ReadMe.pdf

This is to explain how to use the R-codes to replicate the results in "Multiple Imputation Discontinuity Designs: Alternative to Regression Discontinuity Designs to Estimate the Local Average Treatment Effect at the Cutoff."

- `00bw.txt` sets the sample size, the number of multiply-imputed datasets, and the number of simulation runs. Also, this file sets the bandwidth selection techniques. If you want to replicate the results based on `msesum`, `cerrd`, or `cersum`, you need to activate the lines associated with them. This file is used for all of the seven populations.

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Population 1

- `01population.txt` generates the population data based on equation (16), and runs Monte Carlo simulations for Comp, Naïve, MIDD, and RDD. Essentially, this is the main body of the replication codes.
- `01script.txt` repeats the simulations by changing the cutoff points, and save the simulation results as csv files. You need to set the working directory relevant on your computer. Essentially, what you need to paste in `R` is the code shown in this file, because this file refers to `00bw.txt` and `01population.txt` by `R`-function `source`.

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Population 2: Basically, the same as in Population 1.

- `02population.txt` generates the population data based on equation (17), and runs Monte Carlo simulations for Comp, Naïve, MIDD, and RDD. Essentially, this is the main body of the replication codes.
- `02script.txt` repeats the simulations by changing the cutoff points, and save the simulation results as csv files. You need to set the working directory relevant on your computer. Essentially, what you need to paste in `R` is the code shown in this file, because this file refers to `00bw.txt` and `02population.txt` by `R`-function `source`.

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Population 3: Basically, the same as in Population 1.

- `03population.txt` generates the population data based on equation (18), and runs Monte Carlo simulations for Comp, Naïve, MIDD, and RDD. Essentially, this is the main body of the replication codes.
- `03script.txt` repeats the simulations by changing the cutoff points, and save the simulation results as csv files. You need to set the working directory relevant on your computer. Essentially, what you need to paste in `R` is the code shown in this file, because this file refers to `00bw.txt` and `03population.txt` by `R`-function `source`.

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Population 4: Basically, the same as in Population 1.

- `04population.txt` generates the population data based on equation (19), and runs Monte Carlo simulations for Comp, Naïve, MIDD, and RDD. Essentially, this is the main body of the replication codes.
- `04script.txt` repeats the simulations by changing the cutoff points, and save the simulation results as csv files. You need to set the working directory relevant on your computer. Essentially, what you need to paste in `R` is the code shown in this file, because this file refers to `00bw.txt` and `04population.txt` by `R`-function `source`.

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Population 5: Basically, the same as in Population 1.

- `05population.txt` generates the population data based on equation (20), and runs Monte Carlo simulations for Comp, Naïve, MIDD, and RDD. Essentially, this is the main body of the replication codes.
- `05script.txt` repeats the simulations by changing the cutoff points, and save the simulation results as csv files. You need to set the working directory relevant on your computer. Essentially, what you need to paste in `R` is the code shown in this file, because this file refers to `00bw.txt` and `05population.txt` by `R`-function `source`.

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Population 6: Basically, the same as in Population 1.

- `06population.txt` generates the population data based on equation (21), and runs Monte Carlo simulations for Comp, Naïve, MIDD, and RDD. Essentially, this is the main body of the replication codes.
- `06script.txt` repeats the simulations by changing the cutoff points, and save the simulation results as csv files. You need to set the working directory relevant on your computer. Essentially, what you need to paste in `R` is the code shown in this file, because this file refers to `00bw.txt` and `06population.txt` by `R`-function `source`.

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Population 7: Basically, the same as in Population 1.

- `07population.txt` generates the population data based on equation (22), and runs Monte Carlo simulations for Comp, Naïve, MIDD, and RDD. Essentially, this is the main body of the replication codes.
- `07script.txt` repeats the simulations by changing the cutoff points, and save the simulation results as csv files. You need to set the working directory relevant on your computer. Essentially, what you need to paste in `R` is the code shown in this file, because this file refers to `00bw.txt` and `07population.txt` by `R`-function `source`.