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Forerunners of the Fertility Transition: Jews in Bohemia from the Enlightenment until the Interwar Times

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The fertility of the Jewish population around the turn of the twentieth century has been the subject of much study. The interest of many analyses has been the low fertility rate of Jews in the modern period, compared both to the non-Jewish population and to the high fertility that Jews likely had in pre-modern times (e.g. Ritterband 1981, Bachi 1976). In-depth research into this issue has thus far been encumbered by the shortage of applicable data. Most ideas about Jewish fertility in pre-modern times have been deduced from the demographic behavior of Eastern European Jews in the late nineteenth century, when their traditional way of life and reproductive patterns were only just beginning to change. It is not clear however whether their model of demographic behavior can be extrapolated to Jews in other periods and social and geographical contexts. I will question the idea that pre-modern Jewish fertility was high by using the case of the Jewish population in Bohemia. In this chapter I focus on four main tasks: (1) estimating Jewish fertility since the late eighteenth century; (2) describing and analyzing the timing and the pace of Jewish fertility transition throughout the nineteenth and at the beginning of the twentieth centuries; (3) discussing what triggered the fertility decline; and (4) comparing the fertility dynamics of Jews in Bohemia with the total population and with Jews in other lands.

Data sources:

Data on Jewish births in Bohemia are available from as early as 1785. They come from vital statistics registers based on data collected by local rabbis together with data on the numbers of marriages and deaths. Such data are available, with some interruptions, up until 1855. Between 1828 and 1855 they were published in the Austrian *Tafeln*. All data for the period before 1850 are, however, unreliable and heavily underestimated. A possible explanation for this could be that local rabbis deliberately under-reported the number of children born to families without a Familiant number. I estimated crude birth rates adjusted for the effect of the birth underestimation. The estimates are presented further in this chapter and in Appendix 3. For the years between 1858 and 1894 official data on the births of Jews were not published in *Vital Statistics*. There are, however, estimates of the numbers in Heřman's unpublished study, which he based on figures contained in Jewish birth registers (for the method see Appendix 4). Vital statistics on Jews become available again from 1898 in *Vital Statistics* (*Bewegung der Bevölkerung*). However, this publication contains no details beyond the total numbers of individual events. In the years 1895–1913 and 1919–1941, statistics on births by religion distinguished only vitality (stillbirth/live birth) and "legitimacy" (marital/extramarital), and no data on the age structure of mothers or parity were available. Moreover, in the years 1903, 1905, 1906, 1908, 1909, 1911, and 1912, no data on Jewish births were published. Data for these missing years were estimated as linear interpolations of data from the two closest years for which data were published. Time series of vital statistics including births are available in Appendix 3. A life-time fertility of married Jewish women by five-year age groups is available from the 1930 census.

Jewish fertility before 1849

The prevailing opinion is that the fertility of populations in the pre-modern era was high, constrained just by biological capacity and marriage intensity. Pre-modern populations were not ready and willing to limit their fertility. The Jewish population in general is not considered to have been exempt from this pattern. The main arguments for assuming high Jewish fertility are (1) the prevailing values and a religious tradition that considered a large family to be a blessing from God and very early marriage as desirable, and (2) the example of Jewish communities in Eastern Europe, in particular in the Pale of Settlement,[1] which in the late nineteenth century still maintained these traditional values and had very high fertility. The "real" level of fertility of Western European Jews in pre-modern times is not actually known and to date there have only been assumptions and fragmentary studies of individual Jewish communities. The available data from the last decades of the nineteenth century depict Western European Jewry in already a quite advanced stage of demographic transition. Livi Bacci (1986) cited and analyzed fragmentary data on early Jewish fertility patterns, and his findings for eighteenth-century Italian towns such as Florence, Pitigliano, and Leghorn indicate that already at this time Jews in these towns had relatively low fertility. Similar conclusions on Italian Jews for that time draw DellaPergola (1997). This indicates that not all Jewries necessarily had unlimited natural fertility in the early modern period.

My analysis of Jewish fertility in Bohemia points toward the same direction as the evidence from Italy: Jewish crude birth rates (CBR)[2] were lower than those of the total population already by the end of the eighteenth century. The question is by how much. Jewish fertility had to be high enough to allow a relatively high natural increase, higher than that of the total population (Chapter 4). Since the numbers of newborns registered before 1849 in the Vital Statistics could not result in such a high population growth, we have to find a way how to correct these underregistered numbers. The only way to do so is to estimate the CBR. In order to estimate the "real" CBR (CBR Estimate), I took into account both the Jewish crude death rates and natural increase rates.[3] The effect of net migration will be left aside for the moment. The Estimated CBR is calculated as the annual average crude birth rate (CBR) between 1785 and 1851. The level of the Estimated CBR in 1785 was obtained from the sum of the crude natural increase rate of the total population and Jewish crude death rate average of 1785–1786.[4] The Estimated CBR in 1851 equals the CBR in that year and is calculated

1 This is the area within the former Russian Empire where Jews were allowed to live; it covered what is now eastern Poland, Belarus, Moldova, Lithuania, and Ukraine. Until the mid-nineteenth century most European Jews lived there.

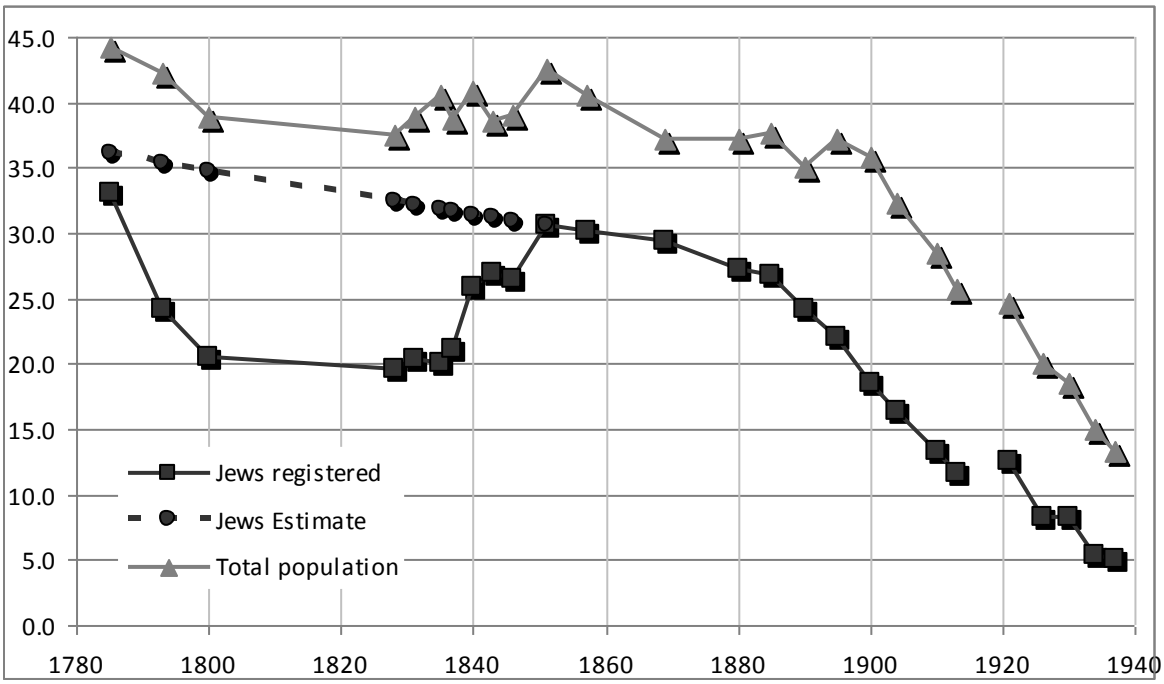
2 CBR (crude birth rate) is defined as the total number of life births per thousand of the total population in a given year.

3 Crude death rate is defined as the total number of deaths per thousand of the total population in a given year. Crude natural increase rate is defined as difference of the life birth and deaths over a thousand of the total population in a given year.

4 The Estimated CBR for 1785 is therefore conditional upon two assumptions: first, population growth being similar to that of the total population. This assumption is derived from the findings on Jewish population growth (Chapter 4) that show that it was at least as high (or even higher) than the total population growth at that time. Second assumption is that the observed crude death rate of 1785-1786 is not underestimated.

from the number of births in 1851 published in the *Tafeln* and the estimated total Jewish population.[5]

Figure 7.1: Crude birth rate, Jews and the total population, registered and estimated values, 1785–1937



Note 1: Time series of births are available in Appendix 3.
Note 2: "Jews registered" stands for the CBR computed from the number of the Jewish birth registered in the vital statistics.
Note 3: Computation of the rates corresponding to "Jews Estimate" is explained in the text.
Note 4: The trend interruption between 1913 and 1921 is due to a lack of demographic data during the World War I.
Source: Sekera (1978), *Vital Statistics* 1895-1937, Heřman (n.d), Censuses 1857-1930, author's computations.

The Estimated CBR in the late eighteenth century was lower than the CBR of the total population by about one fifth. This relative difference stayed about the same until the mid-nineteenth century. At the same time both Jewish and total populations' CBR were decreasing, from 36 to 30 per thousand among Jews and from 44 to 41 per thousand among the total population (Figure 7.1). This low CBR estimate for Bohemian Jews in that period is a little puzzling because if real, it would indicate that still very traditional Jewish households had to practice some reproduction regulation. How can we interpret this estimate and what are the likely factors that make it so low? The following hypotheses can be considered:
1) *A lower proportion of Jewish married women of reproductive age*. This could result in a lower CBR but it does not hold for the Jewish population before mid-nineteenth century. As

[5] The estimate of the total Jewish population was calculated as the annual average compound growth rate between 1793 and 1857 (the years for which we have reliable data; see Chapter 4).

seen in Chapter 6, Jewish women of reproductive age lived almost universally in marriage at that time, more often so than gentile women.

2) *High population losses through emigration*. This appears a more plausible hypothesis. Assuming that the Jewish CBR was as high as that of the total population and keeping constant the crude population increases and death rates used for the computation of the CBR Estimate, the Bohemian Jewish population would then have had to lose between 350 and 450 individuals through emigration yearly (about 1 % of its size), or else about 25,000 individuals for the whole 1780s-1840s period. Although it is known that Jews emigrated from Bohemia in that period, it is improbable that they did so in such high numbers. Their most frequent destination at that time, Hungary, registered only about several hundreds of Jews of Bohemian origin in the year 1848 (Mislovics, 2012). Even if we allowed for a significant underestimation of these Hungarian numbers, we cannot expect them to increase to tens of thousands. Thus, net migration losses can plausibly explain only a part of the low CBR estimate.

3) *Distortion by the CBR indicator*. This could be a valid argument if and when a fast decrease in mortality (in particular infant and old age) occurred. Even if fertility remained unchanged, the CBR would then decrease because the total population (the CBR denominator) would increase. This, however, could hold only for a short period of time, until the stronger cohorts of surviving infants reached reproductive age or if mortality would continue decreasing further at a fast pace. This was not the case among Jews in that period. Although the crude death rate was decreasing, it did so slowly.

4) *Nonparity-specific limitation of births*. It is known that some characteristics typical of Jewish customs, such as longer breastfeeding of infants or sexual abstinence in impure days, may have influenced women's fertility. But if this was part of a tradition, Jews must have practiced it always and thus must have always had a lower fertility in marriage than gentiles; otherwise this cannot be a valid argument.

5) *Intentional fertility limitation*. This is the last remaining potentially valid argument. It is however not easy to underpin this with tangible proofs and it is almost equally hard to find cultural, social, or attitudinal arguments that could provoke such behavioral changes before the mid-nineteenth century. Since we cannot reject this hypothesis, we have to retain it as a probable explanation of low Jewish CBR.

To conclude, the lower Jewish fertility combined with lower mortality compared to the total population was, in my view, a key feature of Jewish demographic behavior at least from the late eighteenth century until the twentieth century. It first led to faster population growth, and later to faster population ageing of the Jewish population. The Estimated CBR indicates that fertility decreased from at least 1785, when the data series starts, which means that Jews must have already adopted some form of birth control by the end of the eighteenth century. Whether it was the spacing of births or the limiting of reproductive time spans of women is impossible to say with certainty; probably it was a combination of both. Until the 1850s this was a gross fertility decline that did not lead to a decrease in relative population growth because it occurred concurrently with a decline in mortality.

Freedom, modernization, and the decline in fertility

The revolution of 1848 and the freedom it brought to the Jews in the Habsburg Monarchy signified a crucial turning point in the life strategies and opportunities open to them. This was particularly true in economically fast-growing areas such as Bohemia. The Jewish community, which had already been on a path of cultural and religious changes for a couple of decades, got an external boost for its transformation. Jews now had room to fulfill their aspirations that the legal restrictions had blocked. Their traditional virtues as traders, artisans, people with good networks, and above-average literacy helped get them an equal chance in the liberalizing and increasingly capitalist Habsburg Monarchy.

At the same time Jewish fertility registered an accelerating decline. The CBR in 1851 was still about 31 newborns per thousand Jews but the ensuing decades brought a steady and, after 1880, a steep decrease in the CBR. In 1895 the Jewish CBR was 22 per thousand (which was equal to 2,060 Jewish births) and in the 1930s, the number of Jewish births fell to fewer than 600 live births per year, which equals a CBR of 8 births per thousand Jews.[6] In contrast, the crude birth rate of the total population remained relatively high throughout the second half of the nineteenth century with only a slow decrease. In 1900 it was still as much as 35 births per thousand inhabitants. A faster decrease occurred just from the first third of the twentieth century and it reached 20 per thousand in 1926 (Figure 7.1 and Appendix 3).

Compared to Jews in the other Austrian Crown lands around the turn of the twentieth century, Jews in Bohemia had the lowest CBR (Table 7.1). Compared to the others at that time, Bohemian Jews in the late nineteenth century were a very homogeneous, relatively secular, urban, middle- and upper-class population. Bohemia never witnessed large migration inflows of Jews from other countries and had virtually no Orthodox Jews. Viennese Jewry was far more heterogeneous in this respect due to the huge migration in-flow of Jews from the other parts of the Habsburg Monarchy, including Orthodox Jews from Galicia and Bukovina. However, in all the Crown lands Jews had lower fertility and a faster fertility decline than the majority population.

Table 7.1: Jewish fertility, selected lands of the Austrian Crown and Prussia, 1895–1910

Year	Bohemia	Lower Austria	Moravia	Galicia	Prussia
Crude birth rate, per thousand					
1900	18.5	21.1	20.9	39.1	19.9
1910	13.3	14.5	13.6	32.4	15.9
Share of Jewish infants. per thousand life-borns					
1895	9.2	35.4	11.8	106.1	-
1900	7.6	33.0	10.1	95.7	-
1910	5.8	30.5	6.6	89.5	-

Source: Thon (1908), Vital Statistics 1895–1910, Census 1900 and 1910, author's computations.

6 In the interwar period crude birth rates began to be distorted by the irregularity of the age structure, making this indicator of little informational value and not suited for comparisons.

The interwar decrease in the number of Jewish births in Bohemia was partly caused by the growing proportion of heterogamous marriages between Jews and non-Jews, a phenomenon that was very rare in Bohemia before World War I. In particular, children born to a Jewish father and a non-Jewish mother could not be registered as Jews "by birth" according to the Jewish religious tradition; they could only convert later in life. It is very likely that children born to Jewish mothers were not automatically registered as members of the Jewish denomination either, because the woman's partner or his church may have disapproved. For example, a Jewish partner could marry a Catholic only if they agreed to raise their children in the Catholic faith. Since in the 1930s mixed Jewish marriages accounted for more than forty percent of all marriages involving at least one Jewish partner (almost equally distributed between men and women, Chapter 6), the religious disaffiliation of children born in mixed marriages most likely led to a considerable number of potentially Jewish newborns not registered as such. I assume that it had to be more than one-half of the children born to mixed marriages. This is based on the assumption that at least half of the children were born to a Jewish father, and that from the other half born to a Jewish mother some children were not registered as members of the Jewish faith for the above-mentioned reasons.[7] By that time Jewish acculturation into the majority Czech society was strong (Čapková 2001, 2012) and secularization well advanced. In 1934 just 409 Jewish births were documented, whereas immediately before World War I in 1913 the figure was 982. Later, after 1938, under the Protectorate of Bohemia and Moravia, the number of documented live-born Jewish children fell dramatically, with only 102 Jewish births in 1939 and 63 in 1940. This decrease obviously reflects the very insecure position Jews were in during this tumultuous period, and that it was an inauspicious time to have children and to register those born as Jewish.

An analysis of structural changes in Jewish fertility in Bohemia and the international context

As its name indicates, the CBR is a crude indicator that allows us to observe only the change in the overall volume of fertility, but not the changes to its structure by parity and the age of mothers. Another drawback to the CBR is that it is sensitive to the changes in the age structure and is unsuitable for making comparisons of populations with different age structures.

Table 7.2: General marital fertility rate (f^m) of women of reproductive age, Jews and the total population, 1895–1898 and 1930

1895-1898		1930	
Jews	Total	Jews	Total
Live births per thousand women of reproductive age (f^m)			

7 DellaPergola (1989) reached the same conclusion in his study of children from mixed Jewish marriages in the world in the 1970s and the 1980s.

Average life-born 1895-98	1,928	190,389	Life-born 1930	613	114,079
Married women aged 21-50	11,794	839,362	Married women aged 15-49	11,587	1,138,025
f^m per thousand	163	227	**f^m per tousand**	53	100

Note 1: The number of married women aged 21-50 in 1895-1898 was estimated from intercensal balance of Jews, out of which the number of married women was estimated based on their proportion in the 1890 census.

Note 2: Reproductive age defined as 21-50 in 1895-1898, and 15-49 in 1930.
Source: Census 1890 and 1930, *Vital Statistics* 1895-1930, author's calculations.

Another indicator, one also distorted by age structure effects, but nonetheless capable of providing a more accurate picture of the birth rate, is the number of live births per thousand married women of reproductive age (f^m). This indicator was calculated here for the period 1895–1898 and for 1930. In 1890s there was an average of 163 live births per thousand married Jewish women in Bohemia and it was already then about one quarter less compared to the level among married women of the total population. General fertility of married Jewish women has decreased further to reach just 53 births per thousand women in 1930 (Table 7.2).
The structural factors of that decline can be illustrated well using a set of interrelated demographic indices developed by Coale (1969). In particular, they reveal the interplay between fertility and nuptiality. These indicators have a number of advantages for historical studies of fertility: (1) the equation using these indicators takes into account the maximum amount of data typically available for historical populations from vital statistics and censuses: birth by legitimacy and age distributions by marital status (Knodel 1974); (2) they allow for international comparisons; and (3) they are relatively easy to interpret. The Coale fertility indices are used here to track the fertility decline of Jews in Bohemia in comparison with other populations of Central Europe. They include the index of overall fertility (I_f), the index of marital fertility (I_g), and the index of the proportion of married among women of childbearing age (I_m). Their respective formulas are presented in Appendix 6. Here they are briefly explained (according to Knodel (1974, 33–35)):

The index of overall fertility (I_f) measures the extent to which women in a given population approach the number of births they would have if all were subject to the highest schedule of age-specific fertility on reliable record (standard schedule): the fertility of married Hutterite women in 1921–1930.[8]

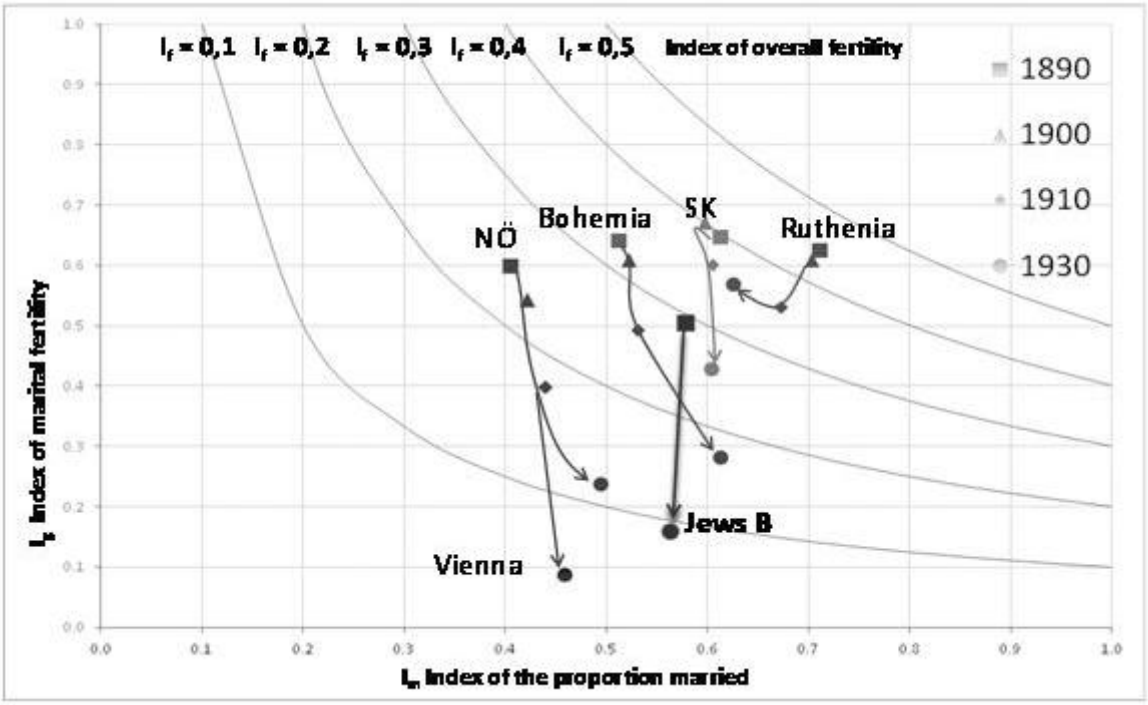
The index of marital fertility (I_g) indicates how close the number of actual births is to the number there would be if all married women experienced Hutterite fertility.

The index of the proportion of married among women of childbearing age (I_m) compares the number of children a married woman would bear if she experienced the Hutterites' marital fertility rates to the number of children all women would bear if subject to the same fertility schedule. This is an index of the extent to which the distribution of marital status contributes to the attainment of maximal fertility in a population in which all births were to married women.

8 Their standard schedule of fertility is given by Henry (1961, 84).

The resulting indices for Jews in Bohemia show that the single most important factor contributing to the fertility decline in the Jewish population was a decrease in marital fertility rates (Jews B in Figure 7.2). The number of Jewish children born to married women in 1890 is half (I_g = 50.5%) the possible maximum marital fertility. In 1930 this indicator falls sharply to just 16%. The contribution of the share of married to the fertility achievement I_m did not change much between 1890 and 1930 and was about 40% below the maximum. The index of overall fertility I_g of Jews declined by 20% over the course of 40 years and by 1930 was just 9% of the maximum fertility of women of reproductive age. The I_g, I_f, and I_m have been calculated for many historical populations in Europe thanks to the European Fertility Project.[9] Here we compare the fertility indicators of Jews in Bohemia with those of the total population in selected Central European lands, specifically Slovakia (SK), Ruthenia, Lower Austria (NÖ), and Vienna (Figure 7.2). The marital fertility of Jews in Bohemia was already quite low in 1890, whereas all the other populations had comparable and still relatively high marital fertility levels and differed more by the shares of married women. Until 1930, however, Lower Austria, Vienna in particular, and Bohemia experienced a very rapid decline in overall fertility. In Slovakia the decline started between the two world wars and in Ruthenia was not yet very apparent in 1930. From all the populations compared, Bohemian Jews had the lowest overall fertility index I_g in 1930 together with the population of Vienna.

Figure 7.2: Reproductive performance of women, Coale indexes, selected lands in Central Europe, 1890–1930



Note 1: NÖ: Lower Austria; SK: Slovakia; Jews B: Jews of Bohemia.

9 More on the project and the database of Coale fertility indicators produced in the project is available at http://opr.princeton.edu/archive/pefp/ (last accessed June 26, 2012).

Note 2: Vienna was administratively a part of Lower Austria before World War I, so no separate data are available.
Note 3: Coale indices are explained and their values displayed in Appendix 6.
Source: Coale, Watkins eds. (1986), Šprocha and Tišliar (2008); author's computations for Bohemia.

Because of the lack of data required to compute some of the Coale indices, the same comparisons could not be made with Jewish populations in other countries. However, we can compare the CBR of Bohemian and other European Jews and the timing of its decrease to below the critical level of 35 and 20 per thousand, respectively. A CBR that reaches and remains below the level of 35 per thousand can be considered a sign of the beginning of fertility control, and below 20 can be considered to be roughly the level where the fertility transition is completed. In comparison with the Jews in Italy, Prussia, Hungary, Russia, Romania, and Poland (data cited from DellaPergola 1989) the CBR of Bohemian Jews was one of the first to decrease. Together with the CBR of the Italian Jews, it had already fallen below 35 per thousand before 1800, six decades before Prussian Jews and about a hundred years before Jews in Hungary, Russia, Romania, and Poland (Table 7.3). The CBR of Jews fell to below 20 per thousand in the last two decades of the nineteenth century in Italy, Bohemia, and Prussia. Although the timing of the transition varied considerably between Jewries in different countries, it occurred earlier at both levels than in the respective total population in every country.

Table 7.3: Year in which the crude births rate first dropped below 35 per thousand and 20 per thousand among the Jewish and total populations

Country	35 per thousand			20 per thousand		
	Jews	Total population	Years lag	Jews	Total population	Years lag
Bohemia	1797 (a)	1890	93	1897	1926	29
Italy	1700	1895	195	1885	1950	65
Prussia	1855	1905	50	1895	1923	28
Hungary	1895	1911	16	1915	1955	40
Russia/USSR	1900	1939	39	1930	1963	33
Romania	1900	1932	32	1925	1959	34
Poland	1910	1925	15	1930	1961	31

a) Own estimate of fertility levels, described in the text.
Sources: Adapted from Della Pergola (1989, 162, tab. 4), author's computations for Bohemia.

Structural insight into the fertility decline of Bohemian Jews can only be obtained from the 1930 census data on life-time fertility of married women. Compared to the total population, Jewish women in 1930 were more often childless in their marriage: by around 5% on the whole and in the younger age groups by more than 15%. About 37% of married Jewish women aged 25–29 were childless, compared to just 23% of women of the same age in the total population. More than one-half (53%) of married Jewish women aged 35–39 had no or

one child, while the figure was 37% for women in the total population. However, the biggest differences were in the share of women with three or more children. Almost 25% of all married women aged 30–34 had three or more children, while among Jewish women the figure was less than 7%. Altogether, women with three or more children made up 12% of all Jewish married women between the age 20-49 but 29 % among married women in the total population. We know from the previous analysis that Jewish women were already limiting their fertility very strongly in 1890. In 1930 the women who had been giving birth around 1890 were approximately 60–69 years old. Among the Jewish married women of that age was only 26 % with five and more children. It was eighteen percentage points less than among married women of the same age in the total population. Even the oldest registered cohorts of married women in the 1930 census (aged 70-79) had less children of the 5+ parity. That shows that a parity fertility limitation was practiced by at least some Jewish women giving birth between 1870 and 1890. Unfortunately, data on life-time fertility as of 1930 are too late to give us any insight into the fertility of women who had children before 1870s, so the structural changes in fertility at the onset of the fertility transition among Jews remain unclear owing to the lack of data.

Table 7.4: Fertility of married women by age, number of children in the current marriage, Jews and the total population in the Czechoslovak lands, 1930

		Children born to women in their current marriage (%)						
Country	Average number of children	0	1	2	3	4	5 +	unreported
		Total population						
Bohemia	2,54	17.6	22.5	20.3	12.7	8.1	17.3	1.5
		Jews						
Bohemia	1,74	22.5	26.3	25.7	11.0	5.3	6.5	2.7
Moravia and Silesia	1,97	21.1	23.0	25.2	12.8	6.5	9.0	2.4
Slovakia	3,00	18.5	17.4	17.5	11.8	8.7	24.4	1.8
Ruthenia	4,29	13.3	11.3	11.9	10.3	9.6	42.0	1.7

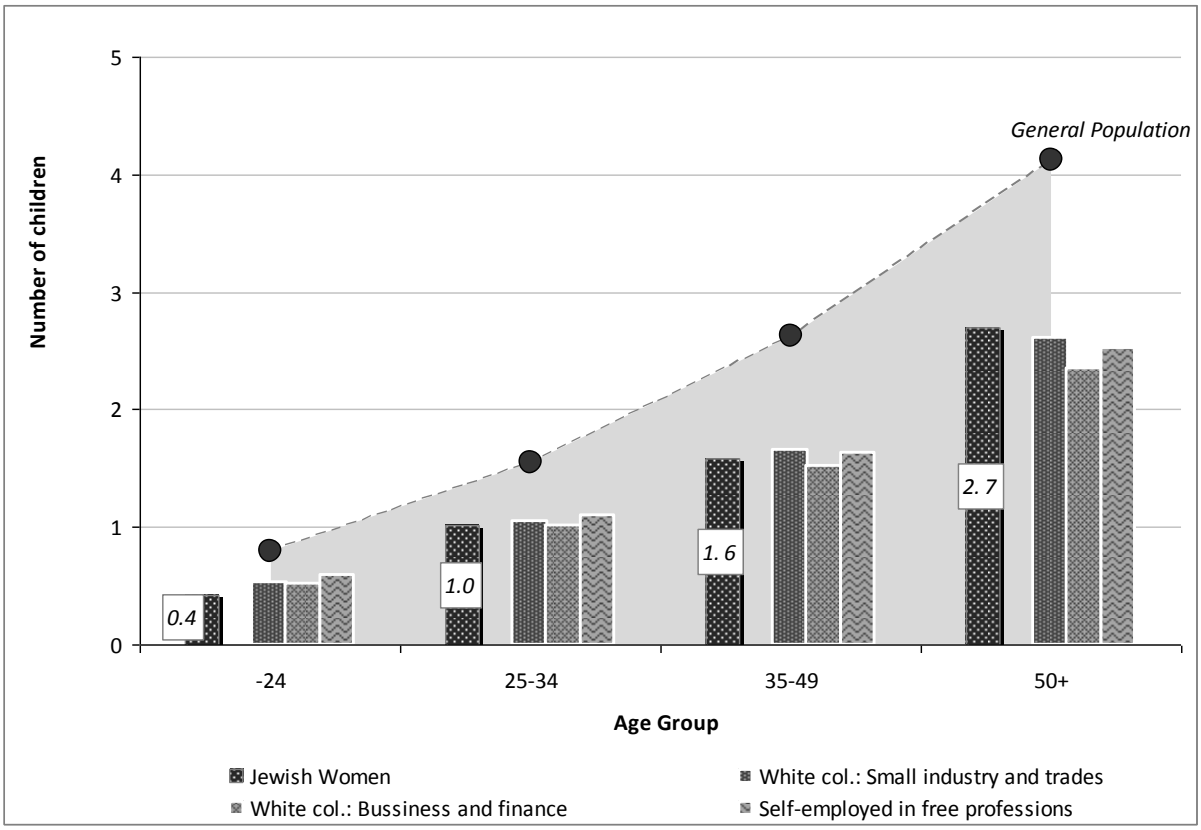
Source: Census 1930, author's computations.

Were Jews the sole avant-garde in the fertility decline in Bohemia?

Jews were definitely the forerunners in the fertility decline and conscious fertility control, compared to the total population. But were there any sub-groups in the total population with a comparably early fertility transition? And did they share any similar socio-economic or other characteristics with Jews? There certainly were such groups in the general population, but it is very difficult to identify them. Vital statistics and censuses typically lack any details for distinguishing such groups. The only exception was the 1930 census, which published data on life-time fertility of married women by social group combined with occupation. They can be compared with the life-time fertility of Jewish women. The comparison shows that fertility patterns were similar among married Jewish women and women married to white-collar household heads, especially those employed in small trades and industry and in business and

finance. Families of self-employed persons in the services sector and the free professions also had a similar fertility structure (Figure 7.3). The similarity between these groups is not too surprising: all of them could be ranked as middle-class families in which the household head often had higher education and tended to live in an urban center. It should be noted also that most Jewish women belonged to these socio-occupational categories anyway, so to a certain extent this is comparing like with like. However, given the small number of Jews in these categories this tautology is not too significant. This comparison shows that the low fertility of Jews was not unique and that in 1930 the social category to which most Jews belonged had equally low fertility. It is hard to say whether these groups had similar demographic behavior even earlier without data to support such a statement. Nevertheless, it seems that, at least between the two world wars, the Jewish demographic avant-garde blended into an "upper class" avant-garde.

Figure 7.3: Mean number of children by cohort in the current marriage, Jewish women and general population by occupational category and social status, Bohemia, 1930



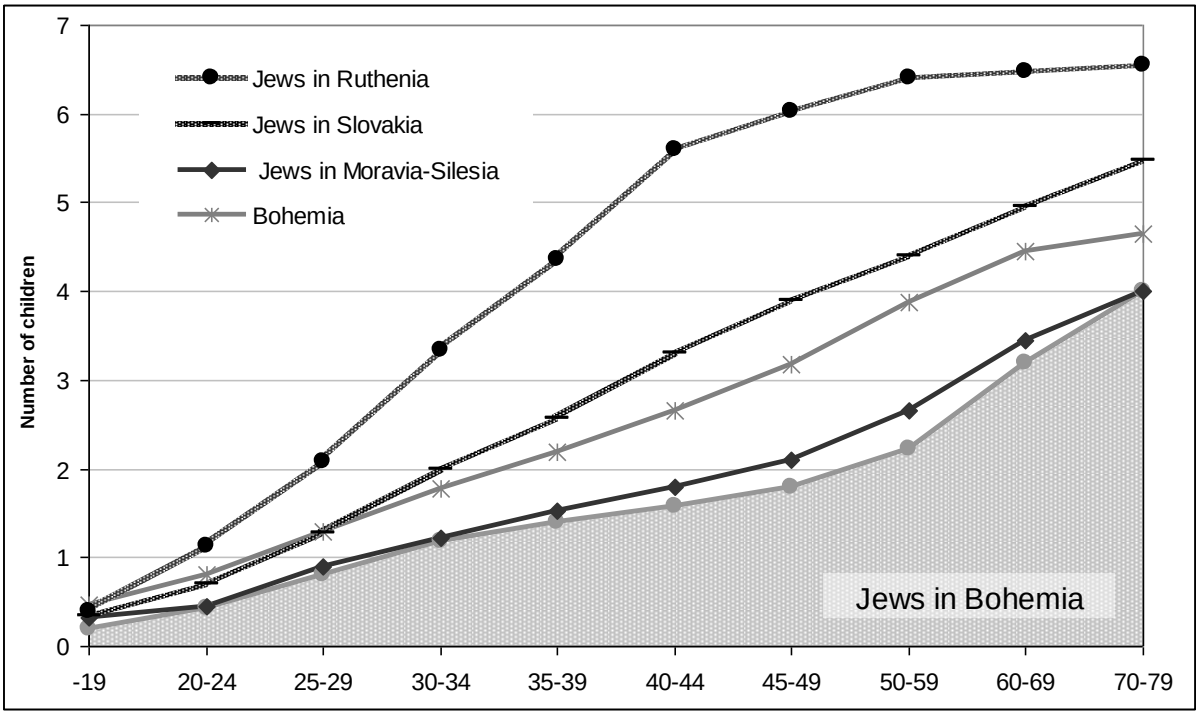
Source: Census 1930, author's computations.

Three different Jewish fertility patterns in interwar Czechoslovakia

Using life-time marital fertility data from the 1930 census it is possible to compare the reproductive behavior of the Jews in the four lands of then Czechoslovakia (Bohemia, Moravia–Silesia, Slovakia, and Ruthenia). Three basic types of reproductive behavior emerge from this comparison. The first is the "limited fertility" type, in which fertility is concentrated

within a relatively short period of a woman's reproductive life, usually producing one or two children. This model matches the reproductive behavior of Jewish women in Bohemia and Moravia-Silesia. Some differences between the two are apparent in third- and higher-order births, at which point Bohemian Jews exhibit more restricted fertility than Moravian-Silesian Jews (Figure 7.4). The second type is represented by Jewish fertility in Slovakia, which was much higher than the fertility of Bohemian Jews but obviously restricted. Slovak Jews had a much larger share of women with four or more children. I assume that the reproductive behavior of Slovak Jewish women in 1930 was not very uniform. On the one hand, some Jewish women in Slovakia, especially in rural eastern areas, still followed the traditional reproductive model of more births more evenly distributed across a woman's reproductive life; on the other hand, many others already deliberately limited their fertility. The fertility of Slovak Jewish women recorded in 1930 was captured at the point of their transition from the traditional to the modern pattern of reproductive behavior.

Figure 7.4: Married women by age and average number of children, Jews in the Czechoslovak lands and the total population in Bohemia, 1930



Source: Census 1930, author's computations.

An inverse type of reproductive behavior to the first one was that of Jewish women in Ruthenia. They had a lower incidence of childlessness and women's fertility began at a relatively young age and was high. Among married Jewish women aged 30–34 in Carpathian Ruthenia 47% had four or more children; in Bohemia the figure was just 2%, in Moravia 2%, and in Slovakia 17%. In the 1930s Ruthenian Jews were just at the very start of the fertility

transition. However, like in all the other aforementioned lands, the fertility of Jewish women in Ruthenia was still lower than that of women in the total population.[10]

Regional differentiation of Jewish fertility in Bohemia

A comparison of crude rates indicates that the fertility of Jews in Prague before 1870 was similar to that of Jews in the whole country, but during the 1870s it declined faster than in the total Jewish population.[11] Subsequently, starting in the 1890s, the crude fertility rate of Prague Jews and that of Bohemian Jews grew closer again (Table 7.5). Between 1896 and 1900 the difference in the crude fertility rates of Jews in Prague and in Bohemia was on average 3.3 per thousand, while between 1906 and 1910 the difference was just 1.8 per thousand, and from around 1930 there was no longer any difference. The 1870s and 1880s were thus evidently a kind of transitional phase, when the fertility of the Jews in Prague was already low, while in the rest of the country Jews more slowly adopted the new patterns of reproductive behavior.[12] By contrast, in the total population the difference between the CBR in Prague and the population in the country as a whole grew or at least did not decrease between 1890 and 1930.

Table 7.5: Crude birth rate in Bohemia and Prague, Jews and the total population, 1869–1930

Crude birth rate, per thousand				
Years	**Jews in Prague**	**Jews in Bohemia**	**Total pop. in Prague**	**Total pop. in Bohemia**
1869	30.4	29.5	-	37.2
1880	20.4	27.3	-	37.2
1891-1895	21.0	22.0(b)	36.6	37.2 (b)
1896-1900	17.6	20.9	33.5	36.1
1901-1905	14.5	17.6	28.2	34.0
1906-1910	12.4	14.2	24.2	30.6
1926-1930	8.5 (a)	8.2	13.9(a)	18.7

(a) Data are available just for a part of the years indicated, (b) data are only for the year 1894.
Source: Heřman (1980), Heřman, (n.d.), *Vital Statistics* 1895–1930, Census 1890-1930, author's computations.

Extramarital births and stillbirths among Jews

The number of extramarital births among Jews in general and among Bohemian Jews in particular was very small. Before World War I, there were around forty extramarital births a year or approximately 2% of the total number of live births in the Jewish population.[13] After World War I the number of extramarital births remained almost unchanged until the middle of

10 The CBR of Jews in Ruthenia in 1930 was 38.7‰; in the total population it was 48.0‰.

11 Based on the data published by Heřman (n.d).

12 It is difficult to capture the regional differentiation of the fertility of the Jewish population within Bohemia. Although Austrian statistics between 1894 and 1913 published data on births by religion for individual political districts, a regional analysis cannot be properly conducted because the number of recorded births of Jews in districts is small.

13 A figure of 2.2% for the number of extramarital births on average for the period between 1860 and 1870 is also given by Schrimmer (1873).

the 1930s, when the average number rose to 4.6% between 1934 and 1937. In the total population the share of extramarital births was high at around 12% throughout the period between 1895 and 1937 owing to the specific tradition of some ethnic Germans to marry only after a child was born.

The rate of stillbirths in the Jewish population was surprisingly high compared to the majority population. Across the fluctuations in this rate between 1895 and 1937 there is no sign of a decreasing trend, something that can be observed in the total population. The explanation may be that the documentation of stillbirths varied between the Jewish and the majority Christian population. Christians had a special interest in ensuring an infant was baptized before it was declared dead, whereas this religious concern did not exist among the Jews. It is likely that some of the babies that Jews considered stillborn were declared to be neonatal deaths after baptism by Christians.

Table 7.6: Share of extramarital births and stillbirths, Jews and the total population, Bohemia, 1895–1937 (%)

Average for the years	Non-marrital N^v/ Total N^v,		N^d/ N^v,	
	Jews	Total	Jews	Total
1895-1899	2,1	14,7	4,1	3,4
1900-1904	2,2	12,6	2,5	3,2
1919-1923	1,9	12,7	2,8	1,9
1924-1928	2,0	11,0	4,1	2,1
1929-1933	2,0	13,1	3,0	1,6
1934-1937	4,6	11,9	3,5	1,5

Note: N^v live births, N^d still-births.
Source: *Vital Statistics* 1895-1937.

Summary:

– The Jewish population in Bohemia had a lower crude birth rate (CBR) than the total population from at least the last third of eighteenth century.

– The CBR of Jews declined to below 35 per thousand already in the 1790s and remained above 30 per thousand until the 1850s. These rates rank Bohemian Jews among the subpopulations that experienced the earliest onset of fertility decline in Europe.

– Despite lower fertility, Jews in Bohemia maintained a higher natural increase than that of the total population until the mid-nineteenth century. This was the result of the better mortality conditions of Jews and particularly their infants. Until the mid-nineteenth century the Jewish population was characterized by gross fertility decline, when both fertility and mortality declined simultaneously and proportionately so that the natural increase could be maintained. Net migration during this period was probably negative and was definitely not a factor in increasing Jewish population growth.

– Jews in Bohemia had to be practicing some form of fertility control even before the mid-nineteenth century. It is hard to determine what forms of fertility control they used. I

assume that longer intervals between births and perhaps also stopping earlier were the most common forms. Starting to have children later is a less likely strategy given the higher proportion of Jews who married compared to the total population at that time (Chapter 5).

– The gradual decline in the CBR accelerated from 1880, dropping from 27 per thousand to 13 per thousand in 1910. The onset of this accelerated decline began with women born in the 1840s, 1850s, and 1860s. The oldest of these three generations already had a non-universal marriage pattern and entered marriage later than their peers in the total population (Chapter 5). It can be expected that the low fertility of these generations was already due to all three factors of a later start, longer intervals, and an earlier stop to childbearing.

– Both phases of fertility decline, the first moderate but steady phase from at least the late eighteenth century, and the accelerated phase from the 1880s, happened at a time when substantial societal changes were influencing the traditional way of life of Jews, their legal status in society, and their social and economic opportunities. The first phase coincided with the reforms of Joseph II, of which the secularization of Jewish elementary schooling was the most important and later with the Jewish reform movement, Haskalah, which resonated among a substantial number of Jewish elites in Bohemia in the early nineteenth century. The second phase came after the abolition of legal restrictions against the Jews in 1849. Jews became *de iure* equal citizens in the multinational Austrian Monarchy, which was experiencing strong economic growth and in which Jews could move freely and take up any professions they wanted, opportunities that did not exist before 1849. The ideational changes in the Jewish community (induced by Haskalah and the Josephine reforms) and external socio-economic and political changes (after 1848) were definitely influencing Jewish reproductive behaviour.

– The accelerated decrease in fertility occurred first among Jews in Prague, but from the 1890s regional differences grew smaller towards a universally low fertility rate among Jews in Bohemia as a whole.

– Immigration was not a factor in Jewish population growth in Bohemia; on the contrary, the size of the Jewish community in Bohemia decreased through emigration, which mainly involved young people of reproductive age. This led not only to direct population losses but also to indirect ones, as the children that would have been born to these emigrants in Bohemia were born elsewhere instead.

– For Jews throughout the nineteenth century, the improving human capital of their children and their upward social mobility were probably important objectives. The Jewish population saw a rapid rise in their social status and their educational enrolment and attainment during that time (Part 3). In the few decades between the 1850s and the 1900s the majority of Bohemian Jews in the most economically advanced regions in the country moved into the middle and upper middle class.

– In 1930 married Jewish women had an average of 1.7 children compared to 2.5 in the total population. Similarly low fertility was generally observed among those social and occupational groups to which most Jews themselves belonged, in particular white-collar

workers in industry, trade, and finance, self-employed in the services sector, and individuals in the free professions.

– After 1918 Jews increasingly began to marry non-Jews and a large number of children born into these heterogamous marriages were not registered as Jews at births (Chapter 6). This reflected the progressive acculturation of Jews in Bohemia and resulted in a further decrease in Jewish birth cohorts.

References

Bachi, Roberto. 1976. *Population Trends of World Jewry*. *Jewish Population Studies*. Jerusalem: the Hebrew University of Jerusalem.

Čapková, Kateřina. 2001. "Židé v Čechách za první republiky. [Jews in Bohemia in the first republic]" *Československá historická ročenka*: 20–35.

Čapková, Kateřina. 2012. *Czechs, Germans, Jews? National Identity and the Jews of Bohemia*. New York and Oxford: Berghahn Books.

Coale, Ansley J. 1969. "The Decline of Fertility in Europe from the French Revolution to World War II." In *Fertility and Family Planning*, edited by Leslie Corsa, Ronald Freedman, and Samuel J. Behrman, 3–32. Michigan: Michigan University Press.

Coale, Ansley J., and Susan Cotts Watkins, eds. 1986. *The Decline of Fertility in Europe: the Revised Proceedings of a Conference on the Princeton European Fertility Project*. Princeton, NJ: Princeton University Press.

DellaPergola, Sergio. 1989. "Changing Patterns of Jewish Demography in the Modern World." *Studia Rosenthaliana*, Special Issue 23 (2): 154–74.

DellaPergola, Sergio. 1997. "Some Fundamentals of Jewish Demographic History." In *Papers in Jewish Demography 1997. Jewish Population Studies 29*, edited by S. DellaPergola and J. Even, 11–34. Jerusalem: The Avraham Harman Institute of Contemporary Jewry, the Hebrew University of Jerusalem.

Henry, Louis. 1961. "Some data on natural fertility." *Biodemography and Social Biology* 8 (2): 81–91.

Heřman, Jan. 1980. "The Evolution of the Jewish population in Prague 1869–1939." In *Papers in Jewish Demography 1977*, 53-67. Jerusalem: the Hebrew University of Jerusalem.

Heřman, Jan. n.d. *Struktura a vývoj židovské populace v Čechách a na Moravě 1754–1953 [Structure and development of the Jewish population in Bohemia and Moravia 1754–1953]*. Jerusalem: Archive of the Documentation Center in Jewish Demography and Statistics, Avraham Harman Institute of Contemporary Jewry, the Hebrew University of Jerusalem (manuscript dated 1971).

Knodel, John E. 1974. *The Decline of Fertility in Germany, 1871–1939*. Princeton, NJ: Princeton University Press.

Livi-Bacci, Massimo. 1986. "Social-group forerunners of fertility control in Europe." In *The Decline of Fertility in Europe: the Revised Proceedings of a Conference on the Princeton European Fertility Project*, edited by A. J. Coale and S. C. Watkins, 182–200. Princeton, NJ: Princeton University Press.

Ritterband, Paul, ed. 1981. *Modern Jewish Fertility*. Leiden: Brill Archive.

Rothkirchen, Livia. 2005. *The Jews of Bohemia and Moravia: Facing the Holocaust*. Lincoln: University of Nebraska Press.

Schrimmer, G. A. 1873. *Statistik des Judenthums in den im Reichsrathe vertreten Königreichen und Ländern*. Wien.

Sekera, Václav. 1978. *Obyvatelstvo českých zemí v letech 1754–1918 [Population of the Czech lands in the years 1754–1918]*. Vol. 1. Prague: Czech Statistical Office.

Šprocha, Branislav, and Pavol Tišliar. 2008. *Plodnosť a celková reprodukcia obyvateľstva Slovenska v rokoch 1919–1937 [Fertility and Reproduction of the Population of Slovakia in the years 1919–1937]*. Bratislava: Stimul.

Thon, Jakob. 1908. *Die Juden in Österreich*. Berlin: Bureau für Statistik der Juden