**Part 2 – Attrition:**

117 of the 1560 participants (7.5 percent) did not take the test at the end of this study. This rate of attrition was not statistically different for the treatment and control groups. Subjects who did not take the test from the treatment group were different from those in the control group in sheep owned, distance from the village, cluster, whether they were enrolled in a formal school, and distance to the nearest school. However, these differences were imbalances already between treatment and control groups before attrition. There are no new trends in differences between treatment and control participants who did not take the test, meaning that we expect the study to be internally valid.

* Compare magnitude of differences in means, or p values, to see if there are changes from the original balance table?
* It seemed on Wednesday when we met up that people were interested in looking at the differences between treatment attritors and treatment compliants. I looked back through handout 9 and it doesn’t really say anything about doing this test, but here are the results in case:
  + For the treatment group, significant differences for num\_ppl\_hh, heads\_child\_girl, age\_child\_girl, and farmer. Strangely, there was an error for girl
* Also, we talked about looking specifically at girls to see if there were differences between treatment and control. The project prompt doesn’t seem to be asking us to go to this level of detail, but I did it just in case:
  + Girls who attrited were significantly different from those who stayed in the study for num\_sheep, age\_head, and chagcharan
    - Note: these tests didn’t separate treatment and control, but we could do that if needed

**Part 4 – Effect of Enrollment on Test Score:**

We developed two models that explore the relationship between access to a formal school and test score. One of these two models controlled for each of the household differences separately (which explained ~50 percent of total variation in test score), while the other controlled cumulatively for these and any other differences in test score explained by characteristics of each household (which explained 82 percent of variation in score).

Both models found a statistically significant increase in predicted test score for study participants attending formal school and for older children. *However, both models also predicted significant decreases in test score for girls as they became older.* This corroborates theories that girls in villages face increasing social and cultural pressures with age to prioritize household activities over education.

* Note: Undecided on whether we should keep heads\_child, age\_child\_girl, and heads\_child\_girl in the fixed effects regression. For discussion.

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Dependent variable:

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test\_score\_normalized

OLS felm

(1) (2)

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formal\_school 0.876\*\*\* 0.837\*\*\*

(0.042) (0.096)

heads\_child 0.091 0.183

(0.105) (0.268)

girl 0.530\*\* 0.372

(0.254) (0.369)

age\_head 0.003\*

(0.002)

yrs\_ed\_head 0.033\*\*\*

(0.006)

jeribs 0.004

(0.010)

num\_sheep 0.008

(0.006)

duration\_village -0.002

(0.001)

farsi 0.030

(0.053)

tajik 0.149

(0.101)

farmer 0.022

(0.053)

num\_ppl\_hh 0.003

(0.008)

nearest\_scl -0.012

(0.018)

age\_child 0.316\*\*\* 0.342\*\*\*

(0.017) (0.025)

tajik\_farmer -0.102

(0.115)

age\_child\_girl -0.100\*\*\* -0.076\*\*

(0.025) (0.035)

heads\_child\_girl -0.171 -0.217

(0.156) (0.227)

sheep\_per\_hh\_member -0.020

(0.049)

Constant -2.890\*\*\*

(0.211)

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Observations 1,443 1,443

R2 0.493 0.820

Adjusted R2 0.487 0.610

Residual Std. Error 0.774 (df = 1424) 0.675 (df = 663)

F Statistic 76.935\*\*\* (df = 18; 1424)

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Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01