\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\* End of Course Assignment - "Does depression predict life outcomes?", SIMONE CANTALUPI, 0001092400

\*\* This do file covers Part 1 to 3 of the final assignment. Therefore, the purpose of this do file is to carry-out the descriptive statistics, a cross-sectional regressions and a two-way fixed effects regressions

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

clear all

// This path should be replaced with the parent directory with the add health data (the one containing DS001 etc subfolders)

global datapath "/Users/simonecantalupi/Desktop/Workshop/Final project/dataSets"

// This path should be replaced with the parent directory with the add health data (the one containing DS001 etc subfolders)

global projectpath "/Users/simonecantalupi/Desktop/Workshop/Final project/replication0001092400"

// copy this statement the lines below

if "${purpose}" == "grading" {

global datapath "$cd1"

global projectpath "$cd2"

}

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\* PART 1 \*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

use "$projectpath/datasets/wave1dataset.dta", clear

foreach var of varlist \* {

rename `var' `var'\_wv1

}

rename AID\_wv1 AID

tempfile tempW1

save `tempW1'

use "$projectpath/datasets/wave5dataset.dta"

merge m:1 AID using `tempW1'

gen hispanic = raceCategory == 1 if raceCategory < .

gen white = raceCategory == 2 if raceCategory < .

gen black = raceCategory == 3 if raceCategory < .

keep if householdIncome\_wv1 < .

drop if householdIncome\_wv1 == .

replace householdIncome = householdIncome/1000

replace householdIncome\_wv1 = householdIncome\_wv1/1000

label var depressionIndex "Depression Index W5"

label var depressionIndex\_wv1 "Depression Index W1"

label var hasCollege "Has College Degree"

label var householdIncome "Household Income W5 ($'000s')"

label var householdIncome\_wv1 "Household Income W1 ($'000s)"

label var intelligence\_wv1 "Self-Rated Intelligence W1"

label var ageAtSurvey "Age at Survey"

label var ageAtSurvey\_wv1 "Age at Survey W1"

label var female "Female W1"

label var householdIncomeCat "Household Income W5 (Categories)"

\* Q1 \*

eststo drop \*

estpost summarize depressionIndex depressionIndex\_wv1 hasCollege householdIncomeCat hispanic white black householdIncome\_wv1 intelligence\_wv1 female\_wv1 gpa\_wv1 ageAtSurvey\_wv1

esttab using "$projectpath/outputs/summStat.tex" , cells("count (star fmt(2)) mean sd min max") replace label

\* Q2 \*

#delimit;

twoway (kdensity depressionIndex) || (kdensity depressionIndex\_wv1),

title("Density of Depression W1 and W5") ///

xtitle("Depression Index (% Maximum)") ytitle("Density") ///

legend(order(2 "W1" 1 "W5") position(6))

;

#delimit cr

graph export "$projectpath/outputs/densityDepression.jpg", replace

\* Q3 \*

#delimit;

twoway (lpolyci loghouseholdIncome depressionIndex),

title("W5 Depression") ///

xtitle("Depression Index W5 (% Maximum)") ytitle("Household Income W5") ///

legend(order(1 "95% CI" 2 "Local Polynomial Smooth")) ///

name(lplyci1, replace)

;

#delimit cr

#delimit;

twoway (lpolyci loghouseholdIncome\_wv1 depressionIndex\_wv1),

title("W1 Depression") ///

xtitle("Depression Index W1 (% Maximum)") ytitle("Household Income W1") ///

legend(order(1 "95% CI" 2 "Local Polynomial Smooth")) ///

name(lplyci2, replace)

;

#delimit cr

\* To combine the graphs using the same legended I used the package grc1leg: net install grc1leg,from(http://www.stata.com/users/vwiggins/)

grc1leg lplyci1 lplyci2, name(combinedlpycil, replace) title("Local Polynomial Fit of Household Income vs Depression Indices") legendfrom(lplyci1)

graph display combinedlpycil, xsize(12) ysize(6)

graph export "$projectpath/outputs/lpoly.jpg", replace

\* Q4 \*

gen dropOut = \_merge<3

eststo drop \*

estpost corr depressionIndex depressionIndex\_wv1 householdIncome depressionDiagn depressionMed hasCollege dropOut, matrix

eststo correlation

esttab correlation using "$projectpath/outputs/correlation.tex", unstack compress b(2) replace

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\* PART 2 \*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

clear all

use "$projectpath/datasets/wave1dataset.dta", clear

foreach var of varlist \* {

rename `var' `var'\_wv1

}

rename AID\_wv1 AID

tempfile tempW1

save `tempW1'

use "$projectpath/datasets/wave5dataset.dta"

merge m:1 AID using `tempW1'

gen hispanic = raceCategory == 1 if raceCategory < .

gen white = raceCategory == 2 if raceCategory < .

gen black = raceCategory == 3 if raceCategory < .

keep if householdIncome\_wv1 < .

replace householdIncome = householdIncome/1000

replace householdIncome\_wv1 = householdIncome\_wv1/1000

label var depressionIndex "Depression Index W5"

label var depressionIndex\_wv1 "Depression Index W1"

label var hasCollege "Has College Degree"

label var householdIncome "Household Income W5 ($'000s')"

label var householdIncome\_wv1 "Household Income W1 ($'000s)"

label var intelligence\_wv1 "Self-Rated Intelligence W1"

label var ageAtSurvey "Age at Survey"

label var ageAtSurvey\_wv1 "Age at Survey W1"

label var female "Female W1"

label var loghouseholdIncome "Log Household Income W5"

\* Q1 \*

eststo drop \*

eststo: reg hasCollege depressionIndex\_wv1, vce(robust)

eststo: reg hasCollege depressionIndex\_wv1 hispanic white black loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1 ageAtSurvey ageAtSurvey\_wv1, vce(robust)

eststo: reg hasCollege depressionIndex\_wv1 hispanic white black loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1 ageAtSurvey ageAtSurvey\_wv1 gpa, vce(robust)

eststo: reg loghouseholdIncome depressionIndex\_wv1, vce(robust)

eststo: reg loghouseholdIncome depressionIndex\_wv1 hispanic white black loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1 ageAtSurvey ageAtSurvey\_wv1,vce(robust)

eststo: reg loghouseholdIncome depressionIndex\_wv1 hispanic white black loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1 ageAtSurvey ageAtSurvey\_wv1 gpa, vce(robust)

#delimit;

esttab using "$projectpath/outputs/OLSregression.tex",

replace

modelwidth(6)

cells(b(star fmt(2)) se(par fmt(3))) starlevels(\* 0.10 \*\* 0.05 \*\*\* 0.01)

s(N r2\_a , label("Observations" "Adj-R2") fmt(%9.0f %9.2f)) label

;

#delimit cr

\* Q2 \*

eststo drop \*

eststo: regress hasCollege depressionIndex\_wv1 hispanic\_wv1 white\_wv1 black\_wv1 loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1, robust

eststo: ivregress 2sls hasCollege (depressionIndex\_wv1 = suicide\_wv1) hispanic white black loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1 ageAtSurvey ageAtSurvey\_wv1, robust first

estat first

estadd scalar Fstat = r(singleresults)[1,4]

eststo: regress loghouseholdIncome depressionIndex\_wv1 hispanic\_wv1 white\_wv1 black\_wv1 loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1, robust

eststo: ivregress 2sls loghouseholdIncome (depressionIndex\_wv1 = suicide\_wv1) hispanic white black loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1 ageAtSurvey ageAtSurvey\_wv1, robust first

estat first

estadd scalar Fstat = r(singleresults)[1,4]

#delimit;

esttab using "$projectpath/outputs/IVregression.tex",

replace

modelwidth(6)

cells(b(star fmt(2)) se(par fmt(3))) starlevels(\* 0.10 \*\* 0.05 \*\*\* 0.01)

s(N r2\_a Fstat , label("Observations" "Adj-R2" "First stage F-Stat") fmt(%9.0f %9.2f %9.1f)) label

order(depressionIndex)

;

#delimit cr

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\* PART 3 \*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

clear all

use "$projectpath/datasets/wave1dataset.dta", replace

foreach var of varlist \* {

rename `var' `var'\_wv1

}

rename AID\_wv1 AID

tempfile tempW1

save `tempW1'

use "$projectpath/datasets/wave4dataset.dta", clear

append using "$projectpath/datasets/wave5dataset.dta"

merge m:1 AID using `tempW1'

egen ID=group(AID)

xtset ID wave

keep if householdIncome\_wv1 < .

gen wave5 = wave == 5

eststo drop \*

eststo: regress householdIncome depressionIndex, vce(cluster AID)

estadd local FE = "N"

eststo: regress householdIncome depressionIndex wave5, vce(cluster AID)

estadd local FE = "N"

eststo: regress householdIncome depressionIndex wave5 hispanic white black loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1 ageAtSurvey ageAtSurvey\_wv1, vce(cluster AID)

estadd local FE = "N"

eststo: xtreg householdIncome depressionIndex wave5 ageAtSurvey, vce(cluster ID) fe

estadd local FE = "Y"

#delimit;

esttab using "$projectpath/outputs/feRegression.tex",

replace

modelwidth(6)

cells(b(star fmt(2)) se(par fmt(3))) starlevels(\* 0.10 \*\* 0.05 \*\*\* 0.01)

s(PersonFE N Individuals r2\_a Fstat , label("Person FE" "Observations" "Individuals" "Adj-R2") fmt(%9.0f %9.2f %9.1f))

order(householdIncome depressionIndex hispanic white black loghouseholdIncome\_wv1 intelligence\_wv1 female\_wv1 ageAtSurvey ageAtSurvey\_wv1)

;

#delimit cr