Analyzing joined younger cohort data

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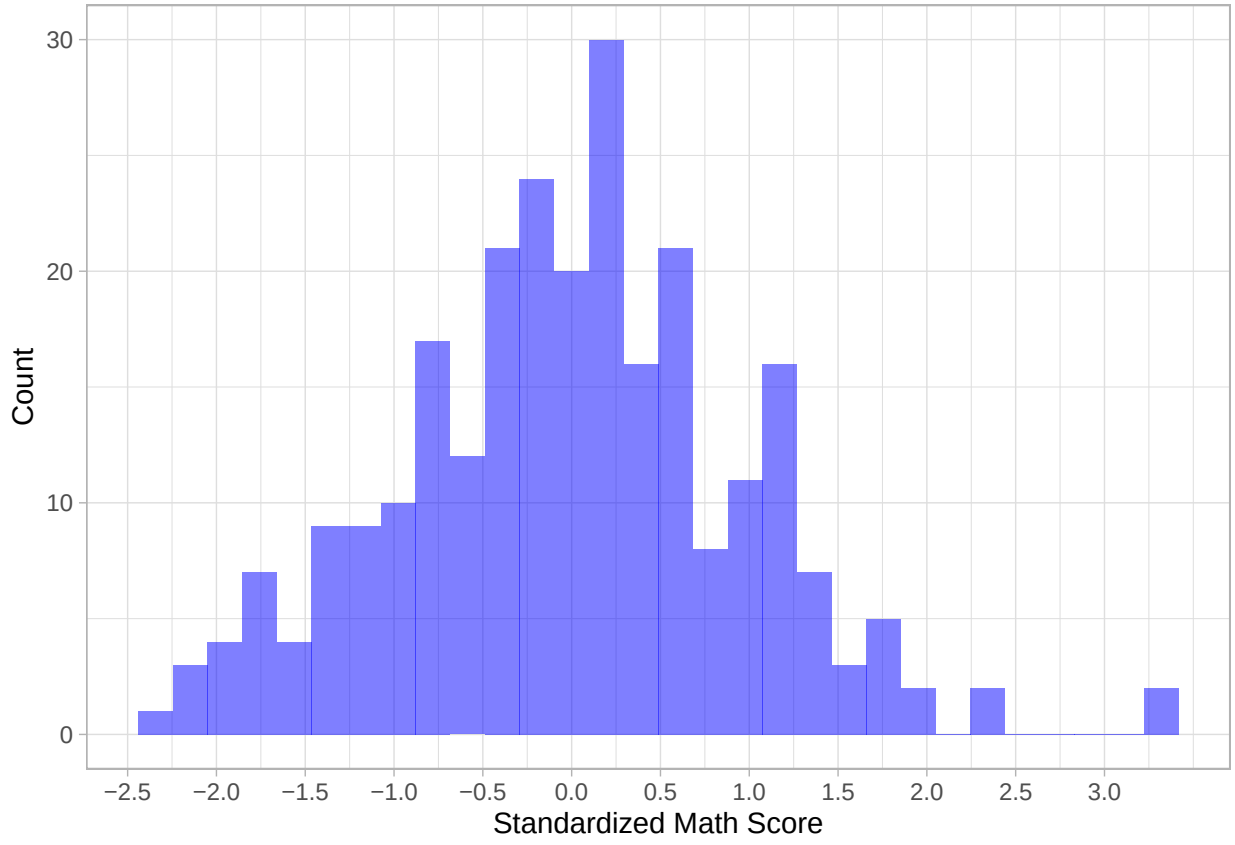
```
ggplot(yl_yc_aa, aes(std_math)) +
  geom_histogram(fill = "blue", alpha = .5) +
  scale_x_continuous(breaks = seq(-3, 3, by = 0.5)) +
  labs(x = "Standardized Math Score",
       y = "Count")
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

```
## Warning: Removed 21 rows containing non-finite values (stat_bin).
```



using yl cognitive scores:

```
# Reduced form

iv5aa_yc_rf <- felm(
```

```
  formula = std_math ~ E_is + entype_r4 + chsex + zbfa + stunting + caredu_r1 +
    careage_r1 + hhsize + wi_new + hq_new +
    cd_new + elecq_new + ownlandhse_r1 + factor(foodsec_r3),

  data = filter(yl_yc_aa, std_math < 2.25)
)

iv6aa_yc_rf <- felm(
  formula = std_verbal ~ E_is + entype_r4 + chsex + zbfa + stunting + caredu_r1 +
    careage_r1 + hhsize + wi_new + hq_new +
    cd_new + elecq_new + ownlandhse_r1 + factor(foodsec_r3),

  data = filter(yl_yc_aa, std_math < 2.25)
)

stargazer(
  iv5aa_yc_rf, iv6aa_yc_rf,
  keep = c("E_is"),
  keep.stat = c("n","rsq"),
  type = "text"
)
```

```
##
## ========================================
##                   Dependent variable:
##               ---------------------------
##                  std_math     std_verbal
##                    (1)            (2)
## ----------------------------------------
## E_is              0.209          0.147
##                  (0.179)        (0.192)
##
## ----------------------------------------
## Observations      249            247
## R2                0.169          0.135
## ========================================
## Note:         *p<0.1; **p<0.05; ***p<0.01
```

```
summary(iv5aa_yc_rf)
```

```
##
## Call:
##    felm(formula = std_math ~ E_is + entype_r4 + chsex + zbfa + stunting +      caredu_r1 + careage_r
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.66504 -0.57547  0.03174  0.54289  2.46746
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)         -1.212299   0.649723  -1.866   0.0633 .
## E_is                 0.208616   0.178878   1.166   0.2447
## entype_r4           -0.056377   0.053301  -1.058   0.2913
## chsexMale            0.006162   0.120182   0.051   0.9592
## zbfa                 0.046944   0.044466   1.056   0.2922
```

```
## stunting            -0.039976   0.084339  -0.474   0.6359
## caredu_r1            0.027841   0.017038   1.634   0.1036
## careage_r1           0.014586   0.007161   2.037   0.0428 *
## hhsize              -0.017836   0.030949  -0.576   0.5650
## wi_new               1.050404   1.136732   0.924   0.3564
## hq_new               0.692874   0.631071   1.098   0.2734
## cd_new               0.251715   0.603961   0.417   0.6772
## elecq_new           -0.206128   0.438681  -0.470   0.6389
## ownlandhse_r1       -0.094868   0.169003  -0.561   0.5751
## factor(foodsec_r3)2  0.091619   0.194018   0.472   0.6372
## factor(foodsec_r3)3 -0.092194   0.224521  -0.411   0.6817
## factor(foodsec_r3)4  0.320971   0.404810   0.793   0.4286
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8927 on 232 degrees of freedom
##   (11 observations deleted due to missingness)
## Multiple R-squared(full model): 0.1688   Adjusted R-squared: 0.1115
## Multiple R-squared(proj model): 0.1688   Adjusted R-squared: 0.1115
## F-statistic(full model):2.944 on 16 and 232 DF, p-value: 0.0001869
## F-statistic(proj model): 2.944 on 16 and 232 DF, p-value: 0.0001869
```