Additional Guidance

Figures & Tables

Figures and tables used in the *Policy Briefing* **must be generated by Python code cells** included in the *Reproducible Analysis* notebook. You may not modify or create figures in another application since this undermines the reproducibility of the analysis.

Word Counts

Each figure or table **counts for 250 words**, and so students should give careful consideration to the trade-offs involved: more figures may serve to illustrate your points but leave you with much less space to synthesise and present and argument.

A figure **with A/B elements** will count as one figure, but only where the two parts are conceptually related (e.g. before/after; pre/post; non-spatial distribution/spatial distribution; type 1 and type 2; etc.). Figures with more than two elements (i.e. A/B/C) will count as more than one figure. The *only* exception to this will be the output from PySAL's LISA analysis library since that is formatted as 3 figures but they are all conceptually related. Similarly, Seaborn's `jointplot` would only be considered *one* plot even though it is *technically* three because the distribution plots in the margin are related to the scatter plot that is the focus of the plot.

In principle, a briefing with 10 figures would have no space for any text or interpretation; this choice is deliberate because its purpose is to focus your attention on which charts and tables *best*-communicate your findings. **In practice**, using A/B figure layouts then you are looking at up to 20 separate figures before hitting the limit, though you would at this point be producing an infographic and not a briefing.

Figures in the *Reproducible Analysis* do *not* count towards your figure total, but you may also not refer to them in your briefing. The briefing must stand on its own. So you *don't* need to go through your reproducible code and delete any/all figures that you produced as part of your research process, but you shouldn't refer to them in the text either.

Marking Scheme

The marking scheme for this submission has two parts:

1. The *Executive Briefing* (60% of total mark for this submission) will be assessed as an essay incorporating analytical elements, with consideration given to the language, presentation, and content of the essay as befits a data-led briefing for a busy executive or policy-maker.
2. The *Reproducible Analysis* will be assessed on the following criteria:

    - *Reproducibility* (20% of total mark): we are able to run the entire notebook without errors. Inability to reproduce the output of the notebook may affect our ability to evaluate the student submission in the other two areas.
    - *Accuracy & Legibility* (10% of total mark): the outputs of the notebook (figures and maps, primarily) used in the *Executive Briefing* are of a high quality in terms of clarity, colour, layout, fonts, labelling, etc.
    - *Quality of Code* (10% of total mark): a holistic view will be taken of the code in terms of its clarity, efficiency, and legibility.

Guidance for Notebook Submission

To simplify submission and replication of your work:

- You should put the ***Reproducible Analysis*** *first*: this will enable us to run all of the analytical code need to generate any figures or tables in your ***Executive Briefing***. How you produce the figures and tables later in the notebook is up to you (e.g. saving temporary data to a local file and then reloading the data later, keeping the cleaned-up data ready for display in a temporary data frame, etc.)
- Both the *Reproducible Analysis* and *Executive Briefing* section should be level 1 headers (i.e. `# Reproducible Analysis`) so that they are easy to find in your notebook. They should be the *only* level 1 headers in your notebook. You should use level 2, 3, and 4 headers as-needed to format your notebook and signpost to readers the structure of your submission.
- We will assess reproducibility by selecting "Restart Kernel and Run All" using the sds:2020 Docker environment. If you have made use of another Docker image (e.g. sds:2020b) you must clearly signpost this at the start of your notebook so that we know to select a different image. We will *not* install libraries 'by-hand' in an *ad hoc* manner order to test the reproducibility of your work.
- It is also up to you to ensure that all relevant data sets are available via a valid URL: this could be a GitHub repo or a Dropbox link or some other resource. We may not be able to access resources placed on Chinese web servers to please bear this in mind. As an alternative, *small* zipped data sets of up to 10MB each (50MB total) may be submitted *along with your notebook*.

- You should zip up your notebook (and any zipped data sets) prior to submission and then submit this as a Zipfile (so any manually submitted data will be zipped up *inside the Zip file*) so that it is not corrupted by Moodle.