# The European Below Replacement Fertility

JARL LINDGREN Senior Research Associate, Docent

MARKETTA RITAMIES Research Associate The Population Research Institute

## Introduction

During the last few centuries Europe has gone through a demographic transition characterized by decreasing mortality and fertility. As mortality began to decrease earlier than fertility, the consequence was a population growth much higher than before the transitional period. During the transitional phase the population of the European countries multiplied in some countries by up to four or five times. While the yearly growth rate in Europe during the 15th and 16th centuries averaged 0.3 percent, it almost trebled from 1850 to 1950 (Braudel, 1982, 35–36).

Although there is some evidence that fertility was controlled in historical populations, the pretransitional period was characterized by high fertility but also high mortality. On the microlevel it denotes that before the demographic transition the completed fertility was 4.5—5 children per mother (e.g. Festy, 1979, 12). Due to the high mortality approximately one half of the children born survived to the usual age of marriage or 25—30 years of age. Hence reproduction was mostly guaranteed but often with only a rather small margin.

During the demographic transition the long-range trend in the fertility decrease is considered to have started in most European countries in the mid-1800s and to have ended in the mid-1900s or somewhat later. However, signs of earlier departure from traditional society have been noted in some countries. After the demographic transition with decreasing fertility and mortality and high population growth, the completed fertility again approached the level found in the situation before the transition: about two children per woman. However, the expected balance between mortality and fertility, which in the long run would end in zero population growth, has been passed in almost all European countries, and fertility has continued to decline to below the replacement level.

Many authors have noted the impossibility of creating a theory on fertility and its determinants. As numerous complexly interrelated factors on all levels of society affect fertility, theories that have been developed have proven sooner or later not to be universally applicable. Many factors that have been considered important for the fertility transition still contribute to the change, even if some of them are less significant for the current development. On the other hand, there are other trends in society that have crucially affected the current below replacement development. An important role is obviously played by the liberalization of abortion laws, the new effective contraceptives, and the diffusion of efficacious contraceptive techniques to all population levels. Even the spreading of cohabitation without marriage has contributed to the development, at least by postponing childbearing.

The causes behind the development have been discussed and analyzed in numerous studies. Mostly the demographic transition has been regarded as initiated by industrialization with its technological, scientific, economic, social, and cultural changes. There are, however, scholars that hesitate to consider the demographic transition

as a unique phenomenon which implies an ending in a stable balance. They point to earlier transition periods in the history of Europe and are inclined to think of demographic transition as a part of a more or less continuous stream of changes (see e.g. Blake, 1985). This implies that the current decline to below replacement level could not be explained at least solely with the same motives and reasons as used for the transitional phase (Höhn, 1986, 312). Nevertheless it is also argued that the current low fertility is logical continuation of the demographic transition, even if the motives for having less children have changed (e.g. Lesthaege, 1983, 411–435).

The fertility decline in the European countries has been more or less similar irrespective of the economic system or geographical location. However, certain differences between the countries could be observed. They are caused at least partly, by measures aimed to influence fertility, or by differences in the time for the departure from the old society. In this article we will show the similarity of the fertility decline to the below replacement in Europe by giving an overview of the fertility development during the last three decades. We will also relate assumptions and views, when available, as explanations for divergencies from the long-range trend on the country level as well as between countries.

## The path from high to low fertility

In the second half of the 1800s European fertility was still characterized by natural fertility. The completed fertility of the generations born in the mid-1800s was still four or more. The famous exception was France with a completed fertility of only about 3.5. In the Western and Northern European countries where the European fertility transition started almost at the same time, the first signs of the fertility decrease were visible in the 1870s. In the 1930s it had dropped to the replacement level or below it.

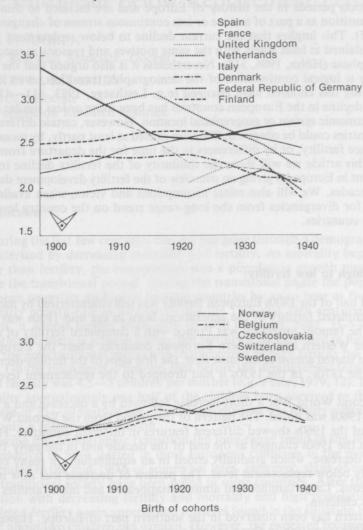
After the Second World War a short increase followed by a decrease and a new peak in the mid-1960s was noted. The pattern of the period from the Second World War to the end of the 1960s showed different features in different countries. However, the peak in the 1960s changed at the end of the decade and in the early 1970s to a continuous decrease, which gradually ended in an equilibrium, in many countries considerably below replacement level. The pattern of decrease was now more or less simultaneous. Large families had almost disappeared and most families had only two or less children.

The same pattern has been observed in the southern part of Europe. However, as the demographic transition in these countries started later, the fertility decrease has been slower and has not reached the same level as in Western and Northern Europe. Eastern Europe exhibits a somewhat different pattern with a fertility decrease from the beginning of 1950s to the end of 1960s, after which a stagnating tendency has been observed.

## The completed fertility

Figure 1 shows the fertility development according to the completed fertility in 12 Western, Northern and Southern European countries and one Eastern European country beginning with generations born in the beginning of the century. The simultaneity of the development of these countries is quite obvious. Festy (1979, 151) has classified the northern and western countries according to completed fertility. France, Norway, and the United Kingdom represent countries where the completed fertility increased until the beginning of the 1960s. In Belgium, Denmark, Sweden, and Switzerland the completed fertility stabilized on a somewhat higher level in the 1960—1970s than before the war.





Finland and the Netherlands form a third group where the completed fertility showed a decreasing trend since the war. The difference between the development in Finland and the Netherlands is that the annual fertility per woman continuously dropped in Finland from the beginning of the 1950s, while in the Netherlands it remained on a stable and rather high level from the beginning of the 1950s to the mid-1960s. After that the decline got steeper.

Italy shows a decreasing tendency while in Spain a weak growth seems to be evident. As a representative of the Eastern European countries we have Czechoslovakia, which has a rather typical Central European fertility pattern in its Western part, Bohemia, and later fertility transition in its Eastern part, Slovakia. The fertility development has, on the whole, been similar to that of Western Europe, even if it has been somewhat higher.<sup>2</sup>

32

<sup>&</sup>lt;sup>1</sup> The reduced scale of the figures of this article has smoothened the difference between the curves. To separate them from each other, the names of the countries are in the same order as the curves in the figures.

<sup>&</sup>lt;sup>2</sup> The authors are indebted to Dr. Ivo Mozný and Dr. Milan Kučera for the information on Czechoslovakia.

#### The total fertility

In the following comparison of the fertility development in Europe we have used total fertility rates, i.e. the sum of the age-specific fertility rates. Random changes affect the total fertility rate more than the figures of completed fertility. However, by using total fertility rates it is possible to get a view of the current tendencies in the fertility development which the use of completed fertility does not allow.

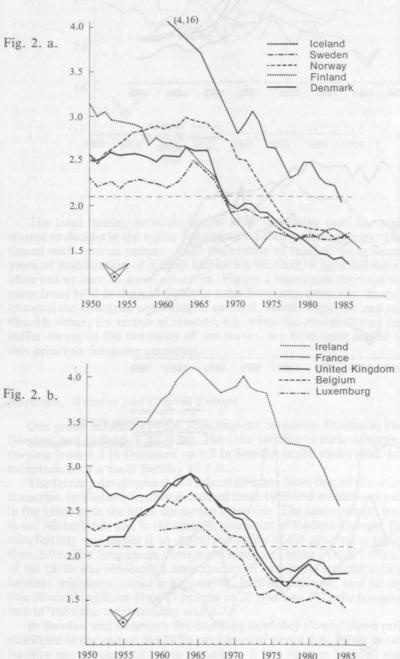
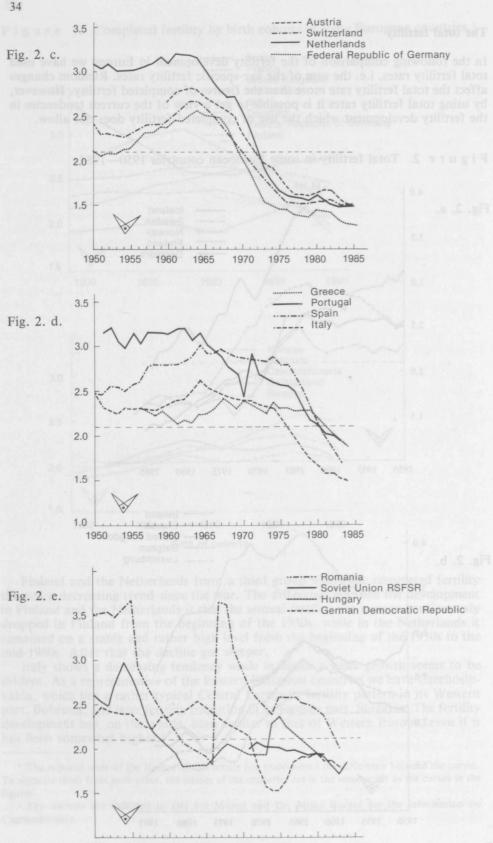
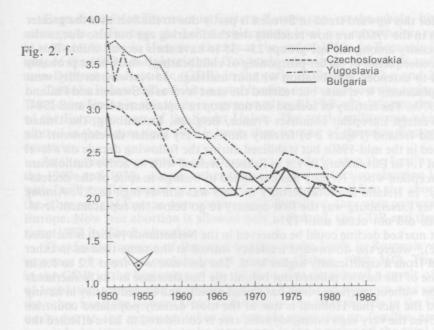


Figure 2. Total fertility in some European countries 1950-1984.

3



1950 1955 1960 1965 1970 1975 1980 1985



The total fertility rates show that after increasing until the mid-1960s fertility started to decline in the highly industrialized European countries. The tendency continued with various patterns until the middle of the following decade. After some years of stabilization or a weak increasing tendency a light decrease could again be observed at least in some countries. Figure 2 illustrates the total fertility development from 1950 to the mid-1980s in most European countries. In the figure we have grouped the countries according to cultural, social, linguistic and religious similarities. However, for technical reasons, e.g. when the readability of the figures would suffer owing to the similarity of the curves, we have been forced to diverge from this principle for some countries.

### Northern, Western and Central Europe

One group is formed by the Scandinavian countries: Denmark, Finland, Norway, Sweden, and Iceland (Figure 2a). The total fertility in these countries is rather low, varying from 1.3 in Denmark to 1.7 in Sweden in the mid-1980s. Iceland forms an exception with a total fertility of 2.0.

The fertility development in Finland diverges from that of the other Scandinavian countries. In Finland fertility decreased from 1950 and no increase has been observed in the 1960s as in the other European countries. The same pattern has been observed in the Netherlands and in the socialist countries of Eastern Europe. In all these countries fertility was higher than the reproduction of the generation presumes, or higher than 2.05. The long-range downward trend in Finland from 1950 to the beginning of the 1970s was obviously a consequence of very rapid structural changes with large internal migration, rapid urbanization, industrialization, and an agrarian population diminishing from 41 to 17 percent in 20 years. In 1973 the downward trend ended and in 1985 the total fertility was 1.7.

In Sweden and Denmark the declining tendency slowed down rather rapidly and stabilized at the end of the 1970s on a level of about 1.6. While in the last few years fertility has dropped to 1.3 in Denmark, it has risen in Sweden since 1984 to 1.7.

The reason for this upward trend in Sweden is partly due to the fact that the greater cohorts born in the 1960s are now reaching the childbearing age but also due to the greater propensity among the age-groups 25—35 to have their second child. This is obviously a consequence of earlier postponing of childbearing, which most probably is connected to extended cohabitation without marriage. In Norway fertility went below the replacement level later but reached the same level as in Sweden and Finland in the mid-1970s. The fertility of Iceland did not drop to replacement level until 1984.

In the Western European countries France, Belgium, Luxemburg, the United Kingdom, and Ireland (Figure 2 b) fertility shows a very similar development: the decline started in the mid-1960s but stabilized during the following decade on a level varying from 1.4 in Luxemburg to 1.8 in France. Ireland with its active Catholicism forms the exception where fertility has continued to be high in spite of the decreasing tendency. In Ireland the total fertility in 1983 was still as high as 2.7. Among these countries Luxemburg was the first country to go below the replacement level. In France this did not occur until 1974.

The most marked decline could be observed in the Netherlands (which is included in Figure 2 c),<sup>3</sup> where the downward tendency started at the same time as in other countries but from a significantly higher level. The decrease was from 3.2 to 1.6 in ten years. One of the factors pointed out behind the fast decrease in the Netherlands is cohabitation without marriage which has spread rapidly and caused a delay in having children, and the fact that Holland is one of the most densely populated countries in Europe. Even the very high unemployment rate is considered to have effected the propensity to have children (Frinking, 1986, 381).

Austria, the Federal Republic of Germany, and Switzerland represent the Central European countries (Figure 2 c). In these countries the fertility level is on the whole lower than among Western European countries. The FRG represents the lowest fertility with 1.3 children per woman which also is the lowest fertility on the country level in the whole of Europe. The highest level in Central Europe is found in Switzerland with 1.5 children. The fertility development exhibits in the main the same pattern as in the Western European countries.

## Southern Europe

In Southern Europe the decline started later than in Western and Northern Europe (Figure 2 d). In Italy, despite the late take-off, the total fertility is already as low as in Western and Central Europe. In the other Southern European countries, Spain and Portugal, the decrease has been rapid and seems to continue. The replacement level was passed in these countries not prior to the beginning of 1980. In Greece fertility has been very low during the last few decades, only somewhat higher than the replacement level. The stagnation which has been found common to Europe since the mid-1970s has not been observed in these countries.

# Eastern Europe

The fertility curves of socialist Eastern Europe differ from those of the market economy countries. The total fertility has been higher and the variations in many countries rather noticeable. Typical of these countries is that the total fertility rate started to go down after the Second World War and continued until the end of the 1960s, when it stagnated more or less close to the replacement level. The liberalization of abortion for social reasons or merely at the womens's request has been considered the main reason for the decrease. (Tietze, 1983, 12).

<sup>3</sup> The Netherlands have been left out of the figure displaying fertility development in Western Europe to avoid overcrowding the figure.

Even if total fertility rates in Eastern Europe are, on the whole, higher than in other parts of Europe, the below replacement level was nevertheless reached early in some countries, in Hungary already at the end of 1950s, in Romania in the beginning of the 1960s, in Bulgaria and Czechoslovakia in the mid-1960s and in the German Democratic Republic (GDR) in the early 1970s (Figure 2 e and 2 f).

Catholic Poland still exhibits a total fertility noticeably over the replacement level. The Soviet Union in this study is represented by RSFSR which forms the central part of the European part of the Soviet Union. The total fertility rate which has been plotted in the figure since 1970 is lower than in most of the other Eastern European countries.

In the socialist countries an attempt was made to stop the fertility decrease in the 1960s and 1970s, among other things, with a restrictive abortion law but also with family policy measures, such as financial support. When the abortion laws in the other parts of Europe were continuously liberalized, they were restricted in Eastern Europe. Now free abortion is allowed only in Poland, the GDR and the USSR, and since 1987 in Czeckoslovakia.

The drastic increase of the total fertility in the 1960s in Romania was the consequence of a sudden prohibition of abortion (Tabah, 1980, 360). The falling rate in the GDR in the beginning of the 1970s is also considered a result of the change of legislation concerning abortion: the law forbidding abortion was cancelled. On the other hand the upward trend at the end of the same decade in the GDR is obviously due to the measures taken to provide assistance to families and the newly married. Another example to be mentioned is the increase of the total fertility rate in Hungary at the end of the 1970s, which is held to be a consequence of the family policy measures taken. The fertility increase in Czechoslovakia from the end of the 1960s is considered to be linked to the measures of economic value directed to families with children. (Bodrova, 1986, 398).

According to demographers in Eastern Europe the demographic transition ended in the GDR, Czechoslovakia, Hungary, and Bulgaria already in the 1960s and in Poland and Yugoslavia during the following decade. The decrease of the agrarian population and the increase of women's employment are considered to manifest this assumption (Andorka, 1981, 143). Even if the fertility decrease stopped in Eastern Europe, there have been differences in fertility development between the countries even after that. Tabah (1980, 369—361) believes that one important reason for the slower fertility decrease in Eastern Europe is that the attitudes towards the family and marriage have changed very little, and there has been no unemployment.

#### Some concluding remarks

In Europe fertility has been declining for a long time. After the Second World War an upward tendency was noticed which continued more or less to the end of 1960s. Then the decrease continued and went in most European countries below the replacement level, in some countries earlier, in some later. Different explanations for the current fertility development have been presented. Some scholars see it as a continuation of a long-range development and argue that the baby-boom should be considered a departure from the decreasing trend and instead of studying the fertility decrease the motivation behind the baby-boom ought to be studied (Teitelbaum and Winter, 1985, 87). Others are inclined to emphasize the new factors, motives and attitudes which now affect fertility behavior compared with the earlier phase of the fertility transition.

In some countries, especially in Eastern Europe, attempts have been made to slow down the decreasing tendency in fertility with family policy measures. In Eastern Europe restrictions on the use of contraceptives and abortion have also been used at least in earlier phase of the decrease. However, on the whole the effect of the measures taken has been rather short. Now most European countries show a total fertility rate below replacement. The declining fertility has caused anxiety for the future, in some countries more, in some less. As the population changes are rather slow, the projections have to be extended far into the future if one wishes to grasp the effect of the decrease. This, of course, has a tendency to make them as unreliable as the long-range projections of a growing population would be even if the annual growth rate is trivial (Teitelbaum and Winter, 1985, 130). The most crucial reasons for population growth have for centuries been the assumed connections between population growth and economic, political, and military power. Such issues are still referred to when the motives for an increasing fertility are discussed. However, it is doubtful, whether the economy in our complex world depends on population growth. It is also questionable whether military power in the age of missiles and atomic bombs relies any more upon population size (McIntosh and Crane, 1986, 235). As for the small countries, the fear of loss of cultural identity should be mentioned.

The period from the mid-1800s to the mid-1900s in Europe has been characterized by a strong population growth caused by mortality decreasing more rapidly than fertility. Now fertility has dropped below the replacement level and forebodes a negative population growth in the future.

It seems to be difficult to realize what positive and negative implications the decreasing and aging population will have. However, any problems connected to population development are obviously solvable because the population changes occur so slowly, which gives time for acclimatization and for making realistic plans for the future. Evidently it is necessary to seriously examine possible consequences of the population changes and the means to be used to avoid possible unwanted development caused by the population decrease. The difficulty is to plan for the future by taking into consideration tomorrow's values and structure of production, and by not projecting yesterday's way of thinking and developmental features.

#### References

- Andorka, Rudolf. (1981). Comparative demographic analysis of sociocultural determinants of fertility in European socialist countries where fertility is around the replacement level. In International Population Conference Manila 1981. Solicited papers, Vol. 1, pp. 139—158. Liège, Belgium: International Union for the Scientific Study of Population.
- Blake, Judith. (1985). The fertility transition: continuity or discontinuity with the past? In International Population Conference Florence 1985 5—12 June. Vol. 4, pp. 393—405. Liège, Belgium: International Union for the Scientific Study of Population.
- Bodrova, Valentina. (1985). Demographic policy analysis and prospects: experience in demographic policy in the field of fertility in European socialist countries. In International Population Conference Florence 1985 5—12 June. Vol. 3, pp. 391—402. Liège, Belgium: International Union for the Scientific Study of Population.
- Braudel, Fernand. (1982). Vardagslivets strukturer. Det möjligas gränser. Civilisationer och kapitalism 1400–1800. Band 1. (Title of French original: Les Structures du Quotidien: Le Possible et L'Impossible. Translated from French by Ingvar Rydberg). Stockholm, Sweden: Gidlunds.
- Festy, Patrick. (1979). La fécondite des pays occidentaux de 1870 à 1970. Travaux et Documents, Cahier n° 85. Paris: Institut national d'études démographiques; Paris: Presses Universitaires de France.
- Frinking, Gérard. (1985). L'identification des politiques de soutien de la fecondite et methodes d'evaluation de leurs effets. In International Population Conference Florence 1985 5—12 June. Vol. 3, pp. 379—389. Liège, Belgium: International Union for the Scientific Study of Population.
- Höhn, Charlotte. (1986). Einflußfaktoren des generativen Verhaltens Zwischenbilanz zu den Gründen des Geburtenrückgangs-. Zeitschrift für Bevölkerungswissenschaft (Wiesbaden, FRG) 12(3): 309–323.
- Lesthaeghe, Ron. (1983). A century of demographic and cultural change in Western Europe: an exploration of underlying dimensions. Population and Development Review (New York, NY) 9(3): 411-435.

McIntosh, Alison C.; and Crane, Barbara, B. (1986). Population decline: a threat to the West? Family Planning Perspectives (New York, NY) 18(5): 234-238.

Tabah, Léon. (1980). World population trends, a stocktaking. Population and Development Review (New York, NY) 6(3): 355–389. Teitelbaum, Michael S.; and Winter, Jay M. (1985). The Fear of Population Decline. Florida, USA/London, England: Academic Press, Inc.

Tietze, Christopher. (1983). Induced abortion, a world review, 1983. A Population Council Fact Book. 5th edition. New York, NY: The Population Council.

Sources used in the figures

Conseil de l'Europe. (1979). Évolution démographique récente dans les états membres du Conseil de l'Europe. Rapports par pays établis par les membres du Comité pour les études démographiques. CAHED 42(79) rév. Strasbourg, France.

Conseil de l'Europe. (1983). Les perspectives démographiques des pays de l'Europe méridionale et de l'Irlande. Études dé démographiques, N° 8. Strasbourg, France.

Council of Europe. (1985). Conclusions on the development of fertility trends in Europe. CDDE (85)12. Strasbourg, France.

European Communities. Economic and Social Committee. Economic and Social Consultative Assembly. (1986). Demographic Situation in the Community. Information Report. Brussels.

Federální statistický úřad. (1982). Demografická příručka. Statistická knižnice. Praha, ČSSR.

Festy, Patrick. (1979). La fécondite des pays occidentaux de 1870 à 1970. Travaux et Documents, Cahier n° 85. Paris: Institut national d'etudes demographiques; Paris: Presses Universitaires de France.

- Population (Paris, France). 1972, 27(4-5): 1975, 30(4-5); 1977, 32(2); 1984, 39(4-5); 1985, 40(4-5); 1986, 41(3).
- Teitelbaum, Michael S.; and Winter, Jay M. (1985). The Fear of Population Decline. Florida, USA/London, England: Academic Press, Inc.
- United Nations. Department of International Economic and Social Affairs. Statistical Office. (1986). Demographic Yearbook 1984. New York, NY.