hw_6

Commit 1

Load libraries

```
-- 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   3.5.1     v tibble    3.2.1
v lubridate 1.9.3     v tidyr     1.3.1
v purrr     1.0.2
-- 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 becor

Attaching package: 'janitor'


The following objects are masked from 'package:stats':

    chisq.test, fisher.test


here() starts at /Users/stephenanti/Desktop/hw_6
```

Code to load data

```
  schidkn  sex frl reg_size reg_size_aid small_size white black other totexp
1      63 girl  no        0            0          1     1     0     0      7
2      20 girl  no        0            0          1     0     1     0     21
3      19  boy yes        0            1          0     0     1     0      0
```

```
4      69  boy  no        1            0          0     1     0     0     16
5      79  boy yes        0            0          1     1     0     0      5
6       5  boy yes        1            0          0     1     0     0      8
  tmathss treadss
1     473     447
2     536     450
3     463     439
4     559     448
5     489     447
6     454     431
```

Commit 2

Today's group meeting discussed the following. 1. Group by ID, select ID response time Nabi, Gustafson, and Jensen (2018). For Scatter plot. what questions should we ask? Example: What is the relationship between error and response time? (Cabán et al. 2023; Thompson and Ofori-Parku 2021). What is the position of the cycle and the relationship from that to the response time?

Commit 3

1. Write the code to create the summary statistics shown in the table below. Output the table below and briefly describe it in text.

«««< Updated upstream

```
# A tibble: 4 x 6
  sex   frl   math_mean math_sd rdg_mean rdg_sd
  <chr> <chr>     <dbl>   <dbl>    <dbl>  <dbl>
1 boy   no         493.    46.3     441.   32.3
2 boy   yes        470.    46.1     425.   26.6
3 girl  no         501.    46.0     449.   34.5
4 girl  yes        478.    46.3     431.   27.4
```

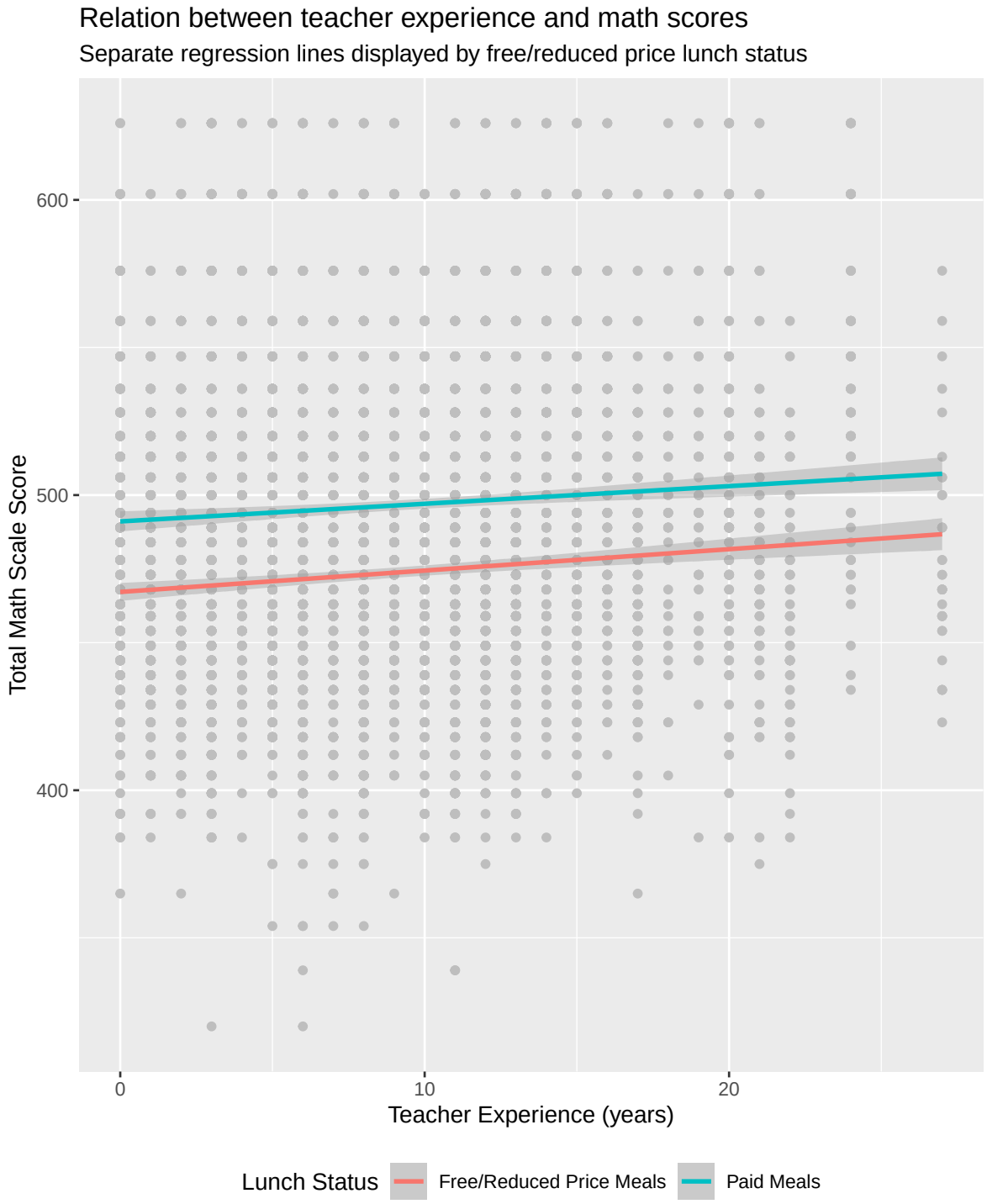
Commit 4

====»> Stashed changes to Commit 4

Create the following plot, using whatever theme you'd like, and briefly discuss it in text. (Note that might need to problem-solve how to put the legend at the bottom.)

A: got everything to be similar aside from the difference in color of FRL yes and no, but this says basically the same thing. We see that there isn't a huge difference in math scores based on number of teachers experience until you get to around 24 years of experience, there is no longer a math score under 423. However since there are only two teachers above 24 years of teaching experience compared with under 24, I wouldn't hold too much weight in this observation. As with the FRL lines, we see that when kids receive FRL, they tend to have lower math scores on average then kids who pay for lunch regardless of their respective teachers experience.

```
`geom_smooth()` using formula = 'y ~ x'
```


Relation between teacher experience and math scores
Separate regression lines displayed by free/reduced price lunch status
Total Math Scale Score
600
500
400
0
10
20
Teacher Experience (years)
Lunch Status
Free/Reduced Price Meals
Paid Meals

References

Cabán, Madelyn, Justas V. Rodarte, Madeleine Bibby, Matthew D. Gray, Justin J. Taylor, Marie Pancera, and Jim Boonyaratanakornkit. 2023. "Cross-Protective Antibodies Against Common Endemic Respiratory Viruses." *Nature Communications* 14 (1): 798. https://doi.org/10.1038/s41467-023-36459-3.

Nabi, Robin L., Abel Gustafson, and Risa Jensen. 2018. "Framing Climate Change: Exploring the Role of Emotion in Generating Advocacy Behavior." *Science Communication* 40 (4): 442–68. https://doi.org/10.1177/1075547018776019.

Thompson, Esi E., and S. Senyo Ofori-Parku. 2021. "Advocacy and Mobilizing for Health Policy Change: Ghanaian News Media's Framing of a Prescription Opioid Crisis." *Health Communication* 36 (14): 1909–20. https://doi.org/10.1080/10410236.2020.1808403.