

INSTRUCTIONS FOR COMPUTER PROJECT #2

Data are available on ELMS. When you click on the file, it should open in Stata.

PLEASE REMEMBER TO OPEN A LOG FILE (*.LOG) WHERE YOUR WORK WILL BE SAVED.

/*Browse your dataset to see what a panel dataset looks like.*/

browse

/*Let's start by plotting the data:*/

gen FatPop = fatalities/(population/10000)

scatter FatPop gdppercap

/*Begin Computer Project #1*/

/*creating logs of variables*/

gen lnFatPop = ln(FatPop)

label variable lnFatPop "= ln(fatalities/10,000persons)"

gen lngdp = ln(gdppercap)

label variable lngdp "= ln(gdppercap)"

gen lngdp2 = lngdp*lngdp

label variable lngdp2 "= ln(gdppercap) squared"

egen t = group(year)

/*creates a time trend, t = 1,2,3...*/

/*plain OLS:*/

reg lnFatPop lngdp lngdp2 t

/*OLS, with robust clustered std errors:*/

reg lnFatPop lngdp lngdp2 t, robust cluster(wbcode)

/* To run fixed effects you can use areg, or use xtreg:*/

```
areg lnFatPop lngdp lngdp2 t, absorb(wbcode) robust cluster(wbcode)
```

```
/*To run xtreg, the cross sectional units need a numerical id*/  
egen countrynum = group(wbcode)
```

```
xtset countrynum t
```

```
/* running the Fixed Effects model without and with the clustered std. errors*/
```

```
xtreg lnFatPop lngdp lngdp2 t, fe
```

```
xtreg lnFatPop lngdp lngdp2 t, fe robust cluster(countrynum)
```

```
/* to allow the time trend to vary by country group*/
```

```
gen thd1 = hd1 * t
```

```
gen thd2 = (1-hd1) * t
```

```
xtreg lnFatPop lngdp lngdp2 thd1 thd2, fe robust cluster(countrynum)
```

```
/* to run the Random Effects model*/
```

```
xtreg lnFatPop lngdp lngdp2 thd1 thd2, re robust cluster(countrynum)
```

NOTE:

If you wanted to display the intercepts in the FE regression you could use:

```
xi: reg lnFatPop lngdp lngdp2 thd1 thd2 i.name, robust cluster(wbcode)
```