lab_7

Tian Walker, Dominik Grätz, Amber Somarriba, Brittany Spinner, Rachel Miller-Moudgil

2022-11-03

commit 1 (code hidden)

commit 3

```
#head(star)

star1 <- star %>%
  group_by(sex, frl) %>%
  summarize(math_mean = mean(tmathss),
math_sd = sd(tmathss),
rdg_mean = mean(treadss),
rdg_sd = sd(treadss))
```

```
## `summarise()` has grouped output by 'sex'. You can override using the `.groups`
## argument.
```

```
knitr::kable(star1, booktabs = TRUE)
```

sex	frl	math_mean	math_sd	rdg_mean	rdg_sd
boy	no	492.8523	46.33845	441.4553	32.31828
boy	yes	469.8716	46.09285	425.3794	26.62931
girl	no	501.2057	45.96210	448.5353	34.52403
girl	yes	477.5084	46.30459	430.8029	27.42125

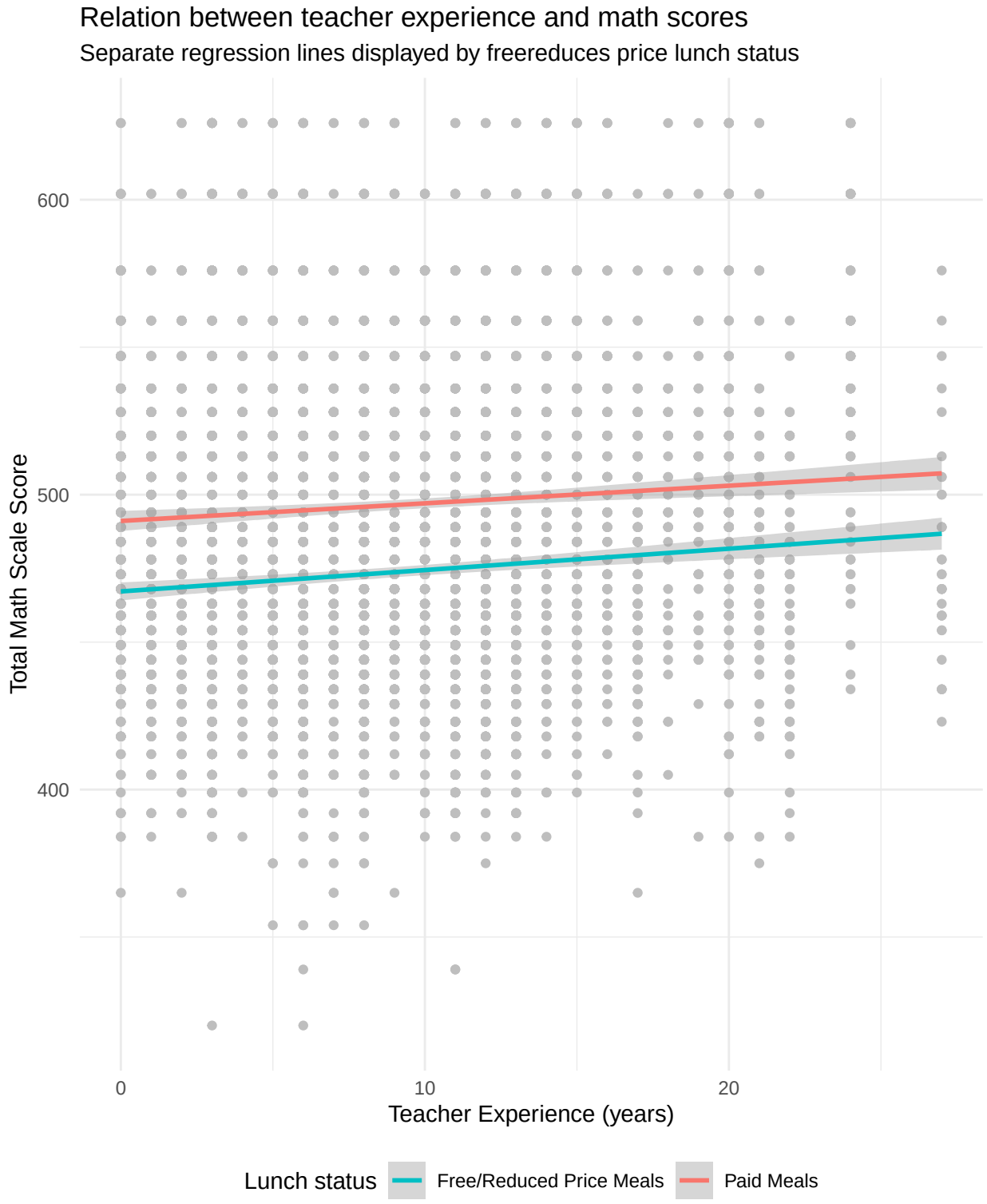
The scores 492.8523316, 469.8716312, 501.2057383, 477.5084249 represent (*in order*) the mean math scores for boys *without*, boys *with*, and girls *without*, and girls *with* free or reduced price lunches in this data sample. The standard deviation of the math mean scores 46.338454, 46.0928474, 45.9621047, 46.3045917 represent (*in order*) the standard deviation of math scores for boys *without*, boys *with*, and girls *without*, and girls *with* free or reduced price lunches in this data sample. The scores 441.4553109, 425.3794326, 448.5353394, 430.8029304 represent the mean reading scores for boys *without*, boys *with*, and girls *without*, and girls *with* free or reduced price lunches in this sample. And the standard deviation of reading scores 32.3182782, 26.6293061, 34.5240292, 27.4212547 represent the standard deviation of reading scores for for boys *without*, boys *with*, and girls *without*, and girls *with* free or reduced price lunches in this data sample.

commit 4

```
star$frl <- factor(star$frl)
```

```r
ggplot(star, aes(x = totexp, y = tmathss)) +
  geom_point(color = "grey") +
  geom_smooth(aes(color = frl), method = "lm")+
  labs(title = "Relation between teacher experience and math scores",
         subtitle = "Separate regression lines displayed by freereduces price lunch status",
         x = "Teacher Experience (years)",
         y = "Total Math Scale Score",
       color = "Lunch status")+
  scale_color_discrete(breaks = c("yes", "no"), labels = c("yes" = "Free/Reduced Price Meals", "no" = "
  #scale_color_discrete(breaks = c("yes", "no"))+
  theme_minimal() +
  theme(legend.position = "bottom")
```

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




```
#dominiks version
#test
```