Migration and natives' inequality

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LONG ABSTRACT AND EARLY RESULTS

(Please DO NOT CITE, DO NOT PUBLISH)

The impact of migration on natives' income and inequality has long been a debated issue among economists; yet, despite a conspicuous literature on this topic, results are still ambiguous.

At the heart of the problem is the interaction between migrants and natives in the labour market. A well-established literature assume substitution between migrants and natives sharing similar characteristics; as a result, the flows of immigrants shifts the supply of labour within cells of similar workers causing natives' average wages in the cell to decrease. As the great bulk of migration all over the world is from poor areas, the major impact is on low skilled, law income workers; the decrease in the wages within natives in "lower" cells increase disequality among the (native) population. However, empirical evidence is mixed: (Borjas and Edo, 2021; Card, 1990; Card, 2009; Borjas, 2003; Dustman, Schönberg and Stuhler, 2016; Llull, 2017)

Recent literature has pointed to an alternative explanation for the interaction between migrants and natives. Although they share similar characteristics, natives retain a comparative advantage over migrants, which push them to move to more qualified occupations in response to an increase in the labour supply in the local labour market (Ortega and Verdugo, 2014; Cortés and Pan, 2019).

Using individual data from the Labour Force Survey, we analyse the impact of migrants on two indexes of natives inequality at the household level, i.e. the Gini Index and percentile ratio (p90 / p10) at the local level, i.e. within Labour Market Areas (LMA), as defined by Italian Institute of Statistics (Istat), from 2004 to 2018. To identify our result we exploit heterogeneity in the degree of similarity between migrants and natives across LAMs; to estimate the assimilation between migrants and natives we use the Vigdor index (Vigdor, 2008), interacted with the share of migrants. Our main result is that migration reduces natives' inequalities more in those LMAs where the degree of similiarity, i.e. the Vigdor index, is higher. All estimates include fixed effects and time dummies. Table 1 shows results from OLS estimates.

TABLE 1 HERE

As standard in the literature, we tackle endogeneity using a well-known instrument proposed by Card (2001), as slightly modified by Cortes and Pan (2015), which exploits the fact that immigrants tend to move to an area where a group of immigrants of the same ethnicity is already present. The identifying assumption is that local economic shocks that attracted immigrants in the past (in 1991) are uncorrelated with current political preferences, conditional on the full set of controls. Tables 2 and 3 show respectively IV and first stage results.

TABLE 2 AND 3 HERE

Finally, in order to identify the channels through which the share of immigrants affects natives inequality we estimate the impact of the share of immagrants on the share of natives in the no/low qualified occupations (versus the medium qualified occupations) and we find that the presence of migrants reduces the occupation rate of natives in the no/low qualified versions. Our result is on line with Ortega and Verdugo, 2014. Furthermore, we find that the natives' average wage increases in no/low/medium qualified occupations while we not find any effect for high qualified occupations, for which the competition between migrants and natives in very limited, as shown in table 4.

TABLE 4 HERE

(Tables and list of variables below)

TABLES AND LIST OF VARIABLES

Table 1. The effect of the share of immigrants on natives inequality (OLS estimates)

VARIABLES	(1) gini	(2) perc_ratio9010	(3) h_income (average)	(4) empl_rate	(5) empl_rate female	(6) empl_rate male
imm_share	2.141**	44.076**	-8.908**	-6.011**	-8.185**	-4.032**
	[0.636]	[12.744]	[1.196]	[0.752]	[1.002]	[0.998]
imm_share x vigdor	-3.006**	-65.234**	12.265**	8.364**	12.082**	5.055**
	[0.911]	[18.248]	[1.712]	[1.077]	[1.435]	[1.430]
pop (log)	0.013	-0.261	0.173**	0.134**	0.014	0.241**
	[0.032]	[0.647]	[0.061]	[0.038]	[0.051]	[0.051]
empl_rate	-0.012	-0.722**	-0.004			
	[0.014]	[0.273]	[0.026]			
year = 2009	0.004+	0.038	0.022**	-0.010**	-0.018**	-0.003
	[0.002]	[0.039]	[0.004]	[0.002]	[0.003]	[0.003]
year = 2010	0.005*	0.073+	0.044**	-0.014**	-0.026**	-0.004
	[0.002]	[0.041]	[0.004]	[0.002]	[0.003]	[0.003]
year = 2011	0.007**	0.150**	0.053**	-0.011**	-0.033**	0.008*
	[0.002]	[0.044]	[0.004]	[0.003]	[0.003]	[0.003]
year = 2012	0.010**	0.171**	0.056**	-0.012**	-0.039**	0.011**
	[0.002]	[0.045]	[0.004]	[0.003]	[0.004]	[0.004]
year = 2013	0.010**	0.156**	0.059**	-0.022**	-0.054**	0.007+
	[0.002]	[0.050]	[0.005]	[0.003]	[0.004]	[0.004]
year = 2014	0.005+	0.128*	0.078**	-0.024**	-0.058**	0.008+
	[0.003]	[0.054]	[0.005]	[0.003]	[0.004]	[0.004]
year = 2015	0.004	0.123*	0.094**	-0.012**	-0.045**	0.019**
	[0.003]	[0.055]	[0.005]	[0.003]	[0.004]	[0.004]
year = 2016	0.003	0.133*	0.102**	-0.001	-0.035**	0.030**
	[0.003]	[0.056]	[0.005]	[0.003]	[0.004]	[0.004]
year = 2017	0.002	0.096+	0.109**	0.007+	-0.026**	0.037**
	[0.003]	[0.057]	[0.005]	[0.003]	[0.005]	[0.005]
year = 2018	-0.002	0.066	0.119**	0.016**	-0.022**	0.050**
	[0.003]	[0.061]	[0.006]	[0.004]	[0.005]	[0.005]
Observations	4,271	4,271	4,271	4,271	4,271	4,271
R-squared	0.488	0.466	0.306	0.937	0.839	0.927

Standard errors in brackets

** p<0.01, * p<0.05, + p<0.1

Table 2. The effect of the share of immigrants on natives inequality (IV estimates)

VARIABLES	(1) gini	(2) gini	(3) perc_ratio9010	(4) perc_ratio9010	(5) h_income (average)	(6) h_income (average)
imm_share	-0.846+	0.915	-17.178+	30.792	0.938	-9.355**
	[0.484]	[1.064]	[9.681]	[21.250]	[0.911]	[1.988]
imm_share x vigdor		-2.490+		-67.835*		14.555**
		[1.433]		[28.638]		[2.680]
pop (log)	0.148+	0.148+	2.126	2.120	-0.012	-0.011
	[0.082]	[0.081]	[1.632]	[1.627]	[0.154]	[0.152]
empl_rate	-0.022	-0.017	-0.927**	-0.795**	0.026	-0.002
	[0.014]	[0.014]	[0.279]	[0.282]	[0.026]	[0.026]
year = 2009	0.008**	0.008**	0.113+	0.113+	0.016**	0.016**
	[0.003]	[0.003]	[0.061]	[0.061]	[0.006]	[0.006]
year = 2010	0.012**	0.012**	0.195*	0.195*	0.035**	0.035**
	[0.004]	[0.004]	[0.087]	[0.087]	[0.008]	[0.008]
year = 2011	0.017**	0.017**	0.319**	0.317**	0.040**	0.040**
	[0.006]	[0.006]	[0.114]	[0.114]	[0.011]	[0.011]
year = 2012	0.021**	0.021**	0.361**	0.359**	0.041**	0.042**
	[0.006]	[0.006]	[0.127]	[0.126]	[0.012]	[0.012]
year = 2013	0.024**	0.024**	0.406*	0.404*	0.039*	0.039**
	[0.008]	[0.008]	[0.164]	[0.163]	[0.015]	[0.015]
year = 2014	0.022*	0.021*	0.428*	0.423*	0.054**	0.055**
	[0.010]	[0.010]	[0.193]	[0.192]	[0.018]	[0.018]
year = 2015	0.022*	0.022*	0.448*	0.437*	0.067**	0.070**
	[0.010]	[0.010]	[0.206]	[0.204]	[0.019]	[0.019]
year = 2016	0.023*	0.022*	0.479*	0.461*	0.073**	0.077**
	[0.011]	[0.011]	[0.214]	[0.213]	[0.020]	[0.020]
year = 2017	0.023*	0.022*	0.458*	0.437*	0.079**	0.083**
	[0.011]	[0.011]	[0.223]	[0.221]	[0.021]	[0.021]
year = 2018	0.021+	0.020+	0.465+	0.440+	0.085**	0.091**
	[0.012]	[0.012]	[0.243]	[0.242]	[0.023]	[0.023]
Observations	4,271	4,271	4,271	4,271	4,271	4,271
R-squared	-0.008	-0.003	-0.008	-0.003	0.285	0.298
Kleibergen-Paap rk LM stat	156.5	158	156.5	158	156.5	158
p-value	0	0	0	0	0	0

Standard errors in brackets
** p<0.01, * p<0.05, + p<0.1

Table 3. First stage regressions

Model with no interactions

imm_share	Coef.	Std. Err.	
instrument	0.300	0.025	***
pop (log)	0.143	0.005	***
empl rate	-0.006	0.002	**

F test of excluded instruments:
F(1, 3784) = 143.95
Prob > F = 0.0000

Model with interaction

imm_share	Coef.	Std. Err.	t
instrument	0.590	0.182	***
instrument x vigdor	-0.420	0.260	*
pop (log)	0.144	0.005	***
empl rate	-0.006	0.002	**

F test of excluded instruments:
F(2, 3783) = 73.29
Prob > F = 0.0000

imm_share x vigdor	Coef.	Std. Err.	
instrument	-0.321	0.127	**
instrument x vigdor	0.773	0.183	***
pop (log)	0.100	0.004	***
empl rate	-0.003	0.002	*

F test of excluded instruments:
F(2, 3783)= 83.14
Prob > F = 0.0000

Table 4. The impact of migration shares on the natives' occupation rate and earning in the occupation classes

VARIABLES	-1 empl_share (low vs. medium qualified)	-2 earnings_low	-3 earnings_medium	-4 earnings_high
imm_share	6.433*	-9.247+	-9.338*	-2.191
	[2.863]	[5.371]	[3.985]	[4.884]
imm_share x vigdor	-9.766*	15.544+	15.391*	4.435
	[4.657]	[7.973]	[6.376]	[7.420]
gdp_growth	-0.103	-0.059	0.125	-0.341
	[0.133]	[0.227]	[0.213]	[0.266]
share_irreg	0.004	0.005	0.008	0.011+
	[0.003]	[0.006]	[0.005]	[0.006]
Observations	1,791	3,722	3,741	2,662
R-squared	0.672	0.205	0.402	0.480
Kleibergen-Paap rk LM stat	36.35	36.30	36.11	38.77
p-value	1.65e-09	1.69e-09	1.87e-09	4.77e-10

Robust standard errors in brackets
** p<0.01, * p<0.05, + p<0.1

LIST OF VARIABLES

gini: the Gini index (at the household level)

perc_ratio9010: percentile ratio (p90 / p10) (at the household level)

imm_share: share of immigrants

vigdor: Vigdor index

h_income: average wage at household level

pop: population in SLL/regions

empl_rate: employment rate

gdp_growth: gross domestic product (growth rate)

share_irreg: share of irregular workers

earnings_low/medium/high: average wage in the low/medium/high occupation classes