
Subject: Weighting in IV approach
Posted by [Alanood](#) on Mon, 27 Mar 2023 20:56:32 GMT
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Hello

I am doing my first paper as PhD student and I am using panel data for Egypt - KR file for 2005, 2008, and 2014.

I append them in one file and I extract all the children above two years old.

I am testing the relationship between maternal employment and child health (stunting, wasting, underweight, and overweight).

The Analysis Approach: 1- OLS 2- IV-Instrument variable.

I usually start my analysis by add svy: in the begining, which is conducted by:

```
*****svy*****
```

```
gen strata=v023
```

```
gen psu=v021
```

```
gen sampwt=v005/1000000
```

```
svyset psu, strata(strata) weight(sampwt) vce(linearized) singleunit(centered)
```

```
.
```

```
.
```

```
*****STATA command*****
```

```
*****Analysis*****
```

```
****OLS****
```

```
svy: regress stunted motheremployed child characteristics mother characteristics partner  
characteristics Household characteristics (fixed effect (year) (governorates) )
```

```
svy: regress wasted motheremployed child characteristics mother characteristics partner  
characteristics Household characteristics (fixed effect (year) (governorates) )
```

```
svy: regress overweight motheremployed child characteristics mother characteristics partner  
characteristics Household characteristics (fixed effect (year) (governorates) )
```

```
svy: regress underweight motheremployed child characteristics mother characteristics partner  
characteristics Household characteristics (fixed effect (year) (governorates) )
```

```
****IV****
```

```
****IV-unweighting****
```

```
ivregress 2sls stunted child characteristics mother characteristics partner characteristics  
Household characteristics (fixed effect (year) (governorates) ) (motheremployed= instrument ),  
robust first
```

```
.
```

```
.
```

```
****IV- wieghting*****
```

```
.
```

```
ivregress 2sls stunted child characteristics mother characteristics partner characteristics  
Household characteristics (fixed effect (year) (governorates) ) (motheremployed= instrument )  
[pweight = sampwt], vce(cluster v021) first
```

..... *****

My question here is related to the result that I got from the IV approach, the results differ between weighting and unweighting IV approach

IV- weighting

the variable mother employment 0/1 - is significant at 5% in (wasted - in IV weighted regression)

IV- not weighting

the mother employment 0/1 - is significant at 5% in (stunted -wasted-overweight- in IV unweighted regression)

So I am wondering that

1- why the results differ between weighting and unweighting.

and 2- In my paper can I include the unweighting regression or it yields insignificant results.

Thank you and I appreciate your guidance.