

## **Readme file for data and programs for “Compulsory Education and the Benefits of Schooling”**

The zip file contains the following Stata datasets:

cens1960ext.dta – Extract of IPUMS 1960 Census 1% sample microdata

cens1970ext.dta – Extract of both IPUMS 1970 Census 1% state samples microdata

cens1980ext.dta – Extract of IPUMS 1980 Census 5% sample microdata

schooling\_laws\_aa.dta – Acemoglu and Angrist (2000) schooling law variables

schooling\_laws\_sy.dta – Our schooling law variable

ck\_school\_quality\_revised.dta – Card and Krueger (1992) xchool quality measures  
aggregated as by birth cohort and extended to earlier and  
later cohorts as described in text

and the following Stata programs:

runall.do

regs\_include.do

Before executing these programs, you will need to install `rivtest`. You can install the most recent version as of September 2013 using the following steps:

1. Type `findit rivtest` from the Stata command prompt
2. Click on `st0171_1` which is from *Stata Journal*, Volume 11, No. 2.
3. Click on "click here to install" to install `rivtest`

The tables and figure are replicated by placing all of the datasets and .do files in the same directory and then using Stata to “do” the program `runall.do`.

Since the confidence intervals are constructed through an iterative process, the 2SLS estimates are generated by applying the Frisch-Waugh-Lovell theorem (Giles 1984) to save on computational time. First, the outcome of interest, endogenous regressor, and instruments are each regressed on the remaining exogenous variables. Then, 2SLS is applied to the residuals from these regressions which yields parameter estimates and conventional variances of the estimates that are equivalent to the standard implementation of 2SLS. We have also compared the confidence intervals reported in the article which allow for clustering at the state of birth/year of birth level and these remain the same when using this approach to implement 2SLS.

### References:

Acemoglu, Daron and Joshua Angrist. 2000. “How Large are Human-Capital Externalities? Evidence from Compulsory-Schooling Laws,” in *NBER Macroeconomics Annual 2000*, Volume 15, 9-74.

Card, David and Alan B. Krueger. 1992. "Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States," *Journal of Political Economy*, 100(1):1-40.

Giles, David E. A. 1984. "Instrumental variables regressions involving seasonal data," *Economics Letters*, 14(4):339-343.