

Structure Outline

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Overview

There will be a `boot` function which will take ADD PARAMETERS as parameters. For the `type` parameter there will be 7 options consisting of `PAR`, `RES`, `CASE`, `CGR`, `REB`, `REB1`, `REB2`. Selecting one of these will use the specified bootstrap type otherwise the default will be `PAR`.

PAR

This option will consist of its own function computing steps 1-2. Step 3 will be handled by a function that will generate bootstrap samples from our equation $y_j^* = X_j\hat{\beta} + Z_j\delta_j^* + \epsilon_j^*$. Step 4 should be handled by a separate function that will be called in the aforementioned function. This separate function will compute and return the estimates for all the parameters of the two-level model. We run this in a `for` loop B times. Then we pass this off to a function that will compute bias-corrected estimates and bootstrap standard errors using formulas 1 and 2.

RES

This option will consist of its own function computing steps 1-2. Step 3 will be handled by a separate function that is also used above. Step 4 should also be handled by a separate function that will be called in the aforementioned function. This separate function will compute and return the estimates for all the parameters of the two-level model. We run this in a `for` loop B times. Then we pass this off to a function that will compute bias-corrected estimates and bootstrap standard errors using formulas 1 and 2.

CASE

As with before we follow the same breakdown: * Step 1 and 2 are in the main function * Call a universal function for Step 3 * Call a universal function for Step 4 * Call a universal function for Step 5

CGR

REB

REB1

REB2