

Results for employees with one occupation

This note replicates the results presented in “Are Labor Markets Segmented in Developing Countries? A Semiparametric Approach,” *European Economic Review* 50 (2006), 1817-1840, for the sample of employees with exactly one occupation.

Hours are reported with more error for employees with several occupations, and hourly earning may therefore be measured with more error as well within that group. In particular, we recently found several observations with implausibly low hourly earnings among employees with more than one occupations. The purpose of the next few pages is to make sure that our results are robust to excluding that subset of observations.

The size of the subsample of employees with exactly one occupation in each year and key sample means are shown in table 1. Means are very similar to those we obtained with the full sample. In particular, average hourly earnings are significantly higher in the formal sector than in the informal sector.

Table 2 shows that parametric results change little as well. Wages remain significantly higher in the formal sector than in the informal sector after controlling parametrically for observable differences in employee and employer characteristics.

Finally, tables 3,4 and 5 replicate the paper’s semi-parametric results for the restricted sample. Once again, results change little.

Table 1: Individual and job characteristics of formal and informal sector employees, Buenos Aires and its suburbs

	1993		1994		1995	
	Formal	Informal	Formal	Informal	Formal	Informal
Establishment size (employees)						
5 or fewer	0.129	0.598	0.153	0.590	0.145	0.638
6 to 25	0.278	0.242	0.273	0.265	0.279	0.242
26 to 50	0.161	0.054	0.148	0.055	0.138	0.030
51 to 100	0.122	0.043	0.128	0.040	0.133	0.026
101 to 500	0.175	0.040	0.167	0.030	0.188	0.043
More than 501	0.136	0.022	0.131	0.021	0.117	0.020
Average age	37.22	33.42	37.00	33.01	37.30	33.22
Education						
None	0.004	0.006	0.003	0.010	0.003	0.009
Primary	0.337	0.491	0.324	0.488	0.351	0.485
High-school	0.429	0.378	0.431	0.389	0.386	0.367
Superior	0.058	0.033	0.074	0.024	0.077	0.027
University	0.171	0.093	0.168	0.089	0.183	0.113
Hourly wages	4.514	3.487	4.750	3.710	4.591	3.360
Observations	2806	1780	3032	1668	2965	1634

Source: Argentina's Permanent Household Survey and Pratap and Quintin (2005). Entries give the fraction of employees in each category. Age is measured in years. Hourly wages are in 1993 pesos and corrected for Christmas bonuses.

Table 2: OLS regressions

Dependent variable is log real hourly wages

	Baseline specification	Specification 2: all variables interacted with Sector		Fixed effects
Age	0.0530 (28.01)	0.0559 (19.65)	-0.0076 (-1.90)	0.0548 (2.60)
Age ²	-0.0006 (-24.00)	-0.0006 (-17.44)	0.0001 (2.36)	-0.0006 (-2.23)
Gender†	0.1204 (11.36)	0.0199 (6.95)	-0.0181 (-0.77)	
Sector††	0.1440 (13.23)	0.2161 (2.35)		0.0870 (6.07)
Hours	-0.0162 (-22.12)	-0.0155 (-28.98)	0.0017 (2.37)	-0.0191 (-38.23)
Marital Status *	0.0868 (8.39)	0.0835 (4.71)	-0.1199 (-2.25)	
Establishment Size				
6 to 25	0.0735 (6.01)	0.0921 (4.89)	-0.0381 (-1.54)	0.0568 (3.41)
26 to 50	0.1134 (7.03)	0.1732 (4.81)	-0.0862 (-2.12)	0.0959 (4.42)
51 to 100	0.1428 (8.27)	0.1983 (4.50)	-0.0840 (-1.74)	0.1068 (4.53)
101 to 500	0.1916 (11.43)	0.1563 (3.22)	0.0182 (0.35)	0.0937 (3.98)
≥ 501	0.2605 (13.69)	0.2706 (4.34)	-0.0345 (-0.52)	0.1177 (4.43)
Education Levels				
Primary	0.1841 (5.18)	0.2028 (3.81)	-0.0883 (-0.99)	
High-school	0.4274 (12.26)	0.3424 (6.53)	0.0887 (0.97)	
Superior	0.6992 (18.31)	0.6267 (1.33)	0.0772 (0.77)	
University	0.8652 (24.08)	0.7374 (13.11)	0.1325 (1.44)	
Industry				
Mining	0.0571 (3.26)	0.0274 (0.76)	0.0344 (0.83)	0.0302 (0.82)
Manufacturing	0.0519 (2.12)	0.0661 (1.23)	-0.0226 (-0.38)	0.0334 (0.75)
Electricity, Gas, Water	0.1621 (7.25)	0.1350 (4.00)	0.0331 (0.73)	0.1288 (2.52)
Construction	0.0313 (1.95)	0.0242 (0.90)	0.0096 (0.29)	0.0071 (0.23)
Retail	0.1572 (8.88)	0.1252 (3.86)	0.0354 (0.92)	0.0378 (0.96)
Transport	0.0585 (3.15)	0.1248 (3.21)	-0.0877 (-1.97)	-0.0056 (-0.15)
Finance	-0.1106 (-5.81)	0.0745 (1.79)	-0.2224 (-4.72)	-0.0640 (-1.33)
Services	0.1215 (6.59)	0.1462 (5.24)	-0.0991 (-2.59)	-0.0029 (-0.01)
Year 1994 dummy	0.0321 (3.13)	0.0316 (3.09)		
Year 1995 dummy	-0.0443 (-4.29)	-0.0415 (-4.05)		
R ²	0.8712	0.8728		0.2101

Notes: T-statistics based on standard errors clustered on year are in parenthesis. In the second specification, the right-hand column shows coefficients and t-statistics for variables interacted with the sector variable. † 1=Male, 0=Female, †† 1=Formal Sector, 0=Informal Sector, * 1=Married, 0=Single. Omitted education dummy is no education, omitted establishment size is 5 or fewer employees, omitted industry dummy is agriculture.

Table 3: Matching estimators

Period	Caliper	Nearest neighbor	Epanechnikov kernel
1993	-0.160 (0.037)	-0.042 (0.038)	-0.034 (0.027)
1994	-0.112 (0.038)	-0.003 (0.040)	-0.038 (0.028)
1995	-0.097 (0.040)	0.016 (0.048)	-0.114 (0.032)

Notes: In caliper matching, $\delta = 10^{-4}$. Standard errors are in parenthesis.

Table 4: Caliper matching estimator for various subgroups

	1993		1994		1995	
	α^M	Std. error	α^M	Std. error	α^M	Std. error
$p_i \in [0.0, 0.2]$	-0.369	0.129	-0.400	0.306	-0.603	0.196
$p_i \in (0.2, 0.4]$	-0.227	0.068	-0.358	0.070	-0.302	0.063
$p_i \in (0.4, 0.6]$	-0.187	0.077	-0.133	0.067	0.027	0.102
$p_i \in (0.6, 0.8]$	-0.063	0.061	0.002	0.063	0.046	0.072
$p_i \in (0.8, 1.0]$	0.045	0.076	0.093	0.068	0.076	0.085
Females	-0.034	0.069	0.035	0.069	0.006	0.068
Males	-0.051	0.047	-0.029	0.048	0.027	0.063
Age ≤ 40	-0.027	0.044	-0.019	0.050	0.117	0.052
Low education	-0.042	0.048	-0.040	0.053	-0.048	0.068
Large establishments	0.075	0.099	0.151	0.107	0.226	0.143

Notes: Low education individuals have some primary education or less. Large establishments employ more than 100 employees.

Table 5: Caliper matching estimator without controlling for establishment size

	1993		1994		1995	
	α^M	Std. error	α^M	Std. error	α^M	Std. error
Full sample	0.069	0.017	0.127	0.018	0.105	0.019
Age ≤ 40	0.098	0.019	0.148	0.020	0.105	0.019
Females	0.050	0.030	0.053	0.034	0.081	0.028
Males	0.078	0.021	0.159	0.021	0.064	0.025
Low education	0.051	0.021	0.053	0.025	0.092	0.026