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Recent Trends in Fertility and Household Formation in the Industrialized World

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Abstract This article analyses the recent period changes in fertility in industrialized countries from the point of view of the varying degrees of fertility postponement at younger ages and subsequent partial recuperation at later ages. It does so through both period and cohort indicators.

The outcome is that current period total fertility rates (PTFRs) are largely diverging because of differential recuperation in the various western countries and Japan, and because of the strong reaction to the economic and social overhaul since 1989 in Eastern Europe. A simple end of postponement would not bring the PTFRs back to replacement level fertility in the vast majority of countries, unless this is being accompanied by much larger rises in fertility past age 30 than witnessed so far.

The article concludes with a pattern description and updating of trends concerning the destandardization of household formation. The data from the 1990s round of Fertility and Family Surveys provide the update. Common and more ideosyncratic causes of the shifting forms of household formation are being discussed. Also here the conclusion is that this destandardization is likely to progress further, particularly in Eastern Europe and Japan.

1. The Second Demographic Transition: Characteristics and Diversity

Patterns of household formation in the industrialized nations of the world have undergone marked changes during the second half of the twentieth century. Compared to the 1960s there have been sustained trend reversals in ages at first marriage and ages at first parenthood, with mean ages often returning to levels that existed before World War II. Fertility levels have declined almost without exception, and countries that still have period total fertility rates (PTFRs) at or close to the replacement level of 2.08 children are exceptional. By contrast, many national PTFRs have dipped below 1.5 children and have remained there for more

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than a decade. Despite increased education, mean ages at first sexual experience have continued to decline. Hence, the number of years between first sexual intercourse and parenthood has increased dramatically. During this "interim phase" a plethora of patterns of household formation developed. First, there is a pattern that is still characterized by early marriage and childbearing in many Eastern European countries, but present trends show an increasing deviation from these old historical features. In a second group of countries, especially residence in the parental household has been prolonged and entry into partnership is still predominantly passing through a marriage, but often with postponed parenthood. In a third set of countries, home leaving and residential independence come earlier, but periods of single living, of living with age mates, and of cohabitation have filled this "interim phase." Moreover, procreation outside wedlock, a historical custom that had been pushed by 1900 to the far corners of the European fringe,[1] has again become more widespread. Finally, divorce rates of married couples and separation rates of cohabitants have reached high levels, and postmarital cohabitation has replaced remarriage.

A variety of explanations have been offered to account for these changes. None of these are mutually exclusive (Lesthaeghe 1998). First, according to neoclassic microeconomic reasoning, increased female education led to more female economic autonomy, higher costs of entry into a union, higher opportunity costs associated with childbearing and childrearing, and to greater assertiveness in favor of more symmetrical gender roles. This explanation focuses predominantly on the better-educated and career-oriented population segments. Second, Easterlin's (1976) relative deprivation theory accounts for similar responses among the other population strata by pointing to the increased need for extra household income, to be provided by female participation in the labor force, required to meet increased consumption aspirations. Third, ideational theory adds factors of cultural change to the economic explanations, such as reduced legitimacy of normative regulation and authority, increased secularism and individual ethical autonomy, and above all growing respect for individual choices and hence increased tolerance for alternative life cycle structuring.[2]

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[1] In 1900–1910 high illegitimacy (indicated by values of Coale's index Ih above 0.100) was found in such diverse European provinces as Corinthia (0.219) and Salzburg (0.141), Austria; Oberbayern (0.126) and Mittelfranken (0.116), Germany; Krasso Szorzeny (0.211), Temers (0.171), and Torontal (0.176), Hungary; Lazio (0.135), Italy; Braganca (0.113) and Setubal (0.221), Portugal; Muntenia (0.151), Moldovia (0.167), and Oltenia (0.148), Romania; and Murcia (0.200), Spain. National levels of Ih above 0.050 for this period are found for Austria, Denmark, Germany, Hungary, Portugal, Romania, and Sweden (cf. Coale and Treadway 1986).

[2] The ideational factors are not strictly endogenous since (1) several manifested themselves already during the "first demographic transition" (e.g., secularization), and (2) they are also responsible for increased female education to start with (e.g., antidiscrimination ideology).

Obviously, various countries experienced the impact of these factors to varying degrees and at different times, but there is still a high degree of heterogeneity that is not readily accounted for by these economic and ideational factors (see, e.g., Lesthaeghe 1995). This heterogeneity is particularly striking in the patterning of home leaving and household formation. Hence, the paradigms cited above need to be further complemented by mechanisms such as:

1. Different patterns of *diffusion* across social strata within countries
2. *Different policies and policy responses* producing temporal period effects as well as longer lasting patterning
3. Different *reactions to periods of economic hardship*, particularly in Eastern Europe
4. *Country or region specific cultural traits* that produce leads and lags or that are directing responses along more idiosyncratic lines.

We shall have ample opportunity to refer to such supplementary mechanisms in what follows.

In presenting this update of demographic trends, we first direct attention to fertility. We argue that in this field a dominant patterning has been emerging, characterized by systematic postponement of parenthood, and that countries can be ordered according to a fairly coherent stepwise progression. In the second part of the essay, we report on the unfolding of patterns of home leaving and couple formation. Here we encounter a considerably greater diversity: the "second demographic transition" takes different paths despite a common body of factors that should steer it in a more uniform direction.

2. Fertility Trends and the Second Demographic Transition

The historical fertility transition, i.e., the "first transition," was characterized by increased fertility control that predominantly manifested itself by fertility reductions at *higher ages*. The degree of control typically followed a learning curve with contraceptive efficiency increasing monotonically with age (Coale and Trussell 1974), with marriage duration (Page 1977) and parity (Henry 1953). This reduction of fertility at older ages led to declines in the mean ages at childbearing (MACs), a trend reinforced in western countries by declining ages at marriage as well. The most recent element contributing to this historical pattern was the adoption of efficient forms of contraception (pill, IUDs), which, especially in the late 1960s, eliminated most unplanned pregnancies at older ages and further reduced fertility beyond age 30. In other countries, predominantly in Eastern Europe, access to legalized abortion fulfilled a similar role.

The second demographic transition, by contrast, is characterized by the adoption of efficient contraception at early ages and by the overall *postponement*

of parenthood. The contraceptive learning curve now has a steep rise at young ages (typically before age 20) and becomes markedly less dependent on union duration and parity. Together with the postponement of marriage and the adoption of new living arrangements, fertility now declines prior to age 30. This general postponement of parenthood is the hallmark of the second demographic transition as far as the fertility pattern is concerned. During this phase PTFRs decline below the replacement level and record low levels are being reached. As is well known (e.g., Ryder 1980), a tempo shift in fertility to older ages is a strong factor leading to the rapid fall of period overall fertility. Once this trend is set in motion, two new questions emerge:

1. To what extent and for how long will such a tempo shift be maintained?
2. To what degree will successive cohorts recuperate after age 30 for the fertility foregone prior to that age?

An end to the tempo shift definitely has the potential to raise the PTFR again (Bongaarts and Feeney 1998), but the magnitude of this "end to postponement" effect depends strongly on the degree of fertility recuperation past age 30 (Lesthaeghe and Willems 1999).[3] Consequently, we need to inspect recent cohort patterns for signs of such fertility recuperation rather than to rely on period measures of parity-specific fertility (TFR1, TFR2, etc.) and period measures of tempo (such as parity-specific mean ages at childbearing—i.e., MAC1, MAC2, etc.).

During the second demographic transition the age at first sexual intercourse has declined for both sexes. This was obviously a part of the "sexual revolution" and of the general normative and ethical change occurring since the 1960s. But the learning curves of contraceptive use-effectiveness do not exhibit the same steepness at young ages in all places. In several countries distinct subpopulations with slower learning have emerged. These subpopulations exhibit high teenage pregnancy rates and often high teenage fertility rates as well. Already in the late 1960s a rise in prenuptial conceptions and precipitated marriages occurred in many countries (sex was learned faster than efficient contraception), but by the mid-1970s nothing of this bulge was left. But in other countries this pattern has been maintained for much longer or has been on the rise. In several instances it has lead to a high incidence of teenage single motherhood and is associated with increased child poverty (e.g., in the United States and the United Kingdom; cf.

[3] The adjusted PTFR proposed by Bongaarts and Feeney is only the level to which the PTFR would rise again in the absence of further postponement *if the parity-specific PTFRs are constant*. Tested against the Belgian cohort experience, this strong assumption proved to be the equivalent of a 100% recuperation of fertility after age 30 for fertility foregone prior to this age by the cohort born in 1965 compared to the cohort born in 1960. As shown in section 2.3, the actual recuperation falls short of this level in many countries, and the Bongaarts-Feeney-adjusted PTFR may, therefore, give a too optimistic estimate of any prospective fertility level.

Bradbury and Jäntti 1999). The presence of such subpopulations is readily detectable from a bump prior to age 25 in period schedules of age-specific fertility (cf. Chandola et al. 1999), from the presence of young single mothers living on their own or in their own parental household (three generations), and from the proportions of children currently being raised in single-parent households headed by women younger than 25.

These fertility features of the second demographic transition are contingent on two other demographic variables: (1) the nuptiality pattern as it existed and evolved prior to the 1960s, and (2) the path followed during the phase of contraceptive modernization. With respect to the first variable, the old cleavage along the Hajnal-line dividing Europe in a western and an eastern half is of significance again. In the West, the mean ages at first marriage (MAFMs) rose after 1965, whereas they remained low in the East. Communist policies reserving housing for married couples, stimulating female labor force participation and eliminating unemployment in general, undoubtedly contributed to the maintenance of the historically earlier marriage pattern. Now the issue is whether the features of the second demographic transition are currently spreading to Eastern Europe as well: are ages at marriage increasing as a result of the development of alternative and often childless living arrangements?

The second variable—the modernization of contraception—equally produces an East-West divide, with the eastern area relying much more on abortion and on traditional nonsupply methods. "Roller coaster" policies with waves of liberalizations and restrictions concerning access to abortion (e.g., Stloukal 1998) combined with the lack of support for hormonal contraception have left the East with significantly lower contraceptive effectiveness. Hence, during the 1970s and 1980s Eastern European countries still faced the problem of unplanned pregnancies for women at older ages and still had ample room for fertility declines at ages above 30. The question again is whether the eastern countries are currently following the West in reducing fertility at younger ages and in producing the typically western tempo shift to older ages.

2.1. Mapping Current Fertility Patterns, 1995–1997

The present situation can be sketched by plotting the national fertility levels (PTFRs) against the fertility tempo indicator (MAC1 or the mean age at first childbearing). This plot is given in Figure 1, and the data are listed in Table 1.

At present, only 3 of the 35 countries considered are at replacement-level fertility or close to it: Iceland, the United States, and New Zealand. Of the 12 Eastern European populations, 9 have an early reproductive pattern with MAC1 below 24, and all of them still have mean ages at first childbearing lower than 26.

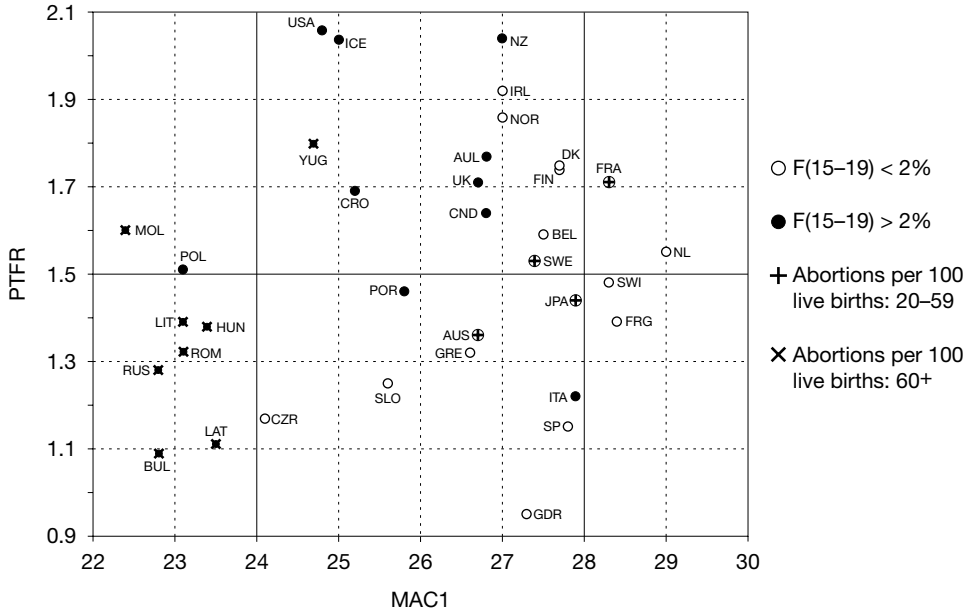

Figure 1 PTFRs and mean ages at birth of first child (MAC1), 1996–1997

However, this early start of reproduction has not prevented them from having steep declines in PTFRs during the 1990s. Only 2 countries—Yugoslavia (which contains Kosovo in this data set) and Croatia—have PTFRs close to 1.7 or just above it. Eight Eastern countries have PTFRs lower than 1.5, and 5 have dipped below 1.3 children. In this set, we are not counting former East Germany (GDR), which had a PTFR value of barely 0.95 in 1996.

The western countries have developed much later ages at first childbearing. There are only 3 countries for which MAC1 is below 26: Iceland, the United States, and Portugal. The majority are located within the 26–28-year range, and 4 countries have MAC1 values above 28: Switzerland, France, Germany (former Federal Republic of Germany [FRG]), and especially the Netherlands with the latest start of fertility of all. The fertility levels, however, vary widely and are comprised between a PTFR of 1.1 and replacement fertility. On the whole, most Scandinavian countries and non-European countries (United States, Canada, Australia, New Zealand) have the highest levels (above 1.6), whereas the Mediterranean ones all have much lower levels (between 1.1 and 1.5). The general lesson to be drawn from Figure 1 is that the earlier starters have by no means higher fertility during the 1990s. The causes at work will appear more sharply in the next section when a decomposition of changes in PTFRs is made for two successive periods.

Before turning to details, we also wish to point out several other features indicated in Figure 1. The different symbols used reveal the countries that have

Table 1 Indicators of fertility in industrialized countries, 1995–1997

Country	PTFR	MAC1	1,000 × Fertility Rate 15–19	Abortions/ 100 Live Births	% Nonmarital Births
A. Southern Europe					
ITA Italy	1.22	27.9	7	25	8
SP Spain	1.15	27.8	8	13	13
GRE Greece	1.32	26.6	13	12	3
POR Portugal	1.46	25.8	21	NA	20
B. Eastern Europe					
BUL Bulgaria	1.09	22.8	45	130	30
CRO Croatia	1.69	25.2	20	29	7
CZR Czech Rep.	1.17	24.1	18	51	18
EST Estonia	1.24	23.4	29	127	52
HUN Hungary	1.38	23.4	28	73	25
LAT Latvia	1.11	23.5	21	48	35
LIT Lithuania	1.39	23.1	32	71	17
MOL Moldova	1.60	22.4	53	89	17
POL Poland	1.51	23.1	20	2	11
ROM Romania	1.32	23.1	41	213	22
RUS Russian Fed.	1.28	22.8	40	179	25
SLO Slovenia	1.25	25.6	9	54	32
MAC Macedonia	1.90	NA	39	45	9
YUG Yugoslavia	1.80	24.7	30	72	18
SLK Slovak Rep.	1.47	NA	31	41	14
BLR Belarus	1.39	NA	39	81	15
UKR Ukraine	1.40	NA	54	153	14
GDR Germany (E)	0.95	27.3	8	32	44
C. Western Europe					
AUS Austria	1.36	26.7	15	25[a]	29
BEL Belgium	1.59	27.5	9	10	18
FRA France	1.71	28.3	7	21	39
FRG Germany (W)	1.39	28.4	10	14	14
IRL Ireland	1.92	27.0	17	10[a]	27
LUX Luxemburg	1.71	28.5	7	10	17
NL Netherlands	1.55	29.0	4	11	19
SWI Switzerland	1.48	28.3	4	NA	8
UK United Kingdom	1.71	26.7	30	24	37
D. Northern Europe					
DK Denmark	1.75	27.7	8	25	46
FIN Finland	1.74	27.7	9	26	37
ICE Iceland	2.04	25.0	25	19	65
NOR Norway	1.86	27.0	13	23	49
SWE Sweden	1.53	27.4	7	34	54
E. Other					
CND Canada	1.64	26.8	25	28	30
USA United States	2.06	24.8	58	38	32
AUL Australia	1.77	26.8	21	36	23
NZ New Zealand	2.04	NA	34	24	41
JPA Japan	1.44	27.9	4	29	1

Sources: Council of Europe (1998), tables T3.2, T3.3, T3.4, and country tables xx-2; *United Nations Demographic Yearbook* (various years); H. Kojima and P. McDonald, personal communications; Monnier (1998).

Key: NA = Not available.

[a] Estimates are based on FFS (Austria) and Coleman (1999, Ireland).

(1) fertility rates for 15–19-year-olds in excess of 20 per thousand, and (2) abortions per 100 live births above 20 and above 60 respectively. The first indicator signals the presence of a young subpopulation with a slower contraceptive learning curve, whereas the other demonstrates relatively slow contraceptive modernization for a subgroup or for the entire population. In the case of Ireland and Poland, legal restrictions are the cause of low abortion figures, but these two countries exhibit a slower contraceptive modernization as well.

The countries with high teenage fertility and/or high abortion rates are typically Eastern European and the cluster of "Anglo-Saxon" populations (i.e., United States, United Kingdom, New Zealand, Australia, and to a lesser degree Canada).[4] The United States in particular has high fertility rates for teenage women (58 per thousand), and this cannot be explained by a history of early marriage, as is the case for the Ukraine (54) and Moldova (53). Especially high abortion figures still prevailed in the late 1990s in a set of former Communist countries. Romania led this group (213 abortions per 100 live births), closely followed by the Russian Federation (179) and the Ukraine (153). But several other Eastern European or Baltic countries also had abortion figures in excess of 100 live births (Bulgaria: 130, Estonia: 127, and Latvia: 123).

The Nordic and continental Western European nations do not show these features. Only Austria, the United Kingdom, Denmark, and Italy have slightly more than 20 abortions per 100 live births, and the United Kingdom and Portugal are the only countries with a teenage fertility rate above 20 per thousand. The majority of Western European countries have fewer than 15 abortions per 100 live births and teenage fertility rates between 4 and 15 per thousand only. Japan belongs to the group with very low fertility prior to age 20, but it still has 29 abortions per 100 live births.

2.2. A Simple Decomposition of Period Fertility Trends

We have decomposed the change in the PTFR from 1965 to the second half of the 1990s in changes before and changes after age 30.[5] This is also done for two periods: from 1965 to 1980 and from 1980 to 1996/97. The decomposition is based on changes in the sum of age-specific fertility rates before age 30—i.e., $\delta F(15–29)$—and after age 30—i.e., $\delta F(30+)$—in such a way that later levels of the PTFR can be obtained as:

$$\text{PTFR 1980} = \text{PTFR 1965} + \delta F(15–29)_1 + \delta F(30+)_1$$

$$\text{PTFR 1996/97} = \text{PTFR 1965} + \delta F(15–29)_1 + \delta F(30+)_1 + \delta F(15–29)_2 + \delta F(30+)_2$$

[4] We refer to these populations as "Anglo-Saxon" for the lack of a better label. Obviously all of them contain large subpopulations that are not of Anglo-Saxon descent.

[5] For Japan, we started in 1963 since the period rates for the following years were distorted by avoidance of births in the year of the Horse and Fire (i.e., 1966).

Table 2 Factoring of the overall change in PTFRs for 1965–1996/97 into changes in total fertility for ages 15–29 and 30+, 1965–1980 and 1980–1996/97

Country		PTFR 1965	Change 1965–1980		Change 1980–1996/97		PTFR 1996/97
			F(15–29)	F(30+)	F(15–29)	F(30+)	
A. Northern Europe							
ICE	Iceland	3.71	–.69	–.54	–.49	+.05	2.04
NOR	Norway	2.94[a]	–.68	–.53	–.20	+.34	1.86
DK	Denmark	2.61	–.75	–.31	–.18	+.38	1.75
FIN	Finland	2.47	–.51	–.33	–.16	+.27	1.74
SWE	Sweden	2.41	–.53	–.20	–.33[b]	+.18[b]	1.53
B. Western Europe							
IRL	Ireland	4.03	–.13	–.67	–.89	–.42	1.92
UK	United Kingdom	2.87	–.64	–.34	–.34	+.17	1.72
FRA	France	2.81	–.51	–.38	–.47	+.21	1.70
BEL	Belgium	2.70	–.52	–.50	–.26	+.12	1.55
NL	Netherlands	3.04	–.65	–.79	–.45	+.39	1.54
SWI	Switzerland	2.60	–.63	–.42	–.29	+.22	1.48
FRG	Germany (W)	2.51	–.54	–.52	–.23	+.17	1.39
AUS	Austria	2.70	–.60	–.45	–.36	+.07	1.36
C. Southern Europe							
POR	Portugal	3.08	–.18	–.71	–.65	–.08	1.46
ITA	Italy	2.67	–.47	–.52	–.56	+.06	1.18
SP	Spain	2.97	–.17	–.59	–.87	–.19	1.15
GRE	Greece	2.32	+.22	–.31	–.89	–.02	1.32
D. Central Europe							
MAC	Macedonia	3.66	–.55	–.66	–.27	–.28	1.90
YUG	Yugoslavia	2.53	–.19	–.08	–.38	–.18	1.80
CRO	Croatia	2.19	–.10	–.40	–.27	+.27	1.69
POL	Poland	2.52	–.06	–.18	–.64	–.13	1.51
SLR	Slovak Rep.	2.78	–.14	–.32	–.75	–.10	1.47
LIT	Lithuania	2.40	+.17	–.57	–.43	–.18	1.39
HUN	Hungary	1.81	+.18	–.07	–.60	+.06	1.38
SLO	Slovenia	2.43	–.02	–.30	–.83	–.03	1.25
CZR	Czech Rep.	2.18	–.02	–.09	–.83	–.07	1.17
LAT	Latvia	1.74	+.31	–.15	–.66	–.13	1.11
GDR	Germany (E)	2.48	–.14	–.40	–.98	–.01	0.95
E. Eastern Europe							
MOL	Moldova	2.68	+.21	–.50	–.48	–.30	1.60
UKR	Ukraine	1.99	+.17	–.21	–.40	–.15	1.40
BLR	Belarus	2.25	+.16	–.41	–.44	–.17	1.39
ROM	Romania	1.91	+.54	.00	–.93	–.20	1.32
RUS	Russian Fed.	2.13	+.04	–.27	–.46	–.16	1.28
BUL	Bulgaria	2.08	+.11	–.14	–.89	–.07	1.09
F. Other							
USA	United States	2.74	–.55	–.35	–.01	+.19	2.02
CND	Canada	2.65	–.75	–.20	–.23	+.17	1.64
AUL	Australia	2.84	–.55	–.36	–.35	+.25	1.83
JPA	Japan	1.98[c]	–.18	–.09	–.51	+.20	1.40

Sources: Computed from national series of age-specific fertility rates in Council of Europe (1998) and *United Nations Demographic Yearbook* (various years).

[a] Norway: PTFR for 1961–65.

[b] Sweden: The changes for the period 1980–90 were +.16 and +.30 respectively, yielding a PTFR of 2.13 for 1990; for the period 1990–97, the changes in F(25–29) and F(30+) were –.48 and –.12, bringing the PTFR for 1997 back to 1.53.

[c] Japan: PTFR for 1963.

where the subscripts refer to the two periods 1965–80 and 1980–1996/97 respectively. The outcomes of the decomposition are presented in Table 2. Two figures were also constructed—one for each period—that show the position of the countries with respect to δF(15–19) and δF(30+). We shall first consider the results for the period 1965–80.

Segment I shown in Figure 2 contains countries that had an increase in the PTFR before 1980 resulting from a rise in fertility at younger ages that was larger than the decline after age 30. Only three countries were in this position: Romania, Hungary, and Latvia. In segments II and III declining fertility at older ages, i.e., the continuation of the first phase of the fertility transition, is still the dominant feature. For countries in segment II, a rise in F(15–29) partially

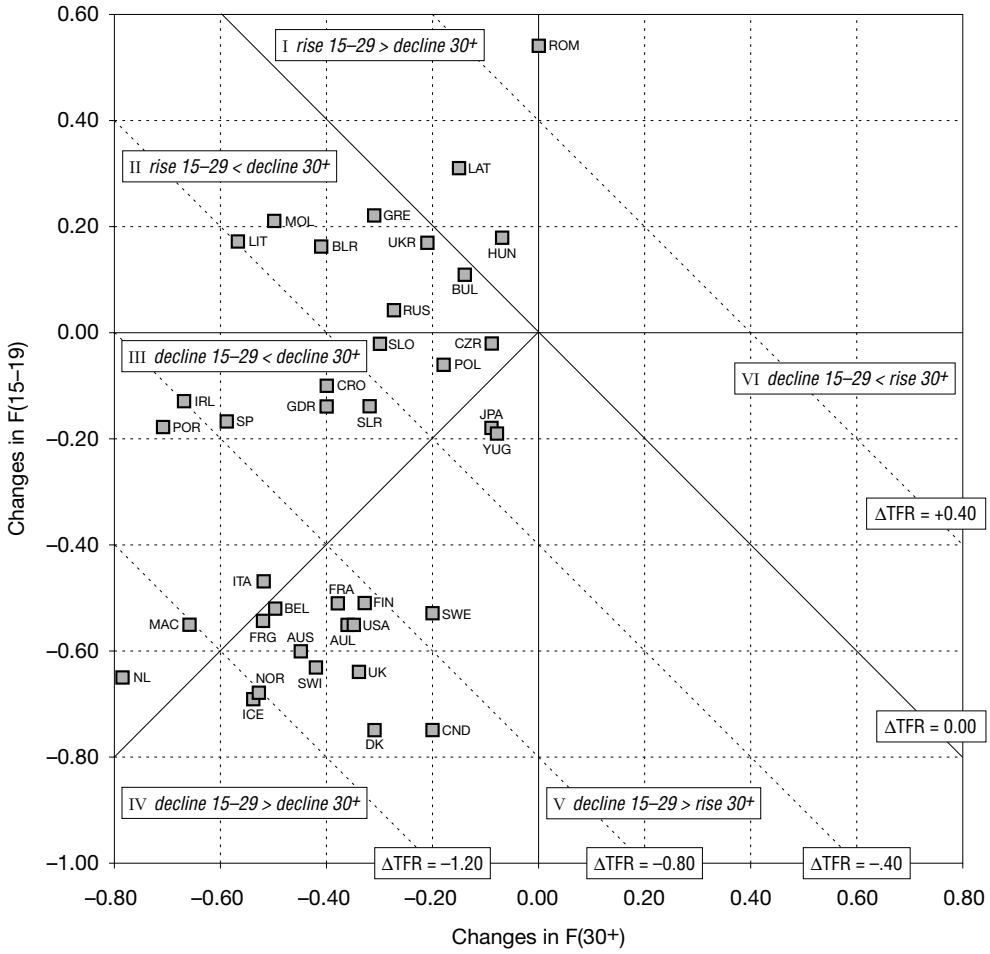

Figure 2 Changes in fertility before and after age 30, 1965–1980

compensates the decline in F(30+). All countries in this segment were Eastern European, plus Greece. In segment III, the decline in F(30+) is amplified by declining values of F(15–29). As the dotted diagonal lines in Figure 2 indicate, many of these countries had large reductions in their PTFRs. This applies particularly to Spain, Ireland, Portugal, Italy, Macedonia, and the Netherlands.

So far we have encountered mainly the Eastern European and Mediterranean countries. In segment IV, however, we find almost all western countries, including the non-European ones. In this segment there are already clear indications of the new phase in the fertility transition: the feature of postponement is illustrated by the fact that the declines in F(15–29), rather than those in F(30+), have become the dominant component in the overall fertility decline. A few countries, such as Sweden and Canada, have minimal reductions above age 30 as a result of the start of fertility recuperation at older ages. *To sum up, when moving from segments I to IV we obtain an ordering from countries that were mainly finishing the first phase of the fertility transition to those that had already started the second phase marked by the tempo shift to later ages.*

Equally noteworthy are countries with only modest declines in the PTFR during the 1965–80 period: they are Eastern European plus Japan. Several had only a reduction in F(30+) of less than 0.2 children. These countries were trailing behind in the adoption of hormonal contraception and had often restricted legal access to abortion as a reaction to earlier excessive abortion figures.

Figure 3 shows the overall shift toward segments IV, V, and VI during the 1980s and 1990s. The former Communist countries and most Mediterranean populations are now found in segment IV, with large declines in F(15–29) and equally impressive declines in their overall PTFRs. Only Croatia and Yugoslavia (including Kosovo) do not follow this trend and limit the overall fertility reduction.

The western countries, including the non-European ones, have left segment IV and progressed to segments V and VI, which are both characterized by rising fertility at older ages. In other words, the postponement that had started in the period before 1980 is now leading to at least a partial recuperation at ages above 30. For a first group of such countries in segment V (e.g., Austria, France, Italy, Japan), there are still declines in the PTFR of the order of 0.3 to 0.5 children as a result of further fertility reductions, mainly before age 25. For a second group (e.g., Federal Republic of Germany, Belgium, Switzerland, Canada, the United Kingdom, Australia, and the Netherlands) the decline of PTFRs since 1980 are modest, i.e., less than 0.2 children. The countries in segment VI—the United States, Finland, Norway, and Denmark—have a net fertility rise. In the Nordic countries there are still declines below age 30, but these are now more than compensated by recuperation and rises after age 30. The United States is exceptional in the sense that it maintained very high teenage fertility and exhibits no decline in the age group

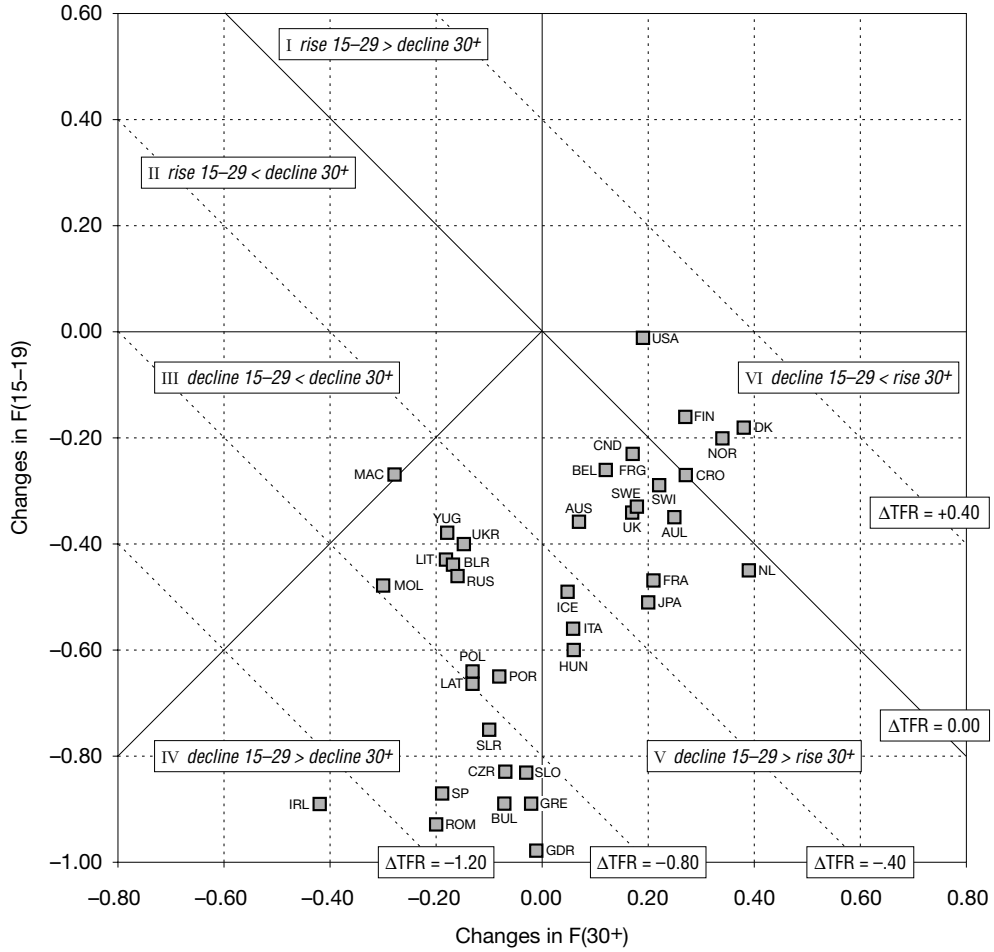

Figure 3 Changes in fertility before and after age 30, 1980–1996/97

20–24 either. Any rise above age 30 is then readily translated into a net overall rise in the PTFR, which, as we know, reached replacement level around 1990.

Finally, the example of Sweden is equally striking and exceptional. This country had already moved into segment VII by 1990 with fertility rises in both age segments. This corresponded to an impressive period impact affecting all ages or all cohorts irrespective of their stage of family formation (cf. Hoem and Hoem 1997; Andersson 1999). By the mid-1990s, however, this anomaly had disappeared, and the Swedish PTFR had declined below its 1980 value. It should be stressed that this rise in Swedish fertility was by no means the consequence of "the end to postponement," but the result of all cohorts, irrespective of age, taking advantage of an extra prolongation of the already long parental leave. Subsequent cutbacks in social provisions and rising unemployment—a novelty for Sweden—produced a backlash (cf. Hoem 1998).

Table 3 Changes in PTFRs and in mean ages at birth of first child (MAC1), 1980–1996/97

Country	PTFR 1980	PTFR 1996/97	Change PTFR	MAC1 1980	MAC1 1996/97	Change MAC1
A. Northern Europe						
ICE Iceland	2.48	2.04	–.40	21.9	25.0	+3.1
NOR Norway	1.72	1.86	+.14	25.2	27.0	+1.8
DK Denmark	1.55	1.75	+.20	24.6	27.7	+3.1
FIN Finland	1.63	1.74	+.11	25.7	27.7	+2.0
SWE Sweden	1.68	1.53	–.15	25.5	27.4	+1.9
B. Western Europe						
IRL Ireland	3.23	1.92	–1.31	24.9	27.0	+2.1
UK United Kingdom	1.89	1.71	–.18	24.5	26.7	+2.2
FRA France	1.94	1.71	–.23	25.0	28.3	+3.3
BEL Belgium	1.69	1.59	–.10	24.5	27.5	+3.0
NL Netherlands	1.60	1.55	–.05	25.6	29.0	+3.4
SWI Switzerland	1.55	1.48	–.07	26.3	28.3	+2.0
FRG Germany (W)	1.45	1.39	–.06	25.2	28.4	+3.2
AUS Austria	1.65	1.36	–.29	24.6	26.7	+2.1
C. Southern Europe						
POR Portugal	2.19	1.46	–.63	23.6	25.8	+2.2
ITA Italy	1.68	1.22	–.46	25.1	27.9	+2.8
SP Spain	2.21	1.15	–1.06	24.6	27.8	+3.2
GRE Greece	2.33	1.32	–.91	23.3	26.6	+3.3
CYP Cyprus	2.46	2.00	–.46	23.8	25.8	+2.0
D. Central Europe						
MAC Macedonia	2.45	1.90	–.55	23.0	NA	NA
YUG Yugoslavia	2.26	1.80	–.46	23.2	24.7	+1.5
CRO Croatia	1.92	1.69	–.23	22.8	25.2	+2.4
POL Poland	2.28	1.51	–.77	23.0	23.1	+0.1
SLR Slovak Rep.	2.32	1.47	–.85	22.4	NA	NA
LIT Lithuania	2.00	1.39	–.61	NA	23.1	NA
HUN Hungary	1.92	1.38	–.54	22.4	23.4	+1.0
SLO Slovenia	2.11	1.25	–.86	22.8	25.6	+2.8
CZR Czech Rep.	2.07	1.17	–.90	22.4	24.1	+1.7
LAT Latvia	1.90	1.11	–.79	22.9	23.5	+0.6
GDR Germany (E)	1.94	0.95	–.99	22.3	27.3	+5.0
EST Estonia	2.02	1.24	–.78	23.2	23.4	+0.2
E. Eastern Europe						
MOL Moldova	2.39	1.60	–.79	NA	22.4	NA
UKR Ukraine	1.95	1.40	–.55	NA	NA	NA
BLR Belarus	2.00	1.39	–.61	NA	NA	NA
ROM Romania	2.45	1.32	–1.13	22.6	23.1	+0.5
RUS Russian Fed.	1.90	1.28	–.62	22.9	22.8	–0.1
BUL Bulgaria	2.05	1.09	–.96	21.9	22.8	+0.9
F. Other						
USA United States	1.77	2.06	+.29	23.5	24.8	+1.3
CND Canada	1.67	1.64	–.03	NA	NA	NA
AUL Australia	1.89	1.77	–.12	NA	NA	NA
JPA Japan	1.75	1.44	–.31	26.8	27.9	+1.8
NZE New Zealand	2.03	2.04	+.01	NA	NA	NA

Sources: Council of Europe (1998); *United Nations Demographic Yearbook* (various years); J. Bongaarts (United States) and H. Kojima (Japan), personal communications.

Key: NA = Not available.

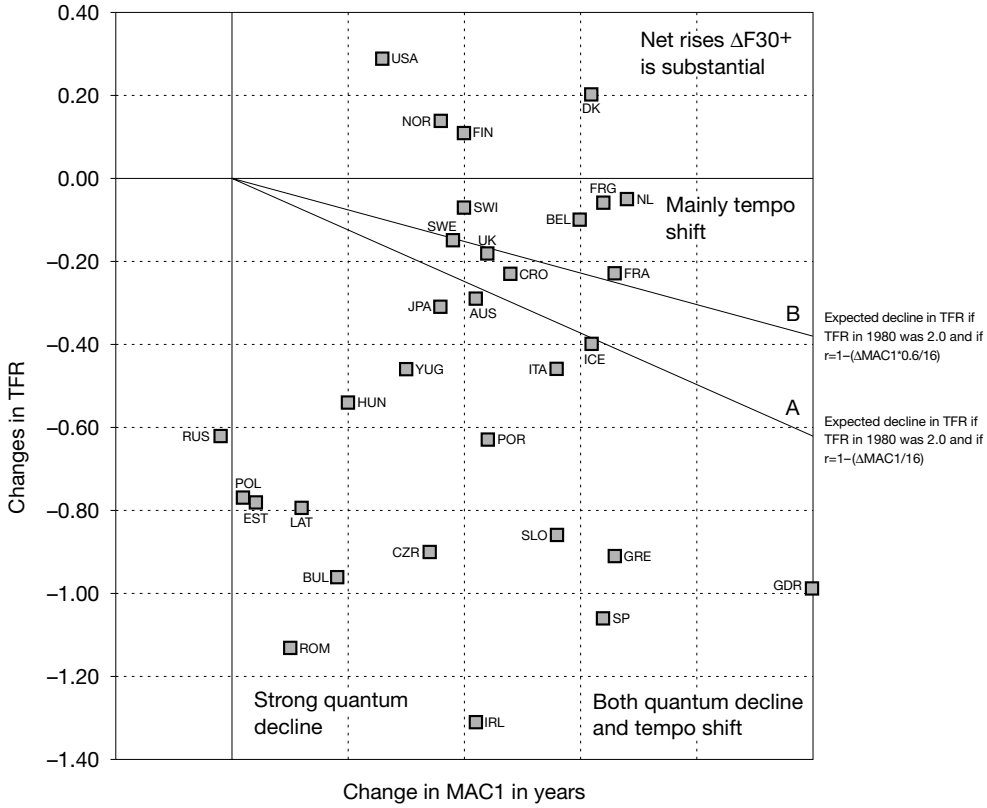

Figure 4 Changes in TFR and MAC1, 1980–1996/97

The story for the 1980s and 1990s can also be told in terms of quantum and tempo effects. The Bongaarts-Feeney model (1998) would have been an appropriate instrument to accomplish this were it not for the fact that the model requires parity-specific TFRs and parity-specific mean ages at childbearing that are not readily available for a large number of countries. Instead, we shall try to bring out the gist of the story via a simple plot of changes in the overall PTFR against the changes in the mean age at first birth (MAC1).[6] Table 3 and Figure 4 show the results.

The first striking feature in Figure 4 is that many Eastern European countries had steep declines in the overall PTFR after 1980 with hardly any rise in MAC1. In the Russian Federation, Poland, and Estonia the rise in MAC1 was virtually zero, and in Latvia, Bulgaria, Romania, and Hungary the increment was less than

[6] MAC1 is also preferred over the overall mean age at childbearing, since the latter can still be declining when all of its parity-specific counterparts are rising. This is typically produced by rapid reductions of higher-parity fertility (3+), thereby increasing the relative weights of low parities in the computation of the overall mean age at childbearing.

1 year over a period of 16 or 17 years. Clearly, a quantum effect accounts for the overall PTFR decline in these populations. As the increments in MAC1 become larger, the tempo shift component of the PTFR decline increases. To illustrate this, we have computed what the overall fertility decline would be if the average annual rate of fertility postponement (i.e., Bongaarts and Feeney's r-parameter) was fairly rapid and equal to the complement of the average annual change in MAC1 over 16 years. This yields line A on Figure 4. Line B shows the outcome for a less pronounced tempo shift and is calculated on the basis of 60% of the change in MAC1. Both lines assume a PTFR of 2 children at the onset.[7] As we come close to lines A and B, the tempo effects become more pronounced.

Evidently, countries such as Portugal, Slovenia, Greece, and Spain combine large tempo and quantum effects. But in most other western countries and in Japan the declines in the PTFR since 1980 are typically accounted for by tempo shifts. Finally, in three Scandinavian countries (Norway, Finland, and Denmark) there have been net rises in the PTFR since 1980 despite increments in MAC1, thanks to large rises in fertility after age 30. The United States also had an overall increase in the PTFR, but only a more modest rise in MAC1. In fact, it did not have so much an end-to-postponement effect that restored replacement fertility, but plainly an overall weak postponement in the 1980s and 1990s to start with. In this respect, the United States has been more like Eastern Europe than like the other western countries.

The pictures presented so far are only synoptic cross-sectional analyses of what is essentially unfolding at the cohort level. In the next section we adopt this perspective to illustrate this point for a number of countries.

2.3. Postponement and Recuperation Seen from the Cohort Perspective

The graphic representation of cohort fertility profiles for all countries cannot be presented here for lack of space, but we shall select several cases that are either highly typical for a group of countries or that are highly idiosyncratic. The reader can readily produce the cohort profiles for a large number of other countries from the long time series of age-specific fertility rates published by the Council of Europe. Also, in what follows we shall identify the cohorts by the year in which they reached the age group 15–19, rather than by their year of birth. All figures with cohort-specific fertility rates by age are produced in the same fashion: we start with the cohort reaching 15–19 in 1960 and follow the level of fertility by age group for

[7] If we had started from a lower PTFR, both lines would have had steeper downward slopes. If the PTFR at the onset were set at 1.75 instead of 2.00, line B would have shifted to the present position of line A, and line A would have dropped off more quickly. In this instance, Japan, Australia, and Italy would have been located above this new line A.

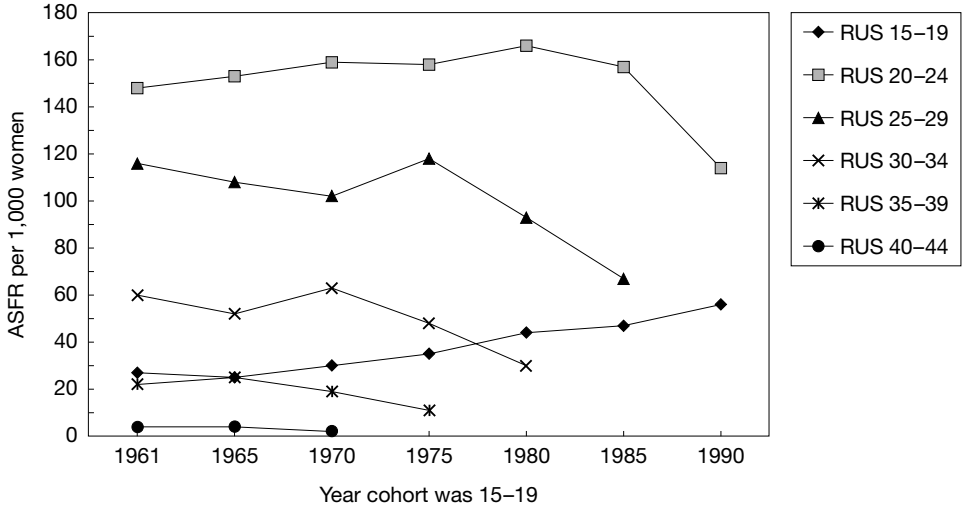

Figure 5 Cohort age-specific fertility rates: Russian Federation

all younger cohorts. Period effects then show up by the diagonal location of peaks or troughs. All age-specific fertility rates are expressed per thousand women.

2.3.1. Eastern European Cohort Profiles: Three Contrasting Cases

The common feature of Eastern European fertility patterns is that the highest fertility is still in the age group 20–24. This is, of course, connected to earlier ages at marriage. However, for the younger cohorts these fertility rates have started to fall, and the same has also happened with fertility in the age group 25–29. The timing of this phenomenon differs from country to country. In Bulgaria and the Czech Republic, for instance, these declines started with the cohorts reaching adulthood in the mid-1970s, whereas in the Russian Federation or Lithuania they started only with the cohort reaching adulthood in the 1980s. Moreover, older cohorts were still reducing fertility above age 30 as well, and only in a few countries (e.g., Slovenia, Croatia) are there signs of a trend reversal. Hence, many Eastern European countries are now fully moving to the second phase of the fertility transition characterized by postponement, but not many have reached the stage with recuperation at older ages. The younger postponing cohorts have not yet reached age 30, and it is too early to assess whether some recuperation will take place.

This general account can be documented with the cohort fertility profiles for the Russian Federation, Bulgaria, and Slovenia. The data for Russia in Figure 5 clearly show that each new cohort reached higher levels of fertility at ages 20–24, but that the last one (reaching adulthood around 1990) exhibits a major break with this trend. Two other features draw attention in the Russian Federation.

First, each successive cohort has exhibited higher levels of teenage fertility, with a rate for the last cohort double that of the cohort reaching adulthood in the early 1960s. Second, there is a period peak in fertility in the mid-1980s exhibited by most cohorts. This corresponds to the policy formulated in 1981 granting the equivalent to 30% to 60% of the average salary at each new birth, access to very favorable loan conditions and to a maternity leave of up to one year with partial salary (only 20%) and even longer without remuneration. The effect was typically only temporary and produced above-replacement PTFRs for the next 7 years (1983–89) (cf. Avdeev and Monnier 1994). During the 1990s these cohorts had reached their desired family size, and from then on the postponement effect among young cohorts starts driving down the PTFR to record low levels. It should also be pointed out that the Russian parity distribution has a very small variance: few women remain childless and few progress beyond two children (Barkalov 1999). This means that the older cohorts, who have essentially realized their one-and two-children families before 1990, have contributed to decreasing fertility in the ages above 30 since that date.

The Bulgarian cohort profiles in Figure 6 show that declining fertility at younger ages started much earlier than in the Russian Federation. The turning point is marked by the cohort reaching adulthood in 1975, which is 10 years earlier than in Russia. Despite this early development, however, there has been no recuperation at older ages by the initiators of lower fertility prior to age 30. Equally noteworthy for Bulgaria is the high teenage fertility level (ca. 80‰), and, after an initial rise, there is only a modest reduction exhibited by the two most recent cohorts.

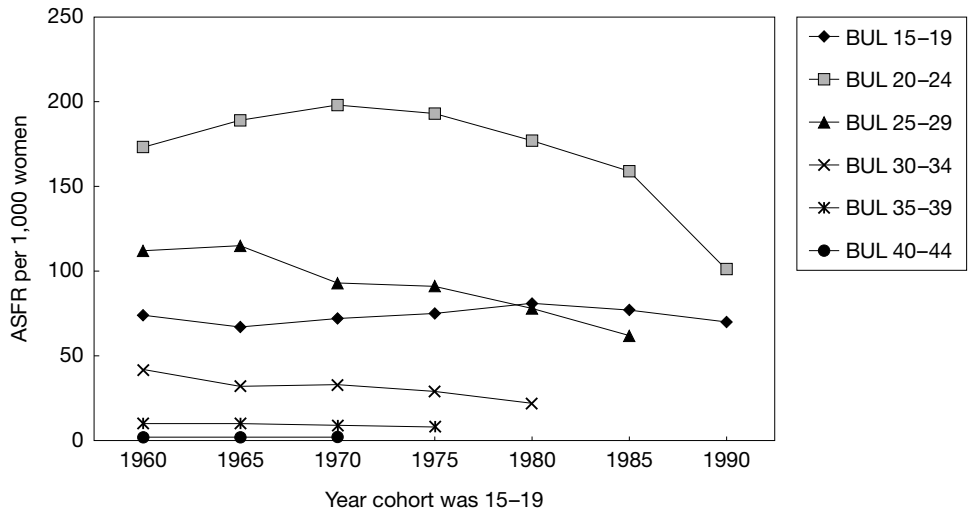

Figure 6 Cohort age-specific fertility rates: Bulgaria

Slovenia, in Figure 7, shows the same early pattern of declining fertility in the age group 20–24 as Bulgaria, but the level at ages 25–29 is more stable and the starters of the decline below age 25 now show modest signs of recuperation after age 30. As indicated before, this feature is still exceptional for Eastern Europe. Also the reduction in teenage fertility in Slovenia is more pronounced. Perhaps not surprisingly, Slovenia and Croatia are producing a fertility pattern that approaches that of western countries: fertility is becoming higher at ages 25–29 than in the age group 20–24, and it is rising after age 30.

2.3.2. Record Low: Former East Germany

The cohort age-specific fertility rates for the "Neue Länder," or former GDR, are shown in Figure 8. The PTFR for this area in 1996 was barely 0.95, which is not even half the level required for replacement. This extremely low level was produced by the steeply declining fertility of the cohort that reached adulthood in 1990. At ages 20–24, this cohort had less than half the fertility level of its immediate predecessors reaching adulthood 5 years earlier. The latter cohort also had much lower fertility at ages 25–29 than the cohort reaching this age group 5 years before. We may, of course, be witnessing a major period effect associated with the first years of German unification rather than a firm trend, especially since large period effects occurred earlier in the GDR's demographic history. As Figure 8 illustrates, such a strong period dip was exhibited by the older cohorts during the years 1972–75. This dip was the unintended effect of an abortion liberalization in 1972, but this was corrected in 1976 by a set of pronatalist measures involving a prolongation of maternity leave and a more substantial paid leave of up to one year for working mothers with at least two

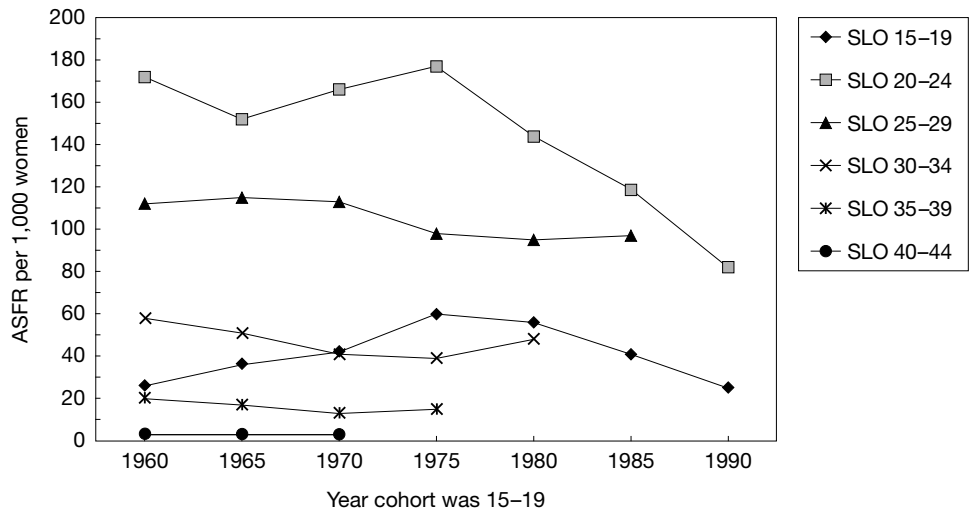

Figure 7 Cohort age-specific fertility rates: Slovenia

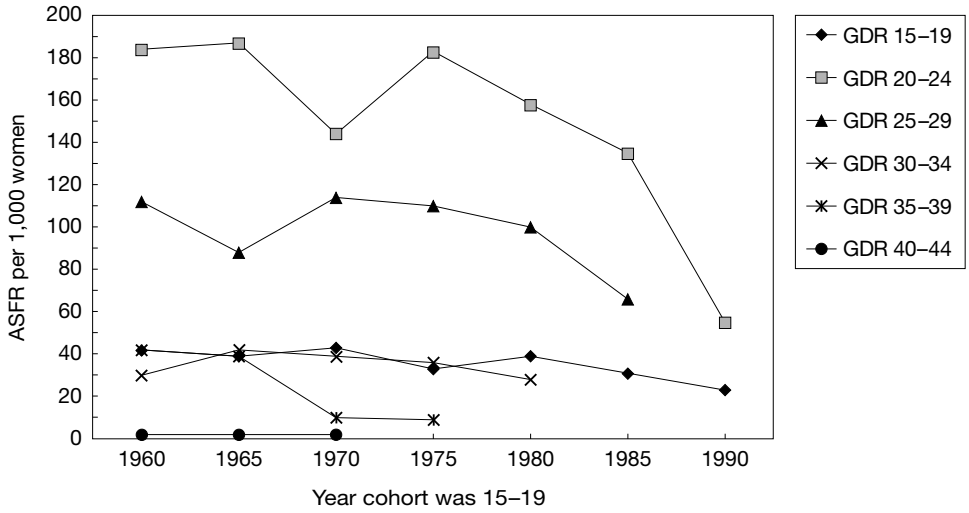

Figure 8 Cohort age-specific fertility rates: Germany (ex-GDR)

children (cf. Büttner and Lutz 1990). From 1977 onward, fertility in the GDR followed a more normal course until the steep drop at the start of the 1990s (cf. Conrad et al. 1996). At present, the PTFR is rising again from an overall low of 0.77 in 1993, and it may exceed unity before 2000.

2.3.3. More Cases with PTFRs below 1.5 Children: Spain, Italy, and West Germany (former FRG)

The PTFR fell below 1.5 in the mid-1970s in West Germany, in 1985 in Italy, and in 1988 in Spain; in all three countries it continued its decline to even lower levels until the mid-1990s. Furthermore, some regions in Spain and Italy had PTFR levels below 1.0. The cohort fertility patterns for the two Mediterranean countries are shown in Figures 9 and 10. The striking feature in both countries is the uninterrupted decline of fertility at ages 20–24 and 25–29 exhibited by all cohorts since the one that reached adulthood in 1975. In both Spain and Italy, the fertility rate at ages 20–24 for the cohort reaching adulthood in 1985 was only one-quarter that of its predecessors who were 15–19 in 1970, and at ages 25–29 fertility was reduced by about 50% when comparing the same cohorts. This massive postponement effect was not matched by any sizable recuperation after age 30, and unless this pattern changes in the very near future, cohort total fertility rates (CTFRs) are bound to follow this steep downward trend. In other words, even if there is an end to postponement—which is likely given that fertility below 30 can hardly decline much below the current levels—not much of a fertility rise can be expected in the absence of such weak recuperation. A number of reasons have been advanced to account for the rapid fall of fertility before age 30 in Italy and Spain:

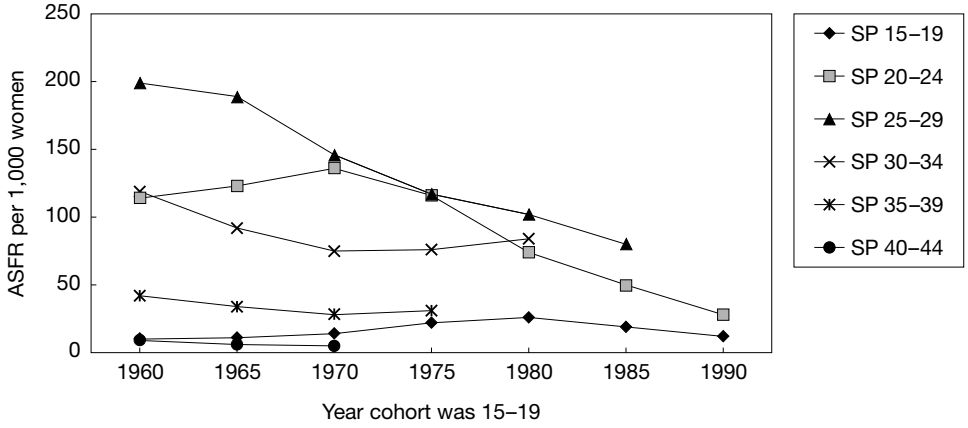

Figure 9 Cohort age-specific fertility rates: Spain

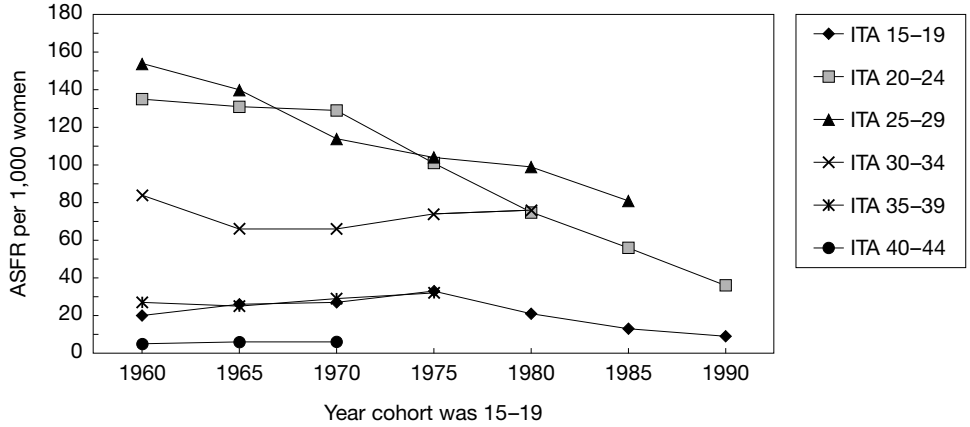

Figure 10 Cohort age-specific fertility rates: Italy

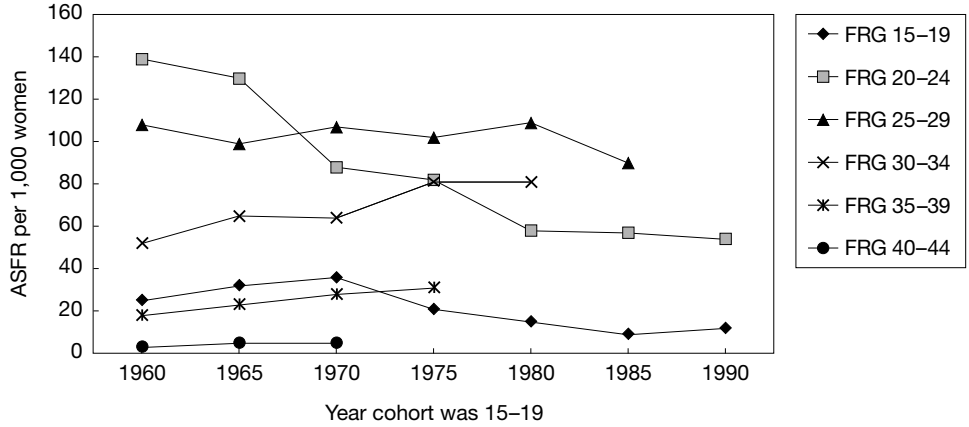

Figure 11 Cohort age-specific fertility rates: Germany (ex-FRG)

- Large increases in female participation in advanced education
- High youth unemployment levels and rapidly increasing real estate prices and rents that prevented young adults setting up independent households and fostered late home leaving instead
- Low levels of premarital cohabitation causing parenthood to be postponed until after marriage
- High material consumption aspirations that can also be supported by prolonged staying in the parental home
- A need for prolonged freedom, especially but not solely for women, before marriage imposes the more traditional gender roles.

In view of this multiplicity of reasons given for postponement, the literature so far has been remarkably silent on the reasons for the minimal recuperation after age 30.

The West German pattern of low fertility was of longer standing than the Mediterranean one, but it too was caused by a steep drop in fertility at ages 20–24 (Figure 11). However, fertility at ages 25–29 was more stable until recently, when a new drop was recorded for the cohort reaching adulthood in 1985. After the lowest point reached by the PTFR in 1985 (1.28), the West German overall period fertility indicator had a modest rise again to about 1.4 children thanks to some recuperation after age 30. However, if fertility at ages 25–29 continues to fall, more recuperation at later ages will be needed to maintain the PTFR at a level that is still below 1.5. A restoration to higher levels—e.g., 1.6 or 1.7—would require not only the end of postponement but also a more sizable recuperation effect. If this is not occurring, the inevitable convergence of CTFRs to the low PTFRs witnessed since 1975 will take place.

To sum up, there has been no shortage of reasons to explain postponement, but as these three cases illustrate, recuperation is the key issue, and the demographic literature has been remarkably silent on accounting for the lack of it.

2.3.4. The Low Countries: Holding the Middle Ground but Quite Dissimilar

Belgium and the Netherlands have had PTFRs between 1.5 and 1.6 ever since the early 1980s, and these values have not diverged more than 0.1 children since 1975. Yet they have very different patterns: the Netherlands have the latest fertility schedule of the West, and the mean age at first childbearing has reached 29 years, whereas Belgium has, at least for a western country, an earlier pattern of starting procreation despite later home leaving. The Dutch pattern implies a long period of independence for young adults characterized by single living or premarital cohabitation without children. This long "interim period" is, in fact, state-subsidized by the Dutch system of high scholarships, low tuition, and free transportation for students. In Belgium, there is a distinct Flemish and Walloon pattern, despite the uniform policy context, with the Flemish typically leaving home only after completion of studies and moving into marriage with postponed

parenthood, and the Walloons moving in larger numbers into premarital cohabitation and parenthood before marriage.[8]

The differences between the two Low Countries also show up in the cohort fertility profiles provided in Figures 12 and 13. In the Netherlands, all fertility rates

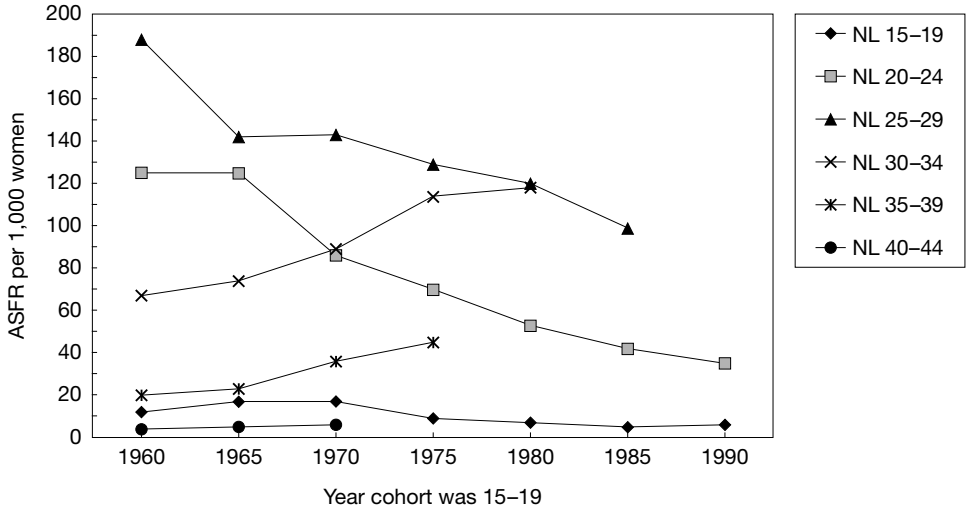

Figure 12 Cohort age-specific fertility rates: Netherlands

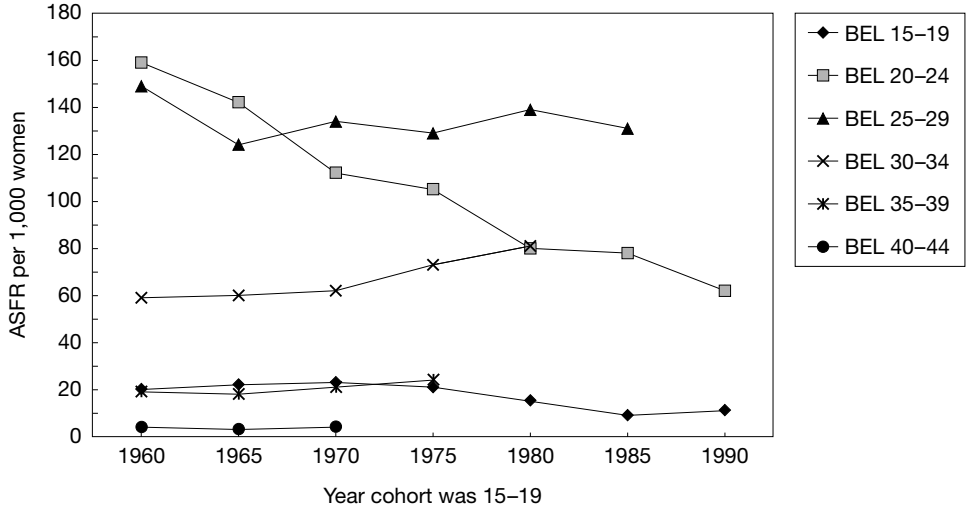

Figure 13 Cohort age-specific fertility rates: Belgium

[8] For a detailed geography of the within-Belgium contrasts, see Mérenne et al. (1997), especially maps 3.3 through 7.12. Also note that the Fertility and Family Survey (FFS) results for Belgium report on the Flemish pattern only and are not representative of the country as a whole.

before age 30 have continued to decline starting with the cohort reaching adulthood in the early 1960s, and fertility at ages 20–24 is now lower than at age 35–39. In Belgium, by contrast, the fertility rate of the age group 25–29 has remained remarkably constant until now, and fertility at ages 20–24 is still a multiple of that at ages 35–39. The reason for the strikingly parallel evolution of the PTFRs in both countries is that the Dutch have had a large amount of recuperation of fertility between ages 30 and 40 which neutralized the marked postponement effect, whereas the Belgians have had less postponement but also less recuperation.

To sum up, Dutch children born recently have, on average, the oldest parents of all industrialized nations, whereas Belgium has maintained its typical position close to the average of the European Union.

2.3.5. Another Pair with Identical PTFRs since 1970: France and the United Kingdom

Two countries with almost diametrically opposed family policies have been identical twins with respect to their overall fertility level for the last 30 years: in 1970, the PTFR was 2.47 in France and 2.45 in the United Kingdom, and in 1997 these values were identical at 1.71 in the two countries. The largest difference during the intermediate years was barely 0.12 children (in 1975).

The cohort patterns presented in Figures 14 and 15 also show similar evolutions: an uninterrupted postponement effect starting with the cohort reaching adulthood in the mid-1960s and an increasing recuperation effect after age 30 starting with the same cohort and sustained by later cohorts. This recuperation effect has been responsible for the relatively high PTFRs of these two countries within the European Union. The only major difference between them is the evolution of teenage fertility: in the United Kingdom teenage fertility has remained high by European standards (currently 30 births per 1,000 women), whereas in France it has fallen well below 10. Fertility in the next age group has also fallen more steeply in France starting with the cohort reaching adulthood in 1985, but this has been compensated by slightly higher French fertility after age 25. The postponement effect has not yet ended, as indicated by more recent drops of fertility at ages 25–29, and for these two countries, too, the question is whether sufficient recuperation increments will be added by cohorts now reaching age 30 to prevent PTFRs declining below the 1.70 level.

2.3.6. The Scandinavian Experience

Sweden's remarkable PTFR increase in the late 1980s brought fertility back to replacement level in 1990 (PTFR = 2.14). After 1993 a swift decline occurred again to the level of 1.53 in 1997. Denmark, on the other hand, had a sustained but slower PTFR rise from 1.45 in 1985 to 1.81 in 1995, but here too the rise seems to lose momentum thereafter. In neither case has there been an end to

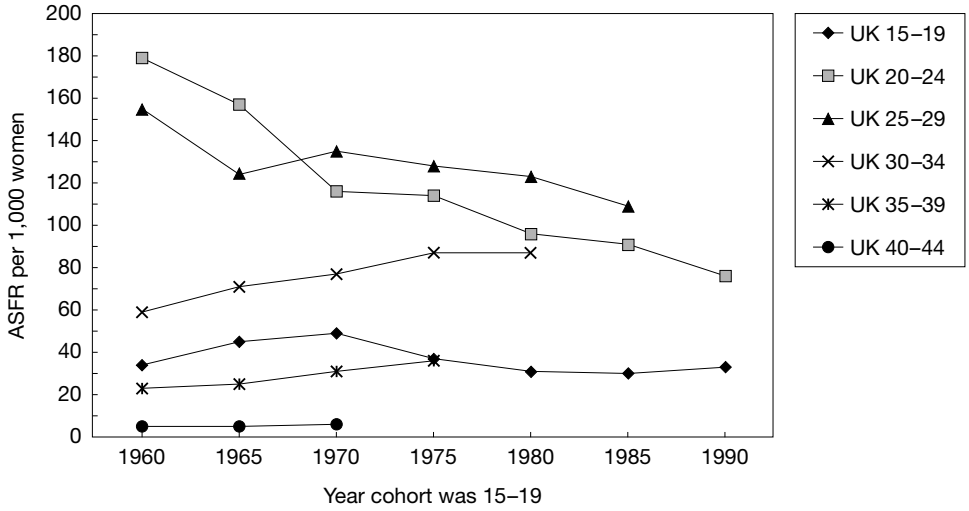

Figure 14 Cohort age-specific fertility rates: United Kingdom

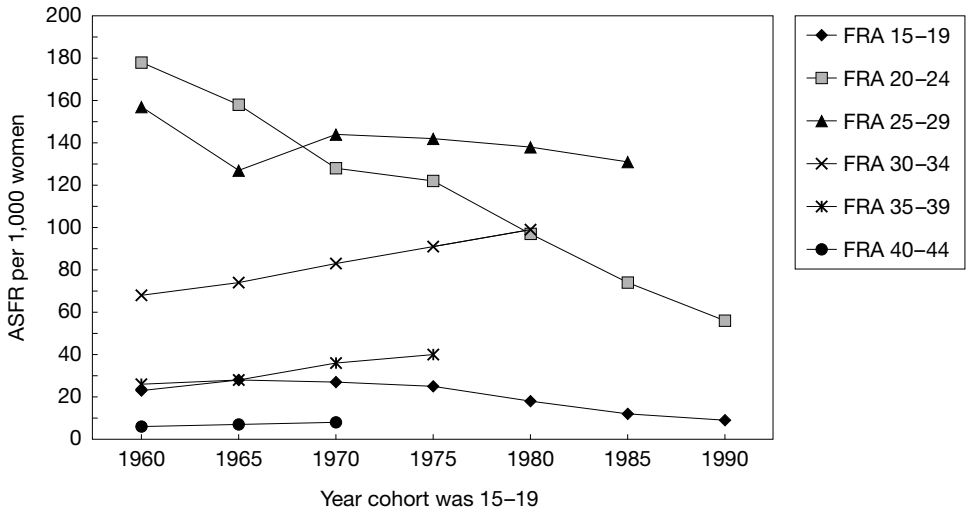

Figure 15 Cohort age-specific fertility rates: France

postponement: fertility prior to age 25 shows a steady decline for each successive cohort (Figures 16 and 17). But fertility at ages 25–29 has remained stable, and there has been a firm recuperation effect at older ages and even after age 35. It is this recuperation that brought back the Danish PTFR to the 1.80 level in the mid-1990s. The same applies to Finland and Norway as well. In fact, in these three countries the fertility rates for ages 30–34 and 35–39 almost doubled by 1997 compared to what they were in the late 1970s.

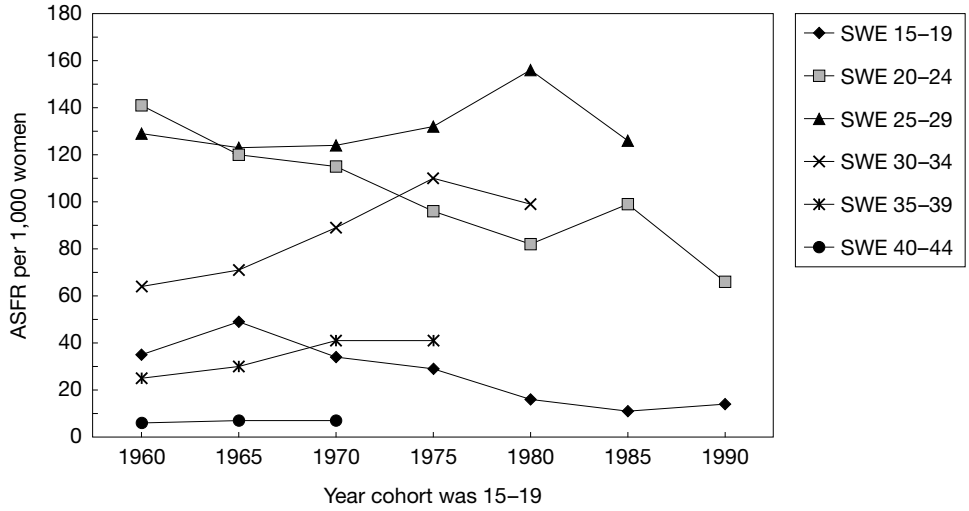

Figure 16 Cohort age-specific fertility rates: Sweden

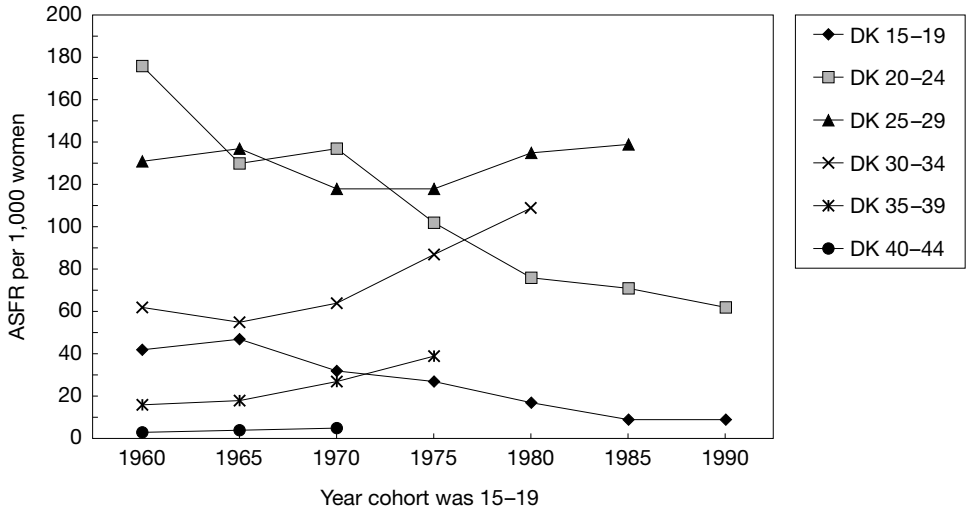

Figure 17 Cohort age-specific fertility rates: Denmark

In Sweden, the pattern has been strongly distorted by the period effect associated with the extra prolongation of paid (75%) parental leave: the bulge is clearly visible in Figure 16 for all cohorts at the same time. Now that many Swedish couples have had two closely spaced births by merging two periods of parental leave of 65 weeks each (Gautier 1996) into one long leave of about two and a half years, many have completed their desired family size a little earlier. In this way, fertility for the later 1990s is equally distorted but in the opposite

direction. The youngest cohort, reaching adulthood after 1990, may continue the overall postponement trend, so that Swedish fertility may remain depressed for somewhat longer.

On the whole, Scandinavian fertility has been able to rise to the top of European levels mainly as a result of little loss at ages 25–29 so far and because of a strong recuperation effect at ages 30–34 and 35–39.

2.3.7. Two Classics and One Anomaly: Australia, Japan, and the United States

The cohort patterns of fertility for Australia and Japan are shown in Figures 18 and 19. These two countries exhibit the classic western pattern of declining fertility at ages 20–24 and 25–29 and a recuperation effect after age 30. Australia, however, has still maintained high teenage fertility, whereas Japan has one of the lowest levels in the world. Fertility at ages 20–24 in Japan has dropped more considerably, and, starting with the cohort reaching adulthood in 1980, fertility at ages 25–29 has also resumed a steeper downward trend. The consequence is that the Australian PTFR is still above 1.70 in the 1990s, whereas the recuperation effect is too weak in Japan to have prevented a new drop below the 1.50 level.

The United States, by contrast, is anomalous in more than one respect (cf. Figure 20). First, teenage fertility has remained very high; in fact, it was as high for the cohort reaching adulthood in the early 1990s as it was for the cohort reaching adulthood twenty years earlier. Second, there has been no decline in fertility at ages 20–24 and 25–29 since the cohorts reaching adulthood in the late 1960s and early 1970s. Third, there have been steady rises in fertility after age 30 and even after age 35. In short, the United States has had hardly any

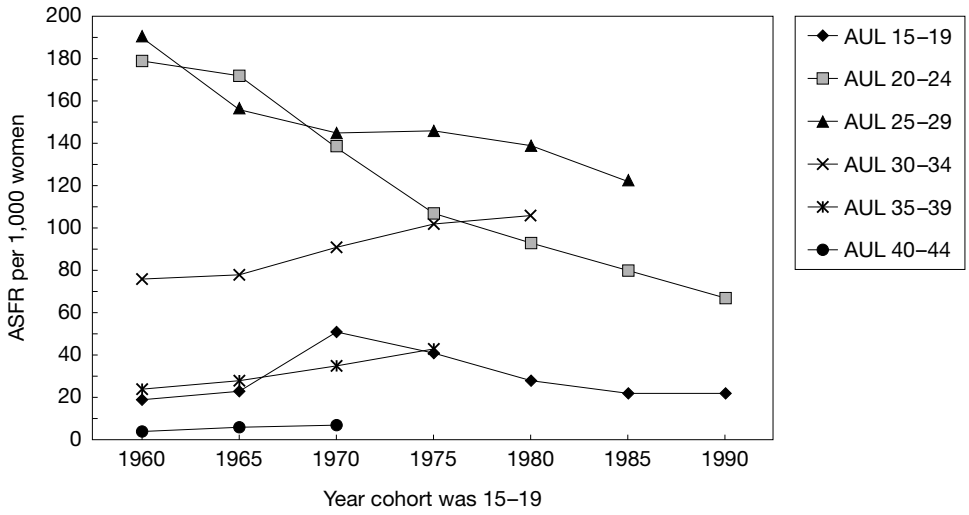

Figure 18 Cohort age-specific fertility rates: Australia

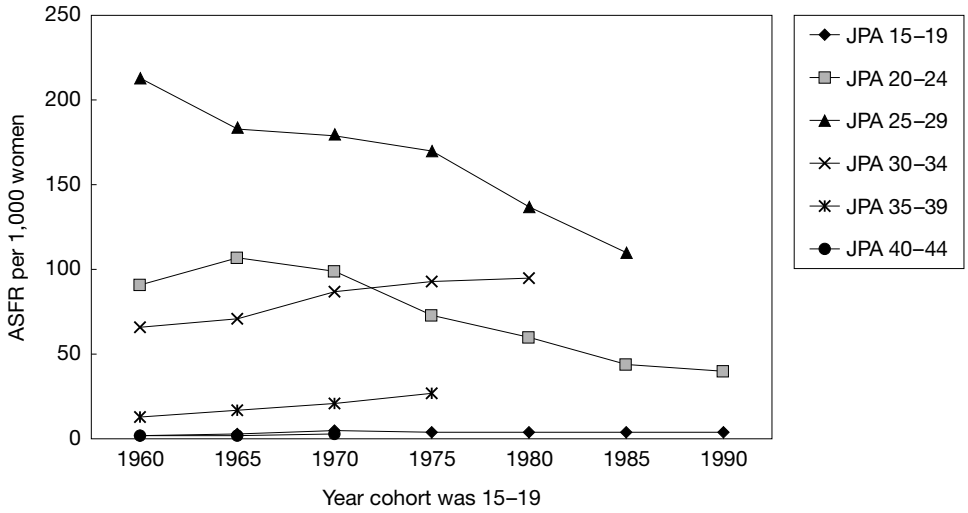

Figure 19 Cohort age-specific fertility rates: Japan

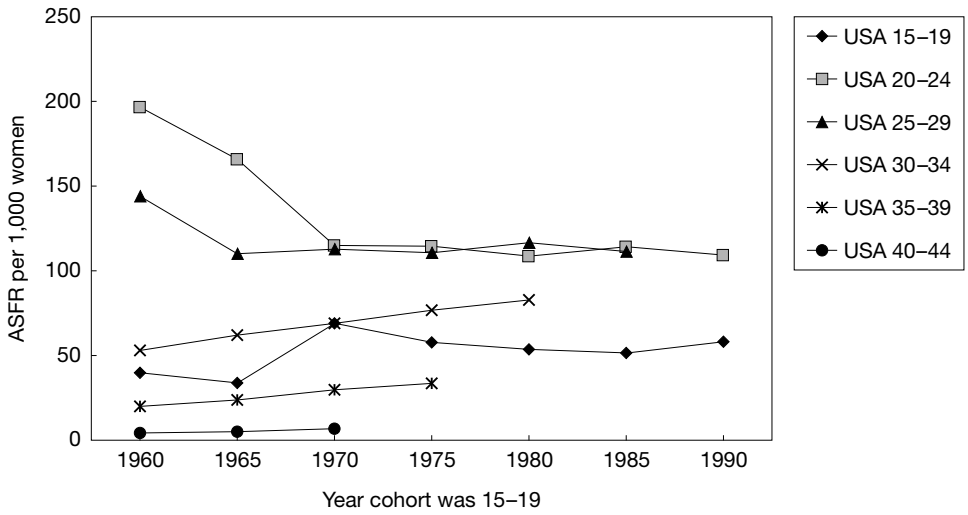

Figure 20 Cohort age-specific fertility rates: United States

postponement of fertility since the 1970s, and rises after age 30 have brought the PTFR back to replacement level in 1990. This overall picture hides striking fertility patterns by level of education: women who had not completed their secondary education still had peak fertility between ages 18 and 20 in 1985–89, as was also true 20 years earlier, whereas women with a full college education exhibited the typical tempo shift to older ages (cf. Rindfuss et al. 1996). Also women with a full secondary education but without a completed higher

education maintained a very young pattern by western standards, with modal fertility at ages 21–23 in 1985–89, as in 1965–69.

Hence, American fertility has not slipped to Western European or Japanese levels mainly because women in the lower and middle education groups have not followed the tempo shift of better educated women to the same degree. In other words, it seems that fertility patterns in the United States are more segmented by female education (and presumably also by social class) than in many other western industrialized countries, where women with less education have more strongly imitated the trend set by those with higher education and have contributed more to the overall tempo shift.

2.4. Conclusions with Respect to Fertility Postponement and Recuperation

The present analysis shows that fertility postponement to older ages is indeed a major characteristic of the second demographic transition. However, countries are currently located at different stages of the process. In many Eastern European countries, the tempo shift has started only recently (e.g., Russia, Poland, Lithuania, Czech Republic, Hungary), and low fertility has been reached mainly as a result of quantum declines rather than as a consequence of overall postponement. In some others, the western pattern is followed more closely (e.g., Slovenia, Croatia) or postponement started to manifest itself earlier (e.g., Bulgaria). As postponement progresses in Eastern Europe, most countries are likely to maintain very low fertility levels (often below 1.5) for at least another decade in the twenty-first century.

The western European countries, joined by Japan, have all progressed much further along the postponement trend, but they split into two groups: one with relatively strong recuperation of fertility after age 30 and the other with inadequate recuperation. The Scandinavian countries, but also the United Kingdom and France so far, have been able to maintain or to reach PTFRs above 1.70 as a result of stronger recuperation, whereas the Mediterranean countries such as Italy and Spain exhibit weak recuperation. Insufficient recuperation is also noted for several other Western European countries such as Belgium, Germany (former FRG), and Switzerland. Recuperation has been more pronounced in the Netherlands, but it has been hardly enough to offset the largest postponement effect of all.

The three anomalies are clearly Sweden, the former GDR, and the United States. In Sweden and the GDR strong period effects have distorted the normal course of the evolution, but the United States stands out in the western context by its maintenance of an early fertility pattern, which itself is produced mainly by the lower- and middle-educated strata.

If anything, this analysis has drawn attention to the importance of the recuperation effect, i.e., to fertility at later ages. At present, we have several

partial explanations that account for postponement of fertility, but the issue of highly varying degrees of recuperation has hardly been addressed. Why have Danish or Finnish couples, for instance, made up at older ages for fertility foregone at younger ages, whereas Italian or Spanish couples have failed to do so? Undoubtedly some answers lie in the living and working conditions during the later stage of the life cycle, but a comparative study on the determinants of differential fertility recuperation is still missing.[9]

2.5. Teenage Fertility, Abortion, and Nonmarital Fertility

The topics of teenage parenthood, induced abortion, and extramarital fertility warrant further attention since they are associated with other major social problems such as school dropout, early single motherhood, children in poverty, continued union instability later in life, or the spread of sexually transmitted diseases. The position of industrialized countries with respect to teenage fertility, nonmarital births, and abortion is shown in Figures 21 and 22 for the years 1996–97.

The plot of abortions per 100 live births against the teenage fertility rate (age group 15–19) shows that the majority of western countries have abortion figures of less than 30 per 100 live births. However, with current standards of contraceptive effectiveness, this figure should come down to 15 and even to less than 10 induced abortions per 100 live births. Measured against this standard, an improvement in contraceptive use-effectiveness is still indicated for countries such as Japan, Austria, Denmark, France, Finland, the former GDR, Italy, Norway, Sweden, the United Kingdom, Canada, the United States, and Australia which still have abortion figures between 20 and 40 per 100 live births. Yet western countries are far more heterogeneous with respect to the magnitude of teenage fertility, with particularly the "Anglo-Saxon" nations such as the United Kingdom, Canada, New Zealand, and the United States scoring abnormally high on this variable.

The story for Eastern European countries is very different: many of them combine high abortion rates with high teenage fertility. Slovenia, Croatia, the Czech Republic, and Poland still limit the damage, but virtually all others plotted on Figure 21 have outcomes that are far more problematic. Admittedly, the historical earlier ages at marriage in Eastern Europe partially account for higher fertility prior to age 20, but teenage fertility still remains incompatible with the proper completion of schooling everywhere. Furthermore, high abortion figures indicate that in these countries many pregnancies occurring to teenagers are

[9] In this respect, one could explore the hypothesis that weak recuperation countries have developed either a high acceptability of childlessness or of one-child families, whereas the strong recuperation cases have a historical pattern favoring progression to a second child. The variance of the cohort parity distributions may then provide further clues.

undesired. In addition, the contraceptive use-effectiveness profiles for these countries show either a low overall use (below 60% of couples in Latvia, Lithuania, Romania, or Belarus, e.g.) or a high reliance on nonsupply methods (more than 20% of users in Bulgaria, the Czech Republic, Estonia, Moldova, Poland, Romania, and the Slovak Republic, e.g.). It is to be noted that a few western countries, too, still have high reliance on coitus interruptus or rhythm methods, such as Ireland and Italy.

The plot of teenage fertility against the proportion of nonmarital births to all births (Figure 22) shows the development of three patterns among industrialized countries. In the pattern labeled "West & North," there has been a steady increase in the share of extramarital births, but this occurs in combination with low levels of teenage fertility. This is a pattern of nonmarital fertility at older ages and

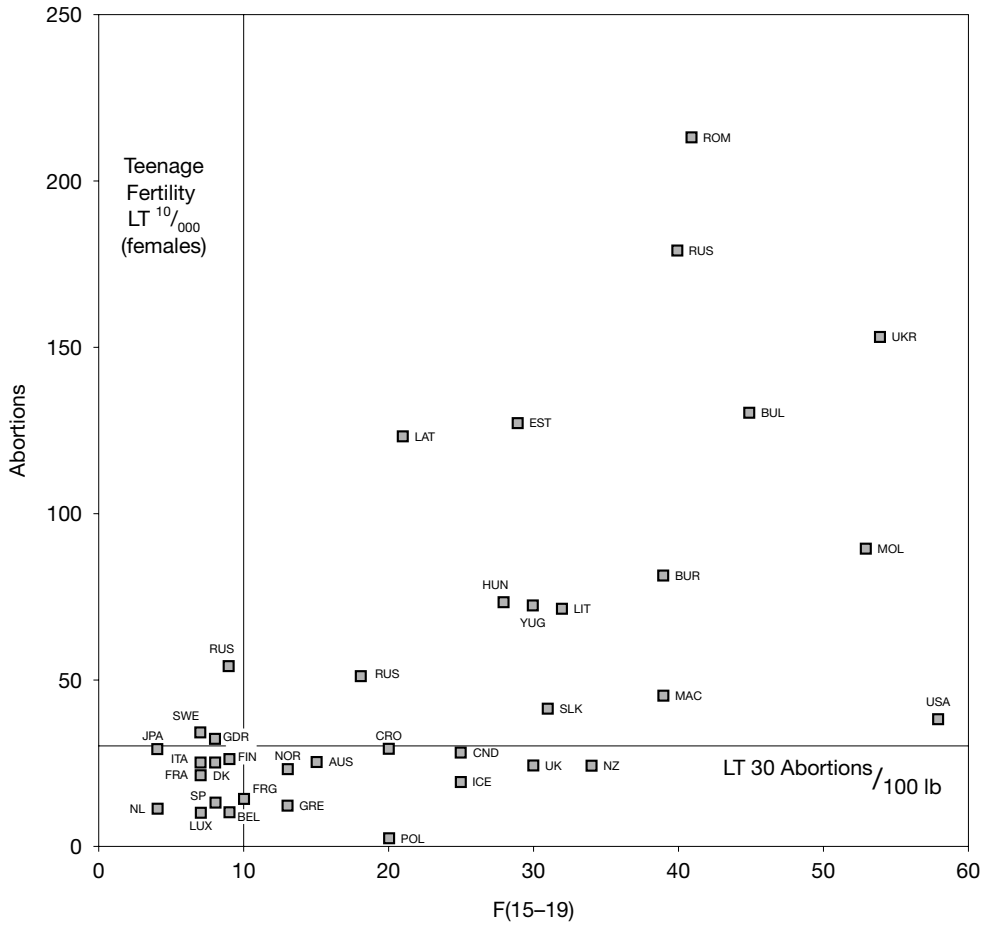

Figure 21 Abortions per 100 live births and teenage fertility rates F(15–19), 1996–1997

occurring mainly to cohabiting couples. The second pattern is that of the so-called Anglo-Saxon countries with much higher teenage fertility and higher out-of-wedlock fertility. In this group, Ireland and Australia are found at the lower end and New Zealand is located at the upper end. In the third group, high proportions of nonmarital births are associated with the highest teenage fertility. This is typically the Eastern European pattern. The most remarkable feature, however, is that the United States not only typically belongs to this Eastern group but outpaces countries such as the Ukraine, Moldova, Romania, the Russian Federation, and Bulgaria with respect to both high teenage fertility and high nonmarital fertility. This illustrates once more the anomalous position of the United States within the set of western countries.

The link between single-mother households and the proportion of children living in those households on the one hand and the poverty rates of such households on the other can be gleaned from the data in Table 4. The poverty rates and the proportion of children in single mother households are drawn from

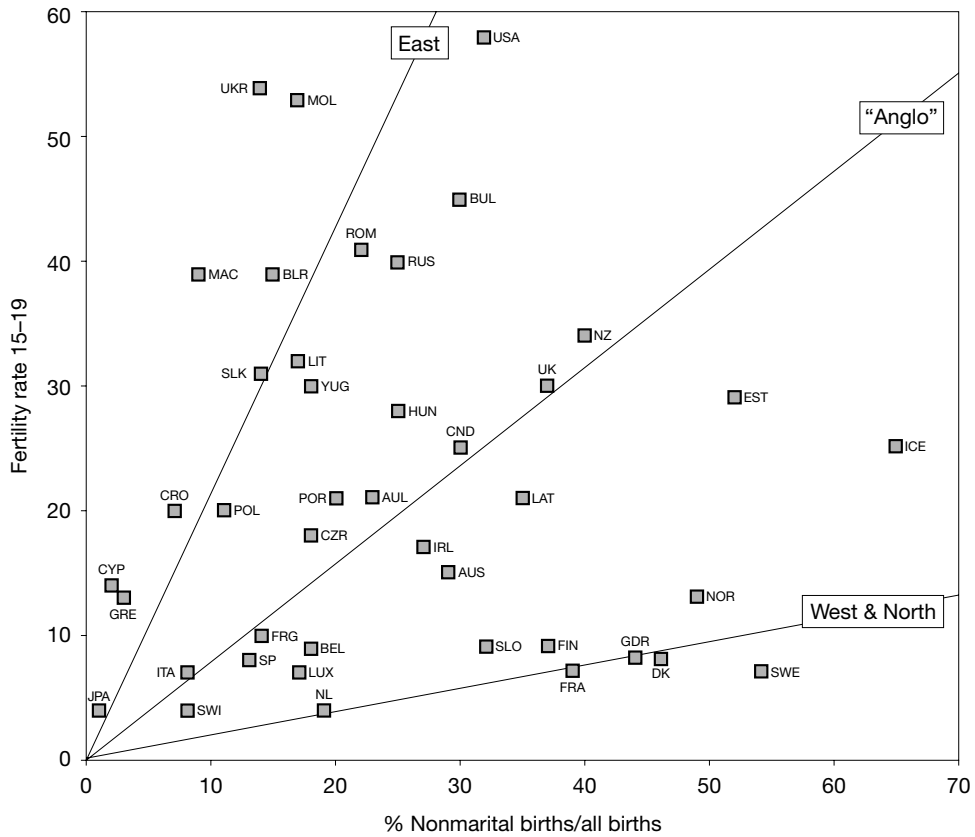

Figure 22 Teenage fertility rates and percentage of nonmarital births, 1996–1997

the Luxemburg Income Survey (LIS) (reported by Bradbury and Jäntti 1999, 27),[10] and the proportion of women heading single-parent households stem from the Fertility and Family Surveys (FFS). Poverty levels are measured with the half overall median poverty line after adjustment with household size equivalent scales. From Table 4 it appears that single-mother households have up to 11 times the poverty rates of two-parent households, with a median equal to 2.5 times. For the countries with more than 10% of children living in single-mother households, this median is worse—i.e., 3.3 times more poverty. The United States again stands out with a high percentage (60%) of single-mother households in poverty, and it has the highest proportion of children below age 18 living in such households as well. Figures between 30% and 50% of single-mother households living below the poverty line are found in Western and Eastern European countries, with both Germany and the United Kingdom scoring particularly high, but we should bear

Table 4 Poverty rates and the incidence of single-mother households in selected industrialized countries, mostly 1990s

Country (Year)	% Poverty			% of Children Less Than 18 in Single-Mother Households	% of Women Heading One-Parent Households, by Age (FFS)	
	Single-Mother Households	Two-Parent Households	Ratio		20–24	25–29
United States (1994)	60	17	3.5	15	NA	NA
Canada (1994)	45	12	3.8	11	7	7
Germany (1994)	43	9	4.8	9	4	9
United Kingdom (1995)	40	18	2.2	19	NA	NA
Australia (1994)	38	15	2.5	9	NA	NA
Austria (1987)	33	3	11.0	10	6	11
Russian Fed. (1995)	31	26	1.2	8	NA	NA
Ireland (1987)	30	17	1.8	3	NA	NA
Netherlands (1991)	30	7	4.3	8	1	3
France (1989)	25	8	3.1	7	4	7
Spain (1990)	25	12	2.1	2	2	3
Switzerland (1982)	21	5	4.2	7	1	2
Italy (1995)	20	21	1.0	2	0	1
Hungary (1994)	12	11	1.1	6	4	6
Belgium (1992)	12	6	2.0	7	1	3
Denmark (1992)	11	6	1.8	13	NA	NA
Norway (1995)	10	3	3.3	14	5	7
Czech Rep. (1992)	9	1	9.0	7	NA	NA
Slovakia (1992)	8	2	4.0	5	NA	NA
Finland (1991)	6	3	2.0	9	4	6
Sweden (1992)	5	4	1.3	15	5	10

Sources: Bradbury and Jäntti (1999), 27, table 3.4; FFS surveys, app. table 4.1.
Key: NA = Not available.

[10] Alternative figures from the European Community Household Panel (ECHP) are reported in Ditch et al. (1998, 35–45) for EU-member states.

in mind that the United Kingdom has twice as many single-mother households than Germany. Poverty rates of single-mother households tend to be lowest in the Scandinavian countries, but a number of Eastern European countries (Hungary, Slovakia, and the Czech Republic) also have poverty rates below 15%.

Scandinavian countries thus score high on the incidence of single-parent families, but their welfare states correct income deprivation to a high degree. In Eastern European countries poverty of single mothers is partially avoided as a result of co-residence of these mothers in their own parental household, which among other things facilitates their labor force participation and avoids extra housing costs, and by the fact that the overall adjusted median income is so low that few households, irrespective of type, fall below 50% of this median threshold. If poverty were to be measured in Eastern Europe on the basis of an absolute rather than a relative indicator—i.e., using a consumption basket method instead—the result would be quite different.

Last but not least, it should be stressed that the Eastern European pattern of high teenage fertility and illegitimacy, in tandem with the decline of the public health sector, has led to sometimes dramatic rises in the incidence of sexually transmitted diseases (syphilis, HIV) since 1989 and in the institutionalization of abandoned children (UNICEF 1999).[11]

3. Home Leaving and Household Formation: Destandardization and Growing Diversity

The most salient characteristics of the second demographic transition are all associated with the destandardization of patterns of home leaving and household formation. Destandardization refers to the fact that the standard ordering of transitions during the life course, and particularly between ages 18 and 30, has been abandoned. The classic sequence of finishing school, entry into the labor force, home leaving linked to marriage, and subsequent parenthood is being reordered in ever larger segments of the population. New phases of single living, sharing dwellings with age mates, premarital cohabitation, and fertility prior to marriage with or without a partner have been added, and these can occur before the end of education or before entry into the labor force.

[11] The newly registered number of syphilis cases doubled between 1989 and 1997 in Bulgaria, Lithuania, and Latvia, and almost tripled in Russia and Moldova. The number of children aged 0–3 in institutional care (mainly orphanages) increased in the same period by 30% to 75% in Moldova (31%), Slovakia (44%), Bulgaria (46%), Romania (56%), Russia (64%), Latvia (72%), and Belarus (75%). In Estonia, this figure more than doubled (115%). In Lithuania and the Czech Republic, there has been a status quo, and solely in Hungary has there been a decline (–25%) (UNICEF 1999, 17–20).

The destandardization is predicated on both structural and cultural factors (cf. Liefbroer 1999), but these tend to act differentially on the various ingredients of the new pattern and they do not always operate in the same direction. In other words, historical context seems to matter quite a bit. To give a more structured overview, we shall consider factors associated with:

1. Independent living and premarital cohabitation vs. prolonged staying in the parental household and marriage
2. The general postponement of first marriage.

3.1. Independent Living and Cohabitation: Main Determinants

Factors that are systematically associated with independent living and premarital cohabitation vs. prolonged home staying and marriage are:

1. *The expansion of the welfare state*, which has fostered earlier partial or complete economic independence of younger people via income supplements (e.g., study allowances, reduced tuition, guaranteed minimum incomes or other social security benefits) or via specific services or facilities often targeted at specific groups (such as students or single mothers). The logical consequence of this is that earlier independence and premarital cohabitation are, in fact, state subsidized, and have expanded most in nations with advanced welfare systems, and least in nations where individuals are left to fend for themselves or remain more dependent on the parental generation. This also implies that the spread of early single living and cohabitation is more dependent on the type of development of the welfare state than on the growth of economic prosperity in general.
2. *The prolongation of education and the "democratization" of access to advanced education*, which not only lead to greater subsequent economic autonomy for women and hence to less reliance on marriage, but also to the creation of greater distance to parents, to a stronger orientation to peer groups, and above all to values favoring individual freedom and gender equality. It is not surprising that premarital cohabitation started among the better-educated student population in many countries and subsequently spread to other strata. Opting for single living or cohabitation is well predicted on the basis of values concerning gender roles (e.g., Liefbroer 1991; Clarkberg et al. 1993; Lesthaeghe and Moors 1995), but, conversely, the experience of single living or of cohabitation further strengthens autonomy and more egalitarian gender roles (Moors 1999).
3. *The emergence of a more libertarian culture with greater tolerance for alternative lifestyles*, which has followed in the wake of the overall weakening of authority and of trust in institutional regulation. As such, this feature is a correlate of the cohortwise progression of the so-called postmaterialist value orientations, which stress grassroots democracy, self-actualization, tolerance,

and ethical autonomy. These values have spread through education, but via reverse socialization they have now reached the older generations too. The progression toward this more libertarian culture is fostered by a Protestant rather than Catholic or Orthodox tradition and by continued economic prosperity (cf. Inglehart 1970; Lesthaeghe 1995). The innovators of premarital cohabitation have often been persons with sympathies for the "new left" during the 1960s and 1970s (Lesthaeghe and van de Kaa 1986), and even today, premarital cohabitation has remained a correlate of secularism, tolerance for minorities, relativism in ethics, nonconformist education values, and a preference for leftist or green parties in countries such as Germany, France, the Netherlands, and Belgium (Lesthaeghe and Moors 1995, 1996).

4. *The intergenerational transmission of family instability* has also repeatedly been identified as a crucial factor associated with earlier home leaving, single living, cohabitation, and single motherhood. Not only the actual experience of problems in the parental household, such as divorce, remarriage, or parental cohabitation, is a correlate of these phenomena (e.g., Kiernan 1992; Cherlin et al. 1995), but also weaker familistic values in the parental generation seem to be transmitted across generations (e.g., Axinn and Thornton 1991). As a consequence, certain social strata in particular countries can generate subcultures in which family instability becomes a characteristic trait.

3.2. Determinants of Marriage Postponement

Marriage postponement is not induced solely by the growth of alternative living arrangements: it has also occurred in countries where independent living and cohabitation are largely absent. The following factors are frequently associated with the trend reversal in nuptiality since the 1960s or 1970s:

1. *Advanced education*, which has first, a mechanistic effect in postponing household formation in general, and second, a set of additional effects such as higher female economic autonomy and less reliance on economic support from male partners, a longer search on the marriage market in systems with high educational homogamy (e.g., Oppenheimer 1988), and shifting value preferences in the direction of more gender equality
2. *Growing labor market flexibility*, leading to less secure and less structured career development and hence to the weakening of the economic basis of marriage
3. *Cycles characterized by weakened economic opportunities for new cohorts*, with increased youth unemployment leading to prolonged economic dependence on the parental household
4. *Unfavorable conditions*, caused by either a structural shortage or higher rents or purchase prices

5. *Rising consumerism*, leading to higher aspirations with respect to material comfort and to higher minimal material standards for establishing a new household
6. *Greater distrust in the institution of marriage itself*, fostered partially by ideational change but also by rising divorce probabilities
7. *The social diffusion of alternative living arrangements* from early innovators to all other population strata
8. *More idiosyncratic or culture specific factors*, such as rising individual and autonomous partner choice replacing arranged marriages in Japan (cf. Ogawa and Retherford 1993; Tsuya and Oppenheim-Mason 1995; Retherford et al. 1996).

Finally, it should be stressed that these factors hardly ever operate in isolation but often produce powerful combination effects.

3.3. The Household Positions of Young Women

The differences in patterns of household formation in the industrialized world can be documented by comparing the household positions of women aged 20–24. It is in this age group that the unfolding of the different life cycle paths starts. In what follows, we shall make use of the results of the Fertility and Family Surveys for the 1990s and various additional sources that give orders of magnitude of premarital cohabitation (cf. Kiernan 1999a, 1999b).

First of all, the plot of the percentage of nonmarital births to all births against the proportion of women aged 20–24 currently cohabiting (Figure 23) reveals for a large number of countries that there are essentially four patterns:

1. *Low extramarital fertility coupled with a low prevalence of premarital cohabitation*. This pattern is found in Mediterranean countries (Italy, Greece, Spain, and presumably also in Malta or Cyprus), Poland, and Japan. In these instances, the proportion of extramarital births is below 15% and there are fewer than 5% of young women currently cohabiting. However, in Spain and even more in Portugal, the percentage of nonmarital births noticeably increased during the late 1980s and 1990s, whereas the incidence of cohabitation for women prior to age 25 remained low. Italy is the most striking example: despite rapid rises in female education, premarital cohabitation has hardly followed the Western European trend, not even in the northernmost provinces, and the increase in nonmarital fertility has been much slower than on the Iberian peninsula as well. In other words, premarital cohabitation as a distinctive trait of the second demographic transition has so far stopped at the Alps. However, the mean ages at first marriage in these Mediterranean countries, and also in Japan, have risen substantially, as in the other western populations.
2. *Low prevalence of cohabitation but high nonmarital fertility*. This pattern is typically the single-mother variant, and it is encountered in Eastern European

countries, but also in Portugal, Ireland, the United Kingdom, and the United States. Not all single mothers must show up in their own separate households, but they can also be co-residents in their parental household. The FFS published data do not permit the identification of the latter type, and it may well be that the single-motherhood phenomenon in Eastern Europe is underestimated as a consequence of such three-generation co-residence. Also, women may pass through the single-motherhood stage for a shorter time and move quickly into marriage. This would equally lead to a combination of higher nonmarital fertility and low premarital cohabitation.[12]

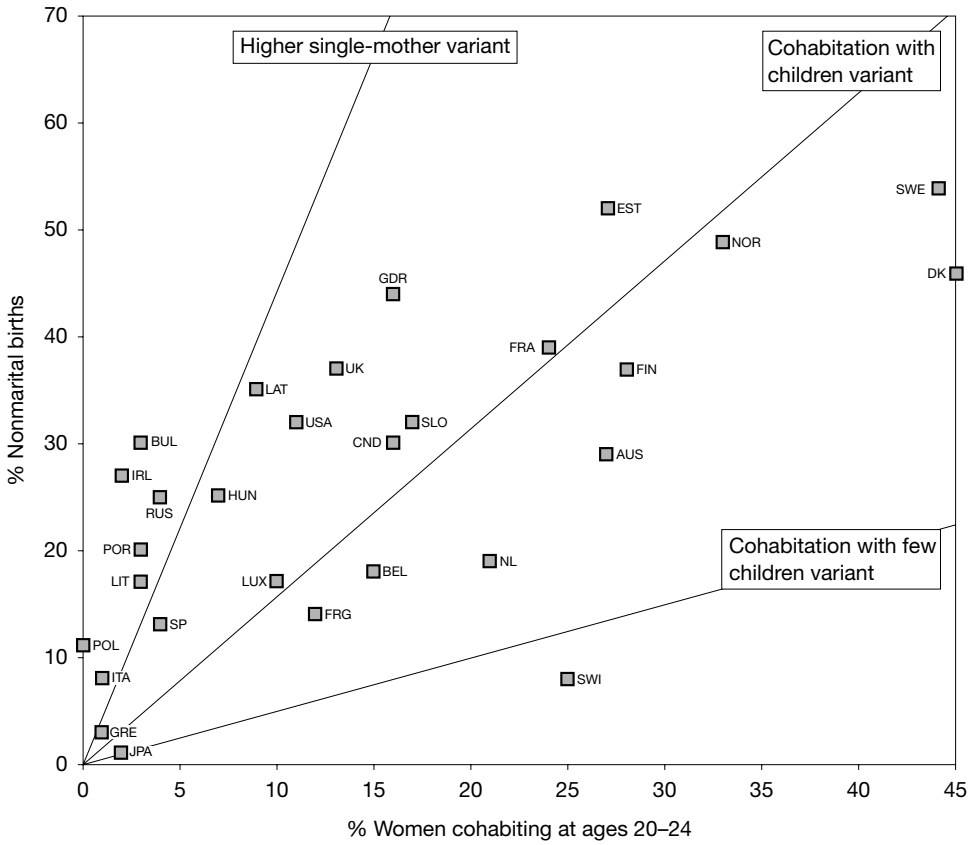

Figure 23 Percentage of nonmarital births by percentage of women cohabiting at ages 20–24, 1996–1997

[12] For Ireland and Portugal, this is a possible explanation for their high nonmarital fertility coupled with the relative scarcity of cohabiting unions. However, further analysis is needed to shed more light on this issue.

3. *High prevalence of cohabitation combined with low nonmarital fertility*. This combination is typical for the more conservative Western European nations where cohabitation has risen but where parenthood is still postponed until after marriage. This pattern is typical for Switzerland, for instance, where a quarter of women aged 20–24 are currently cohabiting but in combination with less than 10% of births being extramarital. Belgium, the Netherlands, and West Germany also tend to follow this pattern, but extramarital fertility has risen—especially during the 1990s—well above the 10% level. This indicates increased parenthood among cohabiting couples.
4. *High prevalence of cohabitation combined with parenthood*. This last type has long been typical for the Scandinavian countries, with Sweden, Denmark, and also Iceland being outliers with more than 40% of women aged 20–24 currently in a cohabiting union. A few other western countries, such as France and Canada, and one Baltic country, Estonia, have evolved in this direction. In these cases, most nonmarital fertility occurs to cohabiting couples, and these tend to be either more stable or are quickly succeeded by partner changes and transitions to a next consensual union.

More detailed data for 19 FFS countries and Japan (census of 1990) are brought together in Table 5. For these countries, we are able to distinguish between the following household positions of women aged 20–24:

1. *Resident in the parental household* (Res Paren), which is mostly as a single person in western countries, but could also be as a single mother or as a married person in Eastern Europe[13]
2. *Living alone* (Alone), i.e., no partner and no children
3. *Cohabiting without children* (Coh + 0), i.e., not currently married but with a partner
4. *Cohabiting with children* (Coh + child), i.e., not currently married but with a partner and one or more children
5. *Single mother* (Single Moth.), i.e., no partner but at least one child, and being in a separate household (others may be co-resident in other households, but cannot be identified in the FFS country reports)
6. *Married without children* (Marr + 0), i.e., forming a separate household
7. *Married with children* (Marr + Chil.), also forming a separate household.

In Table 5, averages are also calculated for each of the geopolitical areas, and these are used to produce the results shown in Figure 24. These averages clearly reveal the differences between four "families" of countries. The Southern European group is characterized by high proportions of women aged 20–24

[13] This anomaly is the cause of the fact that the sum of percentages in the various positions does not equal 100%. An alternative for "Res Paren" would be to define it as the complement of the sum of all other positions (2) through (7). These alternative figures for Res Paren are typically lower in Eastern Europe and about equal or higher in Southern, Western, and Northern Europe.

(around 80%) still co-resident in the parental household, by a direct move into marriage, and by few women passing through the "intermediate stages." The Eastern European group also has a predominant pattern of home leaving via marriage, and given much earlier marriage, this eastern cluster has the highest proportion of young married mothers. However, the percentages in all the "intermediate positions," i.e., living alone, cohabiting, or being a single mother, are higher than in Southern Europe. It seems that these features of the second demographic transition may be spreading faster to the eastern than to the southern parts of Europe.

Table 5 Distribution of women aged 20–24, by household position: 19 countries (FFS 1990s) and Japan (1990 census)

Country (N)	Residing with Parents[a](%)	Living Alone	Cohabiting, No Children	Cohabiting with Children	Single Mother (Not Co-residing)	Married, No Children	Married with Children
A. Southern Europe							
Italy (904)	87	1	1	0	0	4	7
Spain (376)	71	1	3	1	2	6	13
Portugal (979)	75	1	3	0	4	8	18
Mean	*79*	*1*	*3*	*0*	*2*	*6*	*13*
B. Eastern Europe							
Bulgaria (374)	50	1	2	2	5	8	33
Poland (610)	55	1	0	0	3	14	37
Latvia (408)	54	7	5	4	11	7	29
Lithuania (524)	51	6	2	1	5	14	38
Slovenia (421)	54	3	8	9	4	4	25
Hungary (756)	46	3	4	3	4	12	34
Germany, East (202)	30	15	8	8	6	5	27
Mean	*49*	*5*	*4*	*4*	*5*	*9*	*32*
C. Western Europe							
Belgium/Flanders (642)	54	3	10	2	1	23	9
Netherlands (914)	44	15	20	1	1	10	6
France (470)	41	17	19	5	4	6	8
Canada (575)	37	9	13	3	7	9	10
Austria (747)	38	12	20	7	6	4	8
Switzerland (392)	36	17	24	1	1	8	7
Germany, West (954)	37	22	11	1	2	7	12
Mean	*41*	*14*	*17*	*3*	*3*	*10*	*9*
D. Northern Europe							
Norway[b] (696)	16	18	21	12	5	9	16
Sweden[b] (566)	8	27	32	12	5	4	19
Mean	*12*	*23*	*27*	*12*	*5*	*7*	*12*
E. Other							
Japan (1990 census)	69	15	2	0	0	6	7

Sources: FFS country reports, app. table 4; H. Kojima (Japan), personal communication.

Note: Figures represent percentages.

[a] For those residing with parents, we do not know whether they are single or not (i.e., couples with or without children or single mothers co-residing in own parental household). As a result of this column, the row totals are not equal to 100%. The exception is France, for which we estimated the value as 100% minus the other percentages.

[b] At age 23 instead of the age group 20–24.

The Western European cluster has a pattern of home leaving that is in essence as early as in Eastern Europe, but the transition is not so much into marriage, but into alternative living arrangements. In these countries, the prevalence of cohabitation, with or without children, is often higher than that of marriage for women aged 20–24 (e.g., the Netherlands, France, Austria, and Switzerland). To this, also sizable proportions of home leavers currently living alone have to be added (e.g., in the Netherlands, Germany, France, Switzerland, and Austria). In these countries the late ages at marriage and at parenthood are strongly related to the extra time spent in these intermediate household positions.

The Northern European populations are characterized by the earliest pattern of home leaving of all, and by transitions either to living alone or into cohabitation. In this cluster of populations, procreation has been detached from the precondition of marriage, and, as a consequence, fertility postponement during the last two decades has not been as marked as in many Western European countries.

Japan, finally, bears the greatest resemblance to the Southern European pattern, mainly by virtue of its very low incidence of cohabitation or single mothers. But home leaving is earlier, and there are more young women living alone than in the Mediterranean countries. In this respect, Japan more closely resembles the Western European pattern.

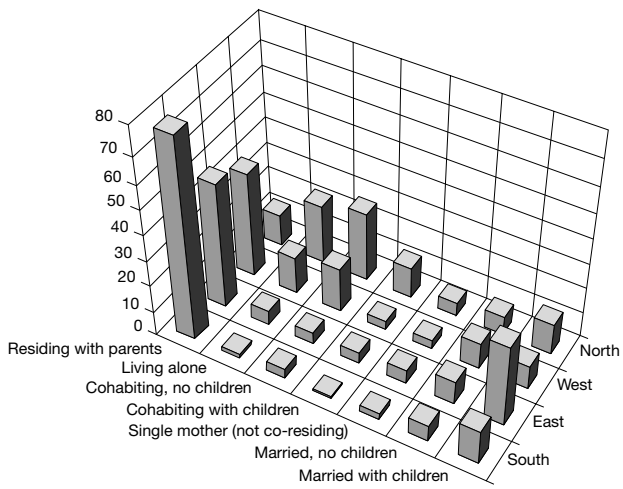

Figure 24 Household positions of women aged 20–24, by FFS country grouping

The data in Table 5 for 20 countries can also be summarized by using three dimensions only. These dimensions emerged from a multidimensional scaling (ALSCAL) based on proximities of country positions for the various variables.[14] The correlates of the three dimensions are given below:

	Dimension 1	Dimension 2	Dimension 3
Res Paren	**.80**	−.44	−.34
Single	**−.85**	−.34	.11
Coh + 0	**−.88**	−.30	.19
Coh + child	**−.83**	.30	−.16
Single Moth.	−.36	**.78**	−.32
Marr + 0	.38	.19	**.87**
Marr + chil.	.31	**.87**	.02

The three dimensions can be interpreted as follows:

1. *Dimension 1* catches the contrast between overall late home leaving (positive values) vs. early home leaving via the stages of independent living and cohabitation with or without children (negative values). If signs are reversed, dimension 1 measures the typical progression of the second demographic transition as far as household formation is concerned.
2. *Dimension 2* brings out early motherhood, either in marriage or as a single mother. The latter variable is correlated with this dimension mainly as a result of the relatively high levels of single motherhood being associated with early marriage and earlier overall parenthood in the Eastern European cluster of populations.
3. *Dimension 3* reveals a pattern of earlier marriage, but prolonged postponement of parenthood for younger women with such an early marriage.

The position of the countries is presented in Figures 25 and 26. Figure 25 gives the plot using the first two dimensions. In the set of 20 countries, Swedish women aged 20–24 really stand out by virtue of their early home leaving and transitions to single living or cohabitation. The other Scandinavian FFS country, Norway, follows but at some distance. The next three on this second demographic transition axis are Austria, France, and former East Germany. But from then onward, an unfolding along dimension 2 occurs. The former Communist countries have high proportions of mothers below age 25 who live either in a marital union or as a single mother (positive values on dimension 2). The western countries and Japan, by contrast, have later parenthood and a low incidence of single mothers prior to age 25 (negative values on dimension 2).

[14] For each set of percentages of young women in a particular household position (see Table 5), a variable has been created and the country position on these variables has been expressed in z-scores. These are the basic input for the calculation of proximities, which are furthermore based on euclidean distances. A three-dimensional solution emerged after three iterations (Kruskal's stress = 0.17; R-squared = 0.85).

Furthermore, as one moves further to the right along dimension 1 and hence to populations that have not progressed as much toward the "intermediate phases," one increasingly encounters the populations with a Catholic tradition, but again with the maintenance of the East-West split according to dimension 2 (see, e.g., Poland vs. Italy or Spain).

There are a number of other noteworthy features in Figure 25. Latvia and Slovenia, for instance, are almost at par with Canada, West Germany, Switzerland, and the Netherlands in terms of earlier home leaving with transitions toward single living or cohabitation (cf. dimension 1), but they keep the Eastern European feature of earlier parenthood in marriage as well. East and West Germany are quite distinct in Figure 25. East Germany has a more advanced position on dimension 1, mainly by virtue of its higher proportion of young women cohabiting and especially cohabiting with children, but the East-West split brought out by dimension 2 still separates these two parts of Germany. A

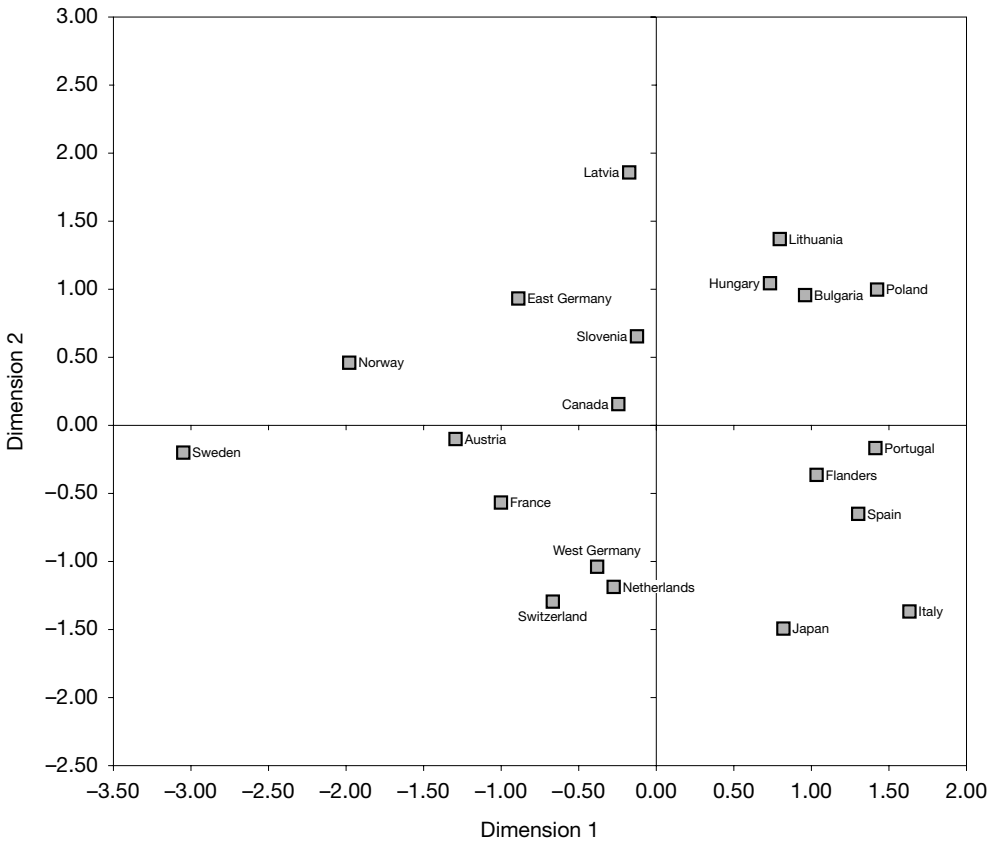

Figure 25 Household positions of women aged 20–24: ALSCAL dimensions 1 and 2

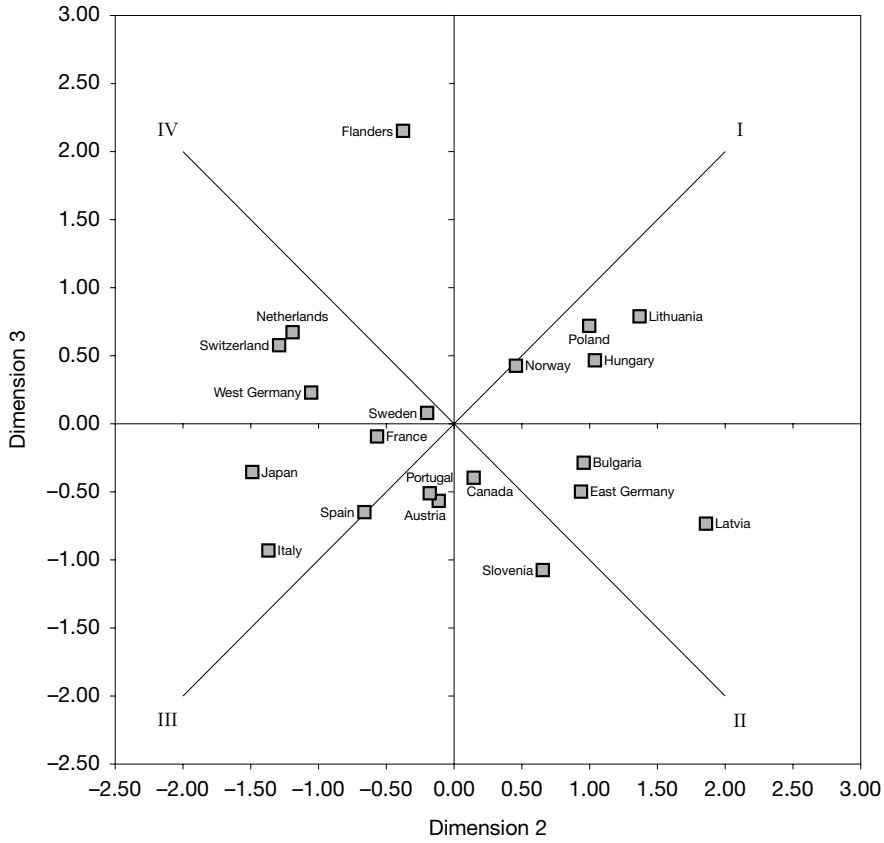

Figure 26 Household positions of women aged 20–24: ALSCAL dimensions 2 and 3

similar duality would also have been found in Belgium between Flanders (covered by the FFS) and Wallonia (not covered). In this country, the 1991 census showed that Wallonia had a much more French pattern with considerably more cohabitation with children for younger women, as well as more single young mothers, than Flanders. Incidentally, detailed geographic mapping of household positions (1991 census) reveals that the Belgian duality is formed in exactly the same way by the language border as it was a century earlier with respect to the initial fertility decline.[15] The Belgian and also the German example again illustrate the relevance of cultural, linguistic, and political borders for the differential diffusion of the features of the second demographic transition.

Figure 26 contains the plot of dimension 3 against dimension 2. From the

[15] For the detailed maps by municipality of the household positions, based on the LIPRO typology of van Imhoff and Keilman (1991), see Deboosere et al. (1997) or Mérenne et al. (1997).

origin outward, we have added the four diagonals that help to describe the different clusters of countries. Along diagonal I countries are located that have a relatively high proportion of women aged 20–24 who are married, but among these a sizable proportion have not yet started procreation (positive values for dimension 3). Along diagonal II, this feature is absent: early marriage is quickly followed by motherhood. When moving away from the origin, i.e., when the patterns become more pronounced, we typically encounter Eastern European and former Communist countries, but a subset has more postponed parenthood within marriage (Poland, Hungary, Lithuania) than the other (Bulgaria, Latvia, former East Germany, Slovenia). On the other side (negative values on dimension 2), mostly western countries are found. Along diagonal III, we move toward the Mediterranean pattern of late home leaving, late marriage, and, even for women who marry young, a fast transition to motherhood. Along diagonal IV parenthood is more postponed among married women. In this respect, Flanders is distinct from the Netherlands, West Germany, and Switzerland by its higher proportion of young women who opt directly for a transition into marriage but do not follow this with parenthood.

Finally, it should be noted that information on current household positions of individuals by age and sex remains elusive for a number of countries, mostly because of a lack of a focused comparative publication.[16]

4. Conclusions

In the countries studied in this essay, the second demographic transition is characterized by no less diversity than the historical first transition. The Princeton Project and subsequent studies of the historical first transition all pointed to the marked heterogeneity with respect to *timing*, *process*, and *explanation*. Metaphorically, the heap of jigsaw pieces on eighteenth-, nineteenth-, and early twentieth-century demography apparently did not come from the same box. As evolution is per definition path dependent, there is a similar unfolding of the pace and patterning of the second demographic transition. This patterning exhibits the

[16] Most of the countries not participating in the FFS do have these data from other surveys, but they could not be readily retrieved by our contacts. This applies in particular to the United States, the United Kingdom, Australia, New Zealand, and the Russian Federation where appropriate data sets are known to exist (household surveys or microcensus). Among the FFS countries, Finland and Estonia could not be included in the analysis: the Finnish country report lacks the tables on household position and the Estonian report mixes both sexes. Hence, an international effort of harmonizing, retrieving, and publishing current *household positions for individuals* would be most welcome, not only because such data are good indicators of the patterns of household formation but also because they are of special relevance for social policy.

highest degree of diversity with respect to the unfolding of the intermediate stages of household formation between home leaving and parenthood, but the picture is more cohesive with respect to the postponement of childbearing.

For a long time now the Scandinavian countries have taken the lead in the "destandardization" of the sequence of transitions, and so far no other country has joined their cluster. The Scandinavian countries definitely belong to the most prosperous countries, but their high GNP per capita is not a distinguishing trait. Rather, a long Protestant tradition leading to advanced welfare systems and to respect for individual choices, in tandem with a strong national consensus around these issues, have fostered this development. Scandinavians themselves are quick—and rightly so—to point out the importance of the last two factors, but fewer are aware of the fact that the pattern of early home leaving and independence is equally state supported via the minimum income guarantees offered by their generous welfare systems.

A number of Western European countries have clearly moved toward the Scandinavian pattern, but in very diverse ways. For instance, France, Austria, the Netherlands, and Switzerland all have experienced a rapid rise of premarital cohabitation, but procreation within this type of living arrangement has risen much faster in the first two countries than in the other two. A greater reticence toward teenage pregnancy, early motherhood, and procreation prior to marriage has so far prevailed in the Netherlands and Switzerland. Within countries diversity too has developed along older cultural and/or socioeconomic lines, with Belgium and unified Germany providing striking examples of clearly demarcated regional patterns.

Several Eastern European nations are also moving along trends typical of the second demographic transition. Premarital cohabitation, for instance, is clearly on the rise in Slovenia and Latvia. Younger married women in Poland, Hungary, Bulgaria, and Lithuania are postponing parenthood. In virtually all Eastern European countries ages at first marriage have started to climb since the early 1990s as well. The latter phenomenon may be a response to the increased deregulation of their economies and to the new labor market conditions, but since these are likely to stay, further demographic pattern developments probably will occur.[17] The other salient trait of many Eastern European countries, i.e., the rise of the share of nonmarital fertility, is not connected to the events of 1989: this share has risen uninterruptedly since the mid-1970s in Slovenia, Estonia, Latvia, Hungary, and Bulgaria, and since the early 1980s in the Czech

[17] Compared to Mediterranean countries, e.g., Eastern European populations have much longer histories of high female labor force participation, liberal divorce legislation, and particularly earlier home leaving. Such factors may be correlates of a faster adoption of more independent living and of cohabitation in Eastern compared to Southern European populations.

and Slovak Republics, the Russian Federation, and Moldova.[18] In most of these cases, however, this relative rise of extramarital fertility is not so much associated with procreation among somewhat older cohabiting couples, but with increased teenage pregnancies. Four western countries have a similar pattern of high out-of-wedlock teenage fertility: the United States, the United Kingdom, New Zealand, and Australia. In all of these instances this pattern hampers the educational careers of young women, but in Eastern Europe, teenage fertility has had even more dramatic consequences in terms of the spread of sexually transmitted diseases and child desertion.

On the whole, the Mediterranean populations have been remarkably reluctant to adopt the "intermediate phases" of household formation: home leaving has become very late and the subsequent life course transition is overwhelmingly into marriage. This has been explained from a variety of angles: high youth unemployment, high costs of housing, prolonged education and prolonged financial dependence on the parental household, a distinctive Mediterranean cultural pattern stressing matrimony, high consumption aspirations and high material standards required for the establishment of a new household, and the safeguarding of a period of freedom from obligations and from traditional gender roles that are associated with marriage and parenthood.

Many of these reasons would probably sound familiar in Japanese ears as well. However, Japan deviates from the Mediterranean pattern because of its higher proportion of young women leaving home to live by themselves. Also the feature of increased individual partner choice replacing arranged marriage and the concomitant rise in "shotgun" marriages are distinctive for Japan (cf. Atoh 1994; Dalla Zuanna et al. 1998). Nevertheless, these three phenomena all point in the direction of increased individual freedom of choice and tolerance for greater diversity in patterns of household formation. It still remains to be seen to what extent and how fast this Asian variant of the second demographic transition will spread to other Far Eastern populations such as those of Taiwan, South Korea, and urban China.

The evolution of fertility in industrialized countries is essentially characterized by postponement. The date of onset of this feature varies greatly, but at present there is hardly any population left in the industrialized world that has not started this process. Nevertheless, in several Eastern European countries, such a tempo shift is of a recent date and it does not fully account for the rapid fall in fertility during the 1990s. In western countries, though, further postponement has had a major fertility depressing effect. Yet fertility levels vary greatly, with several

[18] The rise of the nonmarital fertility share also started before 1980 in Armenia and especially in Georgia (Council of Europe 1999, table T3.2).

countries keeping PTFR values above 1.70 or close to replacement level and others maintaining values well below 1.50. *The main cause of this differentiation is the degree of fertility recuperation at older ages and especially above age 30 among the cohorts that initiated or continued the tempo drift.* The literature abundantly covers the reasons for the postponement aspect, but it is still silent on the underlying causes for such large national differences with respect to fertility recuperation in the age group 30–39. We shall try to explore this feature in a later paper.

Finally, the traces of policy interventions with respect to fertility are clearly visible in a number of countries (e.g., Russia, the former GDR, Sweden). In every instance, such policies proved to have only a temporary effect and they show up as distinct period distortions in the cohort fertility profiles. Hence, policy interventions of the types that have been tried since the 1970s have not been a match for the much stronger economic, social, and ideational forces that have driven the second demographic transition.

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