Employment, gender, and the impact of COVID-19

The dataset

For this exercise, I examined the NIDS-CRAM dataset. NIDS-CRAM is the National Income Dynamics Study - Coronavirus Rapid Mobile Survey. The survey investigates the socioeconomic impacts of the national lockdown associated with the State of Disaster declared in South Africa in March 2020, and the social and economic consequences of the global Coronavirus pandemic. From March 23 through to early May 2020, South Africa was placed under an economic and social lockdown. During this period only essential services workers could physically attend work, and any other work involving physical or social interaction was suspended; impacting employment, incomes, and livelihoods. One of the key lines of questioning in the survey explored the extent to which the amount of time and earnings changed between February (pre-lockdown) and April(during lockdown.)

The NIDS-CRAM dataset is publicly available from the University of Cape Town's Data First Open Portal, where it is available for download as a Stata file. The data set under examination here considers the responses from 7,073 interviews for 56 of the 140 questions that were asked. The survey and links to its data can be found here: http://www.nids.uct.ac.za/about/nids-cram/nids-cram.

Main findings

- Women make up a large proportion of the data under investigation.
- The majority of the data set report low monthly earnings, which would make them particularly vulnerable to unemployment.
- Women are particularly represented in industries impacted by COVID-19 such as elementary (low or semi-skilled) jobs and sales and service work.
- And nearly across the board they earn less than men in those industries.
- Women more than men reported that their childcare responsibilities increased during lockdown, and more women than men reported that they spent four hore or more on this added responsibility.
- Nearly half of those in the data set who reported that they were employed in February reported being unemployed in April.
- Women were more heavily impacted by unemployment in this time; by over 13% more than men.

I chose these results because it starts to build a storyline about how women's work is more precarious than men's, and that COVID-19 has additional non-economic burdens for women (more than men) in the form of added childcare responsibilities.

Additional resources used

1. To centre align x-ticks on a histogram: https://stackoverflow.com/questions/27083051/matplotlib-xticks-not-lining-up-with-histogram
2. This really nifty matplotlib resource: https://www.oreilly.com/library/view/python-data-science/9781491912126/ch04.html
3. To calculate a single, stacked bar: https://stackoverflow.com/questions/57850399/python-create-a-single-horizontal-stacked-bar-chart-from-pandas-data
4. Using Seaborn to change y-axis to a percent: https://stackoverflow.com/questions/34615854/seaborn-countplot-with-normalized-y-axis-per-group
5. Changing the location of a seaborn legend: https://www.thetopsites.net/article/53181278.shtml
6. Changing the axis ticks to percentages: https://stackoverflow.com/questions/31357611/format-y-axis-as-percent
7. Getting color hex codes: https://www.colorhexa.com/
8. Combining data from two columns into one: https://knowledge.udacity.com/questions/327015