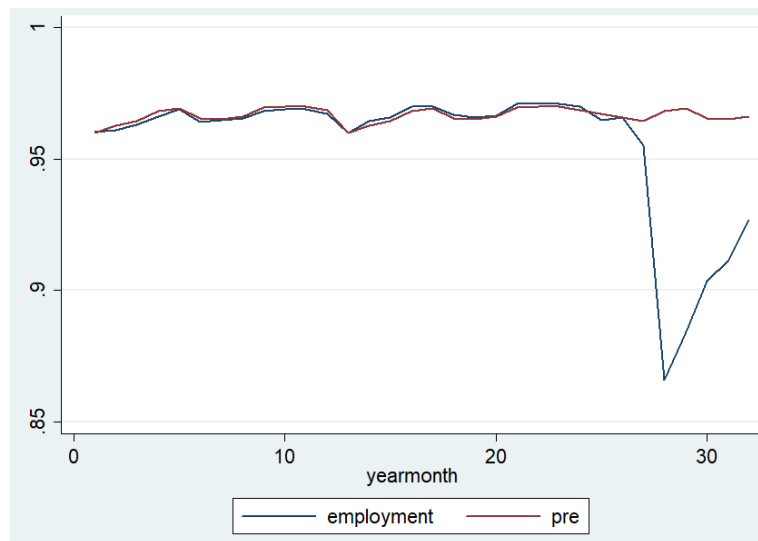


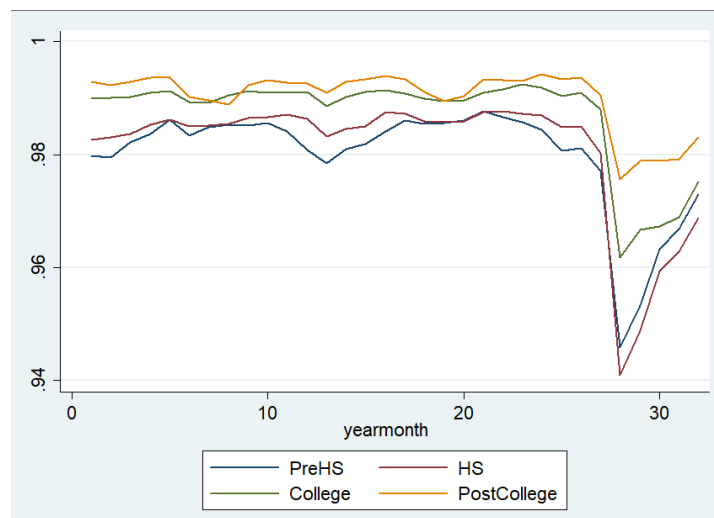
Question 1. Labor Market and Covid

1. Compute (and plot) the time series of the monthly employment rate in the U.S. As source of data go to IPUMS and download the latest available CPS monthly data. Detrend and deseasonalize to show the effect of COVID19 in your estimates for year 2020.



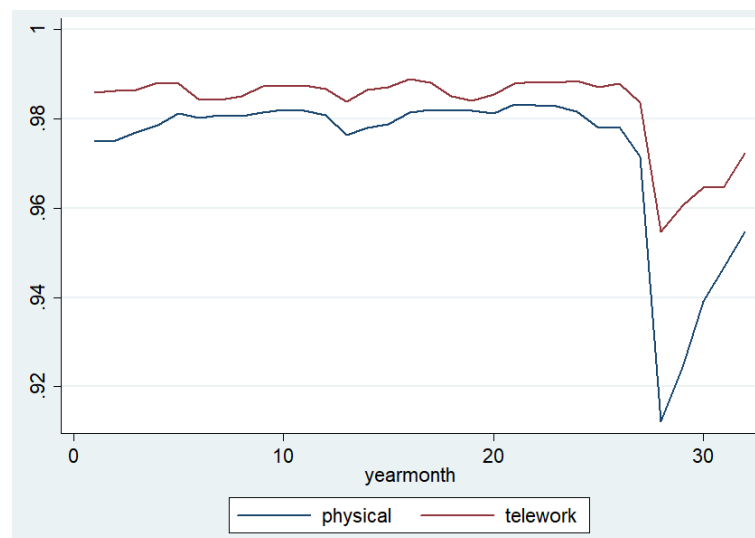
We compute the trend of the employment rate with its monthly average; with that naïve prediction, we can observe the important fall produced by the Covid-19 pandemic and the political measure taken in response.

Redo by education group as <HS, HS, College and > College.



As we can see, the effect of the measures taken because of the Covid crisis on the occupation rate have been different across the education levels. All of them suffer a fallen, but the impact is bigger in the occupation of the less educated people. By contrast, workers with post college education are who bear better the shock, probably due to have more chances of teleworking.

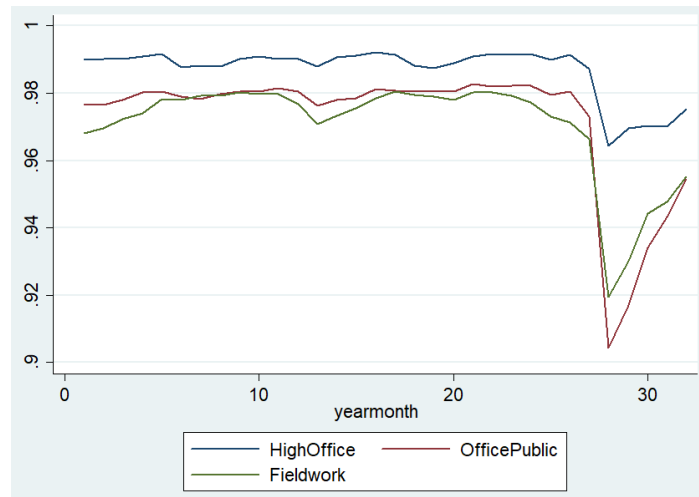
Redo by industry (for example, create two groups of industries according to their ability to telework).



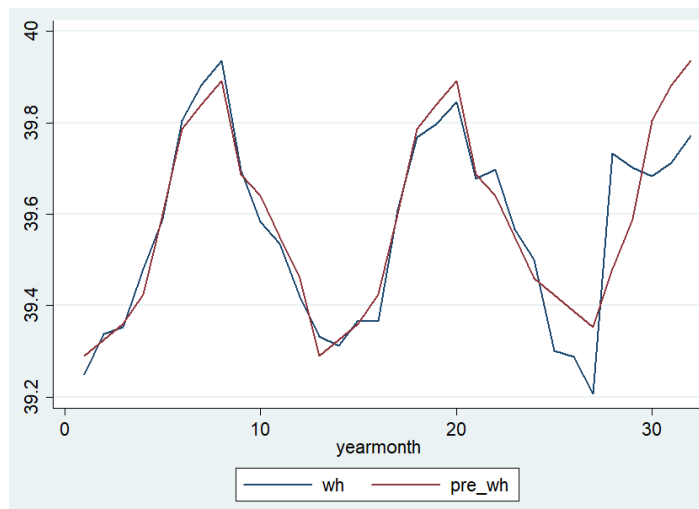
As I was saying, the effects of the measures haven't been equal for of the sectors. The activities where teleworking was not possible fell more than those one where it was possible.

Redo by occupation. Hint: Find an interesting way to split occupations (2 or 3 groups) that you think is useful to learn the effects of COVID19.

Now, we repeat the analysis by occupation categories: 1) High Office jobs, where Management, professional, and related occupations are included; 2) Office and Public-facing occupations, which contain office (out of the previous category), sales, and services occupations; and 3) Field works occupations, where we can find natural resources, construction, and maintenance occupations, and also production, transportation, and material moving occupations. As we could expect, High offices employment fell the less, probably because of the possibility of teleworking. We also can observe that Field work occupations fell a little less than Office and Public-facing occupations; one interpretation could be that many jobs of Field work category were consider essential, and then, they maintain their production.



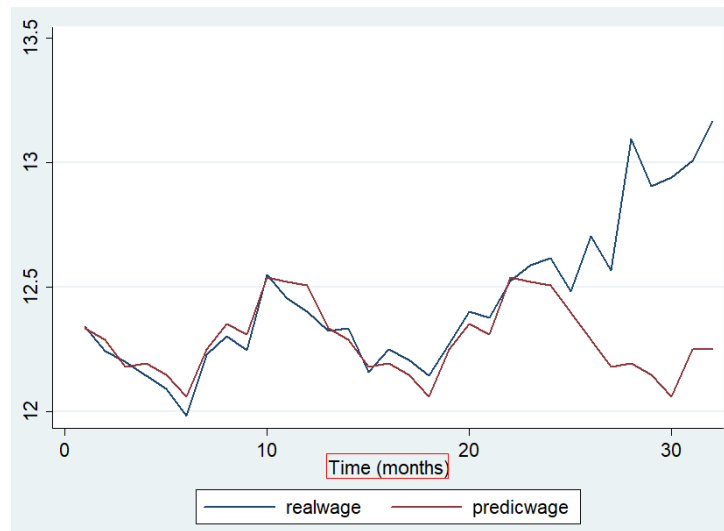
2. Redo the previous item for average weekly hours. Discuss your results.



Redoing the same prediction exercise but regarding to the average weekly hours, we observe that they were decreased in compare to the trend. It is easy to think that the measures taken because of the Covid-19 reduced the average weekly hours given all the economy was slowed down and even confined.

3. Is the behavior of aggregate hours driven by employment or by average weekly hours. Decompose using percentage deviations from the predicted value of these items. Discuss your results.

4. Redo for wages (or earnings).

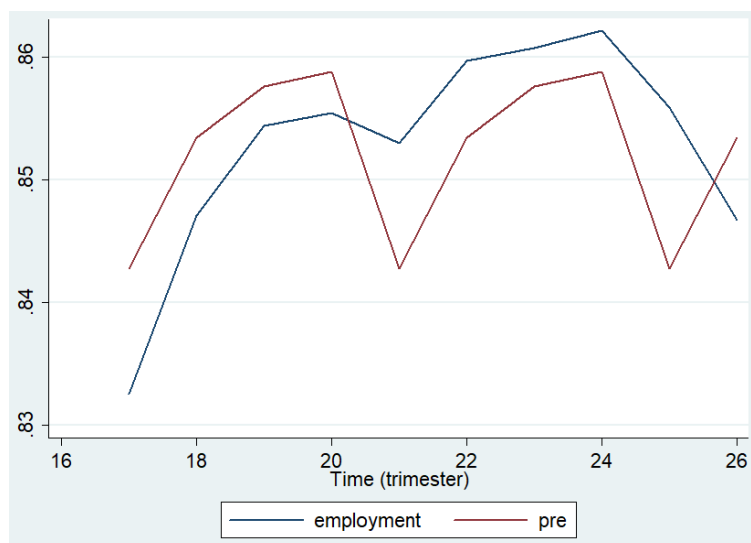


In the case of the wages, I obtain that they have been higher than their trend. The wage is computed taking into account the inflation through Consumer Price Index.

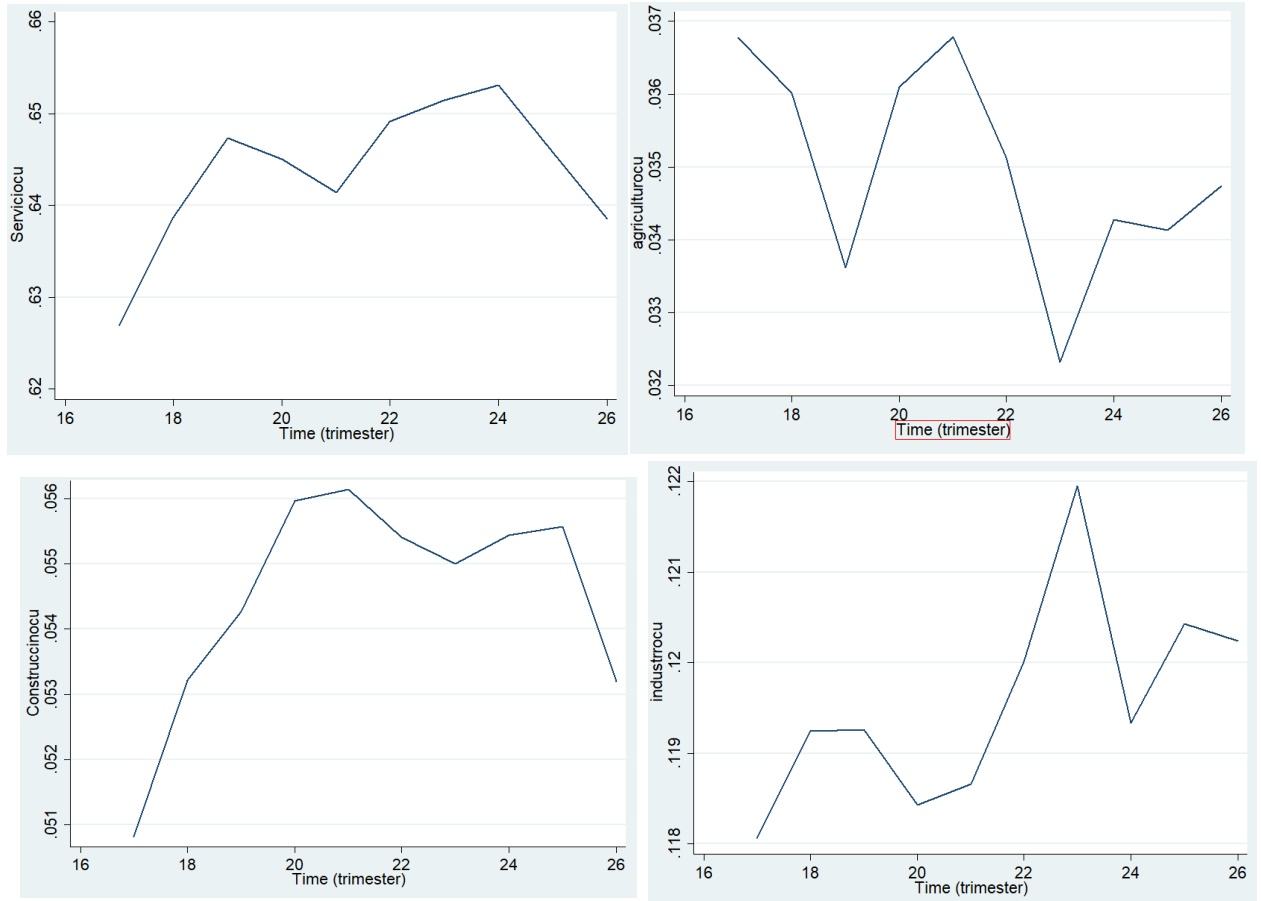
5. Redo for your own country. Discuss difficulties (if any) in getting the data. Discuss your results.

Let's now analyse the Spanish case. Data is collected from INE, and regarding that, I have to point two things. Firstly, the samples are given quarterly, and the last one we can find is the sample of the 2020 second trimester; therefore, we haven't as much data as before to analyse the effects of the Covid-19 crisis (only one period). Second, I have used the EPA survey, and that one doesn't have information about wages.

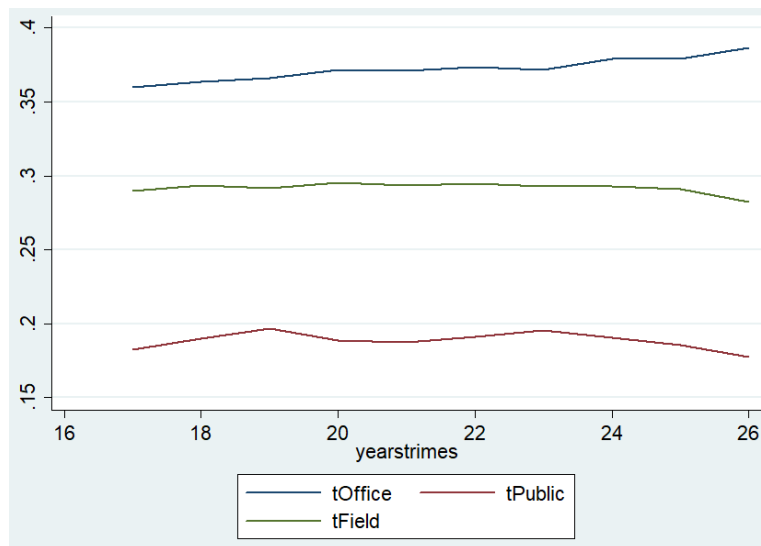
As previously, I compare the employment rate with its trend, which is computed with the quarterly average. We can then observe that the employment rate has fallen under its trend.



It is interesting to watch if the effect of the measures taken affected all sectors equally. With a quick view, we can observe that the sector more affected is the Construction, followed by the Services sector; Industry fell a few, and Agriculture kept raising. We can think again that was because of the possibilities of teleworking, but also because of the considerations of essentials sectors.



Finally, if we focus on different kind of occupations, we obtain the same result than in USA: employment in works with teleworking possibilities are nor affected, but instead, Public-facing and Field work occupations fell.



It is important to point that the Spanish case shows a smaller fallen of the occupation rate given the polities taken by the Government with the aim of holding the employment (ERTEs)