



# Population Implosion?

## Low Fertility and Policy Responses in the European Union

- RAND RESEARCH AREAS**
- CHILD POLICY
  - CIVIL JUSTICE
  - EDUCATION
  - ENERGY AND ENVIRONMENT
  - HEALTH AND HEALTH CARE
  - INTERNATIONAL AFFAIRS
  - NATIONAL SECURITY
  - POPULATION AND AGING
  - PUBLIC SAFETY
  - SCIENCE AND TECHNOLOGY
  - SUBSTANCE ABUSE
  - TERRORISM AND HOMELAND SECURITY
  - TRANSPORTATION AND INFRASTRUCTURE

**A**cross Europe, birth rates are falling and family sizes are shrinking. The total fertility rate is now less than two children per woman in every member nation in the European Union (see Figure 1). As a result, European populations are either growing very slowly or beginning to decrease.

At the same time, low fertility is accelerating the ageing of European populations. As a region, Europe in 2000 had the highest percentage of people age 65 or older—15 percent. According to data from the U.S. Bureau of the Census, this percentage is expected to nearly double by 2050.<sup>1</sup>

These demographic trends portend difficult times ahead for European economies. For example, a shrinking workforce can reduce productivity. At the same time, the growing proportion of elderly individuals threatens the solvency of pension and social insurance systems. As household sizes decrease, the ability to care for the elderly diminishes. Meanwhile, elderly people face growing health care needs and costs. Taken together, these developments could pose significant barriers to achieving the European Union (EU) goals of full employment, economic growth, and social cohesion.

Concern over these trends has sparked intense debate over the most effective policies to reverse them or mitigate their impact. The policy debate has focused on three approaches: (1) promoting increased immigration of working-age people; (2) encouraging more childbearing, especially among younger couples; and (3) reforming social policy to manage the negative consequences of these trends—including measures that could raise the retirement age or encourage more women to join the workforce. To date, this debate has produced

### Abstract

Currently across Europe, birth rates are falling and the population is ageing. This study assesses which policies can prevent or mitigate the adverse consequences of these two trends. A framework highlights the interrelationships among government policies, macro-level conditions, and household-level demographic behaviour. Guided by this framework, the RAND team reviewed the research literature, examined European demographic data, and conducted case studies of five countries.

more heat than light, and solid research-based evidence to inform the debate remains sketchy. Many aspects of the relationship between national policies and demographic trends are either disputed or not well understood, and it remains difficult to disentangle the effects of specific policy initiatives from the effects of broader social, political, and economic conditions.

To help inform EU policy deliberations, analysts from RAND Europe and RAND U.S. examined the relationships between policy and demographic change. The RAND team analysed the interrelationships between European government policies and demographic trends and behaviour, and assessed which policies can prevent or mitigate the adverse consequences of current low fertility and population ageing. The monograph, *Low Fertility and Population Ageing: Causes, Consequences, and Policy Options*, documents the study's findings.

The study carried out three tasks: It analysed European demographic trends; it examined the relationship between national-level policies on the one hand and demographic trends and household

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

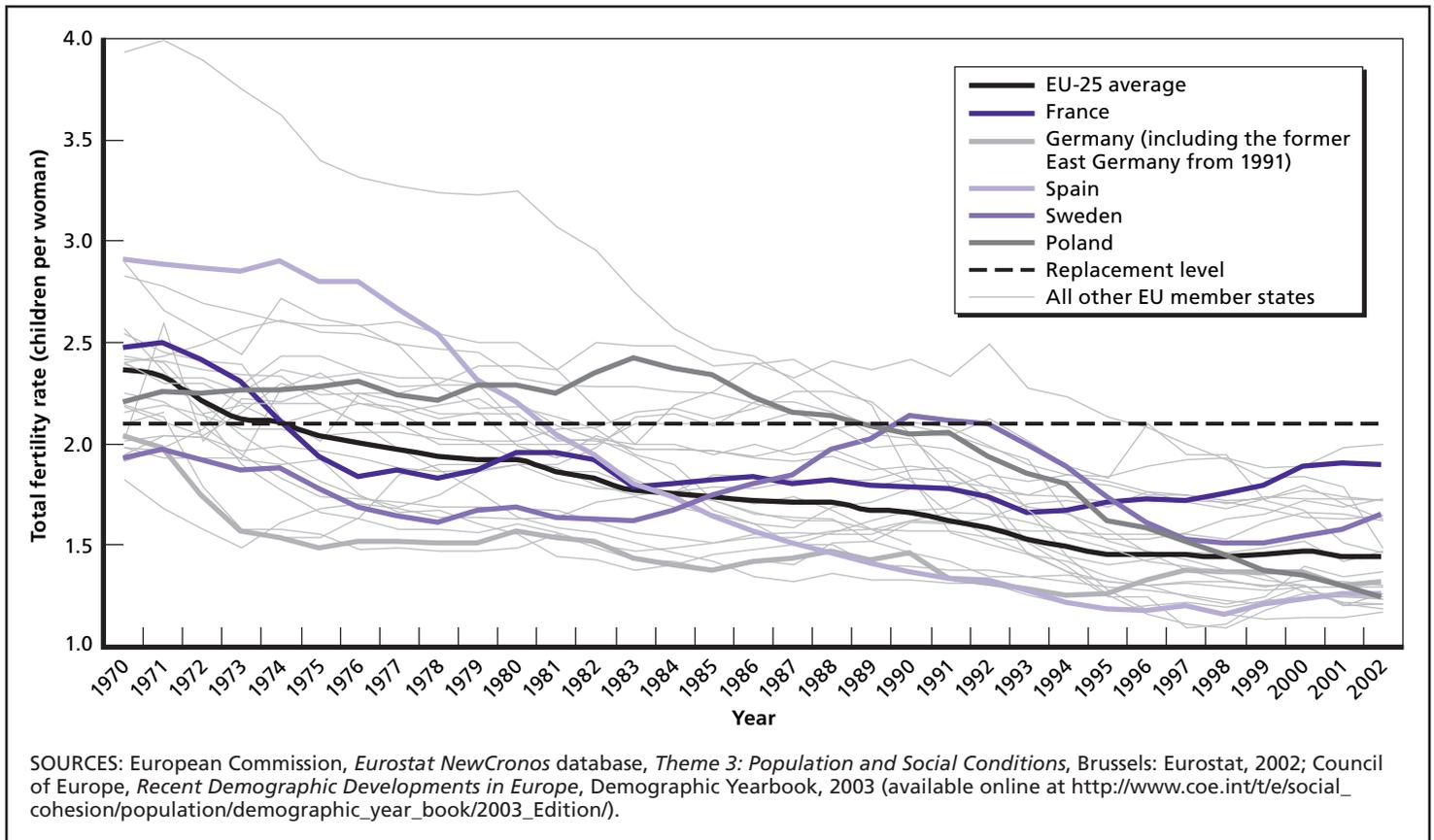
**Corporate Headquarters**  
1776 Main Street  
P.O. Box 2138  
Santa Monica, California  
90407-2138  
TEL 310.393.0411  
FAX 310.393.4818

**RAND Europe—Cambridge**  
Westbrook Centre  
Milton Road  
Cambridge CB4 1YG  
United Kingdom  
TEL +44.1223.353.329  
FAX +44.1223.358.845

© RAND 2005

<sup>1</sup> Kevin Kinsella and Victoria A. Velkoff, *An Aging World: 2001*, Washington, D.C.: U.S. Census Bureau, Series P95/01-1, 2001, p. 9.

**Figure 1**  
Trends in Fertility Rates in the EU, 1970–2002



behaviours on the other hand; and it conducted case studies of five countries—France, Germany, Poland, Spain, and Sweden—which represent a mix of original and new member states, with varying levels of fertility and net immigration, and with different policy approaches.

The study found that:

- Immigration is not a feasible way of reversing population ageing or its consequences.
- National policies can slow fertility declines under the right circumstances.
- However, no single policy intervention necessarily works.
- And, what works in one country may not work in another. Social, economic, and political contexts influence the effect of policies.
- Policies designed to improve broader social and economic conditions may affect fertility, indirectly.
- Population policies take a long time to pay dividends—increases in fertility taking a generation to translate into an increased number of workers—making such policies politically unattractive.

### Increased Immigration Will Not Reverse Population Ageing

Allowing large numbers of working-age immigrants to enter EU countries is not a feasible solution to the problem of population

ageing. The sheer numbers of immigrants needed to offset population ageing in the EU states would be unacceptable in Europe’s current sociopolitical climate. Furthermore, over the longer term, these immigrants would themselves age. The study concluded that the debate should focus on using immigration as a potential tool for slowing—as opposed to overcoming—population ageing.

### Government Policies Can Slow Fertility Declines

Government policies can have an impact on fertility. For example, Spain and France present an instructive contrast. Currently, Spain has the second-lowest rate of fertility among the original 15 EU member states. However, a generation ago (in 1971), Spain’s fertility was among the highest in Europe. The dramatic decline in fertility since then is associated with a shift from the pronatalist Franco regime—which banned contraception and encouraged large families—to a democratic regime that has no explicit population policy.

In contrast, France, which was the first European nation to experience a decline in its fertility rate and which has had an aggressive set of pronatalist policies in place for many decades, now has the second-highest fertility rate in Europe (behind Ireland). The fertility rate in France has not declined as much as that in other countries, and it actually increased between 1993 and 2002 (see Figure 1).

## Reversing Fertility Decline Has Involved a Mix of Policies

No single policy intervention has worked to reverse low fertility. Historically, governments have attempted to boost fertility through a mix of policies and programmes. For example, France in recent decades has employed a suite of policies intended to achieve two goals: reconciling family life with work and reversing declining fertility. To accomplish the first goal, for example, France instituted generous child-care subsidies. To accomplish the second, families have been rewarded for having at least three children.

Sweden, by contrast, reversed the fertility declines it experienced in the 1970s through a different mix of policies, none of which specifically had the objective of raising fertility. Its parental work policies during the 1980s allowed many women to raise children while remaining in the workforce. The mechanisms for doing so were flexible work schedules, quality child care, and extensive parental leave on reasonable economic terms.

## Political, Economic, and Social Contexts Influence Policy Impacts

Designing successful interventions is complicated by the fact that policies that work in one country may not work in another. Different interventions have varying effects because of the diverse, complex, and shifting political, economic, and social contexts in which they are implemented. The impact of these contexts appears in some of the sweeping political transitions Europe has witnessed over the past two decades.

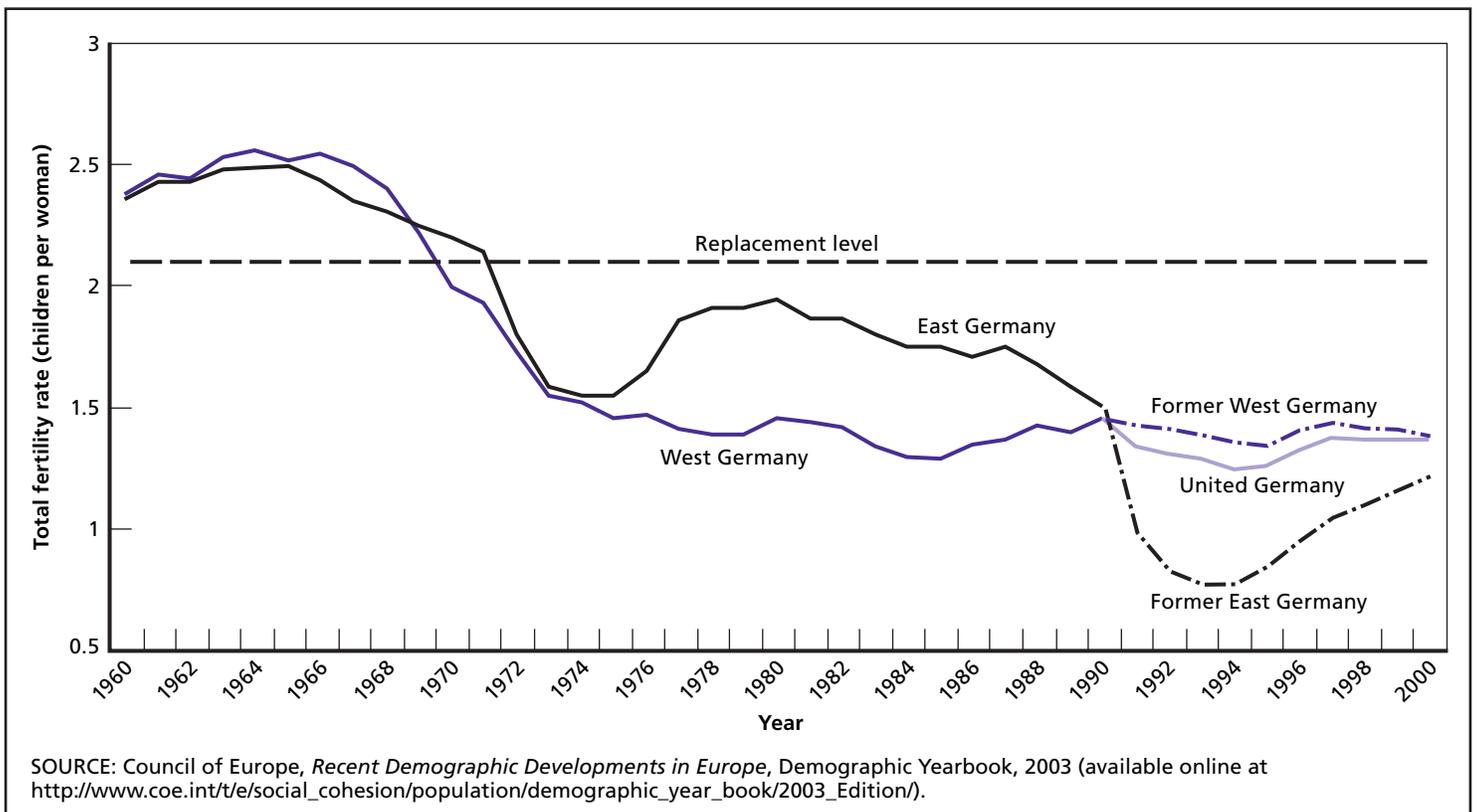
For example, fertility declines in the former East Germany after unification appear to owe more to a shifting social environment than to policy change. Women who faced the unification with concerns about their economic situations were less likely to have children in the following year or two. The contrast between the former East Germany and West Germany is instructive (see Figure 2). After reunification, the former West Germany's fertility rate remained relatively stable, whereas the former East Germany saw a precipitous decline over the next three years. Similarly, the transition to a free-market economy in Poland changed the economic environment and incentives for childbearing. Since 1989, Poland has experienced a sharp decrease in fertility (see Figure 1).

Sweden provides a different kind of example. Although Sweden did not undergo political or economic transformation, its economic conditions nonetheless have affected fertility. Unlike in most other countries, fertility rates in Sweden are positively related to the earnings of women—likely because women's earnings in Sweden constitute a substantial proportion of dual-earner household income. Since parental-leave benefits are proportional to earnings, improvements in economic conditions lead to higher parental benefits, which can help promote increased fertility. Part of the decrease in fertility in Sweden during the 1990s is likely related to the decline in economic conditions.

## Population Change Is Slow

Government policies intended to reverse fertility declines typically have a long-term focus and require many years to bear fruit. A few

Figure 2  
Trends in Fertility Rates in the Germanies, 1960–2000



population policies may have an immediate effect (for example, those restricting/allowing abortion), but they are exceptions, and their effects tend to be on the timing of births rather than on completed fertility. Population policies to increase fertility take at least one generation before they ultimately increase the number of new entrants to the labour force.

As a result, there is a disconnect between electoral cycles (typically, 4–5 years) and the longer cycle of population policy. Politicians have limited incentives to advocate such policies, especially when doing so might entail the expenditure of political capital in entering a contentious policy domain. Therefore, population policies tend to lack both political appeal and political champions.

Instead, politicians tend to focus on policies for mitigating the effects of population ageing, which have shorter time horizons. One policy for doing so is encouraging participation in the workforce.

This can mean promoting a longer working life and encouraging new entrants, such as women, into the workforce. Related to this are policies that seek to enhance the productivity of older workers.

## Conclusion

This study showed that, under certain conditions, European governments can successfully confront the looming economic threats of declining fertility rates and ageing populations. Policies that remove workplace and career impediments to childrearing are a critical part of any solution. However, reversing long-term ageing and low fertility remains problematic, given that policies for doing so may not pay dividends until the next generation reaches working age. Prior to that time, millions of baby boomers will have retired. Hence, a solution will require long-term vision and political courage. ■

---

Preparation of this research brief was supported by the RAND Labor and Population *Population Matters* program, which is funded by a grant from the William and Flora Hewlett Foundation.

---

This research brief describes work done by RAND Europe documented in *Low Fertility and Population Ageing: Causes, Consequences, and Policy Options*, by Jonathan Grant, Stijn Hoorens, Suja Sivadasan, Mirjam van het Loo, Julie DaVanzo, Lauren Hale, Shawna Gibson, and William Butz, MG-206-EC, 2004, 172 pp., available online at <http://www.rand.org/publications/MG/MG206>. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.

**RAND Offices** Santa Monica • Washington • Pittsburgh • New York • Doha • Berlin • Cambridge • Leiden



## EUROPE

CHILD POLICY  
CIVIL JUSTICE  
EDUCATION  
ENERGY AND ENVIRONMENT  
HEALTH AND HEALTH CARE  
INTERNATIONAL AFFAIRS  
NATIONAL SECURITY  
POPULATION AND AGING  
PUBLIC SAFETY  
SCIENCE AND TECHNOLOGY  
SUBSTANCE ABUSE  
TERRORISM AND  
HOMELAND SECURITY  
TRANSPORTATION AND  
INFRASTRUCTURE

This PDF document was made available from [www.rand.org](http://www.rand.org) as a public service of the RAND Corporation.

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world.

---

### Support RAND

[Browse Books & Publications](#)

[Make a charitable contribution](#)

### For More Information

Visit RAND at [www.rand.org](http://www.rand.org)

Explore [RAND Europe](#)

View [document details](#)

### Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use.