The data of Chiappori, Salanié, and Weiss (2017) can be downloaded from `https://www.openicpsr.org/openicpsr/project/113039/version/V1/view`. The main files we use are called `CSWcouples0814.txt` and `CSWsingles0814.txt`. Save these files in the following folder path of the working directory: `CSW-17-aer/Dataset/`.

1 Data_preparation: prepare the data

Create the folders `output_data` and `matlab_data` in the working directory. The R script `create_final_sam` inputs the dataset downloaded from the link above and generates an output file called `finalsample_csw.csv` saved in the folder path `CSW-17-aer/Dataset/`. This output file is then used as input in the R script `output_matlab.R` to generate the Matlab array `probs_allyears_data.mat`. For each year $j = 1940, \ldots, 1967$, `probs_allyears_data.mat` contains:

- `cond_probsmenj_140.mat`: 4×5 matrix, with (xy)-th element representing the probability of marrying a woman of type y born in any year conditional on being man of type x born in year j, for $x = 1, \ldots, 4$ and $y = 0, \ldots, 4$.
- `cond_probswomenj+1_140.mat`: 4×5 matrix, with (yx)-th element representing the probability of marrying a man of type x born in any year conditional on being woman of type y born in year $j + 1$, for $y = 1, \ldots, 4$ and $x = 0, \ldots, 4$.
- `probsmenj_140.mat`: 4×1 vector, with x-th element representing the probability of being a man of type x conditional on being born in year j, for $x = 1, \ldots, 4$.
- `probswomenj+1_140.mat`: 4×1 vector, with y-th element representing the probability of being a woman of type y conditional on being born in year $j + 1$, for $y = 1, \ldots, 4$.

2 Figures1_2: reproduce Figures 1 and 2

The R script `replication_4groups.R` replicates the figures in Chiappori, Salanié, and Weiss (2017) for 4 types. We have included three of these figures in our paper. In our paper, Figures 1, 2(A), and 2(B) correspond to the output files `PropsEducsMenWomen140.pdf`, `ComparEducsCouple140.pdf` and `PropBothPartnersCD140.pdf`, respectively.