2 Demographic Patterns in Comparative Perspective

This chapter outlines the demographic patterns in France, Hungary, Norway, and Germany by means of several indicators that reflect the demographic situation and its development. Section 2.1 defines some fertility measures, discusses the country values and concludes with a cross-country comparison. Section 2.2 deals in the same way with marriage and divorce indicators. There is a large variety of indicators. Suitability and availability do not always accord with each other. Consequently, diverging measures for different countries have to be used. Only the least suitable indicator – the crude (divorce and marriage) rate – is available for all countries.

2.1 Fertility

2.1.1 Average number of children: definitions

Fertility is described by the average number of children per woman. Two indicators are available: the total fertility rate (TFR) and the cohort fertility rate (completed fertility). While the former is a theoretical concept, the latter is an empirical term. Official data are only provided for the total fertility rate. Data on completed fertility are only available from survey data. The more accurate indicator is the cohort fertility rate. However, the cohort fertility rate cannot be calculated unless a cohort’s fertile period has ended. The last birth cohort completed fertility can be ascertained for is 1968. These women celebrated their 45th birthday in 2013 and no definitive statements can be made for younger cohorts. This is why the TFR, which is related to a period of one year, is most often used instead. It states
[t]he mean number of children that would be born to a woman during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year (European Union 2010: 176).

This rate is the completed fertility of a hypothetical generation, under the presumption that the fertility pattern of the period lasts, and that deaths do not occur. It is computed by adding the fertility rates by age for women in a given year (Statistics Norway 2012i). The TFR assumes that age at childbearing does not change, which is an assumption that did not hold during recent decades.¹ Family formation is put off and (partly) caught up at a later point in time, a fact the TFR only accounts of with delay. Therefore, the cohort fertility rate usually exceeds the total fertility rate. Variance in the TFR is generally much higher than in the cohort fertility time series. The final number of children that cohorts of women have changes slowly due to inertia, while the total fertility rate can react fiercely to events and changes in regulations and laws. However, these are mostly timing effects. Nevertheless, the two rates are also closely linked to each other.

### 2.1.2 Total fertility rate

In 2009, the total fertility rate in France was exactly 2.0 children per woman (see the figures 2.1 and 2.2). In 1998, the TFR was 1.78 and since then it has continuously been between these two values with a generally upward trend (Eurostat 2010d). While fertility at ages younger than 28 years stopped to decline in the middle of the 1990s, it has been continuing to rise at ages above. This fact contributed to the increase in the TFR since 1994, when it was only 1.66 for a very short period of two years (Toulemon/Pailhé/Rossier 2008: 510). Roughly speaking, the TFR has been stable since 1975 – compared to the variations before – with a long-term stationary average of 1.8 children per woman. A drop below the value of 1.9 is not expected for the future (Prioux 2005: 376). After World War II, France experienced baby boom periods starting in 1946 with a TFR of three children. This first period cooled down to 2.67 in 1953. Afterward, the level rose again in the first half of the 1960s. The TFR reached a level of 2.8 to 2.9 in those years. From the middle of the 1960s until the middle of the 1970s the fertility level strongly declined by more than one third to 1.85 children per woman.

¹ This has led to a deficit in annual fertility, whose magnitude is proportional to the childbearing delay.
Fig. 2.1. Total fertility rates of France, Hungary, Norway, and Germany (separated)

Norwegian fertility was (also) 2.0 in 2009. Statements for France could almost be repeated for Norway. The rates ran a synchronous course at identical levels from 1963 to 1979 including the deep fall of the rate usually called the second demographic transition, while it was similar afterwards: in some years the French rate was higher (1980–1986, 2002), and in some years it was the other way round (1990–1997). Since 1963, the largest difference between the rates was 0.25 in 1981. The drop in the Norwegian rate started from a slightly higher fertility level and lasted longer: in France the fall stopped in 1978 while in Norway the rate continued to sink until

Source: Eurostat 2012d.
1984. In those years, the Norwegian rate was only higher than the West German rate. Before 1963 larger differences were observable at generally much higher fertility levels of between 2.6 and 3.0 children. Between 1947 and 1951 the Norwegian rate was greatly exceeded by the French one. While for some years (1953–1955), women in Norway and France gave birth to the same number of children, the position of the both changed between 1956 and 1962.

Germany had a TFR of 1.36 children in 2009 (Eurostat 2010d). In West Germany, the extremely low fertility level has persisted since the mid-1970s with little variation (see figure 2.1). After the recovery at the end of the 1940s back to pre-war levels, the rate rose to 2.54 in 1966 followed by a pronounced downward movement in the subsequent decade. The drop amounted to more than one child per woman which is equal to 40%. Insofar, the fertility rate can be subdivided in three phases with two trend changes: an upward trend between 1947 and 1966 with values from 1.8 to 2.5, a downward trend between 1966 and 1977 with values from 2.5 to 1.4, and a stable phase at an extremely low level between 1.28 and 1.45 afterward which has lasted until the present.

The East German rate partly underwent another development: initially (between 1952 and 1958) the rate decreased from 2.4 to 2.2, and increased a bit again until 2.5 in 1965. The time afterward can be characterized by a two-phase downward movement: the first one lasted until 1971 and was flatter than the second phase which was very steep and merely two years (1972 and 1973). The whole decline also amounted to one child per woman (to 1.5). It stopped and after a short period was replaced by an upward movement which reached the value of 1.95 in 1980. The following decrease in the rate started and attained the level of 1.5 in 1990. Afterward, the TFR plunged to dramatically low levels and reached a trough in 1994 (0.77). In this respect, the drop was again a two-phase downward movement. Since then, the rate has been steadily and slightly rising again. The two German rates started to converge, or, more accurately: the East German rate has approached the West German one. In 2008, it was even slightly higher for the first time since unification (East: 1.40, West: 1.37). Earlier, between 1957 and 1975 the fertility rates in both parts developed almost synchronously. However, whereas the rate of the FRG experienced a longer decrease and stabilized afterward, the GDR rate already started to rise again so that fertility in the German Democratic Republic from the middle of the 1970s until 1989 was

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2 The country has one of the 20 lowest fertility rates worldwide (Population Reference Bureau 2008).
Fig. 2.2. Total fertility rates of France, Hungary, Norway, and Germany (integrated)

As was typical for most of the ex-socialist countries of Central and Eastern Europe (CEE), profound changes in the demographic behavior of the Hungarian population started in the late 1980s and hence, compared to Western European countries, with a delay. In the CEE countries the demographic pattern can in general be summarized as follows: Until the late 1980s marriage and divorce rates were high, most families had noticeably higher than in the Federal Republic of Germany. In 1990 the rates crossed and afterward the situation reversed due to the severe collapse of the East German rate.

Source: Eurostat 2012d.
two children and age at marriage and childbearing was very low. Since then, behavior
developed differently. In 2009, Hungary had – together with Latvia and Portugal – the
lowest fertility level of all member states of the European Union. The value was 1.32
children (Eurostat 2010d). In some of the previous years Hungary’s TFR was even
(marginally) lower – the lowest value was 1.27 in 2003 – and during the last 12 years
the TFR has never exceeded 1.35. The Hungarian TFR exhibits a development that is
different to the other countries considered here. It already had a post-war peak in 1954
with a value of almost 3.0 children and crashed steeply afterward to the value of 1.8
in 1962. In those years, West European countries experienced their “baby boom” era.
Hungary was the first European country that underwent below-replacement fertility
after World War II and moreover the nation with one of the lowest rates in the world
(Spéder/Kamarás 2008: 603). Between 1967 and 1980 the total fertility rate again
displayed values between 1.9 and 2.35. The last decline occurred in the 1990s when
the TFR dropped from almost 1.9 to the current low value. Altogether, the total
fertility rate of Hungary followed a completely different course and in contrast to the
other time series, the TFR of Hungary exhibits – apart from some upward fluctuations
(mainly 1953–1956 and 1974–1977) – a long-term downward trend during the last 50
years.

Between 1958 and 1970 Hungary had – with values between 1.8 and 2.24 – the
lowest total fertility rate of all five countries, also a much lower rate than the second
socialist country GDR whose rate followed the typical Western European course at
that time. The Hungarian rate increased again as all other rates took a downward
movement. In those years (1974–1980), Hungary had the highest rate of all countries
while especially the curve of the GDR dropped down to the low level of the sister
state FRG for a short period. Between 1973 and 1990, the rate of the Federal Republic
of Germany was by far the lowest until the East German rate fell below this low level
until 2003. Between 2000 and 2006 the East German and the Hungarian rates were
the lowest at a very low average of 1.3. Compared to the former GDR, the Hungarian
rate also dropped from 1990 onwards, but while the rate of East Germany collapsed
for four years until 1994, the decline in Hungary lasted longer (until 1999) and the
drop was more moderate (from 1.85 to 1.3). Since then, the Hungarian rate has been
stable, while the East German rate has been steadily increasing. Since 2007, the East
German rate has even marginally outpaced the Hungarian rate. Finally, it is apparent
that the curves of France, Norway, and West Germany developed almost parallel with
the latter at a much lower level. The difference amounts to about 0.5 units. Only in the last few years have the French and Norwegian rates taken an upward trend while the West German rate has remained stable. The parallel course has ended.

To conclude this subsection, table 2.1 shows the size of the populations of the relevant countries. Differences are considerable.

<table>
<thead>
<tr>
<th>Size of population in France, Hungary, Norway, and Germany</th>
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<tr>
<td><strong>Size in millions</strong></td>
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<tr>
<td>France métropolitaine</td>
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<td>Hungary</td>
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<td>Norway</td>
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<td>Germany</td>
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Sources: Institut national de la statistique et des études économiques 2010b, Statistics Norway 2012c, Statistisches Bundesamt 2010b: 28; *France métropolitaine* is the part of France situated in Europe. The population of Hungary already started to decrease in 1980 due to high mortality and morbidity levels as well as the lack of immigration (Speder/Kamaras (2008): 600). 82% of all inhabitants of Germany live in the Western part of Germany, 18% live in the Eastern part.

### 2.1.3 Cohort fertility rate (completed fertility)

Women in Norway born in 1965 have a cohort fertility of 2.04 children equaling women born in France who have 2.03 children on average (see figures 2.3 and 2.4).³ Women had 2.5 to 2.65 children until the 1937 birth cohort. The number of children started to decrease with birth cohort 1936 and did not stop falling until cohort 1949 in France and 1955 in Norway. In subsequent birth cohorts, fertility leveled off. Several French birth cohorts (1949–1962) are slightly more fertile than their Norwegian peers while cohorts born between 1935 and 1948 do hardly differ. In contrast, older French women (born before 1935) gave birth to observably more children than older Norwegian women.

The last birth cohort of women in Germany that managed to replace its mother’s birth cohort was the 1885 one: the average number of children was 3.36, the replacement level 3.44 at that time (Dorbritz 2008: 565). Since then, even the fertility of

³ Within Europe, only Irish women have given birth to more children.
Fig. 2.3. Cohort fertility rates of France, Hungary, Norway, and Germany (1930–1965; separated)

Sources: Max Planck Institute for Demographic Research/Vienna Institute of Demography 2012 based on national data (France: National Institute of Statistics and Economic Studies (INSEE); Norway: Statistics Norway; Hungary: Central Statistical Office; Germany: Statistisches Bundesamt and Federal Institute of Population Research (since 2001 West Germany without West Berlin and East Germany without East Berlin)).
cohorts that had their childbearing period during the so-called golden age of family has marginally fallen below the – at that time current – replacement level of 2.3. Now it has sunk to 2.1 in highly developed countries and cohort fertility even further. East German women born in 1958 have 1.8 children on average, their West German peers 1.6 (Statistisches Bundesamt 2009b). While between 1930 and 1941 cohort fertility was almost equal, completed fertility in the GDR was higher than in the FRG in subsequent birth cohorts. Birth cohorts that recently concluded their fertile phase are closing the gap more and more. On average, the numbers of children of cohort 1967 are almost identical, with 1.44 in West Germany and 1.47 in East Germany (Dorbritz 2008: 566). This cohort has not yet completed its fertility but it is expected to be lower than that of preceding cohorts (Statistisches Bundesamt 2009b).

The cohort fertility rate time series from Hungary show hardly any variance. Cohorts born between 1930 and 1965 completed fertility continuously with between 1.9 and 2.0 children on average. Younger cohorts have fewer children, but this may partly be ascribed to the not yet concluded fertile period: while women born in 1962 have 2 children, those born eight years later are assumed to have only 1.7 children at the end of their childbearing age. Because of the low values of the total fertility rate since 1998, further decrease can be expected.

The large fertility gap between the French and the Norwegians on the one hand and Germans on the other is remarkable and a consequence of the former’s consistently much higher annual fertility level. The parallelism of the total fertility rates mentioned above is also observable in the cohort fertility rates. The Hungarian rate was the lowest in the birth cohorts 1929 through 1940. After this point this position changed because the German rates dropped. Due to the fall of the French and Norwegian rates, the Hungarian birth rate approached them. In the cohorts born in the 1960s no significant difference can be measured any more. Therefore, two developments are responsible for the changed position of the Hungarian rate: its inertia and the other rates’ decline.
Fig. 2.4. Cohort fertility rates of France, Hungary, Norway, and Germany (1930–1965; integrated)

Sources: Max Planck Institute for Demographic Research/Vienna Institute of Demography 2012 based on national data (France: National Institute of Statistics and Economic Studies (INSEE); Norway: Statistics Norway; Hungary: Central Statistical Office; Germany: Statistisches Bundesamt and Federal Institute of Population Research (since 2001 West Germany without West Berlin and East Germany without East Berlin)).
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