

## Overview

The code in this replication package constructs the three tables in Hsiao (2024), which can be cited as follows. Expected runtime is 15 minutes.

Hsiao, Allan. 2024. “Sea Level Rise and Urban Inequality.” *AEA Papers and Proceedings*, 114: 47-51.

## Code

The code folder contains Stata and Julia code files. **RUN.jl** in the root folder is a master file that calls each code file.

1. **code/data.do** constructs the analysis dataset (**code/data.dta**). It produces table 1 of the paper (**paper/table1.csv**).
2. **code/estim.do** reads the analysis dataset, and it implements demand estimation. It produces table 2 of the paper (**paper/table2\_\*.csv**).
3. **code/cfs.jl** reads the analysis dataset, and it implements counterfactual simulations. It produces table 3 of the paper (**paper/table3.csv**).

## Data

The data folder contains Stata data files.

1. **data/census.dta** comes from the 2010 population census. It contains a sample of 5,463 300m cells for Jakarta.
  - **k** is the cell ID.
  - **edu\_pop** is the population of individuals in each cell with education data.
  - **edu\_0**, **edu\_1**, **edu\_2**, **edu\_3**, and **edu\_4** are the proportions of individuals in each cell by education group: 0 for none, 1 for primary, 2 for middle, 3 for high, and 4 for college.
2. **data/hsiao.dta** comes from Hsiao (2023).

Hsiao, Allan. 2023. “Sea Level Rise and Urban Adaptation in Jakarta.”

It contains a sample of 5,463 300m cells for Jakarta.

- **k** is the cell ID.
- **kab**, **kec**, and **kel** are administrative units: *kabupaten*, *kecamatan*, and *kelurahan*.
- **lat** and **lng** are the latitudes and longitudes of cell centroids.
- **pop** is population.

- **price** is 2015 property prices per square meter, measured in units of IDR 1 million.
  - **rugged** is ruggedness.
  - **flood** is the average number of flood days per year, as observed from 2013 to 2020.
  - **elev**, **dist\_coast**, and **dist\_river** are elevation, distance to the coast, and distance to the nearest river.
3. **data/susenas.dta** comes from the 2011, 2012, 2013, and 2014 waves of the National Socioeconomic Survey (SUSENAS). It contains a sample of 26,401 individuals for Jakarta.
    - **edu** is education group: 0 for none, 1 for primary, 2 for middle, 3 for high, and 4 for college.
    - **wage** is monthly net income, both money and goods, from an individual's main job, as measured in 2015 US dollars.

## Paper

The paper folder contains the tables that appear in the paper.

1. **paper/table1.csv** corresponds to table 1 in the paper.
2. **paper/table2\_ols.csv** and **paper/table2\_iv.csv** correspond to table 2 in the paper.
3. **paper/table3.csv** corresponds to table 3 in the paper.