When low fertility affects Immigrants. The case of Italy

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Short Abstract

This analysis was aimed to examine the interrelation between migration, fertility and migration commitment and to analyze the presence of children in emigration. This dimension is crucial to evaluate the process of reconciliation of work and family life among immigrants, a theme that is often analyzed for Italian women, but is found crucial to determinate levels of fertility also among female immigrant workers.
Starting from representative survey data the real level of fertility and the effective contribution to Italian population was discussed finding levels of fertility considerably below the official TFR calculated for foreign women.
Migration commitment also plays a crucial role as family migrants and workers have different behaviors and desires in terms of fertility. While actual levels of foreign fertility are mostly due to family migrants for women with a strong working commitment (as for first migrants) fertility is already low. More of that migrant women find themselves more exposed than Italian women to problems of family and job reconciliation.

Persistent lowest low fertility in Italy and the contribution of immigrant

It is common knowledge that Italy is one among the countries that are most characterized by very low fertility levels. Besides, Italy fully fits the definition of "lowest low fertility" introduced by Kohler, Billari, and Ortega in 2002 to describe those countries where the total period fertility rate (TFR) drops below 1,3, a level - recorded at national level for the first time in 1992 - that proved to be persistent for the entire period 1993-2003. That decade saw a drop in the levels of fertility, reaching a TFR of less than 1,2 (Caltabiano et al. 2009). Since then fertility has shown a gradual recovery, reaching the actual national level of 1,41 (1,5 for the region of Lombardy).
This general trend is due to a slight increase in native fertility, in particular related to births by "late mothers", women who had postponed the first birth after the age of 35. In fact, the postponement of fertility has also put Italy at the top in the ranking of countries as far as the relative weight of births from women aged 40 or above is concerned (Billari, 2007). Another strong contribution comes from the increasing number of births from immigrants, whose fertility tend is higher than that of native. Total fertility rate for Italian was 1,31 and 2,23 for foreign women in 2009. Latest data diffused by Istat (2011) show a new reduction in the number of birth (from 568.857 in 2009 to 561.944 in 2010) from Italian parents and a concurrent further increase of births from foreign parents even if at a lower rate than previous years. Births from both foreign parents accounted for 14% of the total newborn, while children with at least a foreign parent where 19% of the total (respectively 21,3 and 26,7 in 2009 in Lombardy).

Aim of the study

The aim of this study was to analyze levels and patterns of fertility among immigrant women. As pointed out in a very effective way by Toulemon and Mazuy (2004) the use of Total Fertility Rate for the analysis of migrant fertility leads to an overestimation. Migration marks an important change in family and fertility behavior. Though immigrants' fertility before migration is low, resettlement is often linked with union formation, and fertility rates just after immigration are very high. The TFR does not take this discontinuity into account and thus overestimates lifetime fertility of immigrants.

Another crucial point is related to what we mean by "immigrant fertility". Migration represents a break point not only in the biography but also in data availability. When dealing with migrants' fertility the researcher can analyze the number and progression of births in Italy, he can include children born abroad and lately arrived by family reunification or he can be interested in the number of children ever born, regardless of the place of birth or residence at the time of the survey.
Official data usually only allow analysis of levels and trends of births in Italy, behaviors that are deeply affected by age at arrival and propensity to give birth in Italy.
Other interesting approaches like Record Linkage, experimented in the Italian setting (Mussino et al.), allow the use of stock data from administrative registers to construct a longitudinal dataset that includes information on births, but so far still enable the analysis of merely the events that took place in Italy.
If information on possible previous births are unknown all the analysis can be biased by the fact that women's true parity is unspecified.
Own children method can help to extend information available thru official data to foreign born children only if they are cohabitant with the mother. As previously highlighted this method can be unsuitable when applied to household different from the classical family model (cohabitant parents and children). Not only the presence of grandparents can originate wrong mother-to-child linkages but the existence of other cohabitant relatives (like siblings or other minors not "own children") can create significant problems and wrong matching between mother and children for those nationalities where this kind of families are quite diffused (Ortensi, 2009).
Not only levels, but patterns of fertility are an issue of interest. Foreign women are a complex universe. The diffusion of different migration models is crucial in the determination of levels and patterns of fertility. In particular this analysis showed the existence of strong differences between women that migrate as self migrants and family migrants. The high fertility recorded by official statistics, in fact, is mostly the result of the high propensity of women that migrated with the role of caregivers to have births in emigration. Women that migrate to work, instead, have lower levels of fertility in Italy: they migrate on their own leaving children at home or they migrate childless and have fertility patterns in emigration similar to Italian women. It's not a case if 60,3% of foreign women who had a birth in 2008-2009 in Lombardy declared themselves as housewives, while only 21% of the foreign women aged 15-49 present in Lombardy in the same years was housewife[1](Ortensi, 2010).
The analysis was therefore aimed to examine the interrelation between migration, fertility and migration commitment and to analyze the presence of children in emigration. This dimension is crucial to evaluate the process of reconciliation of work and family life among immigrants, a theme that is often analyzed for Italian women, but is found crucial to determinate levels of fertility also among female immigrant workers.

Data and methods

To perform a correct analysis of immigrants' fertility is necessary to use dedicated survey data in order to reconstruct to whole reproductive history of every women. If such an analysis is not possible at national level, it turns possible at regional level. This restriction does not cause a loss of representativeness, being the Italian region of Lombardy the most important migration pole in Italy where 25% of the total national number of migrants is settled. The analysis of data for foreign population in this region allows an accurate overview of the situation of migrant's fertility in Italy, as previous studies at national level pointed out that migrants living in Lombardy do not differ in their main characteristics from those settled in other Italian regions (Blangiardo and Farina, 2006).
Data on foreign population living in Lombardy used in this analysis are routinely produced by the Regional Observatory for Integration and Multi-ethnicity of Lombardy, one of the main sources for information and

[1] The proportion rise to 35% if we add women with an irregular contract that could have claimed themselves as non workers, but is still far from the incidence in the population of women hospitalized for birth delivery.

data on immigration in Italy. Figures are based on an annual survey of 8.000 face-to-face interviews carried out on the base of Centre Sampling statistical procedure. The sampling method is based on a set of information about a number of aggregation centers regularly visited by the target population of immigrants. This sampling scheme allows weighing the original biased sample in order to provide a consistent estimate of the overall migrants' population characteristics. The actual performance of this method has been empirically tested over the last decade in Italy (Blangiardo et al., 2011a). These survey data are of particular interest as they include also information on irregular migrants. Data used for this analysis were taken from the 2011 wave that involved 8021 migrants. For the current analysis only the female sample was used (3.900 women from high pressure migration countries[2] aged 14 and over).

The 2010 and 2011 waves of the Regional Survey are focused on Family and Fertility. In particular the 2011 wave adds to the basic questionnaire detailed information on children ever born (including year and place of birth and possible year of family reunion) and ideal number of children, family of origin, actual partner and possible former unions.

As a first step a descriptive analysis was performed to compare the main characteristics of women with different "migration commitments" (Strictly labor oriented, family and labor oriented and strictly family oriented) and their fertility outcomes.

Secondly a Poisson regression was performed. A first model excluded variables on family income as the inclusion of this variable determinates a loss of 20% in the number of valid cases. That information was nevertheless included in a second model as this dimension was considered a key point in the analysis of fertility.

Female immigration in Italy

Italy is one of the new countries of immigration in the European Union with Spain, Greece, Portugal and Ireland (Triandafyllidou, 2007). The rise in the presence of immigrants has been recent and fast. Latest figures from ISMU Foundation estimate the presence of more than 5 million foreigners including irregular stayers.

Foreign presence in Italy

	1.1.2007	*1.1.2008*	*1.1.2009*	*1.1.2010*	*1.1.2011*
	(thousands)				
Total legally present	*3.633*	*3.677*	*4.416*	*4.880*	*4.954*
Of which:					
- resident	2.939	3.433	3.895	4.235	4.563
- legally present non resident	694	244	521	645	391
Total irregular	*349*	*651*	*422*	*454*	*440*
Total present	*3.982*	*4.328*	*4.838*	*5.334*	*5.394*

Source: Blangiardo, 2011b

Since the beginning of migrations In Italy gender unbalance of main nationalities was one of the main characteristics of foreign national flows. Some of them were mainly male, such as those from Northern Africa, Pakistan and Senegal. Others, like those from Cape Verde, Philippines, Somalia, Eritrea, were almost completely female.

In a second phase new flows started. Some of them were quite gender balanced like those from Albania, Romania, and China. On the other side most of the new flows were mainly made up of first migrant women, like those from Latin America and Eastern Europe (excluding those from the Balkans, mainly male).

[2] Foreign nationals from high income countries (USA, Israel, Australia, Japan, Canada, and former EU15) are excluded from the survey.

Percentage of foreign resident in Lombardy on 1° January 2008, 2009 e 2010 among total foreign resident in Italy. Main citizenships

Country	*2010*	*2009*	*2008*
Egypt	71,0	67,9	70,5
Ecuador	45,0	43,9	45,6
Pakistan	43,6	42,9	43,9
Peru	42,3	40,7	43,6
India	39,5	40,2	40,0
Senegal	38,6	38,2	38,7
Philippines	35,9	34,5	36,8
Sri Lanka	32,8	31,0	33,7
Morocco	24,2	24,4	24,4
China	21,9	21,3	22,5
Tunisia	21,1	21,0	21,1
Bangladesh	20,8	21,2	21,1
Albania	20,5	20,5	20,4
Ukraine	19,2	18,6	18,2
Nigeria	15,6	15,2	16,3
Romania	14,5	15,3	15,3
Moldova	14,4	14,4	14,2
Poland	8,0	8,0	8,3
All countries	*23,2*	*23,2*	*23,7*

Source: Elaboration on Istat data.

After the introduction of legislation related to family reunion in 1990, family migration started along with the beginning of a process of gender balance also for male dominated flows and the gradual rise of birth and migration of young children. Foreign families have become one of the main features of Italian immigration. Families entirely made up of foreigners rose nearly by 13 times between 1991 and 2009 (from 127 thousands to 1,6 millions) while mixed families account for other 500 thousands families.

Work and fertility: a link that gets stronger in emigration

Migrant fertility is constantly growing and has become an important factor in sustaining the general Italian fertility. This phenomenon is the result of a level of migrants' fertility higher than the native and of the fact that, especially for family migrant, fertility before migration is low while fertility rates are very high just after immigration.

Anyway, data on nationalities of foreign newborn show that such a general statement does not tell us the full story. Not all foreign women have the same attitude towards childbearing in Italy and having a job seems to be an important deterrent. Moreover, as we know that the application of TRF can create biases in measuring migrants' fertility another question that arises is if we should really trust a TRF of 2,23 at national level that rises further on at 2,64 for Lombardy (Istat, 2009).

To answer to all these questions the situation in the main Italian region for foreign presence was analyzed.

The first issue is about the real level of fertility, as a previous application of the Toulemon TFR for migrants showed a value of 1,99 for Lombardy in 2009 (Ortensi, 2009).

As shown in the image below, the mean number of children ever born to immigrant woman aged 14 and over is below 1,5 for all areas.

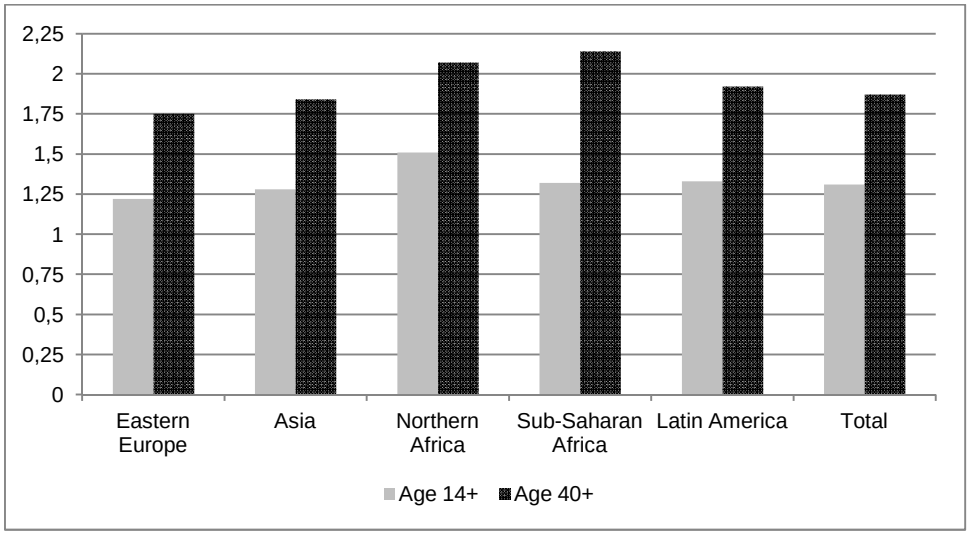
Of more interest is the mean number of children ever born by woman aged 40 and over as these data show with a good approximation (as late fertility is less diffused among foreigners) the final level of fertility in a group with particularly interesting features.

The first consideration is that for all groups of women, including those from very high fertility countries (Sub-Saharan Africans) the level of completed fertility is around 2, and is 1,87 for the total number of women. Those women have therefore a mean number of children ever born that is already below replacement level.

The second point is that these women had most of their children abroad and migrate at a "late" age (36 years in median). Their socialization about fertility took place abroad and has not been too influenced by Italian low fertility background. We can suppose that women that migrated at a younger age or that are second generation foreigners will show in the next years lower levels of completed fertility, levels that will be surely

lower than the actual estimated period TFR. Low fertility could soon became an issue also among foreign women. Differences exist also among areas of origin, as women coming from countries with low levels of fertility have lower levels of total fertility (in Italy or abroad).

Mean Number of children for women of age 14+ and 40+ by area of origin. 2011



Foreign women have a high propensity to become mothers: 87% of women aged 40 and over had at least a child and 1 out of 7 was already a mother between 30 and 35. Latin Americans have a particular high percentage of adolescent fertility, a level that is high also in the countries of origin.

Mean Number of children ever born (CEB) and proportion of mothers at different ages. 2011

Area	*Mean number of CEB*	*Proportion of mothers*					
		15-19	*20-24*	*25-29*	*30-34*	*35-39*	*40+*
Eastern Europe	1,23	0,0	21,6	51,7	65,4	83,6	89,1
Asia	1,28	3,3	27,7	61,3	72,6	90,9	88,2
Nord Africa	1,52	3,3	25,4	56,1	83,6	92,9	84,8
Sub Saharan Africa	1,33	0,0	24,3	47,0	80,0	85,6	86,3
Latin America	1,34	8,1	18,7	45,8	64,3	76,6	87,0
Total	1,32	2,7	23,3	53,4	71,7	86,0	87,7

The situation is different if we consider only visible fertility in emigration (i.e. children in Italy). The mean number of children drops at 1 and the proportion of mother with at least a child in Italy decreases in all ages and for all areas, with the partial exception of Northern Africans.

Mean Number of children present in Italy (CPI) and proportion of women with at least a child in Italy at different ages. 2011

Area	*Mean number of CPI*	*proportion of women with at least a child in Italy*					
		15-19	*20-24*	*25-29*	*30-34*	*35-39*	*40+*
Eastern Europe	0,81	0,0	17,8	45,3	58,0	70,6	51,7
Asia	1,02	3,3	27,7	53,9	69,1	83,1	64,5
Nord Africa	1,42	2,9	23,9	54,6	80,5	91,9	80,4
Sub Saharan Africa	1,01	0,0	21,1	39,4	68,1	63,2	76,4
Latin America	0,85	8,1	13,0	34,2	53,3	58,5	61,8
Total	0,98	2,6	20,4	46,7	64,5	74,3	61,5

As this analysis emphasizes, there is a strong difference between the real level of fertility and the presence of children in emigration. This difference is higher for women from Eastern Europe and Latin America that are mainly workers and first migrants. The percentage of children present in Italy is on the contrary no

surprisingly high for women from Northern Africa that are mainly family migrant. Again, most of the children present in Italy are cohabitant with their mothers, but this percentage is lower among Latin Americans and Eastern Europeans.
If we consider the quota of foreign born children we see that differences increase. Propensity to have a child in Italy is highly diversified and is consistent with the presence of children in Italy.

Presence of children in emigration. 2011

Area	*% of children in Italy (CPI)*	*% of cohabitant children among CPI*	*% of underage cohabitant children among CPI*	*% of children born in Italy*
Eastern Europe	66,0	88,2	71,2	33,0
Asia	79,6	95,6	83,9	54,3
Nord Africa	94,0	97,6	88,8	74,6
Sub Saharan Africa	76,7	94,9	84,1	62,5
Latin America	63,8	87,1	70,8	34,4
Total	74,6	92,5	79,3	48,1

This first analysis suggests the existence of different patterns of total fertility and fertility in Italy among migrants and that a strong linkage could exist with the role of women in emigration. Differences do exist in the total level of fertility, but such differences are more marked if we consider children's presence in Italy. The mean number of children in Italy is considerably lower for those areas where women are mostly workers or first migrant, but do these differences remain when we take into account different roles in emigration?

When women migrate to work

Typologies of migration used in this analysis are aimed to understand the nexus between family, work and fertility. To this end, only women who migrated at the age of 18 or later were selected, to exclude from the analysis women who were born in Italy or migrated with the family of origin - women who didn't made the personal choice to migrate or that never migrated at all.
Women who migrated on their own or before the partner and that are currently working were considered as "*women with a strictly working commitment*". On the other side, women who migrated with the partner or after him and are housewives were considered as "*migrants with a family commitment or family migrant*".
In the middle there is the case of women who migrate with the partner or after him, but that are currently working. The third typology is for women who are also workers, but migrated on a family project. This typology pertains to a more "mature" migration. Women with a strictly family commitment can in time begin to look for a job. They are in fact characterized by a higher permanence in Italy.

Typologies of analysis

Strictly working commitment	*Working and family commitment*	*Family commitment*
➢ Arrival at age of 18 or older ➢ First migrant (migrated alone or before the partner) ➢ Is currently working or is unemployed ➢ The year before the survey was working or unemployed	➢ Arrival at age of 18 or older ➢ Arrived after or with the partner ➢ Is currently working or is unemployed ➢ The year before the survey was working or unemployed ➢ Is currently housewife but was working the year before the survey	➢ Arrival at age of 18 or older ➢ Arrived after or with the partner ➢ Is currently not working nor looking for a job ➢ The year before the survey was not working nor looking for a job

A closer look to the main characteristics of these women confirms that women with a strictly working commitment are typically from non EU eastern European (excluding Albania), Latin America and Philippines while nationalities characterized by typical male flows are most diffused among family migrant. Among women with working and family commitment there are some of the most gender balanced flows like that from Albania, Romania and China. Women that have a job have higher education levels than family

migrants and those with a strictly working commitment are mainly unmarried or had a former union. Among them the most common job is elder caregiver ("badante") and they live with the employer in a case out of 4. It's not a case if this job that is highly incompatible with a family is not diffused among women that migrate also with a family project. Propensity to mobility is also different in the three groups with a higher stability for family migrant.

Main characteristics by migration commitment, 2011

Migration commitment	*Strictly working commitment*	*Working and family commitment*	*Family commitment*
% among all women	46,3	33,2	20,5
Mean age at arrival	30,9	27,4	27,1
Mean age	39,0	37,0	35,0
First 5 citizenship in each group	Romania(14,0) Ukraine (12,9) Philippines (8,0) Peru (7,6) Ecuador (6,1)	Romania (15,3) Albania (12,0) Morocco (8,1) China (6,6) Ecuador (5,5)	Morocco (20,9) Albania (13,0) Egypt (10,3), India (9,2) Romania (5,3)
First 5 citizenship for incidence of commitment	Moldova (77,6) Ukraine (76,0) Bolivia (72,1) Philippines (67,5) Peru (67,4)	Albania (47,1) China (47,1) Tunisia (43,3) Brazil (43,2) Romania (40,1)	Pakistan (68,8) Egypt (61,0) India (60,6) Morocco (43,9) Tunisia (32,6)
Legal status	Limited residence permit (40,0) Unlimited residence permit (25,0)	Unlimited residence permit (37,1) Limited residence permit (25,7)	Unlimited residence permit (47,0) Limited residence permit (38,7)
Main typology of residence permit	Labor (79,2)	Family (56,8)	Family (94,6)
Marital status	Divorced/ separated/Widowed (36) Unmarried (35,3) Married (28,7)	Married (87,2) Unmarried (8,6) Divorced/ separated/Widowed (21,4)	Married (97,2) Unmarried (1,4) Divorced/ separated/Widowed (1,4)
Mean number of years in Italy	7	9	7
% 10 years or more in Italy	29,7	40,1	27,6
% Less than 2 years in Italy	5,1	3,7	7,5
% University graduated	20,8	25	7,3
Most popular jobs	Elderly caregiver (26,5) Domestic work (14,2) Restaurant/hotel employees (9,4)	Domestic work (16,5) Restaurant/hotel employees (14,5) Housekeeping (8,5)	-
Live with the employer (own/ partner)	25,2	1,7	0,8
Wants to move away in the next 12 moths	16,5	8,1	6,0

Migration commitment has a clear effect on fertility and in the presence of children in Italy. Women with a working commitment have a lower number of children, are more frequently childless or without any children in Italy. On the other side, family migrant have a higher fertility, have often underage cohabitant children, some of them born in Italy.

Women with working and family commitment have a profile that is closer to family migrants but are less likely to have young Italian born children or large families with 3 or more cohabitant children.

Even if they are similar for mean age at arrival and mean age at the survey being a worker has therefore an effect on family size.

Number of children by migration commitment, 2011

Migration commitment	*Mean number of CEB*	*% childless*	*% With no children in Italy*	*% With cohabitant children*	*% With cohabitant underage children*	*% With at least one child born in Italy*	*% of women with 1 or 2 cohabitant children*	*% of women with 3 or more cohabitant children*
Strictly working commitment	1,21	35,2	63,6	36,4	24,5	19,6	11,0	3,0
Working and family commitment	1,54	17,2	22,8	77,2	68,6	56,7	41,0	9,6
Family commitment	1,84	9,8	12,3	87,7	84,3	72,5	57,4	20,2
Total	1,45	24,0	39,5	60,5	51,5	42,8	30,5	8,7

Characteristics of children by migration commitment

Migration commitment	*% children in Italy among CEB*	*% of cohabitant children among those in Italy*	*% of cohabitant underage children among those in Italy*	*% of children born in Italy among CEB*	*% of children abroad among those born in Italy*
Strictly working commitment	47,1	81,9	59,3	24,1	13,3
Working and family commitment	87,8	95,3	82,8	58,5	1,2
Family commitment	94,9	97,6	90,6	66,6	0,4
Total	74,0	92,8	79,7	47,4	3,3

Women with family commitment are more likely to have most of their children in Italy. These children are usually cohabitant, underage and more than half of them was born in Italy. On the other side, most of children of women with a migrant commitment live abroad. Among those in Italy, the proportion of minors is lower and there is a significant percentage (13%) of Italian born that lives abroad, a signal of clear incompatibility for some women to have a work and children in Italy.

The category of migration commitment has an effect on the transition to first birth. Working migrants became mothers at home country in 7 cases out of 10 while first birth was in Italy for most of family migrants (55%).

While age at first birth is the same for all women that had the first child abroad (23) the effect of migration commitment is clear when the first birth happened in Italy. If migration causes a delay of about 4 years in women who had first child in Italy, this delay is lower for family migrant (26,5), but rises for family and working commitment (27,6) and is still higher for the latter category (28,6).

The fact of being a worker deeply affects transition to first birth (this is evident when we compare the proportion of mothers aged 30-35), number of children ever born and number of children in Italy - that is the real contribution to Italian population.

Transition to first birth and migration by migration commitment

		Strictly working commitment	*Working and family commitment*	*Family commitment*	**Total**
First birth before migration	%	76,3	49,2	45,0	58,8
First birth after migration	Mean age	28,6	27,6	26,5	27,5
First birth before migration	Mean age	23,2	23,3	23,4	23,3
Total	Mean age	24,5	25,5	25,3	25

Proportion of mothers at some ages by migration commitment

Migration commitment	*% aged 20-24 with at least a child*	*% aged 30-35 with at least a child*	*% aged 20-24 with at least a child in Italy*	*% aged 30-35 with at least a child in Italy*	*% childless 40+*
Strictly working commitment	18,2	47,5	10,1	31,9	15,1
Working and family commitment	26,6	78,1	26,6	74,7	8,7
Family commitment	63,9	94,1	63,9	93,5	8,5
Total	23,3	71,7	20,4	64,5	12,3

The type of migration commitment has also a link with ideal number of children: family migrant are more likely to desire 3 or more children, while first migrants are more likely to desire a smaller family.

Anyway even when we deal with ideal number of children, migrants' fertility is assessed on the model of family with 2 children, a fact that is consistent with actual level of fertility.

Ideal number of children by migration commitment

			%			
Migration commitment	Mean	Median	No children	1	2	3 or more
Strictly working commitment	1,75	2,00	18,0	18,1	44,0	19,9
Working and family commitment	2,06	2,00	11,8	12,2	46,2	29,9
Family commitment	2,37	2,00	10,4	5,3	41,2	43,0
Total	1,98	2,00	14,3	13,4	44,1	28,1

Migrants and contribution to Italian population

To conclude the analysis it was considered important to evaluate the impact of different characteristics in the determination of the number of children in Italy. This dimension of fertility was chosen to evaluate the real contribution of migrant fertility to Italian population which is a key point in the determination of future trends of the Italian population in terms of ageing and working population.
A woman with 5 children that had all of them in her country of origin doesn't contribute to Italian fertility and acts in emigration as a childless women (except for remittance). More of that, maybe she cannot conciliate being a mother and a worker in Italy.
To examine this outcome of fertility, it was decided to use a count model, here a Poisson model, for the multivariate analysis of number of children in Italy. An offset variable (number of years in Italy) was used to adapt the Poisson count model to a rate. In addition to migration commitment other explanatory variables were used[3]. In a second model the economical dimension was added but this caused the lost of a 20% of cases. To this end it was chosen to keep both the models.

Tests of Model Effects for model 1

	Tests of Model Effects		
		Type III	
Source	Wald Chi-Square	df	Sig.
(Intercept)	370,859	1	0,000
Migration commitment	23,468	2	0,000
Age at arrival	636,722	1	0,000
Marital status	120,75	3	0,000
Citizenship	31,445	14	0,005
Number of children abroad	141,887	1	0,000
Ideal number of children	355,294	3	0,000
Mother's number of children	47,226	1	0,000
Lives with the employer	22,219	1	0,000
age	455,465	1	0,000
Education	16,798	3	0,001

A first point of interest is that once introduced other explanatory variables a key information such as citizenship is no more significant. This is explained by the presence information about respondent's mother fertility a dimension that plays an important role, as every additional child of the mother raises the odds of having a child living in Italy by 5%. This variable is more precise in the individuation of women with a high fertility background than the general information about the TRF in the country of origin, as migrants are sometimes a selected lower fertility group even in high fertility contexts.
The model showed a significant role of migration commitment: keeping all other variables constant the odds of having an additional child in Italy in the time of permanence increases by 10% for family and worker commitment migrants and increases by 39% for family migrants compared to strictly working commitment migrants. Marital status also plays a crucial role, in particular for unmarried woman that are more likely to be childless. The linkage with education is inverse: as education rises the number of children in Italy decreases.

[3] The two models showed no problems of over dispersion. Ratio of Pearson chi-square to degrees of freedom was 1,1 for the first model and 0,06 for the second. Omnibus test was significant for both the models (p=0.000).

Ideal number of children is also a key factor: the odds of having an additional child in Italy more than doubles for women that desires 3 or more children compared to those that do not desire any child.
The effect of cohabitation with the employer, typical of elder caregivers, is also significant meaning this type arrangement is highly unfit for women with children.

Parameter Estimates

	Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
				Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
	(Intercept)	-4,24	,20	-4,64	-3,85	447,10	1	,000	,014	,010	,021
Ideal number of children	3 or more	1,22	,07	1,08	1,35	303,14	1	,000	3,376	2,944	3,871
vs. None	2	,90	,06	,78	1,01	240,71	1	,000	2,450	2,188	2,744
	1	,57	,05	,46	,67	105,96	1	,000	1,760	1,581	1,961
Migration commitment	Family commitment	,33	,07	,20	,47	23,21	1	,000	1,394	1,218	1,595
(vs. Strictly working commitment)	Working and family commitment	,24	,06	,12	,36	15,70	1	,000	1,272	1,129	1,432
Citizenship	Peru	,18	,12	-,04	,41	2,52	1	,113	1,201	,958	1,505
(vs. Other women from Eastern Europe)	Ecuador	,18	,11	-,03	,38	2,77	1	,096	1,192	,969	1,465
	Morocco	-,09	,09	-,28	,09	,94	1	,332	,912	,758	1,098
	Egypt	,11	,11	-,10	,33	1,13	1	,288	1,122	,908	1,386
	India	,25	,11	,04	,46	5,37	1	,021	1,283	1,039	1,585
	Philippines	,04	,12	-,19	,27	,13	1	,717	1,043	,829	1,313
	China	,13	,12	-,10	,36	1,25	1	,263	1,139	,907	1,431
	Ukraine	-,08	,12	-,31	,15	,44	1	,509	,925	,734	1,166
	Romania	,11	,09	-,07	,30	1,49	1	,223	1,120	,934	1,343
	Albania	,09	,09	-,10	,27	,87	1	,351	1,090	,909	1,308
	Other women from Latin America	-,05	,11	-,27	,17	,22	1	,638	,949	,762	1,181
	Other women from Sub Saharan Africa	-,03	,10	-,23	,16	,12	1	,729	,966	,793	1,177
	Other women from Northern Africa	-,04	,13	-,29	,21	,08	1	,771	,963	,748	1,240
	Other women from Asia	,00	,11	-,21	,21	,00	1	,992	,999	,811	1,230
Lives with the employer (vs. Yes)	No	,52	,11	,30	,74	22,22	1	,000		1,356	2,093
Marital status	Divorced	1,06	,11	,85	1,27	101,33	1	,000	2,890	2,351	3,554
(vs. Unmarried)	Widowed	1,02	,14	,74	1,31	49,67	1	,000	2,778	2,091	3,691
	Married	1,03	,10	,83	1,22	109,87	1	,000	2,789	2,302	3,378
Education	University graduated	-,31	,08	-,47	-,14	13,58	1	,000	,735	,624	,866
vs. No formal education	High School	-,23	,07	-,38	-,09	9,68	1	,002	,793	,685	,918
	Middle school	-,15	,08	-,30	,00	3,98	1	,046	,860	,741	,997
Age at arrival		,12	,00	,11	,13	636,72	1	,000	1,127	1,117	1,138
Number of respondent's mother children		,05	,01	,04	,07	47,23	1	,000	1,054	1,038	1,070
Age		-,08	,00	-,09	-,08	455,46	1	,000	,920	,913	,927
Number of children living abroad		-,50	,04	-,58	-,42	141,89	1	,000	,605	,557	,657

Effects of some characteristic in number of children in Italy

Marriage/previous unions	+
Education	-
Fertility of mother	+
Age at arrival	+
Ideal number of children	+
Having a job	-
Other children abroad	-
Cohabitation with the employer	-

The second model added the economic dimension to the analysis. This additional information caused loss of significance for information about education and citizenship that where therefore eliminated from the analysis.

Tests of Model Effects for model 2

Source	Type III		
	Wald Chi-Square	df	Sig.
(Intercept)	375,256	1	,000
Ideal number of children	287,378	3	,000
Migration commitment	32,953	2	,000
Respondent lives with the employer	9,099	1	,001
Marital status	88,788	3	,000
Age at arrival	537,010	1	,000
Mother's number of children	44,768	1	,000
Age	373,665	1	,000
Number of children abroad	114,235	1	,000
Family income	19,232	1	,000
Economical situation	21,809	5	,000

Parameter Estimates for model 2

	Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
				Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
	(Intercept)	-4,43	,20	-4,82	-4,05	509,47	1	,000	,012	,008	,017
Ideal number of children	3 or more	1,16	,08	1,02	1,31	238,26	1	,000	3,199	2,760	3,707
vs. None	2	,93	,06	,80	1,05	218,30	1	,000	2,522	2,231	2,852
	1	,59	,06	,48	,71	99,32	1	,000	1,810	1,611	2,034
Migration commitment	Family commitment	,41	,07	,27	,55	32,56	1	,000	1,508	1,310	1,737
(vs. Strictly working commitment)	Working and family commitment	,26	,07	,13	,39	15,83	1	,000	1,301	1,143	1,482
Lives with the employer (vs. Yes)	No	,44	,13	,19	,69	11,78	1	,001	1,553	1,208	1,997
Marital status	Divorced	1,05	,12	,83	1,28	81,56	1	,000	2,871	2,284	3,610
(vs. Unmarried)	Widowed	1,07	,16	,77	1,38	47,73	1	,000	2,925	2,157	3,965
	Married	,98	,11	,76	1,19	79,05	1	,000	2,656	2,141	3,294
Age at arrival		,12	,01	,11	,13	546,44	1	,000	1,128	1,116	1,139
Number of respondent's mother children		,05	,01	,04	,07	44,35	1	,000	1,053	1,037	1,070
Age		-,08	,00	-,09	-,08	379,93	1	,000	,919	,912	,927
Number of children living abroad		-,52	,05	-,61	-,42	112,94	1	,000	,597	,542	,656
Family income		,00	,00	,00	,00	17,71	1	,000	1,000	1,000	1,000
Financial situation	Has no difficulties to incur all monthly expenses (great easiness)	-,49	,16	-,80	-,18	9,63	1	,002	,614	,451	,835
(vs. Has great difficulties to incur all monthly expenses)	Has no difficulties to incur all monthly expenses	-,27	,07	-,40	-,14	17,18	1	,000	,761	,669	,866
	Has some difficulties to incur all monthly expenses	-,12	,05	-,22	-,03	6,37	1	,012	,886	,806	,973

The introduction of the economic dimension shows that number of children in Italy rises with family income but also that the number of children is lower in family that don’t have financial straits.

Conclusions

This analysis highlighted some interesting points about immigrant fertility in Italy.
The first is that the actual estimated TFR for resident is strongly biased by interrelation between fertility and migration. The level of total fertility (including children living abroad) is manifestly inferior to the level of 2,64 (TRF for foreign women in Lombardy) and the mean number of Italian born children - whose data refers to - is even lower (0,75 among women aged 15-49).
The two-children family size is the most diffused ideal model among immigrants (and the same can be said for Italian women) but such a family size is not always achieved. And even for immigrant families is not so common to break the two-kid barrier. Anyway differences exist among areas: migrants with larger families of origin tend to have larger families in Italy and this is particularly truth for African women and for Indians, Pakistanis and Bengalese.
Anyway when other explanatory factors are included in the analysis, differences among proveniences disappear meaning that an Egyptian full time worker do not really differ in her fertility outcomes from a Romanian full time worker merely for her origin. Features in emigration do play a strong role making women from different countries similar in their fertility behaviors.
A crucial role is played by the migration commitment of the women: first migrant workers - that account for the most part of women (46%) - have a lower and later fertility, a model close to that of the Italian women. Their contribution to the Italian population is even lower, as for working commitment women there is a high percentage of foreign born children that never migrated.
Being a worker has effects both in the ideal number of children and in final fertility. For some women the job is highly incompatible with fertility and own children care. This is the typical case of women that are elder caregivers. Immigrant women easily find their jobs in the domestic sector where they take charge of the employer's family and take care for cooking and children and care of elderly. If the presence of immigrant women helps Italian women to supply a poor and inadequate welfare, immigrant women find themselves to the same position of incompatibility among work and family as they share with native women the same lack of welfare services. This leads to a low fertility and the persistence of transnational families.
As Italian women earn a little freedom from family duties, migrant women inherit that situation where the women is obligated to accomplish both family and paid work a situation known as "double presence". For these workers immigrants it seems to be appropriate to talk about low fertility. Their effective contribution to the Italian population is even lower as most of their children live abroad.
The high fertility recorded in Italy for migrants is therefore the result of the high propensity of family migrants to have children in Italy. These women, which account for 20% of the total, have a higher ideal fertility, they become mothers earlier and have larger families with most of children living in Italy.
Another interesting theme that emerged from the second model is that migrant's fertility has an asset that has been typical of Italian women in the last decades, and that is still present in the southern regions of the country. It is the typical low fertility scheme where workers with high education and high income families have few children and, on the other side, unskilled women have larger and poorer, single-earner families. What is recently emerging in the northern part of Italy is that native employed women with higher education (eventually part of the new families, maybe unmarried) more than others manage to reach desired fertility. In the North of Italy there are some signals that link among work and fertility could became positive "in a modern way". No signs of such a process are visible among foreign women as they are an essential part of that transformation, providing low cost services.
The so called "high fertility of migrants"- highly overestimated and related the migratory conjuncture - seems therefore destined to remain a prerogative of the non workers family migrant, while foreign workers seems to be making their way towards even lower fertility levels and persistence of transnational families.

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