Amanda Conley
Soc 211
HW 5

Note 1: While I thought my issue were solved by working on the server, there is still a lot of difficulty and intermittent issues that didn't allow me to save this as a python notebook. However, I will include my commands at the end of this document.

Note 2: I wasn't able to use the data from the first questions due to variable constraint but I wanted to share and document them as moving, I may be able to integrate them into class analyses.

1. What are your dependent variables? Why do they interest you?

My dependent variable is health insurance status-- I am interested in this because eventually I would like to understand how changes to American Indian Health Care Improvement Act, re-authorized permanently via the Patient Protection and Affordable Care Act, impact health access for American Indian and Alaska Native.

2. What are your independent variables? What direction to you hypothesize will be the relationship between your dependent variable and your dependent variables?

My independent variables are American Indian identity, education and age as a control.

3. Why do you think your dependent variables are associated with your independent variables?

This comes from the literature originally (obstacles care outside of the Indian Health Service and obstacles treatment at the IHS requiring coverage outside of IHS). From my analyses last week, the crosstab, with chi square, showed a statistically significant relationship between American Indian identity and health insurance status.

4. What are your control variables? Do you think they will show any spurious, intervening, or interactive relationships? Why?]

I used age as a control, recoding it from a continuous variable to an ordinal variable. What this did was show that for adults 19-24, the relationship between AI identity and health insurance status is even stronger than for other age groups, so I would say this is an interactive relationship. This is also consistent with the literature for other racial/ethnic categories and California Medi-Cal policy has actually recently addressed this by allowing undocumented individuals from this same age group, to obtain Medi-Cal. This age group seems particularly vulnerable regarding health insurance status, especially for groups that face obstacles or discrimination where the heads of the household do not have private health insurance plans that would, for other groups, cover this age group through the ACA expansion of health insurance for dependent children through age 26.

I moved on with another set of variable from the 1993 GSS, as I had that on hand in both environments and it had the types of variables I needed. I looked at two variables—the DV being obligation to care for a sick parent or spouse. I used years of education as the IV, hoping to see what education might explain. As it turns out, not much about this variable.

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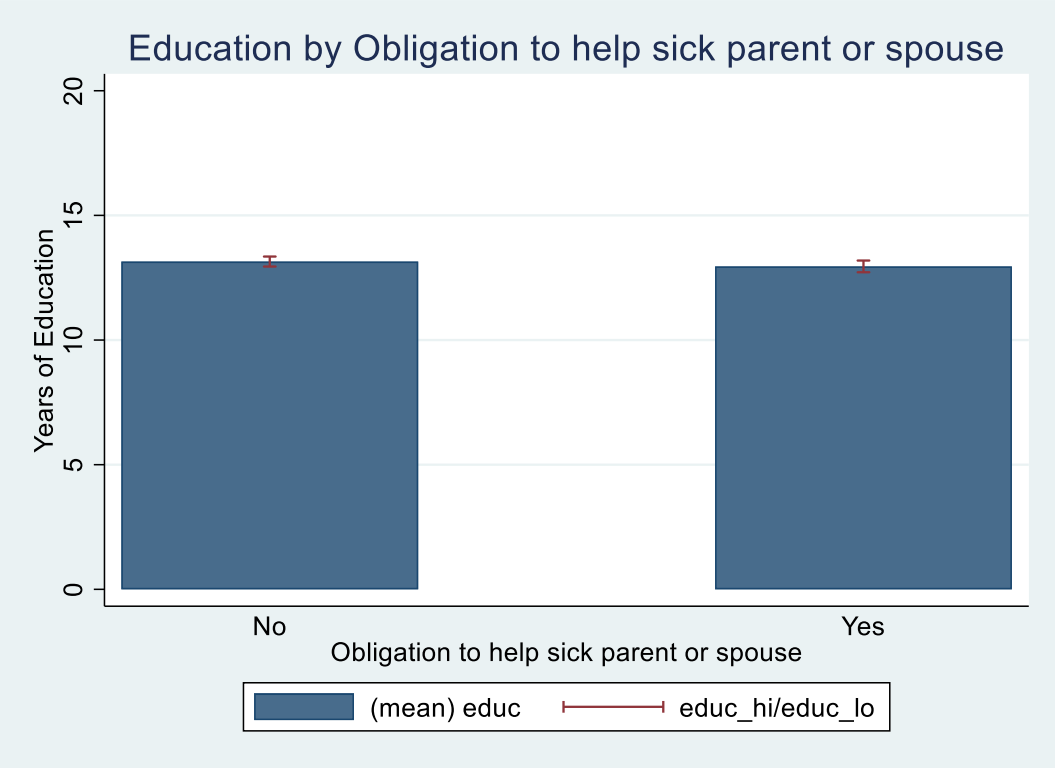

Interpretation: There is overlap—this isn't significant or meaningful. After getting this, I ran a couple of more tests and years of education just doesn't explain whether or not someone feels obligated to take care of a sick parent or spouse.

Using the same dataset, I used the DV age when first wed and the same IV, years of education.

. reg agewed educ

```
      Source |       SS           df       MS      Number of obs   =     1,306
-------------+----------------------------------   F(1, 1304)      =     11.78
       Model |  904.724114         1  904.724114   Prob > F        =    0.0006
    Residual |  100115.117     1,304  76.7753968   R-squared       =    0.0090
-------------+----------------------------------   Adj R-squared   =    0.0082
       Total |  101019.842     1,305  77.4098402   Root MSE        =    8.7622

------------------------------------------------------------------------------
      agewed |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
```

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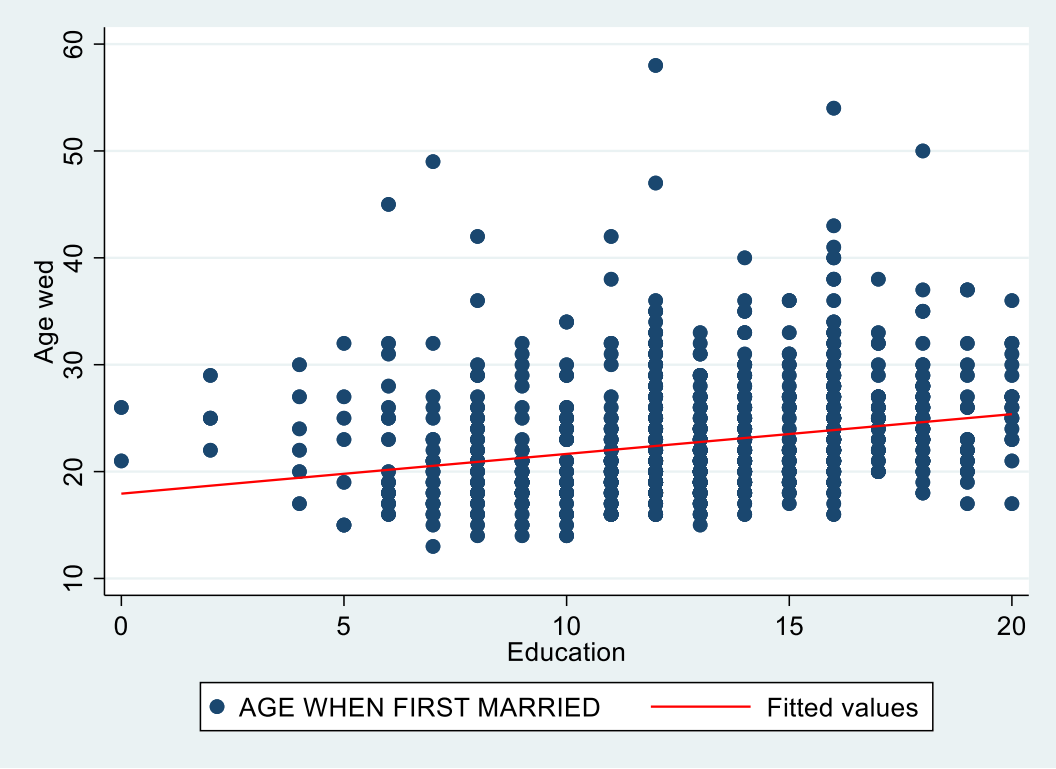
educ	.1832217	.053374	3.43	0.001	.0785133	.28793
_cons	21.05166	.7368563	28.57	0.000	19.60611	22.49721

1. The coefficient for years of education is .18—for every additional unit/year of education, there is an .18 unit increase in age when first married.

2. The p-value is less than .05. There is a statistically significant relationship between years of education and age when first married.

3. The r^2 coefficient is .9, indicating that approximately one percent of the variance in age when first married is predicted years of education. Maybe not the best predictor to use…

4. The F-ratio is 11.78, and the p-value for the model, rounded up, would be .001. Technically we have greater than 95% confidence; there is likely a variable that explains age when first wed better than education—there is likely a variable that would be able to explain both.



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```
**Amanda Conley
***Sociology 211
***Assignment 5

clear
cd "C:\Users\Amanada Conley\Documents\Amanda\UC Merced\Soc 211\gradstats2\HW5"
capture log close
set more off
log using hw5.log, replace
use gss93dd.dta

**Recode variable Obligation to care for ill parent or spouse?
gen obtohelp_r=.


       recode obtohelp_r .=1 if obtohelp==1
       recode obtohelp_r .=2 if obtohelp==2


label define obtohelp_r 1 "It is an obligation" 2 "Only if they want to"
label values obtohelp_r obtohelp_r

tab obtohelp_r obtohelp
tab obtohelp_r

tab educ obtohelp_r

drop if agewed == 99
drop if educ == 98

collapse (mean)educ_mn=educ (semean)educ_se=educ, by(obtohelp_r)
gen educ_hi=educ_mn+1.96*educ_se
gen educ_lo=educ_mn-1.96*educ_se
```

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```
graph twoway (bar educ_mn obtohelp_r, barw(.5)) ///
(rcap educ_hi educ_lo obtohelp), ///
xlabel(1 "No" 2 "Yes", noticks) ///
ytitle("Years of Education") ylabel (0(5)20) ///
xtitle("Obligation to help sick parent or spouse") ///
title("Education by Obligation to help sick parent or spouse")
yline(12.36, lp(_) lcolor(red) lstyle(foreground))


twoway (scatter agewed educ) (lfit educ agewed, color(red)), ///
ytitle("Education") ylabel(6(12)20) xtitle("Age Wed") ylabel(18(30)60)

legend(off) ///
title("Years of Education and Age first Wed")


twoway (scatter agewed educ) (lfit agewed educ, color(red)), ///
ytitle("Age wed")  xtitle("Education")

legend(off) ///
title("Years of Education and Age first Wed")
```