

EUROPEAN POPULATION CONFERENCE
Stockholm, 13-16 June, 2012

Ethnic segregation of foreign immigrants in Milan

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Introduction

According to population register, foreign immigrants resident in Milan numbered 200,000 on the 1st of January 2010 (Table 1). Their share of total population has more than tripled in less than 20 years exceeding 15%.

Table 1. Foreign resident population, incidence on total population and rate of increase.
City of Milan 1995-2009

	Resident foreigners	per 100 total resident population	Rate of increase (per 1,000)	
1995	64,373	4.9		
2000	11,691	9.3	1995-00	128.3
2005	162,169	12.4	2000-05	66.2
2009	199,322	15.2	2005-09	52.9

Source: our calculations on Istat data (<http://demo.istat.it/>)

During the last five years their amount has increased at the average annual rate of 53 per 1,000 although it's worth underlining that the rate is slowly declining. The composition of foreign population by country of origin comes out as the result of migratory chains and family reunifications phenomena subsequent to the rooting process on the territory experienced by the communities on one hand, and of the synthesis between job skills supply (at least assumed as such) and demand on the other hand. The first five nationalities with the highest figures, Philippines, Egypt China, Peru and Ecuador total over 51% of foreign population. The most discriminating demographic feature turns out to be gender: even though males and females are equally represented in the total foreign population (with the newly achievement of female supremacy, 50,1% in 2009), the communities are extremely gender selected (e.g. among Ukrainians females count for 82% of total and among Egyptians males are 61%). Gender selection (mainly triggered by job opportunities) has also obvious consequences on family formation and settling behavior in urban neighborhoods.

Objectives

This study aims to show how each community tends to distribute over the 180 sub-areas (namely functional areas) which compose the municipality of Milan, in order to detect its level of segregation and possibly to explain it in the light of the characteristics of their presence (job skills, duration of the presence, etc.) (Borjas, 1995). More attention will be paid to the behavior of the first five community resident in Milan and on their family. Actually, the study of the territorial distribution needs an origin perspective because the strength of ethnic networks is also expressed through the territorial allocation. Distinguishing between who migrates with the family and who migrates alone may add an element to read the spatial distribution of the immigrant population.

Finally, we will focus the attention on the size of the family in migration, that results to be determined by the life cycle, migration project and migratory phase of the migrant).

Data and methods

Using the administrative division of the Milanese territory in the functional areas some important aspects of the spatial distribution of demographic phenomena can be captured.

As well as the aggregated data on the stocks, the individual information (also geographically referenced) by the population register are considered for this purpose. The stocks at the 1st on January of the years from 2005 to 2009 are available.

The totals for individuals and family are consistent with the totals published by ISTAT (National Institute of Statistics) by means of appropriate scaling coefficients, since some differences can occur between the two sources.

Geo-referenced data from population registers are considered, as well as data derived from quantitative and qualitative surveys on immigrants living in the Milanese province (ORIM Surveys, <http://www.orimregionelombardia.it/index.php>).

The issue of segregation (Duncan and Duncan, 1955) will be handled taking into account its 5 dimensions of disparity, exposure, concentration, centralization and clustering (Massey 1985; Massey and Denton, 1988) testing the ability of different indexes to measure it at this level of geographical disaggregation.

The first dimension, disparity, will be captured through the Entropy of Segregation Index,

This index tells how foreigners of different nationalities tend to join to compose the population of each functional area, comparing with the one of the entire area.

We will investigate on the exposure dimension by means of the Exposure/Isolation Index, which measures the probability to get in touch with people of the same (isolation index) or different (exposure index) community.

The measures of concentration informs about the physical space occupied by different subgroups of population: the less the space, the higher the segregation. In this regard, the Hoover Index will be calculated for each community.

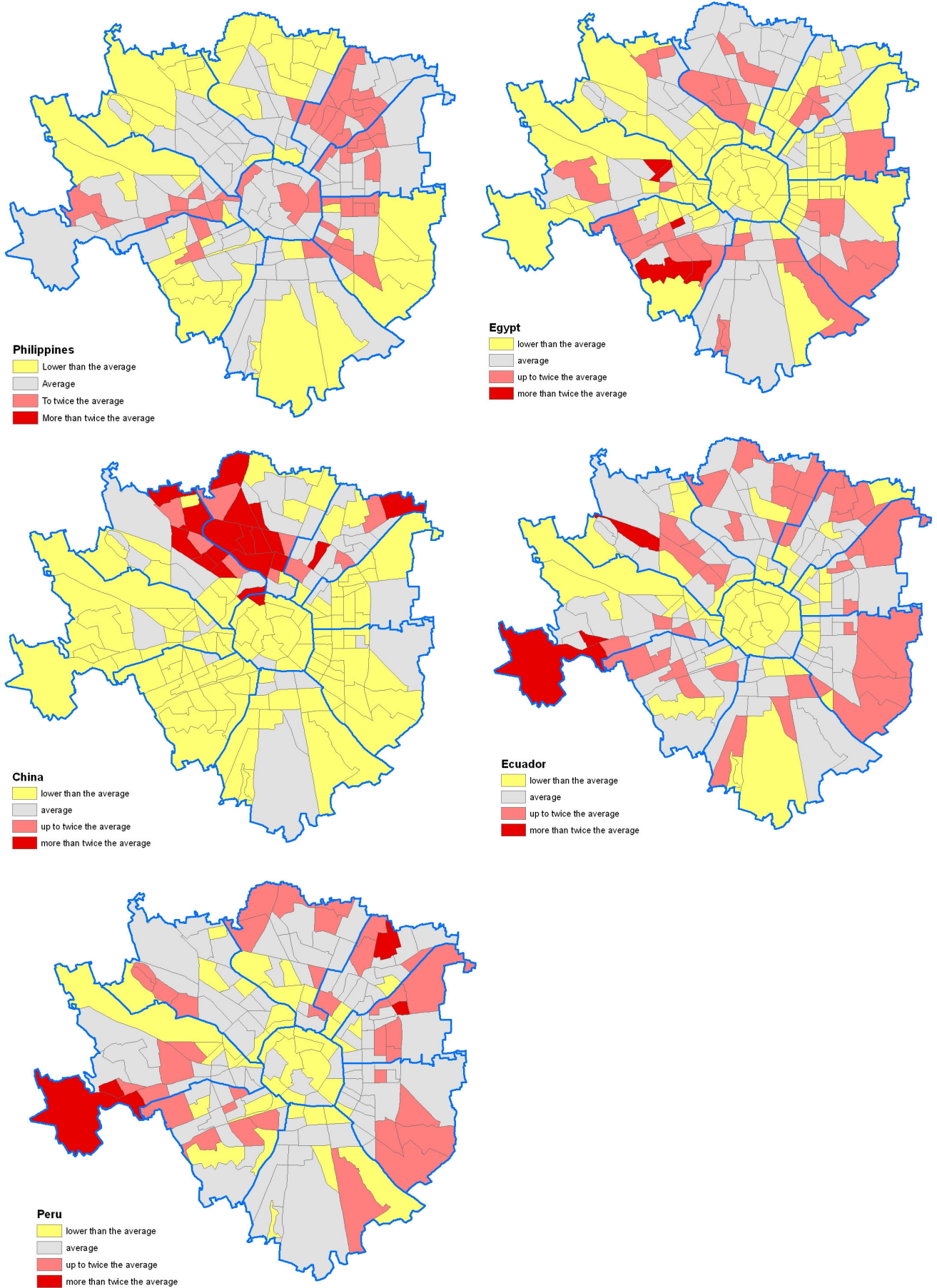
The measures of centralization account for the distance to the centre of the area; they are based on the hypothesis that segregation tend to grow along with the distance from the centre of an urban area. The Index of Centralization will be computed.

Finally, we will test the tendency to cluster by means of the Spatial Proximity Index, as a measure of the average proximity among people of the same (or different) nationality.

Preliminary results

Focusing on the 5 major communities of foreigners on the territory of Milan, the Philippines, Egypt, China, Peru and Ecuador, it is possible to assess the extent of their presence in the functional areas through the location quotients (figure 1). Their distribution shows us immediately a diversified settling behavior among the five communities. While the Chinese population tends to concentrate in functional areas located in the north and north-west of the city, with concentrations that reach more than 6 times the average concentration calculated over the entire foreign population, the Peruvian and the Ecuadorian ones are distributed more widely throughout the territory, with concentrations that rarely reach twice the average value. Even the Philippine and the Egyptian populations seem to follow a rather diffuse settlement pattern, but their presence follows the usual trajectory *center-periphery* (Pan Ké Shon, 2009) the spaces occupied by the two ethnic groups are mutually exclusive, the Philippine community occupies mainly the central areas while the Egyptian one rank in the most remote areas.

Figure 1. Main nationalities in Milan: location quotients 2009



Source: our calculations on Istat data

The exposure index calculated for each of the five nationalities mentioned above accounts for the greater likelihood of Ecuadorians and Peruvians to get in touch with each other (the index takes the maximum value 1), while it significantly slacks off when one of the two nationalities is China (note that here the isolation index is considerably higher than for other nationalities) (Table 2).

Table 2. Exposure index for the five major communities. 2009.

	Philippines	Egypt	China	Ecuador	Peru
Philippines	0.06	0.91	0.85	1.00	1.00
Egypt	0.91	0.08	0.86	0.97	0.96
China	0.85	0.86	0.14	0.89	0.84
Ecuador	1.00	0.97	0.89	0.02	1.00
Peru	1.00	0.96	0.84	1.06	0.02

Source: our calculations on population register data

With reference to the households, the proportion of foreigners households¹ over the total has increased by 2 points in 4 years. They increase at an annual rate of 34.1 per 1,000 while the Italian ones decrease at an annual rate of -9.4 per 1,000. It should also be noted that the proportion of foreign households increases for all sizes of family but in particular for households with 5 or more components. Finally, the specification of the householders by gender reveals a prevalence of females in matching families with 2 or at least 5 components, while males predominate in the remaining types. This gender characteristic can be explained primarily by the phenomenon of the reunification of the children to those mothers who came to Italy alone in order to do specific jobs, usually those related to personal and family care (i.e. housekeeper, care givers) typical of some specific nationalities (Fondazione ISMU, 2010 and ISMU, Censis, Iprs, 2010) and secondly with the maturation of the migration process that, at least for some communities, leads to stabilization of family and kinship ties in the host country (Safi, 2009).

You may notice the well-differentiated family paradigms. The Philippine community shows a well-balanced family structure by gender and age group of householders, albeit with a tendency to the prevalence of females among older householders and in small families (up to 3 components). The Egyptian community has a highly unbalanced family structure towards the male gender (females have only a certain role among the less than 24 years old householders). The Chinese family structures are "symmetrical" compared to those of the Philippine community (males predominate among the householders, especially in the older age groups). In the Peruvian and Ecuadorian communities, finally, the composition of householders reveals a quite balanced gender ratio, however, as already observed for the Philippine community, the females dominate among the most elderly and in smaller families (up to 3 components).

At a more detailed level, the average family size, both for the Italian and foreign ones, tends to increase with distance from the city center. The difference by gender in spatial distribution of the householders is a second interesting aspect: the foreign families are characterized by higher frequencies of female householders in functional areas located in the city center. It is reasonable to assume that among foreign families the female householders prevail where they do jobs of personal and family care on the basis of a mostly temporary presence, mainly without any family projects in Italy.

As for the most numerous nationality, the Philippines, a characterization of families with respect to the female gender is apparent: in only 16 of the 180 functional areas in which the city area is

¹ We define foreigner households the ones whose householder is foreigner.

divided the proportion of female householders is less than 50%, while in 45 areas (one fourth of the total) this percentage exceeds 68%. Moreover, while in the city center they are almost alone in the peripheral areas they are in families with 2.3 components.

Even the Egyptian householders are clearly characterized by gender: female householders are absent in 58 functional areas (ie 31%) and in the remaining areas their share does not exceed 6.7% . Even in this case, largest families are more common in suburban areas. The presence of the Egyptians in the functional areas located in the west side of the city is more consolidated (likely effect of migration chains).

The west side is also characterized by a large presence, concentrated in a very few areas, of Chinese female householders. In such areas, their share exceeds 71% of householders. The geographical distribution of families by size does not seem to follow pattern as apparent as those observed for the Philippines and Egypt, except for the almost total absence of large families in the city center.

Finally, the two nationalities, Ecuador and Peru, are similar in family size, much lower than the ones of previous communities, and in geographical distribution of family structure. Their size reaches the lowest values for both communities in the center and gradually increases spreading towards the suburbs (even in this respect Ecuadorian families show a more "extreme" pattern). The proportion of female householders looks like to be the differentiating element between these two nationalities, since the Ecuadorians are almost concentrated in the center while the Peruvians are distributed along the peripheral circle, revealing a settlement pattern that spills beyond the borders of the city.

In order to measure the level of segregation we will calculate all the indexes mentioned above and then, thanks to sample data, we could identify the main determinants of segregation conditions with an appropriate regression model.

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