

Migration and Monopsony

Evidence from ISMU Data 2001-2021

November 10, 2025

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Wage Differences

Group	Citizen	Regular	Irregular
Male	1303.84	1074.53	799.24
Female	943.76	842.38	763.68
No Education	1154.71	981.49	739.65
Mandatory School	1166.82	994.37	776.61
Secondary School	1137.95	985.47	796.58
Degree or Similar	1201.94	1017.01	829.14
21–29	710.87	757.72	609.09
30–44	1038.50	926.58	755.88
45–59	1179.41	1007.95	794.09
60+	1219.92	1021.01	813.61
0–2	938.41	835.32	737.30
3–10	1086.80	997.74	837.53
11–20	1205.12	1084.02	881.60
21+	1244.46	1147.61	1000.00

Wage Differences

Group	Citizen	Regular	Irregular
Africa Subsahariana	1124.90	941.66	649.90
East Asia	1149.79	965.71	817.36
Eastern EU/Central Asia	1127.42	1015.88	845.37
Latin America	1040.50	933.84	788.20
Middle East/North Africa	1226.83	1046.67	822.88
South Asia	1259.69	1007.93	692.12
Employed	1121.04	975.37	795.72
Self-Employed	1509.55	1288.92	662.24
Unemployed	697.09	556.33	400.00
Inactive	691.22	578.42	500.00
Varese	1173.04	996.09	795.87

Wage Differences

Group	Citizen	Regular	Irregular
Como	1232.12	1013.01	775.19
Sondrio	1123.19	981.18	905.00
Milano	1136.37	987.11	799.87
Bergamo	1143.30	947.64	797.06
Brescia	1204.72	1011.94	756.91
Pavia	1089.22	1017.29	763.36
Cremona	1182.01	1039.43	829.32
Mantova	1148.33	999.32	732.70
Lecco	1154.42	986.49	778.41
Lodi	1141.57	964.86	708.59
Monza e Brianza	1142.61	900.07	739.26

Wage Differences

	Cittadino o Equiparabile	Regolare	Irregolare
Gender			
Male	1341	1162	892
Female	981	895	812
Education			
Nessun titolo	1173	1054	786
Scuola dell'obbligo	1190	1078	872
Scuola superiore	1177	1048	862
Laurea e similari	1236	1074	912
Geographical Area			
Subsaharan Africa	1165	1031	710
East Asia (and pacific)	1211	1014	875
Eastern Europe & Central Asia	1166	1083	918
Latin America	1070	988	875
Middle East & North Africa	1253	1122	893
South Asia	1269	1069	741

Table: Wage Means by Legal Status (Part 1)

Wage Differences (cont.)

	Cittadino o Equiparabile	Regolare	Irregolare
Age			
21–29	1088	900	140
30–44	1067	954	786
45–59	1201	1068	884
60+	1244	1142	890
Years Since Migration			
0–2	972	886	841
3–10	1109	1061	883
11–20	1249	1199	967
21+	1315	1201	1247
Labour Market Status			
Employed	1138	1041	875
Self-employed	1627	1438	694
Unemployed	1317	811	616
Inactive	1416	932	800

Table: Wage Means by Legal Status (Part 2)

Wage Differences (cont.)

	Cittadino o Equiparabile	Regolare	Irregolare
Province			
Varese	1229	1056	870
Como	1261	1064	860
Sondrio	1152	1006	949
Milano	1157	1034	870
Bergamo	1193	1048	849
Brescia	1235	1102	844
Pavia	1114	1137	906
Cremona	1189	1123	878
Mantova	1193	1072	765
Lecco	1183	1083	827
Lodi	1184	1051	852
Monza e Brianza	1167	951	833

Table: Wage Means by Legal Status (Part 3)

Distribution by Education and Employment (%)

	Cittadino	Regolare	Irregolare	Total
Level of Education				
Nessun titolo	2.30	4.24	0.91	7.45
Scuola dell'obbligo	12.08	21.00	3.33	36.40
Scuola superiore	17.59	21.39	3.45	42.44
Laurea e similari	6.38	6.41	0.91	13.71
Total	38.35	53.04	8.60	100.00
Labour Market Status				
Employed	33.94	49.15	7.88	90.97
Self-employed	3.89	3.27	0.57	7.73
Unemployed	0.20	0.22	0.04	0.46
Inactive	0.38	0.45	0.01	0.85
Total	38.40	53.09	8.51	100.00

Table: Distribution by Education and Labour Market Status

Distribution by Occupation Type (%)

	Cittadino	Regolare	Irregolare	Total
Type of Work				
Operai generici nell'industria	6.45	7.46	0.32	14.24
Operai generici nel terziario	3.23	3.58	0.23	7.04
Operai specializzati	1.60	2.57	0.27	4.45
Operai edili	3.96	5.31	1.33	10.60
Operai agricoli e assimilati	1.39	2.23	0.42	4.04
Addetti alle pulizie	1.80	2.55	0.28	4.63
Impiegati esecutivi e di concetto	1.41	0.72	0.03	2.16
Addetti alle vendite e servizi	1.60	1.46	0.12	3.18
Titolari/esercenti attività comm.	1.92	1.75	0.61	4.27
Addetti alla ristorazione/alberghi	4.40	5.94	0.46	10.79
Mestieri artigianali	2.13	2.47	0.44	5.04
Addetti ai trasporti	1.66	1.43	0.09	3.18
Domestici fissi	0.91	1.68	0.22	2.81
Domestici ad ore	2.21	3.32	0.64	6.16
Assistenti domiciliari (badanti)	2.26	3.97	1.04	7.28
Baby sitter	0.44	1.27	0.27	1.98
Assistenti socio-assistenziali (OSS)	1.39	0.76	0.03	2.18
Medici e paramedici	0.98	0.50	0.01	1.49
Intellettuali	1.77	0.62	0.01	2.40
Prostitutione	0.20	0.20	0.02	0.43
Sportivi	0.05	0.06	0.04	0.16
Altro	0.71	0.60	0.17	1.49
Total	42.49	50.46	7.05	100.00

Table: Distribution by Type of Work

Graphs

Wage Gap Estimation

In the following slides, we present the results for the estimation of the wage gap between native and migrant workers according to the following specification:

$$\ln(w_{it}) = \alpha + \beta \cdot LS_i + \gamma' X_{it} + \delta_t + \delta_p + \varepsilon_{it}$$

where $\ln(w_{it})$ denotes the log wage for individual i at time t , LS_i is a categorical variable for legal status distinguishing between citizens or equivalent, regular migrants, and irregular migrants, X_{it} represents a vector of individual characteristics, δ_t captures time fixed effects, and δ_p captures province fixed effects.

Wage Gap Estimation

	(1) m1	(2) m2	(3) m3	(4) m4	(5) m5
Reg.	-0.0788*** (0.00346)	-0.0705*** (0.00345)	-0.0576*** (0.00347)	-0.0576*** (0.00343)	-0.0419*** (0.00344)
Irreg.	-0.300*** (0.00603)	-0.284*** (0.00601)	-0.239*** (0.00625)	-0.250*** (0.00620)	-0.221*** (0.00646)
age	0.00443*** (0.000169)	0.0466*** (0.00121)	0.0431*** (0.00121)	0.0412*** (0.00120)	0.0388*** (0.00121)
sesso	-0.297*** (0.00300)	-0.301*** (0.00300)	-0.299*** (0.00299)	-0.292*** (0.00296)	-0.186*** (0.00385)
scuola obbl.	0.0415*** (0.00556)	0.0364*** (0.00552)	0.0370*** (0.00550)	0.0383*** (0.00545)	0.0359*** (0.00555)
scuola sec. sup.	0.0575*** (0.00557)	0.0517*** (0.00552)	0.0527*** (0.00550)	0.0543*** (0.00545)	0.0534*** (0.00557)
laurea	0.100*** (0.00629)	0.0932*** (0.00624)	0.0977*** (0.00622)	0.0976*** (0.00616)	0.0918*** (0.00642)
years since migr.	0.0103*** (0.000309)	0.0103*** (0.000307)	0.0267*** (0.000713)	0.0250*** (0.000715)	0.0226*** (0.000724)
Year FE	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes
Education FE	No	Yes	Yes	Yes	Yes
Origin FE	Yes	Yes	Yes	Yes	Yes
Occupation FE	No	No	No	No	Yes
Labour Cond. FE	No	No	No	Yes	Yes
Observations	74406	73946	73946	73391	66880

SE in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Wage Gap Estimation: Interaction LS x Year

year	dy/dx	std. err.	t	P> t	[95% conf. interval]
2003	-.365	.024	-15.13	0.000	-.412 -.317
2004	-.268	.019	-14.31	0.000	-.305 -.231
2005	-.172	.018	-9.71	0.000	-.206 -.137
2006	-.116	.015	-7.80	0.000	-.145 -.087
2007	-.175	.016	-11.27	0.000	-.205 -.144
2008	-.154	.014	-10.67	0.000	-.183 -.126
2009	-.177	.016	-11.04	0.000	-.208 -.145
2010	-.276	.032	-8.60	0.000	-.339 -.213
2011	-.382	.033	-11.51	0.000	-.447 -.317
2012	-.420	.033	-12.76	0.000	-.484 -.355
2013	-.405	.050	-8.09	0.000	-.503 -.307
2014	-.594	.048	-12.34	0.000	-.688 -.499
2015	-.449	.054	-8.31	0.000	-.555 -.343
2016	-.576	.054	-10.76	0.000	-.681 -.471
2017	-.349	.086	-4.04	0.000	-.518 -.179
2018	-.457	.081	-5.61	0.000	-.617 -.297
2019	-.016	.067	-0.23	0.814	-.146 .115
2020	-.348	.050	-6.93	0.000	-.447 -.250
2021	-.354	.068	-5.22	0.000	-.486 -.221

Wage Gap Estimation: Interaction LS x Province

provincia	dy/dx	std. err.	t	P> t	[95% conf. interval]	
Varese	-.190	.019	-10.08	0.000	-.227	-.153
Como	-.330	.022	-15.32	0.000	-.372	-.287
Sondrio	-.021	.048	-0.44	0.663	-.115	.073
Milano	-.178	.009	-19.46	0.000	-.196	-.160
Bergamo	-.157	.024	-6.62	0.000	-.203	-.110
Brescia	-.318	.017	-18.47	0.000	-.352	-.284
Pavia	-.190	.020	-9.44	0.000	-.229	-.150
Cremona	-.226	.025	-9.14	0.000	-.275	-.178
Mantova	-.373	.026	-14.21	0.000	-.424	-.321
Lecco	-.193	.028	-6.78	0.000	-.249	-.137
Lodi	-.297	.025	-11.97	0.000	-.346	-.249
Monza e Brianza	-.176	.068	-2.59	0.010	-.310	-.043