Sex-selective abortions among immigrant populations
Evidence from Italian birth register administrative data

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Background

23.1 million female births missing worldwide in 1970-2017. Sex Ratio at Birth (SRB): 1.054 in Europe, North America, Australia, and New Zealand vs 1.086 in South Asia vs 1.133 in Eastern Asia.
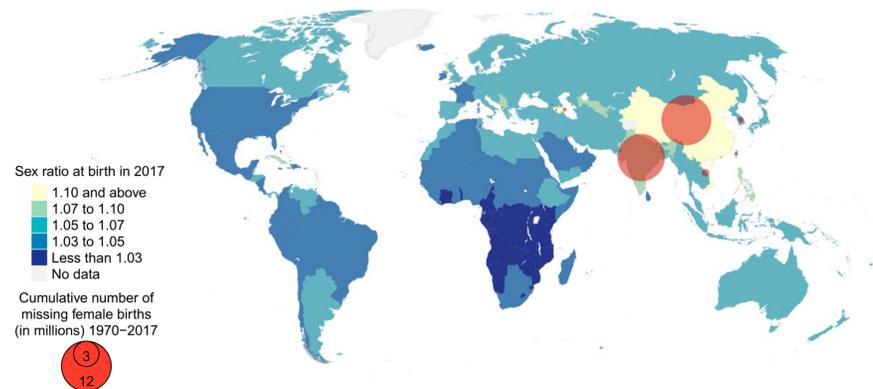

Sex ratio at birth in 2017
- 1.10 and above
- 1.07 to 1.10
- 1.05 to 1.07
- 1.03 to 1.05
- Less than 1.03
- No data

Cumulative number of missing female births (in millions) 1970–2017

3
12

Fig. 3. SRB in 2017 and the CMFB during 1970–2017, by country. Countries are colored by the levels of their SRB median estimates. Radii of circles are proportional to CMFB for countries. For high-resolution plot of Fig. 3, see *SI Appendix*, section 11.

Figure 1: SRB in 2017. Source: Chao et al. (2019)

Research Question

How common is sex-selective abortion among immigrant populations living in a European context such as Italy?

Data

7,105,438 births reported in the Italian civil registry in 2006-2019

- 5,810,013 (81.8%) Italian mother
- 1,295,425 (18.2%) migrant mother

Methods

I estimate **logistic regressions** in the form:

$$P(Sex_i = Female | Citizenship_i; Year_i)$$

Analysis

For 9 citizenship, the likelihood to register the birth of a female is lower than for Italian parents, which is consistent with the practice of sex-selective abortions.

	(1) Full period	(2) 2006-2010	(3) 2009-2013	(4) 2012-2016	(5) 2015-2019
Both parents Ita (ref.)	1.000	1.000	1.000	1.000	1.000
Both India	0.915***	0.910***	0.880***	0.915***	0.937***
	(0.00970)	(0.0168)	(0.0157)	(0.0162)	(0.0158)
Both China	0.949***	0.964***	0.948***	0.947***	0.918***
	(0.00784)	(0.0129)	(0.0126)	(0.0129)	(0.0136)
Both Macedonia	0.951***	0.945**	0.976	0.932***	0.941**
	(0.0147)	(0.0227)	(0.0234)	(0.0241)	(0.0279)
Both Ukraine	0.962**	0.955	0.932**	0.937***	0.999
	(0.0181)	(0.0346)	(0.0297)	(0.0273)	(0.0289)
Both Egypt	0.969***	0.968	0.980	0.991	0.959**
	(0.0115)	(0.0204)	(0.0205)	(0.0200)	(0.0177)
Both Philippine	0.970**	0.939**	0.976	0.972	0.989
	(0.0137)	(0.0229)	(0.0233)	(0.0221)	(0.0229)
Both Tunisia	0.977*	0.970	0.976	0.976	0.980
	(0.0121)	(0.0180)	(0.0192)	(0.0218)	(0.0232)
Both Albania	0.986**	0.977**	0.971***	0.989	1.001
	(0.00600)	(0.00966)	(0.00949)	(0.0100)	(0.0108)
Both Romania	0.988**	0.985*	0.989	0.988	0.986*
	(0.00483)	(0.00876)	(0.00781)	(0.00761)	(0.00785)
...					
Observations	7,105,438	2,792,174	2,665,187	2,467,167	2,264,582
Year FE	YES	YES	YES	YES	YES

Robust cieform in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 2: ORs of having a girl by citizenship of both parents

Compared to Italian parents,
- **Indian** parents are 8.5%,
- **Chinese** parents are 5.1%,
- **Macedonian** parents are 4.9% less likely to register the birth of a female.

Imbalances are highest in the period 2009-2013 for Indians (-12%), while get worse over time for Chinese, from 3.6% to 8.2%.

Focusing on mother's citizenship only, for Chinese and Indian unbalances in SRBs are less pronounced compared to the previous analysis, while they are more pronounced for Philippians. This may be evidence of the fact that the decision of sex-selective abortion weights more on the father or on the mother depending on the cultural background.
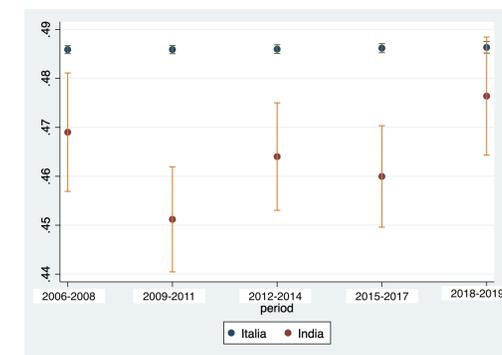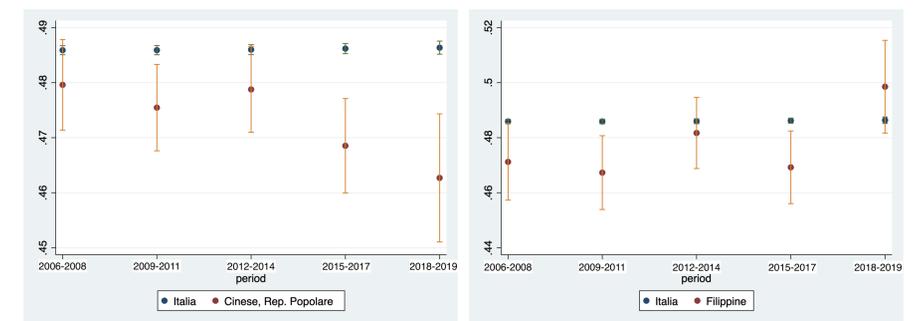

Figure 3: INDIA F/M ratio with 95 CI

Figure 4: CHINA F/M ratio with 95 CI

Figure 5: PHILIPPINES F/M ratio with 95 CI

Next steps

- Using richer data to calculate SRB at different parities
- Using micro-data on the universe of abortions in Italy to test for different gestational time between immigrants and natives