

ALEXANDRA MCGILL
REGRESSION ANALYSIS

FUN WITH REGRESSION

I USED OLS DATA TO EXAMINE EVERY GLOBAL COUNTRY WITH YEAR RANGING FROM 1950 TO 2014. I USED REAL GDP PER CAPITA IN 2011 DOLLARS (Y) AND THE HUMAN CAPITAL INDEX (X).

I REGRESSED Y ON X FOR 2010 BY USING THE COMMAND REGRESS Y X IF YEAR == 2010.

THIS COMMAND ALLOWS US TO SEE HOW MUCH GDP WILL CHANGE BY FOR A UNIT CHANGE IN X. FOR A UNIT CHANGE IN X (HUMAN CAPITAL), Y (GDP) WILL CHANGE BY \$160.

```
. regress Y X if year==2010
```

Source	SS	df	MS	Number of obs	=	144
Model	1.7451e+10	1	1.7451e+10	F(1, 142)	=	63.62
Residual	3.8950e+10	142	274295839	Prob > F	=	0.0000
Total	5.6401e+10	143	394415626	R-squared	=	0.3094
				Adj R-squared	=	0.3046
				Root MSE	=	16562

Y	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
X	16027.42	2009.36	7.98	0.000	12055.3	19999.55
_cons	-22290.01	5228.621	-4.26	0.000	-32626.01	-11954.01

LINEAR MODELING

I WAS CURIOUS TO SEE IF THE VARIATION OF INCOME IS DIRECTLY RELATED TO THE VARIATION OF INSTITUTIONS BY USING THE FOLLOWING CODE

```
GR TW (SCATTER LOGPGP95 AVEXPR, ML(SHORTNAM) MLABC(BLACK) MCOLOR(NONE)) /// (LFIT LOGPGP95 AVEXPR,  
LC(BLACK) LP(DASH))
```

DOES THIS HAVE AN ECONOMIC IMPACT ON CURRENT INSTITUTIONS?

I USED DATA FROM 64 COUNTRIES, INCLUDING USA, THEIR GDP PER CAPITA (USING LOGS TO COUNT FOR EXPONENTIALITY), AND PROTECTION AGAINST EXPROPRIATION RATES. ARE COUNTRIES WITH BETTER CHECKS AGAINST GOVERNMENT RICHER THAN OTHERS? WE ASSUME SO, PROVIDED BY THE GRAPH. NOTICE USA TOP RIGHT.

