The dawn of reproductive change in north east Italy. A micro-analysis using a new source

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Introduction

The historical decline of fertility in Italy has never been studied with micro-data, except for some small areas. In this paper we use the individual retrospective fertility survey combined with the 1971 Census in Italy. It is an unpublished source, but of good quality, at least for the variables of our interest. We analyze data on Veneto (the region of Venice, north east of Italy), covering a statistically significant sample, extended to 20% of the female population. It is possible to compare the fertility of cohorts born in 1882-1931, whose TFR decreased from 4.5 to 2.4.

Data and methods

The 1971 retrospective fertility survey collected for all women who were married, divorced or widowed (180.000 cases) the following data: (1) Month and year of first and last marriage (2) Month and year of widowhood or divorce, (3) Number of children and birth year of the first six children. The quality of our sample is good, especially for younger women (only 1% among women born between 1902 and 1936 were excluded for inconsistencies or missing answers). Older women and women with more than ten children have a larger rate of invalid cases, but their influence is negligible, as they are a limited part of our sample

As fertility data are available only for married women, we hypothesize that unmarried women have no children (i.e. non-marital fertility is zero). This is a plausible hypothesis because non-marital fertility has been very low for these cohorts in Veneto (Livi Bacci, 1977; Shorter et al. 1971). Moreover, our first estimates of TFR are comparable to those by Livi Bacci (1977) for 1906-1921 cohorts and Santini (1997) for 1922-1931 cohorts.

The main objectives of our research are:

(1) To describe and compare the trends of marriage and fertility by education for cohorts born in 1882-1931. For each cohort we estimate celibacy rate, mean age at marriage, TFR and mean age at first child by education.

(2) To identify the forerunners of the decline and explore pathways of diffusion of birth control, considering both the differences by social class and those by micro-territorial area (the 580 municipalities of the region).

For this reason we will use multilevel regression models clustering data by municipality. Using this methodology, we include as covariates also territorial data not available by the Census source (e.g. territorial indices of secularization), that could be linked to marital and fertility behavior.

Preliminary results

(1) The proportion of married women increases uninterruptedly, whereas the average age at marriage is strongly influenced by the two WWs, that squeezed the marriage market (fig. 1).

(2) As birth control spreads in the area, TFR declines steeply, approaching the replacement level in the cohorts born in 1920s. At the same time, the quote of women having five children or more becomes negligible (fig. 2).

Fig. 1. Mean age at marriage and % of ever married women in Veneto, 1882-1931 cohorts

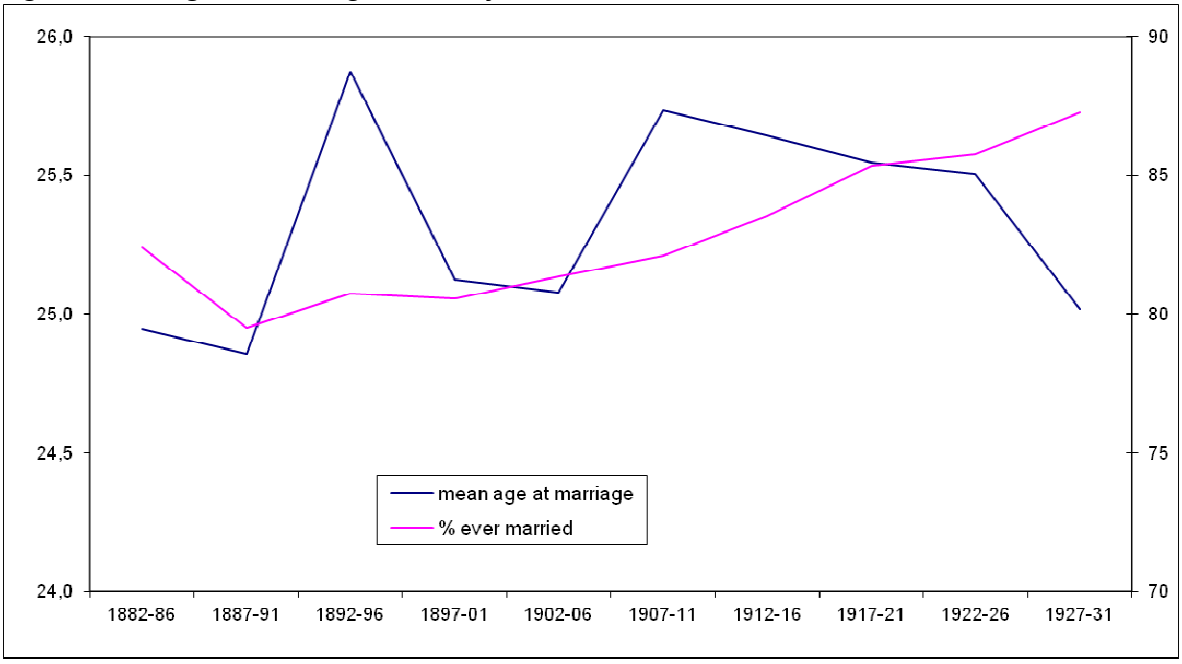
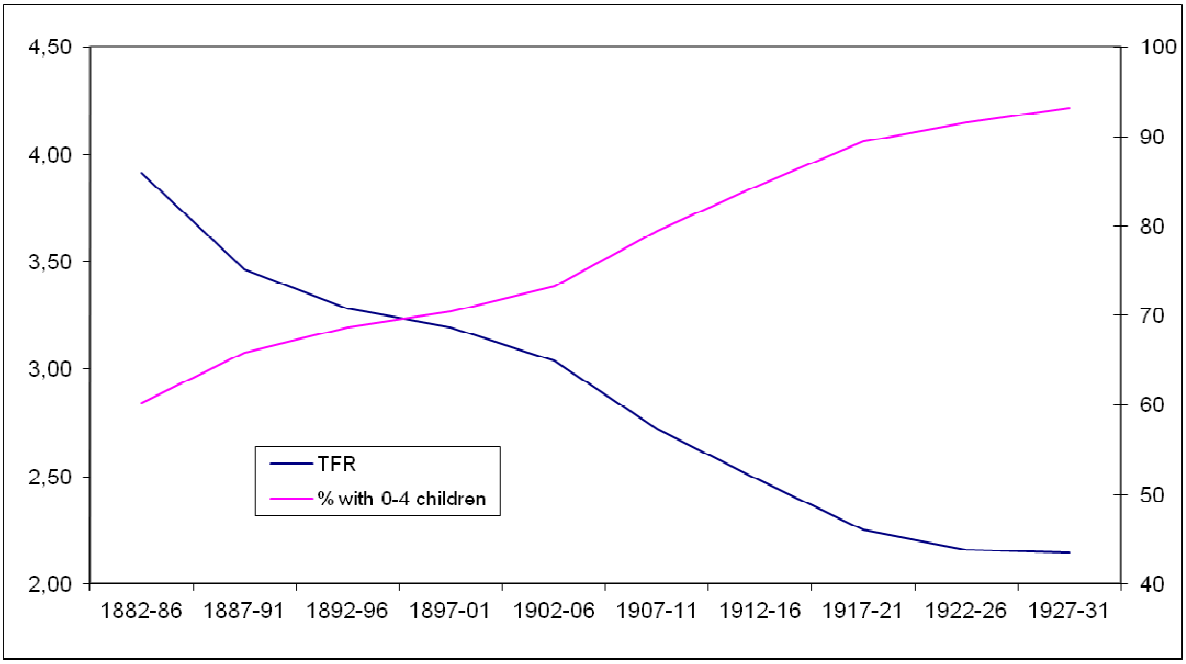


Fig. 2. TFR and % of women with 0-4 children in Veneto, 1882-1931 cohorts



(3) In the first half of 20th century education in Veneto increases continuously. As a consequence, the overall weight of more educated women becomes more and more relevant, facilitating the diffusion of new behaviors (table 1).

(4) The differences by education in marital behavior shrink, even if women with secondary education (13 or more years of education) still have higher celibacy rates (fig. 3).

(5) The few women with secondary education born in the last decades of the 19th century already had a TFR around two. This value is approached – but never reached – by the women with low educational qualifications born fifty years after (fig. 4).

Table 1. Women by education and cohort (row %)

Cohort	Years of education			
	0-4	5-7	8-12	13 +
1882-1886	48.7	45.4	3.1	2.8
1887-1891	44.8	49.6	3.0	2.7
1892-1896	40.7	53.2	3.4	2.7
1897-1901	35.9	56.6	3.7	3.8
1902-1906	33.8	58.6	4.4	3.2
1907-1911	33.8	58.8	5.0	2.4
1912-1916	29.2	62.3	5.5	3.1
1917-1921	23.3	64.8	6.4	5.4
1922-1926	20.5	66.1	7.3	6.0

Fig. 3. % of never married women by education in Veneto, 1882-1931 cohorts

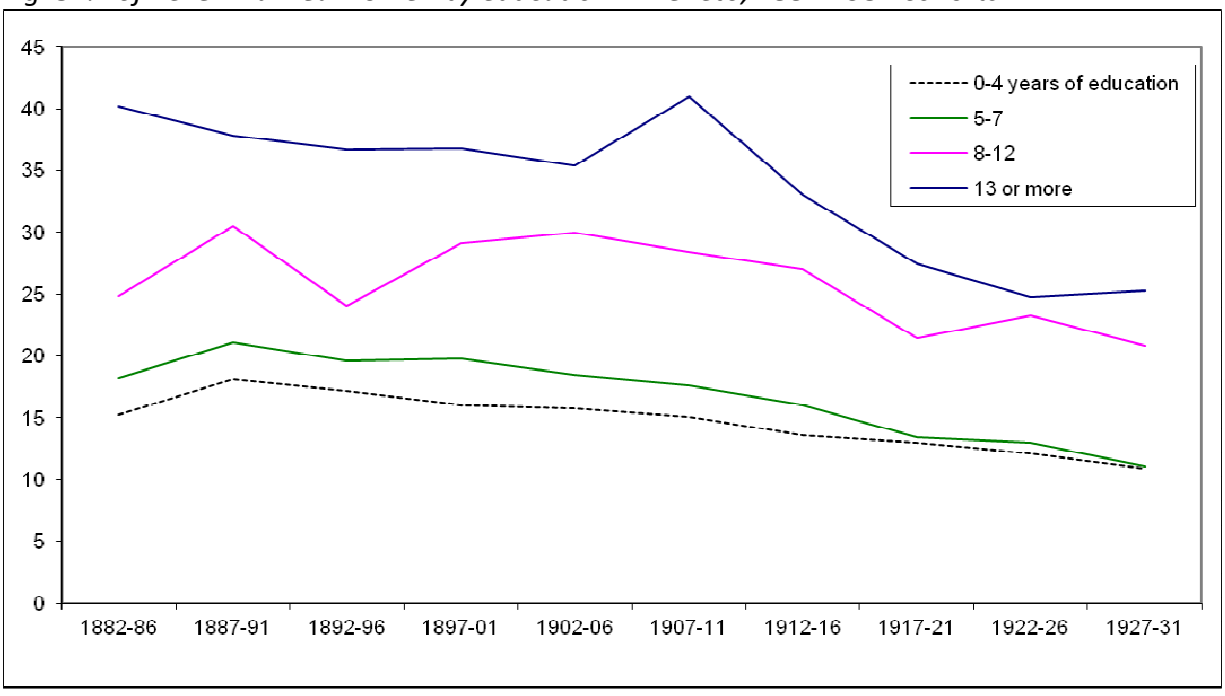


Fig. 4. TFR by education in Veneto, 1882-1931 cohorts

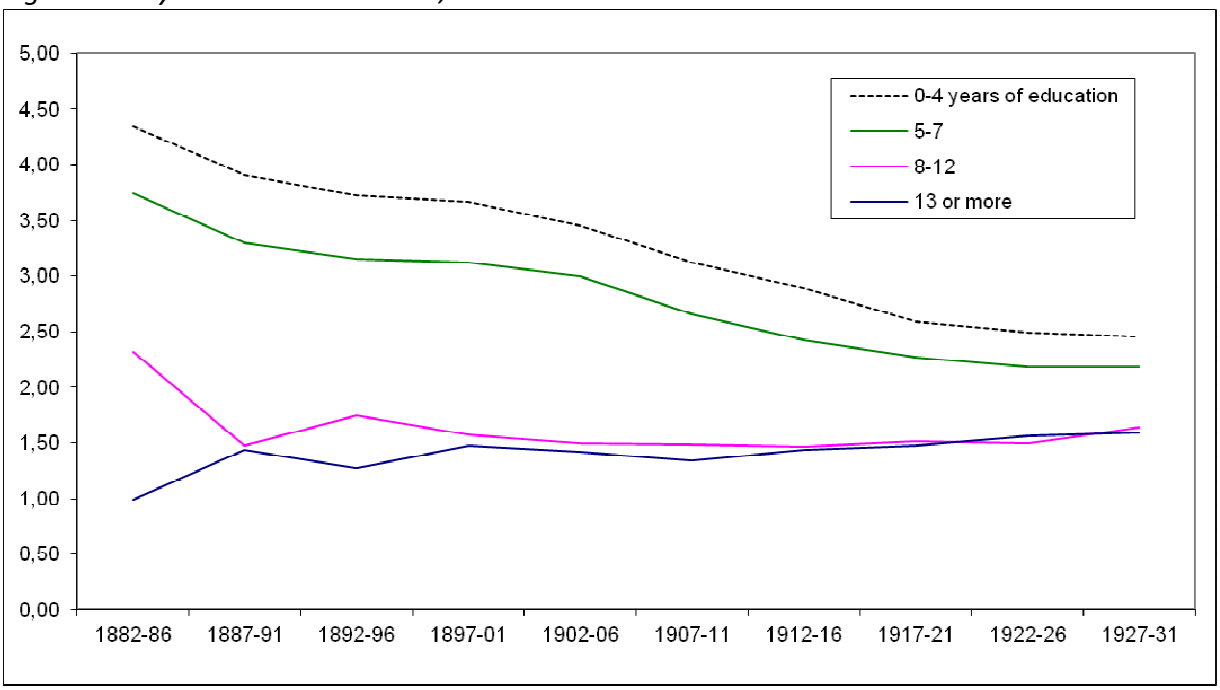


Table 2. Logit model on the risk of marring (all women) and on the risk of having more than four children (ever married women). Women born in 1882-1931, Veneto

Covariate	First marriage	More than four children
Intercept	1.71 ***	-0.04 *
Relative risks		
Cohort		
1882-86 (ref.)	1.00	1.00
1887-91	0.85 ***	0.83 ***
1892-96	0.92 ***	0.73 ***
1897-01	0.93 ***	0.69 ***
1902-06	0.98	0.59 ***
1907-11	1.03	0.40 ***
1912-16	1.14 ***	0.28 ***
1917-21	1.36 ***	0.18 ***
1922-26	1.39 ***	0.15 ***
1927-31	1.61 ***	0.12 ***
Years of education		
0-4 (ref.)	1.00	1.00
5-7	0.88 ***	0.68 ***
8-12	0.46 ***	0.18 ***
13+	0.34 ***	0.21 ***
Province		
Rovigo (ref.)	1.00	1.00
Verona	0.95 ***	0.93 ***
Vicenza	0.87 ***	1.27 ***
Belluno	1.05 ***	0.81 ***
Treviso	1.00	1.23 ***
Venice	1.12 ***	1.03 **
Padua	0.97 **	1.33 ***
N of cases	**172,204**	**147,599**

* p < 0.10; ** p < 0.05 *** p < 0.01

(6) Finally, we present the estimates of two preliminary, non-multilevel, independent logit models. They respectively estimate the hazard of marring (for all women) and having more than four children (for ever married women). We control for cohort, province and education (see table 2).

References

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