

# hw\_6

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## Load packages

```
-- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
v dplyr      1.1.4      v readr      2.1.5
v forcats    1.0.0      v stringr    1.5.1
v ggplot2    3.5.2      v tibble     3.2.1
v lubridate  1.9.4      v tidyr      1.3.1
v purrr      1.1.0
-- Conflicts ----- tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()     masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become
here() starts at /Users/everett/Desktop/hw_6
```

## Load data

```
Rows: 5748 Columns: 12
-- Column specification -----
Delimiter: ","
chr  (2): sex, frl
dbl (10): schidkn, reg_size, reg_size_aid, small_size, white, black, other, ...

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

## Citation examples

Singh et al. (2025)'s work demonstrated altered brain rsFC among patient with major depressive disorders, which is consistent with existing evidence (Krug et al. 2022), (Swartz et al.

2021), (Ishikawa et al. 2022).

## Summary statistics table

```
[1] "schidkn"      "sex"          "frl"          "reg_size"     "reg_size_aid"
[6] "small_size"   "white"        "black"        "other"        "totexp"
[11] "tmathss"     "treadss"
```

sex	frl	math_mean	math_sd	rdg_mean	rdg_sd
boy	no	492.85	46.34	441.46	32.32
boy	yes	469.87	46.09	425.38	26.63
girl	no	501.21	45.96	448.54	34.52
girl	yes	477.51	46.30	430.80	27.42

This table shows us the mean and standard deviation of both math and reading scores based upon the students sex and free-reduced lunch (FRL) status. From the table we can see that girls scores higher in both math and reading scores in comparison to their male counterparts who recieved or did not recieve FRL. Secondly, we can see that students who do not recieve FRL overall, have higher academic performance in these two areas, showing a discrimination between SES and academic outcomes.

## Reference

- Ishikawa, Kazuhiro, Kiyotaka Nemoto, Yuki Shiratori, Noriko Sodeyama, Kikuko Kodama, Hitoshi Usuniwa, Noriko Yamada, et al. 2022. “Aberrant Resting-State Functional Connectivity of Major Depressive Disorder with Higher Risk of Suicide.” *Psychiatry and Clinical Neurosciences Reports* 1 (3): e35.
- Krug, Susann, T Müller, Özelem Kayali, Eerik Leichter, Stephanie KV Peschel, Niklas Jahn, L Winter, et al. 2022. “Altered Functional Connectivity in Common Resting-State Networks in Patients with Major Depressive Disorder: A Resting-State Functional Connectivity Study.” *Journal of Psychiatric Research* 155: 33–41.
- Singh, Paramdeep, Jawahar Singh, Sameer Peer, Manav Jindal, Sunil Khokhar, Abhilash Ludhiadch, and Anjana Munshi. 2025. “Assessment of Resting-State Functional Magnetic Resonance Imaging Connectivity Among Patients with Major Depressive Disorder: A Comparative Study.” *Annals of Neurosciences* 32 (1): 13–20.
- Swartz, Johnna R, Angelica F Carranza, Laura M Tully, Annchen R Knodt, Janina Jiang, Michael R Irwin, and Camelia E Hostinar. 2021. “Associations Between Peripheral Inflammation and Resting State Functional Connectivity in Adolescents.” *Brain, Behavior, and Immunity* 95: 96–105.