

Electronic Appendix for:

**Wages, Youth Employment and School Enrollment:
Recent Evidence from Increases in World Oil Prices**

by

By René Morissette, Ping Ching Winnie Chan and Yuqian Lu

Social Analysis Division
Statistics Canada

Winter 2015

CONTENTS:

Table 5.1: Real wages and full-time university enrollment --- potential male university enrollees
(Imputing wages of non-employed men using the 55th, 65th, 75th, and 85th percentile)

Table 5.2: Relative wages and full-time university enrollment --- potential male university enrollees

Table 3.1: (Real and relative) Wages and school enrollment of young men with no high school diploma
(Testing whether results from grouping estimators are robust to the addition of province-specific trends)

**Table 5.1: Real wages and full-time university enrollment --- potential male university enrollees
Imputing wages of non-employed men using the 55th, 65th, 75th, and 85th percentile**

Percentile	55th	65th	75th	85th
	(1)	(2)	(3)	(4)
Group definition				
<i>I. Basic definition (4 age groups, 7 education levels, and 8 regions)</i>				
2SLS	-0.226 (0.165)	-0.246 (0.183)	-0.262 (0.199)	-0.275 (0.205)
EWALD	-0.047 (0.046)	-0.056 (0.049)	-0.010 (0.046)	0.028 (0.051)
Kleibergen-Paap Wald F statistic (2SLS)	25.0	22.7	21.5	23.4
Sample size		106,321		
Number of clusters (groups)		84		
Number of grouped observations		621		
Average sample size per grouped observation		171.2		
<i>II. Alternative definition (2 age groups, 7 education levels, and 8 regions)</i>				
2SLS	-0.235† (0.128)	-0.247† (0.138)	-0.255† (0.142)	-0.266† (0.151)
EWALD	-0.135** (0.049)	-0.131** (0.047)	-0.090* (0.043)	-0.062 (0.043)
Kleibergen-Paap Wald F statistic (2SLS)	13.9	12.3	14.0	14.7
Sample size		108,265		
Number of clusters (groups)		47		
Number of grouped observations		354		
Average sample size per grouped observation		305.8		
<i>Young men's full-time university enrollment in 2001</i>		0.218		

† p<0.10; * p<0.05; ** p<0.01; *** p<0.001.

Note: The sample consists of unmarried men aged 17 to 24 with no children and who have a high school diploma, some post-secondary education, a college diploma, a CEGEP diploma or a university certificate below bachelor's degree. The numbers show the estimated impact of log after-tax real wages on the probability of attending university full-time. All models include group fixed effects, year effects, and all other regressors used in Tables 1-3. Standard errors clustered at the age*education*region level are between parentheses.

Source: Authors' calculations from the Labour Force Survey

Table 5.2: Relative wages and full-time university enrollment --- potential male university enrollees

Percentile	15th	25th	35th	45th
	(1)	(2)	(3)	(4)
Group definition				
<i>I. Basic definition (4 age groups, 7 education levels, and 8 regions)</i>				
OLS	-0.159*** (0.014)	-0.098*** (0.014)	-0.035* (0.015)	0.034* (0.016)
2SLS	-0.372 (0.255)	-0.411 (0.311)	-0.551 (0.452)	-0.640 (0.568)
EWALD	-0.091* (0.040)	-0.073† (0.040)	-0.064 (0.043)	-0.016 (0.040)
UEVE	-0.082* (0.039)	-0.068† (0.040)	-0.064 (0.041)	-0.021 (0.041)
Kleibergen-Paap Wald F statistic (2SLS)	21.6	12.0	6.4	4.7
Sample size		106,321		
Number of clusters		84		
Number of cluster*years		621		
Average sample size per cluster*year		171.2		
<i>II. Alternative definition (2 age groups, 7 education levels, and 8 regions)</i>				
OLS	-0.164*** (0.019)	-0.105*** (0.019)	-0.043* (0.020)	0.030 (0.020)
2SLS	-0.368† (0.207)	-0.408 (0.252)	-0.566 (0.388)	-0.582 (0.409)
EWALD	-0.126** (0.046)	-0.116* (0.045)	-0.099* (0.046)	-0.099* (0.044)
UEVE	-0.120** (0.043)	-0.110** (0.043)	-0.092* (0.044)	-0.096* (0.044)
Kleibergen-Paap Wald F statistic (2SLS)	20.5	11.8	5.9	4.6
Sample size		108,265		
Number of clusters		47		
Number of cluster*years		354		
Average sample size per cluster*year		305.8		
<i>Young men's full-time university enrollment in 2001</i>		0.218		

† p<0.10; * p<0.05; ** p<0.01; *** p<0.001.

Note: The sample consists of unmarried men aged 17 to 24 with no children and who have a high school diploma, some post-secondary education, a college diploma, a CEGEP diploma or a university certificate below bachelor's degree. The numbers show the estimated impact of log after-tax relative wages on the probability of attending university full-time. All models include group fixed effects, year effects, and all other regressors used in Tables 1-3. Standard errors clustered at the age*education*region level are between parentheses for OLS, 2SLS, and EWALD.

Source: Authors' calculations from the Labour Force Survey

Table 3.1: (Real and relative) Wages and school enrollment of young men with no high school diploma

Percentile	15th	25th	35th	45th
	(1)	(2)	(3)	(4)
A) Real wages: no province-specific trends				
I. EWALD	-0.060 (0.071)	0.006 (0.070)	0.022 (0.079)	0.019 (0.092)
II. UEVE	-0.046 (0.056)	0.028 (0.060)	0.040 (0.061)	0.026 (0.061)
B) Real wages: adding province-specific trends				
I. EWALD	-0.059 (0.057)	0.012 (0.058)	0.019 (0.061)	0.012 (0.059)
II. UEVE	-0.046 (0.074)	0.033 (0.072)	0.032 (0.076)	0.010 (0.072)
C) Relative wages: no province-specific trends				
I. EWALD	-0.081 (0.071)	-0.018 (0.067)	-0.005 (0.072)	-0.008 (0.083)
II. UEVE	-0.070 (0.056)	-0.001 (0.056)	0.008 (0.058)	-0.004 (0.056)
D) Relative wages: adding province-specific trends				
I. EWALD	-0.059 (0.053)	0.002 (0.053)	0.006 (0.055)	0.000 (0.054)
II. UEVE	-0.041 (0.065)	0.023 (0.062)	0.021 (0.065)	0.004 (0.063)
<hr/>				
Number of clusters (groups)		48		
Number of grouped observations		307		
Average sample size per grouped observation		165.7		

† p<0.10; * p<0.05; ** p<0.01; *** p<0.001.

Note: The sample consists of unmarried men aged 17 to 24 with no children and no high school diploma. The numbers show the estimated impact of log after-tax (real or relative) wages on the probability of being enrolled in school. All models include group fixed effects, year effects, and all regressors used in Table 3.

Source: Authors' calculations from Labour Force Survey