usa.ipums.org/usa/index.shtml>).



As we see from the figures, the disability rate in PR is higher than it in the U.S. Mainland, and older people are more likely to be disabled. This could help explain why there are so many Puerto Ricans could't join labor force. What else, for people who are disabled, there is 10% higher in chance for them to get a job in the U.S. Mainland than in PR

Recommendation

As concluded above, older people in Puerto Rico are less likely to be in labor force, PR has higher disability rate than the U.S. Mainland, and it's harder for disabled people in PR to get a job. So here I developed 3 suggestions to improve the situation. Firstly, encourage human resources centers in PR to provide job training/seeking services for older people (age 45-65). Secondly, offer disabled people with job training programs and barrier-free facilities in workplace. Thirdly, develop surveys targeting on older people's low participation rate issue, gather more data for further study.

I want to say "thank you" to professor Magallanes and Isabella, I would't be able to finish this simple project without your generous help.