Data Visualization for Political Scientists

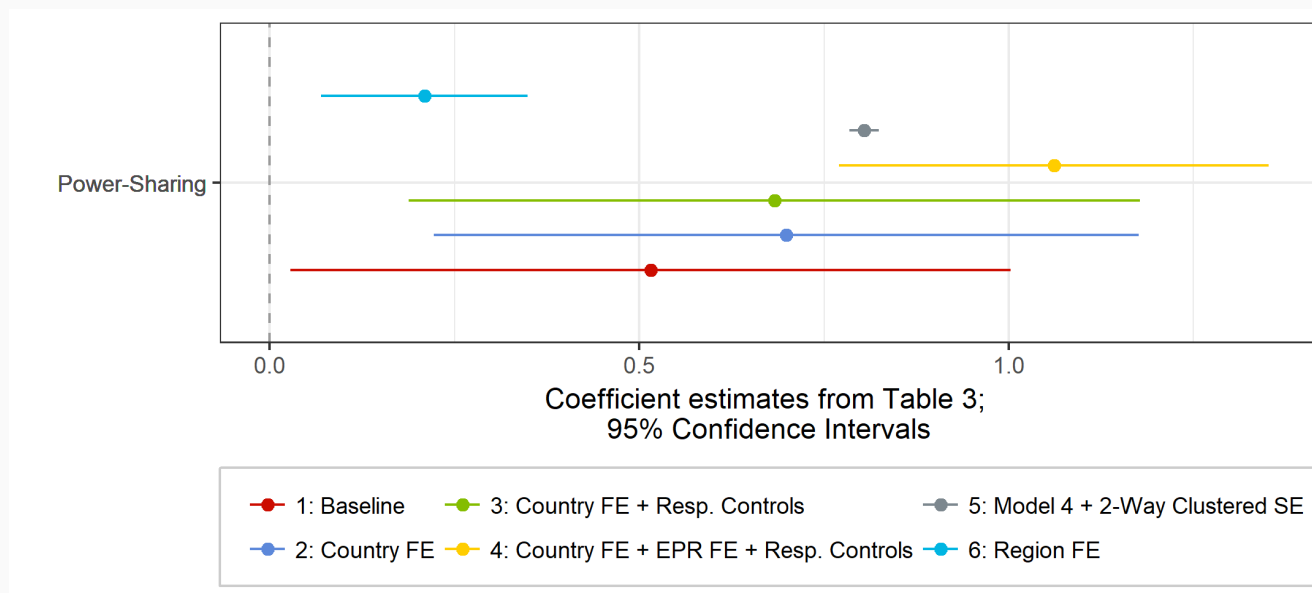## Session 4 - Coefficient Plots

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Coefficient plots

Coefficient plots ("dot-and-whisker" plots) are a useful way to visualize regression models:

- No asterisks/superscripts necessary to display statistical significance
- Uncertainty better visualized through confidence intervals
- Effect size becomes more clear

Example from my own work:
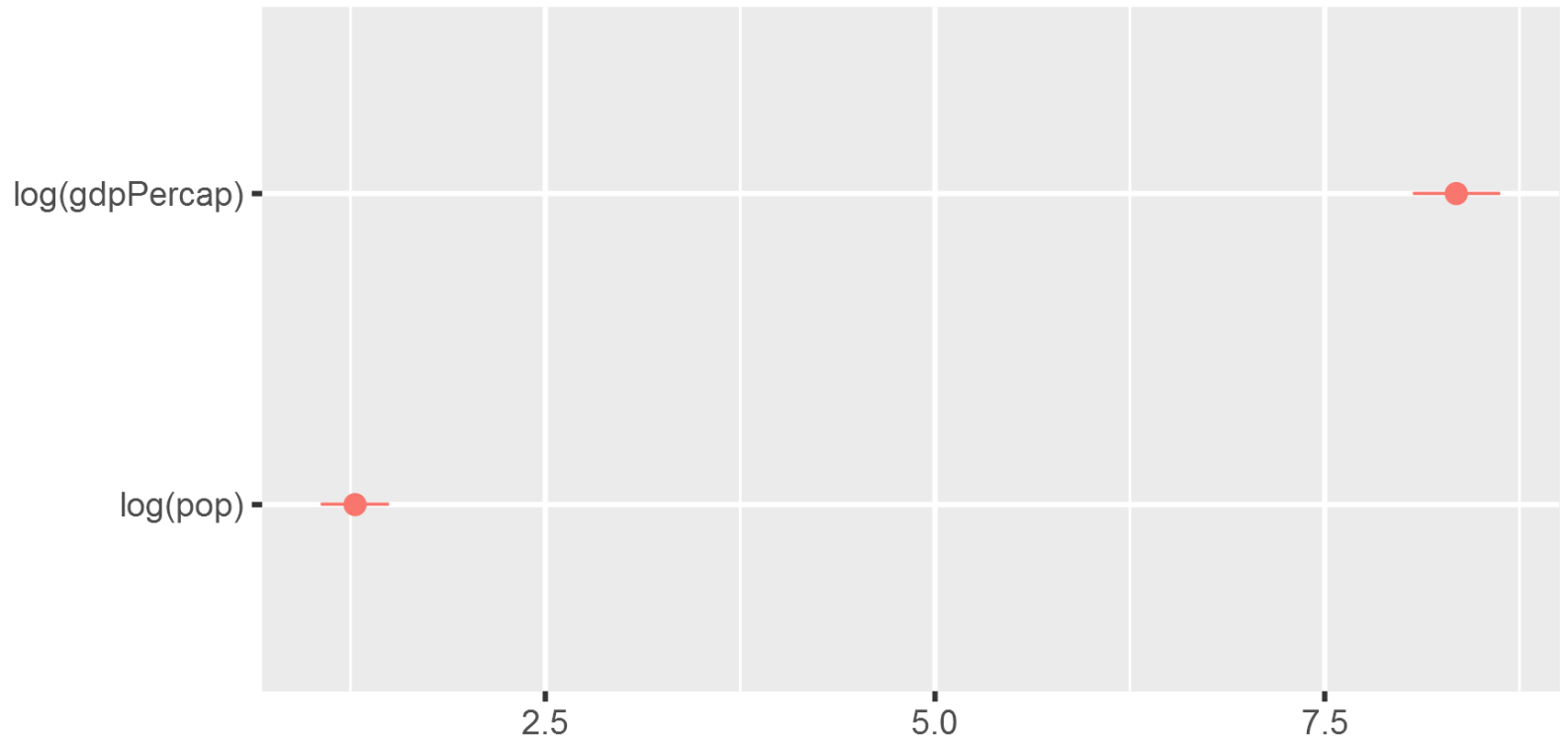

For more information, see Kastellec and Leoni 2007

The dotwhisker package: basic usage

In R, we use the ░░░░░░░░ package by Frederik Solt and Yue Hu to generate coefficient plots. The ░░░░░░░░ package builds on the ░░░░░░ architecture, which makes it easy to use.
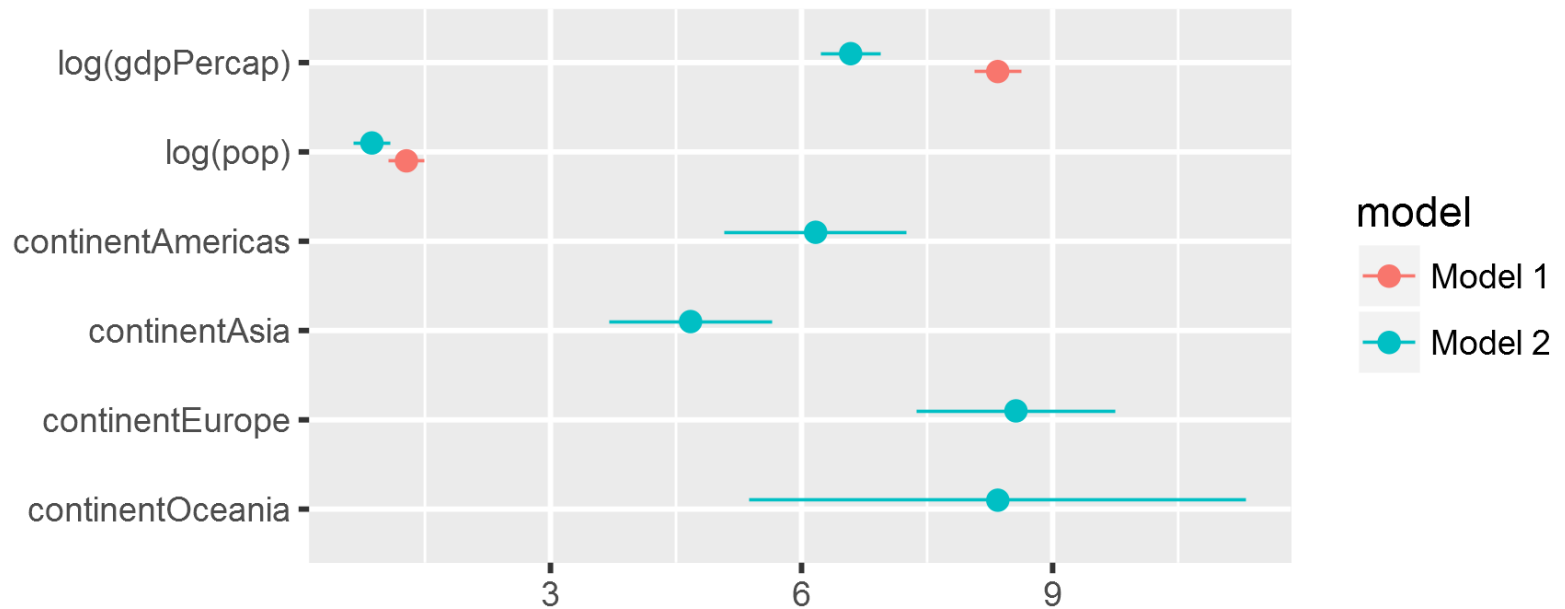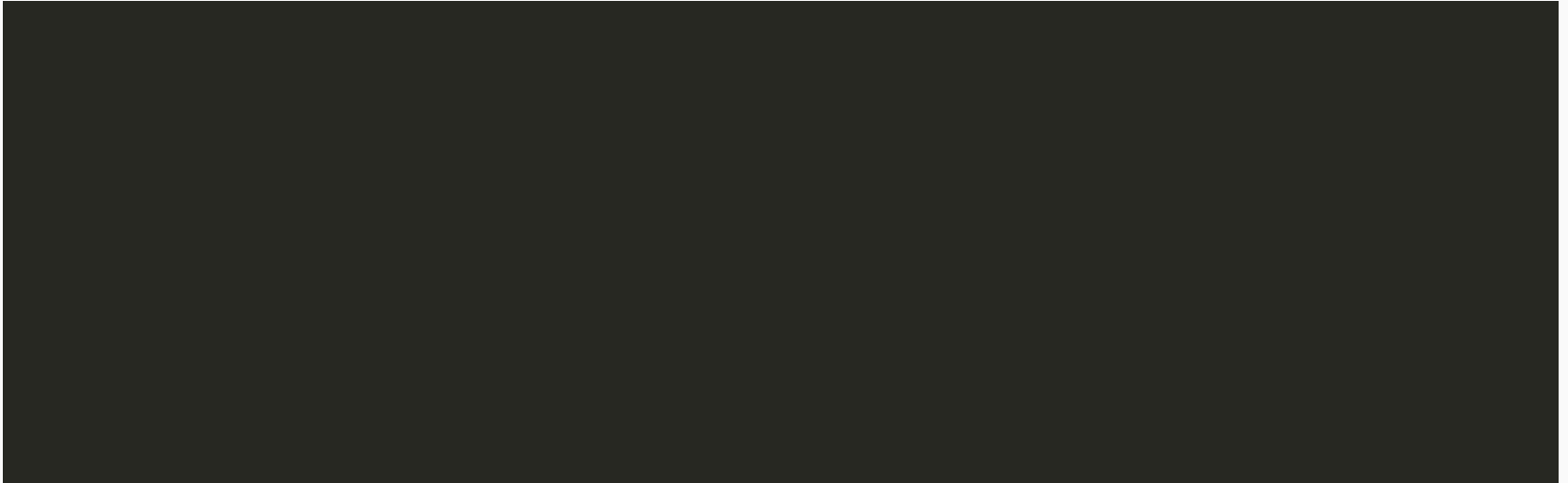
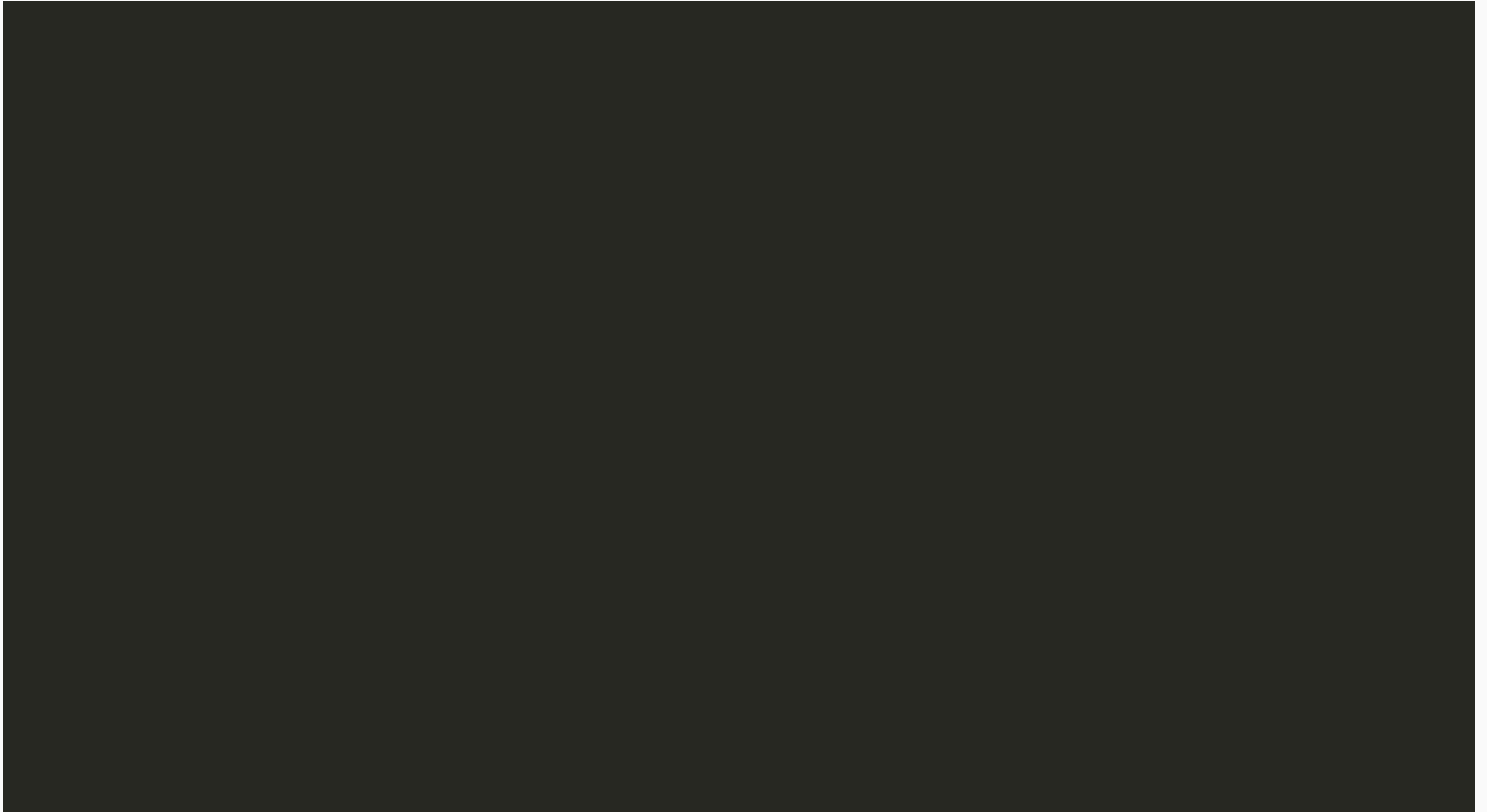Basic Usage:

The dotwhisker package: basic usage

Plot multiple models

tidy models

Instead of passing an ▢ model object, we can transform our model object(s) into tidy data frames, using the ▢ package. This has several advantages, including omitting coefficients from the output, that might not be needed in the final plot.
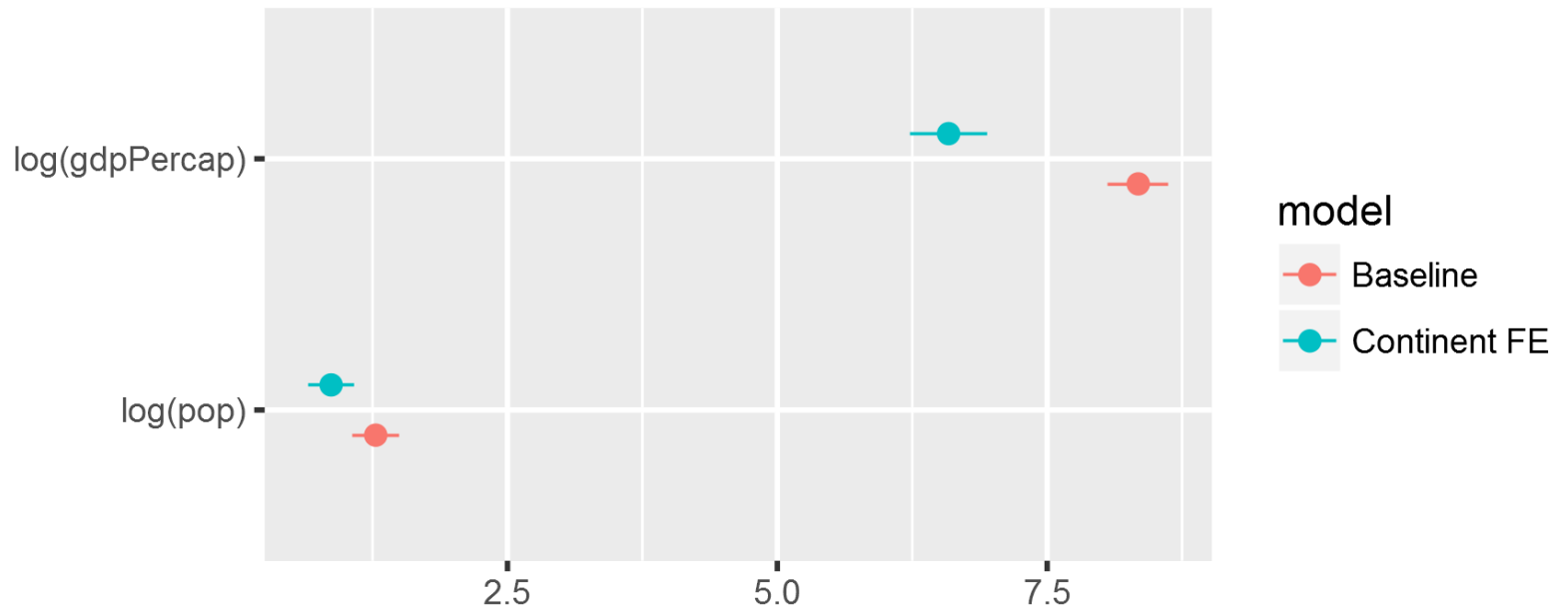
tidy models II
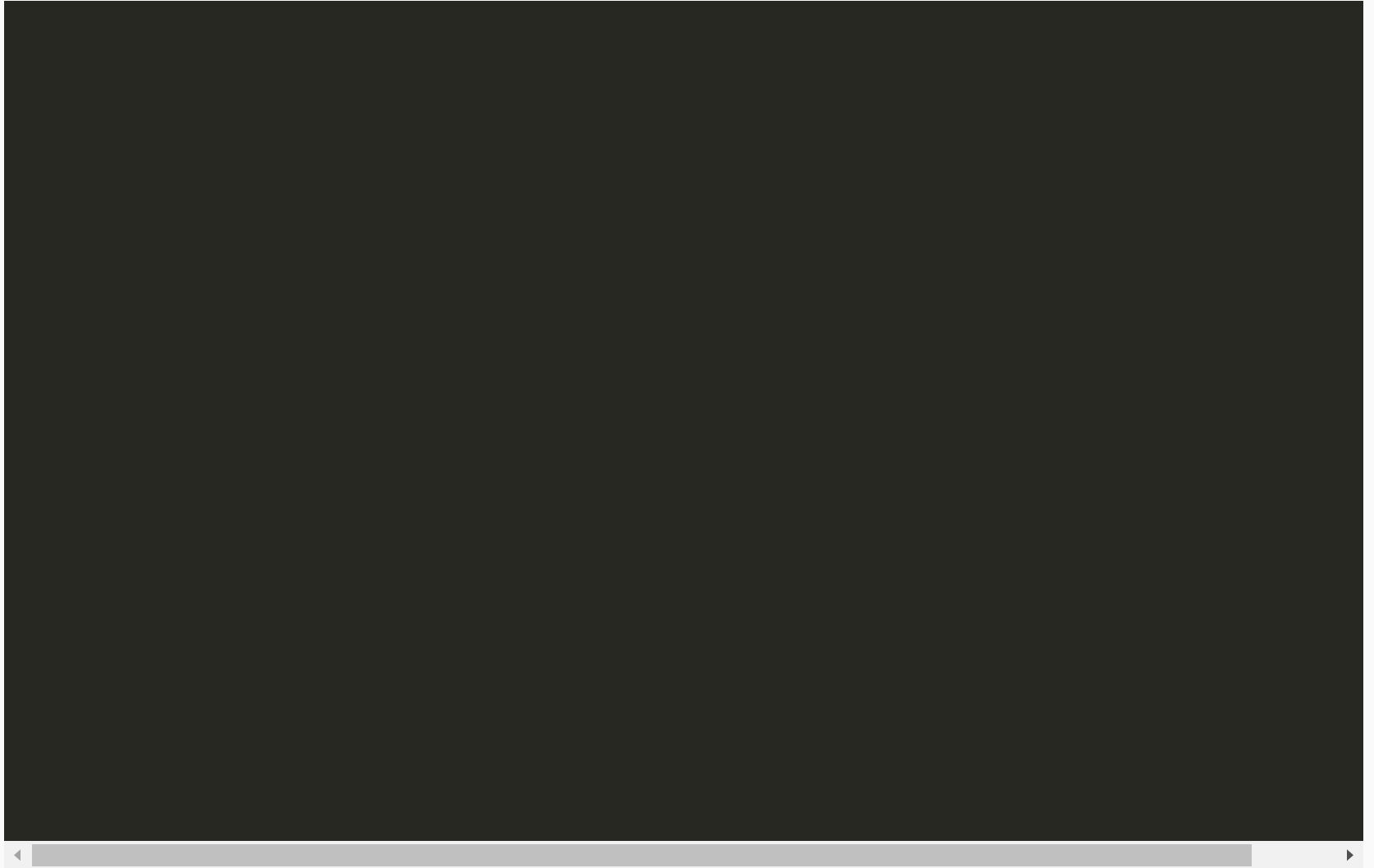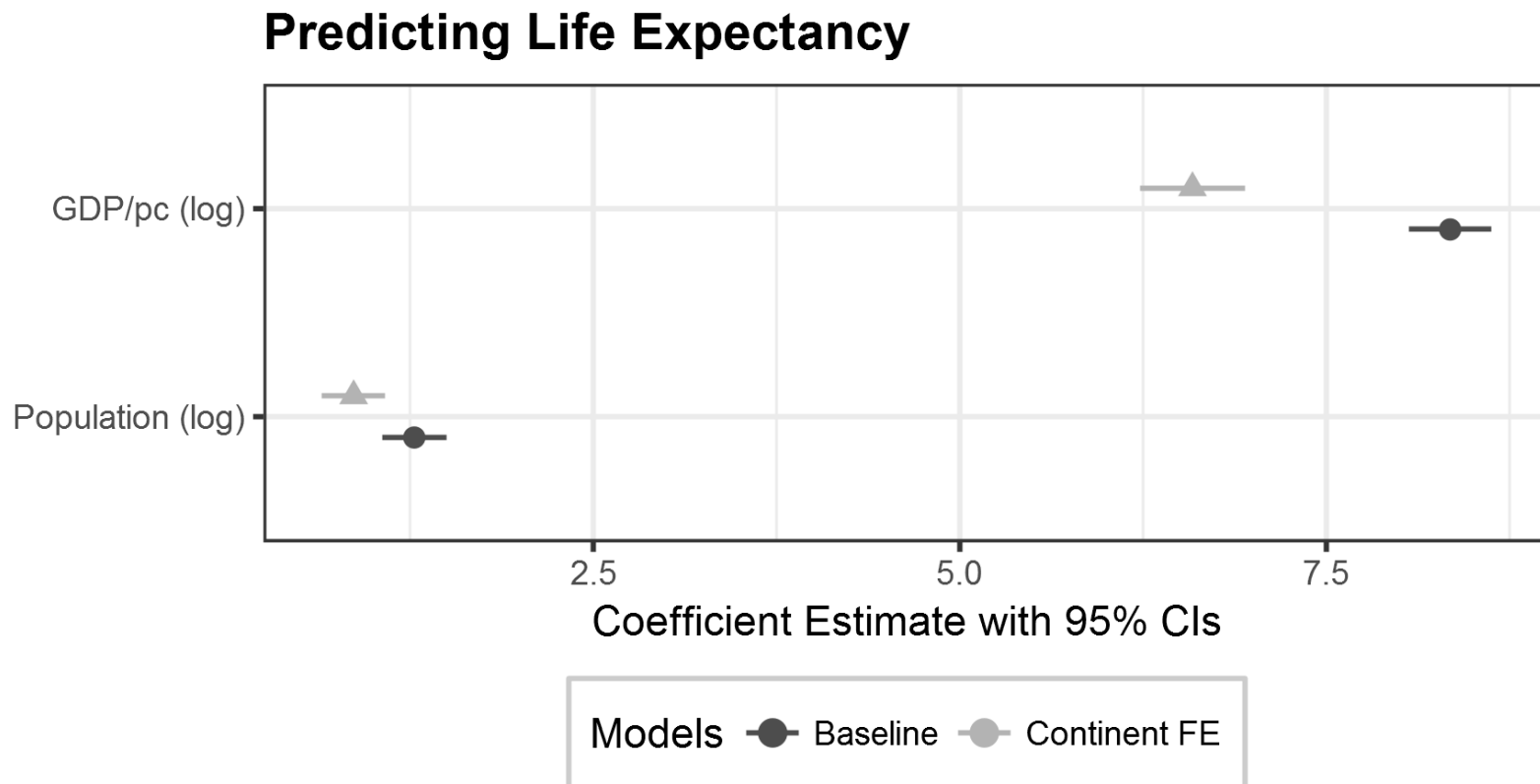
tidy models II

tidy models III

tidy models IV

Plot the resulting tidy data frame with

Manipulating dwplot output

Manipulating dwplot output

Predicting Life Expectancy

Exercise

Add a third model to ▭ that includes country fixed effects. (Hint: you can add country dummies in ▭ by simply adding the name of a categorical variable into the ▭ call).

The baseline model stays

Plot the comparison of a the baseline model, the continent FE, and the country FE model.

Solution I

Solution II

Solution III

Predicting Life Expectancy