Appendix

```
library(haven)
library(sandwich)
library(stargazer)
library(ggplot2)
library(car)
library(knitr)
library(plyr)
library(lfe)
library(plm)
library(gtools)
library(pander)
```

```
afghan <- read_dta("~/Documents/Stats2/pivotproject/afghandata.dta")

#rename variables

afghan <- rename(afghan, c("f07_hh_id"= "hh_id",
                  "f07_heads_child_cnt" = "heads_child",
                  "f07_girl_cnt" = "girl",
                  "f07_age_head_cnt" ="age_head",
                  "f07_yrs_ed_head_cnt" = "yrs_ed_head",
                  "f07_jeribs_cnt" = "jeribs",
                  "f07_num_sheep_cnt" = "num_sheep",
                  "f07_duration_village_cnt" = "duration_village",
                  "f07_farsi_cnt" = "farsi",
                  "f07_tajik_cnt" = "tajik",
                  "f07_farmer_cnt"    = "farmer",
                  "f07_num_ppl_hh_cnt"   = "num_ppl_hh",
                  "f07_test_observed" = "test_observed",
                  "f07_formal_school" = "formal_school",
                  "f07_nearest_scl" = "nearest_scl",

                  # non-matching new names#
                  "f07_age_cnt" = "age_child",
                  "f07_both_norma_total" = "test_score_normalized"))

#age by gender

afghan$age_girl <- afghan$age_child*afghan$girl
afghan$age_girl[afghan$age_girl  == 0] <- NA
afghan$age_boy <-  afghan$age_child* !afghan$girl
afghan$age_boy[afghan$age_boy  == 0] <- NA
```

```
attach(afghan)
```

```
# Create Balance Table create data frame of only the variables of interest
remove <- c("hh_id", "observation_id")
varlist <- colnames(afghan[, !names(afghan) %in% remove])
balance_variables <- afghan[, !colnames(afghan) %in% remove]

# generate counts
```

```r
n_ctrl <- apply(balance_variables[balance_variables$treatment == 0, ], 2, function(x) length(which(!is.
n_trt <- apply(balance_variables[balance_variables$treatment == 1, ], 2, function(x) length(which(!is.na

# generate table
balancetable <- cbind(n_ctrl, n_trt)
# drop treatment, test score, cluster rows
balancetable <- balancetable[!rownames(balancetable) == "treatment", ]
balancetable <- balancetable[!rownames(balancetable) == "test_score_normalized",
    ]
balancetable <- balancetable[!rownames(balancetable) == "clustercode", ]


# run t.tests, skipping treatment[14]
balance_tests <- lapply(varlist[c(1:13, 16:18, 20:21)], function(x) {
    t.test(as.formula(paste(x, "treatment", sep = "~")), data = balance_variables,
        alternative = "two.sided", mu = 0, paired = FALSE, var.equal = FALSE,
        conf.level = 0.95)
})

# extract and adjust p vals
balance_test_pvals <- t(sapply(balance_tests, function(x) {
    c(mean_crtl = unname(x$estimate[1]), mean_trt = unname(x$estimate[2]), diff_means = unname(x$estima
        unname(x$estimate[1]), p.value = p.adjust(x$p.value, method = "bonferroni",
        n = length(x)))
}))

balance_test_pvals <- data.frame(balance_test_pvals, stringsAsFactors = FALSE)
balance_test_pvals[] <- lapply(balance_test_pvals[], function(x) as.numeric(as.character(x)))
balancetable <- cbind(balancetable, balance_test_pvals)
balancetable <- round(balancetable, 3)
# Show table
```

```
kable(balancetable, caption = "Balance Table")
```

Table 1: Balance Table

	n_ctrl	n_trt	mean_crtl	mean_trt	diff_means	p.value
heads_child	730	830	0.911	0.927	0.016	1.000
girl	730	830	0.456	0.478	0.022	1.000
age_child	730	830	8.321	8.322	0.001	1.000
age_head	730	830	40.219	40.090	-0.129	1.000
yrs_ed_head	730	830	3.101	3.531	0.431	0.165
jeribs	730	830	1.510	1.498	-0.011	1.000
num_sheep	730	830	6.404	9.586	3.181	0.000
duration_village	730	830	27.662	30.172	2.509	0.014
farsi	730	830	0.205	0.210	0.004	1.000
tajik	730	830	0.204	0.239	0.034	0.914
farmer	730	830	0.729	0.707	-0.022	1.000
num_ppl_hh	730	830	7.905	8.741	0.835	0.000
test_observed	730	830	0.925	0.925	0.001	1.000
chagcharan	730	830	0.429	0.663	0.234	0.000
formal_school	730	830	0.264	0.731	0.467	0.000
nearest_scl	730	830	3.149	2.881	-0.268	0.000
age_girl	333	397	8.327	8.332	0.005	1.000
age_boy	397	433	8.315	8.312	-0.003	1.000

```
# Attrition summary stats
sum_list <- list(afghan$test_observed, afghan$test_observed[treatment == 1],
    afghan$test_observed[treatment == 0])
n <- sapply(sum_list, function(x) length(which(!is.na(x))))
mean <- sapply(sum_list, mean, na.rm = T)
sd <- sapply(sum_list, sd, na.rm = T)
sum_table <- cbind(n, mean, sd)
sum_table <- round(sum_table, digits = 3)
rownames(sum_table) <- c("% Test Taken - All", "% Test Taken - Treatment", "% Test Taken - Control")
kable(sum_table, caption = "Summary Table")
```

Table 2: Summary Table

	n	mean	sd
% Test Taken - All	1560	0.925	0.263
% Test Taken - Treatment	830	0.925	0.263
% Test Taken - Control	730	0.925	0.264

```
# creating a dataset of only the attritted
afghanattrition <- afghan[!complete.cases(afghan), ]

# comparisons of treatment and control for attritted only

# omits test_observed[13], treatment[14], clustercode[15], and
# test_score[19]
attrition_by_treatment <- lapply(varlist[c(1:12, 16:18, 20:21)], function(x) {
    t.test(as.formula(paste(x, "treatment", sep = "~")), data = afghanattrition,
```

```
        alternative = "two.sided", mu = 0, paired = FALSE, var.equal = FALSE,
        conf.level = 0.95)
})

# create table
attrition_table <- t(sapply(attrition_by_treatment, function(x) {
    c(x$data.name, mean_crtl = unname(x$estimate[1]), mean_trt = unname(x$estimate[2]),
        diff_means = unname(x$estimate[2]) - unname(x$estimate[1]), p.value = p.adjust(x$p.value,
            method = "bonferroni", n = length(x)))
}))
rownames(attrition_table) <- attrition_table[, 1]
attrition_table <- attrition_table[, -c(1)]
attrition_table <- data.frame(attrition_table, stringsAsFactors = FALSE)
attrition_table[] <- lapply(attrition_table, function(x) as.numeric(as.character(x)))
rownames(attrition_table) <- varlist[c(1:12, 16:18, 20:21)]
kable(attrition_table, caption = "Attrition Table")
```

Table 3: Attrition Table

	mean_crtl	mean_trt	diff_means	p.value
heads_child	0.9109589	0.9265060	0.0155471	1.0000000
girl	0.4561644	0.4783133	0.0221489	1.0000000
age_child	8.3205479	8.3216867	0.0011388	1.0000000
age_head	40.2191781	40.0903614	-0.1288166	1.0000000
yrs_ed_head	3.1006849	3.5313253	0.4306404	0.1648415
jeribs	1.5095890	1.4981928	-0.0113963	1.0000000
num_sheep	6.4041096	9.5855422	3.1814326	0.0000010
duration_village	27.6623288	30.1716867	2.5093580	0.0137177
farsi	0.2054795	0.2096386	0.0041591	1.0000000
tajik	0.2041096	0.2385542	0.0344446	0.9137745
farmer	0.7287671	0.7072289	-0.0215382	1.0000000
num_ppl_hh	7.9054795	8.7409639	0.8354844	0.0000056
chagcharan	0.4287671	0.6626506	0.2338835	0.0000000
formal_school	0.2643836	0.7313253	0.4669417	0.0000000
nearest_scl	3.1492138	2.8811876	-0.2680262	0.0000229
age_girl	8.3273273	8.3324937	0.0051664	1.0000000
age_boy	8.3148615	8.3117783	-0.0030832	1.0000000

```
kable(round(cor(afghan[, c("formal_school", "nearest_scl", "heads_child", "girl",
    "age_child", "age_head", "yrs_ed_head", "jeribs", "num_sheep", "duration_village",
    "farsi", "tajik", "farmer", "num_ppl_hh")]), digits = 2))
```

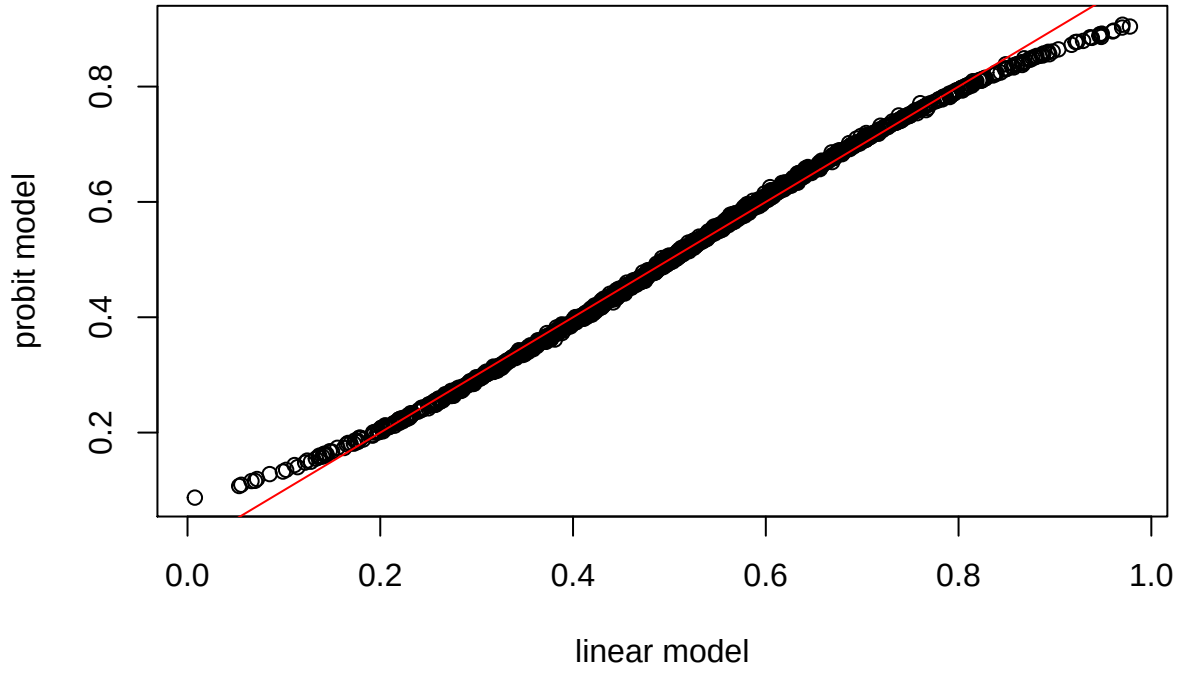
No two independent variables have correlation greater than 0.35.

```
# Modelling enrollment

r1 <- lm(formal_school ~ nearest_scl, data = afghan)
r2 <- lm(formal_school ~ nearest_scl + girl * age_child + age_head + num_sheep +
    jeribs + yrs_ed_head + heads_child + duration_village + num_ppl_hh + tajik +
    farsi + farmer + chagcharan, data = afghan)
r3 <- lm(formal_school ~ nearest_scl + girl * age_child + age_head + num_sheep +
    jeribs + yrs_ed_head + heads_child + duration_village + num_ppl_hh + tajik +
    farsi + farmer + as.factor(clustercode), data = afghan)
```

```
robust_se1 <- sqrt(diag(vcovHC(r1, type = "HC1")))
Trobust_se1 <- summary(r1, robust = T)$coefficients[, 2]

robust_se2 <- sqrt(diag(vcovHC(r2, type = "HC1")))
robust_se3 <- sqrt(diag(vcovHC(r3, type = "HC1")))

p1 <- glm(formal_school ~ nearest_scl, data = afghan, family = binomial(link = "probit"))
p2 <- glm(formal_school ~ nearest_scl + girl * age_child + age_head + num_sheep +
    jeribs + yrs_ed_head + heads_child + duration_village + num_ppl_hh + tajik +
    farsi + farmer + chagcharan, data = afghan, family = binomial(link = "probit"))
p3 <- glm(formal_school ~ nearest_scl + girl * age_child + age_head + num_sheep +
    jeribs + yrs_ed_head + heads_child + duration_village + num_ppl_hh + tajik +
    farsi + farmer + as.factor(clustercode), data = afghan, family = binomial(link = "probit"))

# display models
stargazer(r2, r3, omit.stat = c("f", "ser", "aic", "ll"), omit = "clustercode",
    omit.labels = "clustercode fixed effects?", se = list(robust_se2, robust_se3),
    title = "Linear OLS model", intercept.bottom = FALSE, header = FALSE, summary = FALSE)
```

```
stargazer(p2, p3, omit.stat = c("f", "ser", "aic", "ll"), omit = "clustercode",
    omit.labels = "clustercode fixed effects?", title = "Probit model", intercept.bottom = FALSE,
    header = FALSE, summary = FALSE)
```

```
# compare predictions
plot(predict(r2, type = "response"), predict(p2, type = "response"), xlab = "linear model",
    ylab = "probit model")
abline(a = 0, b = 1, col = "red")
```




```
# F test for language, wealth
linearHypothesis(p2, c("tajik = 0", "farsi = 0"), test = "F")
```

```
## Linear hypothesis test
##
```

Table 4: Linear OLS model

	Dependent variable:	
	formal_school	
	(1)	(2)
Constant	0.135	0.365***
	(0.114)	(0.122)
nearest_scl	−0.051***	−0.018*
	(0.010)	(0.011)
girl	0.067	0.031
	(0.123)	(0.111)
age_child	0.061***	0.059***
	(0.010)	(0.009)
age_head	−0.003***	−0.002
	(0.001)	(0.001)
num_sheep	0.003***	0.001
	(0.001)	(0.001)
jeribs	−0.008	0.009*
	(0.006)	(0.005)
yrs_ed_head	0.005	0.002
	(0.004)	(0.003)
heads_child	0.041	−0.007
	(0.047)	(0.039)
duration_village	0.0005	−0.001
	(0.001)	(0.001)
num_ppl_hh	0.004	−0.001
	(0.004)	(0.003)
tajik	0.059*	0.042
	(0.030)	(0.027)
farsi	−0.011	0.001
	(0.031)	(0.027)
farmer	−0.055*	−0.042*
	(0.028)	(0.025)
chagcharan	0.213***	
	(0.025)	
girl:age_child	−0.022	−0.018
	(0.015)	(0.013)
clustercode fixed effects?	No	Yes
Observations	1,560	1,560
R^2	0.121	0.340
Adjusted R^2	0.113	0.329

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

Table 5: Probit model

	Dependent variable:	
	formal_school	
	(1)	(2)
Constant	−1.004***	−0.589
	(0.315)	(0.397)
nearest_scl	−0.146***	−0.072*
	(0.030)	(0.038)
girl	0.205	0.195
	(0.344)	(0.384)
age_child	0.168***	0.209***
	(0.028)	(0.032)
age_head	−0.008***	−0.006
	(0.003)	(0.004)
num_sheep	0.009***	0.002
	(0.003)	(0.004)
jeribs	−0.021	0.039**
	(0.016)	(0.019)
yrs_ed_head	0.013	0.008
	(0.010)	(0.011)
heads_child	0.124	−0.039
	(0.128)	(0.144)
duration_village	0.001	−0.003
	(0.002)	(0.003)
num_ppl_hh	0.010	−0.004
	(0.011)	(0.012)
tajik	0.162*	0.163*
	(0.084)	(0.095)
farsi	−0.029	0.006
	(0.086)	(0.098)
farmer	−0.151*	−0.153*
	(0.078)	(0.088)
chagcharan	0.576***	
	(0.070)	
girl:age_child	−0.062	−0.073
	(0.041)	(0.046)
clustercode fixed effects?	No	Yes
Observations	[7] 1,560	1,560
Note:	*p<0.1; **p<0.05; ***p<0.01	

```
## Hypothesis:
## tajik = 0
## farsi = 0
##
## Model 1: restricted model
## Model 2: formal_school ~ nearest_scl + girl * age_child + age_head + num_sheep +
##     jeribs + yrs_ed_head + heads_child + duration_village + num_ppl_hh +
##     tajik + farsi + farmer + chagcharan
##
##   Res.Df Df      F Pr(>F)
## 1   1546
## 2   1544  2 2.2928 0.1013
```

```
linearHypothesis(p2, c("num_sheep = 0", "jeribs = 0"), test = "F")
```

```
## Linear hypothesis test
##
## Hypothesis:
## num_sheep = 0
## jeribs = 0
##
## Model 1: restricted model
## Model 2: formal_school ~ nearest_scl + girl * age_child + age_head + num_sheep +
##     jeribs + yrs_ed_head + heads_child + duration_village + num_ppl_hh +
##     tajik + farsi + farmer + chagcharan
##
##   Res.Df Df      F  Pr(>F)
## 1   1546
## 2   1544  2 3.8298 0.02192 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# modelling test scores

regschoolontest <- lm(test_score_normalized ~ formal_school + nearest_scl +
    girl * age_child + age_head + num_sheep + jeribs + yrs_ed_head + heads_child +
    duration_village + num_ppl_hh + tajik + farsi + farmer, data = afghan)

regschoolontestFE <- lm(test_score_normalized ~ formal_school + heads_child +
    age_child * girl + as.factor(hh_id))

robust_se.sumregschoolontest <- sqrt(diag(vcovHC(regschoolontest, type = "HC1")))
robust_se.sumregschoolontestFE <- sqrt(diag(vcovHC(regschoolontestFE, type = "HC1")))

stargazer(regschoolontest, regschoolontestFE, se = list(robust_se.sumregschoolontest,
    robust_se.sumregschoolontestFE), omit.stat = c("f", "ser", "aic", "ll"),
    omit = "hh_id", omit.labels = "HH ID Fixed Effects?", title = "Test Scores",
    intercept.bottom = FALSE, header = FALSE, summary = FALSE)
```

```
# treatment effects by gender enroll~ treatment test score ~ treatment
treat_enrollment <- (lm(test_score_normalized ~ treatment, data = afghan))
treat_enrollment_girl <- (lm(test_score_normalized ~ treatment + treatment *
    girl, data = afghan))
treat_enrollment.adv <- (lm(test_score_normalized ~ treatment + nearest_scl +
    girl * age_child + age_head + num_sheep + jeribs + yrs_ed_head + heads_child +
```

Table 6: Test Scores

	Dependent variable:	
	test_score_normalized	
	(1)	(2)
Constant	-2.825^{***}	-1.113
	(0.190)	(0.926)
formal_school	0.878^{***}	0.838^{***}
	(0.045)	(0.095)
nearest_scl	-0.010	
	(0.017)	
girl	0.364^{*}	0.174
	(0.197)	(0.302)
age_child:girl		-0.076^{**}
		(0.035)
age_child	0.315^{***}	0.341^{***}
	(0.017)	(0.025)
age_head	0.003^{*}	
	(0.002)	
num_sheep	0.006^{***}	
	(0.002)	
jeribs	0.004	
	(0.010)	
yrs_ed_head	0.033^{***}	
	(0.006)	
heads_child	0.014	0.080
	(0.084)	(0.243)
duration_village	-0.002	
	(0.001)	
num_ppl_hh	0.005	
	(0.006)	
tajik	0.069	
	(0.050)	
farsi	0.034	
	(0.054)	
farmer	0.001	
	(0.049)	
girl:age_child	-0.099^{***}	
	(0.023)	
HH ID Fixed Effects?	No	Yes
Observations	1,443	1,443

```
    duration_village + num_ppl_hh + tajik + farsi + farmer + chagcharan, data = afghan))
treat_enrollment_girl.adv <- (lm(test_score_normalized ~ treatment + treatment *
    girl + nearest_scl + girl * age_child + age_head + num_sheep + jeribs +
    yrs_ed_head + heads_child + duration_village + num_ppl_hh + tajik + farsi +
    farmer + chagcharan, data = afghan))
treat_enrollment.adv_clus <- (lm(test_score_normalized ~ treatment + nearest_scl +
    girl * age_child + age_head + num_sheep + jeribs + yrs_ed_head + heads_child +
    duration_village + num_ppl_hh + tajik + farsi + farmer + as.factor(clustercode),
    data = afghan))
treat_enrollment_girl.adv_clus <- (lm(test_score_normalized ~ treatment + treatment *
    girl + nearest_scl + girl * age_child + age_head + num_sheep + jeribs +
    yrs_ed_head + heads_child + duration_village + num_ppl_hh + tajik + farsi +
    farmer + as.factor(clustercode), data = afghan))
robust_se.treat_enrollment <- sqrt(diag(vcovHC(treat_enrollment, type = "HC1")))
robust_se.treat_enrollment_girl <- sqrt(diag(vcovHC(treat_enrollment_girl, type = "HC1")))
robust_se.treat_enrollment.adv <- sqrt(diag(vcovHC(treat_enrollment.adv, type = "HC1")))
robust_se.treat_enrollment_girl.adv <- sqrt(diag(vcovHC(treat_enrollment_girl.adv,
    type = "HC1")))
robust_se.treat_enrollment.adv_clus <- sqrt(diag(vcovHC(treat_enrollment.adv_clus,
    type = "HC1")))
robust_se.treat_enrollment_girl.adv_clus <- sqrt(diag(vcovHC(treat_enrollment_girl.adv_clus,
    type = "HC1")))

stargazer(treat_enrollment, treat_enrollment_girl, treat_enrollment.adv, treat_enrollment_girl.adv,
    treat_enrollment.adv_clus, treat_enrollment_girl.adv_clus, title = "Results",
    align = TRUE, type = "text", se = list(robust_se.treat_enrollment, robust_se.treat_enrollment_girl,
        robust_se.treat_enrollment.adv, robust_se.treat_enrollment_girl.adv,
        robust_se.treat_enrollment.adv_clus, robust_se.treat_enrollment_girl.adv_clus),
    omit = "clustercode", add.lines = list(c("Cluster Fixed Effects?", "No",
        "No", "No", "No", "Yes", "Yes")))
```

Results

	Dependent variable
	test_score_normali
	(1) (2) (3)
treatment	0.580*** 0.462*** 0.504*** 0.391*** 0.539*** 0.440**
	(0.055) (0.080) (0.047) (0.066) (0.167) (0.173)
nearest_scl	-0.031* -0.032* 0.009 0.008
	(0.019) (0.019) (0.022) (0.022)
girl	-0.683*** 0.434** 0.313 0.492** 0.375*
	(0.072) (0.218) (0.216) (0.216) (0.213)
treatment:girl	0.267** 0.232*** 0.225***
	(0.104) (0.087) (0.085)
age_child	0.368*** 0.368*** 0.376*** 0.376***
	(0.018) (0.018) (0.018) (0.018)
age_head	0.002 0.002 0.001 0.001
	(0.002) (0.002) (0.002) (0.002)
num_sheep	0.006*** 0.006*** 0.004* 0.004*
	(0.002) (0.002) (0.002) (0.002)
jeribs	0.003 0.003 0.012 0.013
	(0.010) (0.010) (0.010) (0.010)
yrs_ed_head	0.037*** 0.036*** 0.033*** 0.033***
	(0.007) (0.007) (0.007) (0.007)
heads_child	-0.012 -0.013 0.018 0.017
	(0.089) (0.089) (0.088) (0.088)
duration_village	-0.003* -0.003* -0.002 -0.002
	(0.002) (0.001) (0.002) (0.002)
num_ppl_hh	0.001 0.001 0.005 0.005
	(0.007) (0.007) (0.007) (0.007)
tajik	0.098* 0.092* 0.099* 0.093*
	(0.055) (0.054) (0.055) (0.055)

farsi 0.012 0.010 0.013 0.012 (0.057) (0.057) (0.057) (0.057)
farmer -0.040 -0.038 -0.045 -0.043 (0.054) (0.054) (0.053) (0.052)
chagcharan 0.200*** 0.206*** (0.047) (0.047)
girl:age_child -0.120*** -0.121*** -0.127*** -0.127*** (0.026) (0.026) (0.025) (0.025)
Constant 0.006 0.331*** -2.933*** -2.871*** -2.816*** -2.763*** (0.039) (0.057) (0.209) (0.208) (0.227) (0.227)

Cluster Fixed Effects? No No No No Yes Yes
Observations 1,443 1,443 1,443 1,443 1,443 1,443
R2 0.072 0.138 0.408 0.410 0.436 0.438
Adjusted R2 0.071 0.137 0.401 0.403 0.426 0.428
Residual Std. Error 1.041 (df = 1441) 1.003 (df = 1439) 0.836 (df = 1426) 0.834 (df = 1425) 0.818 (df = 1418) 0.816 (df = 1417)
F Statistic 111.513*** (df = 1; 1441) 76.988*** (df = 3; 1439) 61.333*** (df = 16; 1426) 58.370*** (df = 17; 1425) 45.588*** (df = 24; 1418) 44.211*** (df = 25; 1417) ==========
Note: *p<0.1;* ***p<0.05;*** p<0.01

```
# test score ~ treatment
treat_test <- (lm(test_score_normalized ~ treatment, data = afghan))
treat_test_girl <- (lm(test_score_normalized ~ treatment + treatment * girl,
    data = afghan))
treat_test.adv <- (lm(test_score_normalized ~ treatment + nearest_scl + girl *
    age_child + age_head + num_sheep + jeribs + yrs_ed_head + heads_child +
    duration_village + num_ppl_hh + tajik + farsi + farmer + chagcharan, data = afghan))
treat_test_girl.adv <- (lm(test_score_normalized ~ treatment + treatment * girl +
    nearest_scl + girl * age_child + age_head + num_sheep + jeribs + yrs_ed_head +
    heads_child + duration_village + num_ppl_hh + tajik + farsi + farmer + chagcharan,
    data = afghan))
treat_test.adv_clus <- (lm(test_score_normalized ~ treatment + nearest_scl +
    girl * age_child + age_head + num_sheep + jeribs + yrs_ed_head + heads_child +
    duration_village + num_ppl_hh + tajik + farsi + farmer + as.factor(clustercode),
    data = afghan))
treat_test_girl.adv_clus <- (lm(test_score_normalized ~ treatment + treatment *
    girl + nearest_scl + girl * age_child + age_head + num_sheep + jeribs +
    yrs_ed_head + heads_child + duration_village + num_ppl_hh + tajik + farsi +
    farmer + as.factor(clustercode), data = afghan))
robust_se.treat_test <- sqrt(diag(vcovHC(treat_test, type = "HC1")))
robust_se.treat_test_girl <- sqrt(diag(vcovHC(treat_test_girl, type = "HC1")))
robust_se.treat_test.adv <- sqrt(diag(vcovHC(treat_test.adv, type = "HC1")))
robust_se.treat_test_girl.adv <- sqrt(diag(vcovHC(treat_test_girl.adv, type = "HC1")))
robust_se.treat_test.adv_clus <- sqrt(diag(vcovHC(treat_test.adv_clus, type = "HC1")))
robust_se.treat_test_girl.adv_clus <- sqrt(diag(vcovHC(treat_test_girl.adv_clus,
    type = "HC1")))

stargazer(treat_test, treat_test_girl, treat_test.adv, treat_test_girl.adv,
    treat_test.adv_clus, treat_test_girl.adv_clus, title = "Results", align = TRUE,
    type = "text", se = list(robust_se.treat_test, robust_se.treat_test_girl,
        robust_se.treat_test.adv, robust_se.treat_test_girl.adv, robust_se.treat_test.adv_clus,
        robust_se.treat_test_girl.adv_clus), omit = "clustercode", add.lines = list(c("Cluster Fixed Ef
        "No", "No", "No", "No", "Yes", "Yes")))
```

Results

	Dependent variable				
	test_score_normali				
	(1)	(2)	(3)		
treatment	0.580***	0.462***	0.504***	0.391***	0.539***
	(0.055)	(0.080)	(0.047)	(0.066)	(0.167)
nearest_scl	-0.031*	-0.032*	0.009	0.008	
	(0.019)	(0.019)	(0.022)	(0.022)	
girl	-0.683***	0.434**	0.313	0.492**	0.375*
	(0.072)	(0.218)	(0.216)	(0.216)	(0.213)
treatment:girl		0.267**	0.232***	0.225***	
		(0.104)	(0.087)	(0.085)	
age_child			0.368***	0.368***	0.376***
			(0.018)	(0.018)	(0.018)
age_head			0.002	0.002	0.001
			(0.002)	(0.002)	(0.002)
num_sheep			0.006***	0.006***	0.004*
			(0.002)	(0.002)	(0.002)
jeribs			0.003	0.003	0.012
			(0.010)	(0.010)	(0.010)
yrs_ed_head			0.037***	0.036***	0.033***
			(0.007)	(0.007)	(0.007)
heads_child			-0.012	-0.013	0.018
			(0.089)	(0.089)	(0.088)
duration_village			-0.003*	-0.003*	-0.002
			(0.002)	(0.001)	(0.002)
num_ppl_hh			0.001	0.001	0.005
			(0.007)	(0.007)	(0.007)
tajik			0.098*	0.092*	0.099*
			(0.055)	(0.054)	(0.055)
farsi			0.012	0.010	0.013
			(0.057)	(0.057)	(0.057)
farmer			-0.040	-0.038	-0.045
			(0.054)	(0.054)	(0.053)
chagcharan					0.200***
					(0.047)
girl:age_child					-0.120***
					(0.026)
Constant	0.006	0.331***	-2.933***	-2.871***	-2.816***
	(0.039)	(0.057)	(0.209)	(0.208)	(0.227)
Cluster Fixed Effects?	No	No	No	No	Yes
Observations	1,443	1,443	1,443	1,443	1,443
R2	0.072	0.138	0.408	0.410	0.436
Adjusted R2	0.071	0.137	0.401	0.403	0.426
Residual Std. Error	1.041 (df = 1441)	1.003 (df = 1439)	0.836 (df = 1426)	0.834 (df = 1425)	0.818 (df =
F Statistic	111.513*** (df = 1; 1441)	76.988*** (df = 3; 1439)	61.333*** (df = 16; 1426)	58.370*** (df = 17;	

1418) 0.816 (df = 1417)
1425) 45.588*** (df = 24; 1418) 44.211*** (df = 25; 1417) ==========
Note: *p<0.1;* ***p<0.05;*** p<0.01

```
# Local average treatment effect

q6.full <- lm(test_score_normalized ~ formal_school * treatment, data = afghan)
q6.boys <- lm(test_score_normalized ~ formal_school * treatment, data = afghan,
    subset = (afghan$girl == 0))
q6.girls <- lm(test_score_normalized ~ formal_school * treatment, data = afghan,
    subset = (afghan$girl == 1))

q6.full_se <- sqrt(diag(vcovHC(q6.full, type = "HC1")))
q6.boys_se <- sqrt(diag(vcovHC(q6.boys, type = "HC1")))
q6.girls_se <- sqrt(diag(vcovHC(q6.girls, type = "HC1")))

stargazer(q6.full, q6.boys, q6.girls, title = "Local average treatment effects",
    omit.stat = c("f", "ser", "aic", "ll"), intercept.bottom = FALSE, header = FALSE,
    summary = FALSE, se = list(q6.full_se, q6.boys_se, q6.girls_se))
```

Table 9: Local average treatment effects

	Dependent variable:		
	test_score_normalized		
	(1)	(2)	(3)
Constant	-0.233^{***}	-0.022	-0.414^{***}
	(0.040)	(0.067)	(0.044)
formal_school	0.902^{***}	0.999^{***}	0.370^{***}
	(0.085)	(0.104)	(0.127)
treatment	-0.080	-0.074	-0.076
	(0.077)	(0.131)	(0.085)
formal_school:treatment	0.320^{***}	0.165	0.857^{***}
	(0.114)	(0.163)	(0.155)
Observations	1,443	739	704
R^2	0.268	0.235	0.326
Adjusted R^2	0.267	0.232	0.323
Note:			*p<0.1; **p<0.05; ***p<0.01