

Session 105: International Responses to Low Fertility

**LOW FERTILITY:  
CAN GOVERNMENTS  
MAKE A DIFFERENCE?**

By

Joseph Chamie  
Population Division  
United Nations

Presented at the Annual Meeting  
Population Association of America (PAA)  
Boston, Massachusetts  
2 April 2004

## I. Introduction

Many governments of countries experiencing below replacement fertility are increasingly alarmed about the economic, social, cultural, as well as geo-political consequences of a shrinking and ageing population. While concerns with population decline have been expressed in the past (Teitelbaum and Winter 1985), the concerns of today are more widespread, involving virtually all regions of the world. Also, these concerns have extended over a lengthy period of time, with the consequences becoming progressively evident to governments as well as to the general public. In addition, the spread of below replacement fertility among traditionally high fertility countries has occurred more rapidly than in the past.

A growing number of countries view their low birth rates with the resulting population decline and ageing to be a serious crisis, jeopardizing the basic foundations of the nation and threatening its survival. Economic growth and vitality, defense, and pensions and health care for the elderly, for example, are all areas of major concern.

In attempting to raise birth rates, governments are seeking to address the underlying causes of low fertility and adopting policies, programs and incentives to encourage couples, in particular women, to increase their child bearing. Maternity and paternity leave, childcare, after school programs, part-time employment, job security, cash allowances and other financial incentives are among the measures adopted or being carefully reviewed by governments.

Will government efforts to raise below replacement fertility make a difference? This question is the primary focus of this paper.

## II. Setting

Below replacement fertility is generating increasing concerns, reactions and issues among countries and regions around the world. Recent newspaper and magazine articles reflect some of the issues and concerns attracting world attention.

- Asian economies desperate for babies

“ ‘Our falling birth rate is a cause of great concern,’ Singapore Prime Minister Goh Chok Tong said in a recent lunar new year message in which he issued a fresh appeal for his people to produce more babies.” (*Daily Express News* 2 February 2004)

- France offers E800 reward for each new baby

“The French Prime Minister, Jean-Pierre Raffarin, announced last week that a bonus of €800 (£560, \$895) will be awarded mothers for each baby born after 1 January 2004. The bonus is part of a series of measures to encourage families to have more children.” (*British Medical Journal* 10 May, 2003).

- 'Have three babies' to sustain the population

“Women who are fertile will need to have three children each to sustain the current population of Britain at around 59 million, the Office of National Statistics says.” (*Daily Telegraph* 12 December 2003).

- Countries play the dating game to halt the baby blues

“When governments start running dating programmes, you know that policymakers are worried about low birth rates. Since the late 1990s, Japanese prefectures have been organizing hiking trips and cruises for single people” (*Financial Times* 10 December 2003).

- Italy offers cash to boost its birth rate

“The 2004 budget package includes a one-time 1,000 euros (\$1,200) payment to Italians on the birth of their second child, a measure set to run from December 1 until the end of 2004. ... Mayor Rocco Falivena (of Laviano) digging deep into town coffers is offering couples 10,000 euros (\$11,900) for every newborn baby.” (*Reuters* 7 December 2003).

- Have more babies, say the Tories

“Women should have more babies to stave off the looming crisis of an ageing population, the Tories will say today. The call to 'go forth and multiply' comes from work and pensions spokesman David Willetts, who wants couples to send birth rates soaring.” (*Daily Mail* 22 September 2003).

- Child-friendly policies can't defuse a population timebomb

“The population of Scotland will fall below five million by 2009, according to a recent article. More worrying than the fact the population is getting smaller, is that it's also getting older as the birth rate falls significantly. All this suggests that by the year 3573, there'll be two people left in Scotland, probably a married couple in their 90s living in Bearsden.” (*Scotland on Sunday* 15 February 2004)

- Seoul to use tax breaks to increase birth rate

“The government plans to expand tax breaks for families with young children and increase support for daycare centers in order to help working women and boost Korea's falling birth rate, the Ministry of Finance and Economy said yesterday.” (*Korea Herald* 26 August 2003).

- Why have cupid and the stork failed?

“Cupid and the stork flew into Parliament for a scolding yesterday as MPs questioned why Singapore’s approach to get singles to tie the knot and have babies has failed. They did not hold back their punches as they called on the Government to relook its policies that have neither stopped nor reversed the declining marriage and fertility rates. And MPs were not short of policies to pummel, wrestling with issues such as abortion, childcare, infant care and matchmaking agencies.” (*The Straits Times*, Singapore 22 March 2003).

- In address to Estonians, President calls on citizens to make more babies

“Worried about a declining population, Estonia's president has urged the country's 1.4 million residents to make more babies. ‘Let us remember that in just a couple of decades the number of Estonians seeing the New Year will be one-fifth less than today,’ President Arnold Ruutel said in a speech broadcast live on national television Wednesday.” (*New York Times* 2 January 2003).

Turning to the actual levels of fertility, various international, regional organizations and others have issued detailed reports documenting the extent of below replacement fertility (e.g., the United Nations, Eurostat and the US Census Bureau). The figures presented in Table 1 generally reflect the current situation of countries having total fertility rates below replacement, i.e., 2.1 children per woman. Sixty countries – about one-third of the countries in the world - have period fertility rates below 2.1; and half of those countries have levels of 1.5 or less. Cohort fertility rates for selected countries are shown in Table 2. Although somewhat higher than period rates in Table 1, the cohort fertility rates are also by and large below replacement levels.

Another indicator reflecting the extent of low fertility is the proportion childless. In table 3, the proportions childless for selected countries are shown for cohorts 1940, 1950 and 1960. In many parts of Europe, for example, well above 10 percent of women in their early forties remain childless (Frejka and Sardon 2003).

An overview of the official views and policies of governments in response to low fertility over the last quarter century are presented in Table 4. At present, 20 percent of the countries view their fertility as too low and 16 percent have policies to raise it; these proportions are roughly twice as large as were observed in the mid-1970s. In addition, among the more developed regions, nearly 60 percent of the countries view their fertility as too low and 42 percent of the countries have policies to raise fertility. The corresponding proportions for the countries in the less developed regions have remained essentially unchanged at around 8 percent over the past 25 years.

A more detailed look at the countries that view their fertility as too low is provided in Table 5. The table shows that 39 countries view their fertility as too low. The countries that

report having a policy of “no intervention” are Bosnia and Herzegovina, Germany, Italy, Norway, Portugal, Spain and Switzerland. However, these countries do have family or social policies that may lead to higher fertility, although they are not labelled pronatalist. The remaining 32 countries have implemented a broad range of policies and measures to raise fertility levels. It should be noted that not all countries with below replacement fertility report their fertility as too low, e.g., Canada, China and Malta do not. Conversely, there are also countries with fertility well above replacement that consider fertility to be too low and have policies to raise fertility, e.g. Gabon, Israel, United Arab Emirates and Uruguay.

### III. Responses

What responses can governments take to raise low fertility rates closer to replacement levels? The following is a non-exhaustive enumeration of 25 options or measures that governments have taken or could take to raise or maintain fertility levels:

1. Restrict or limit contraception
2. Restrict or limit abortion
3. Restrict or limit education of girls
4. Restrict or limit employment of women
5. Facilitate early marriage
6. Match making to encourage marriage
7. Public relation campaigns for marriage, childbearing and parenthood
8. Make child-raising a financial option for women (e.g., paid job)
9. Strengthen the economic security of motherhood within the family
10. Paid maternity leave
11. Paid paternity leave
12. Cash bonus for birth of child
13. Cash payments for dependent children
14. Prenatal, antenatal health care and infertility treatments
15. Infant and child care facilities
16. Pre-school and after school care facilities
17. Tax benefits or deductions for dependent children
18. Pensions, social security and elder-care services related to childrearing
19. Part-time work opportunities for parents
20. Flexible working hours
21. Shared parental responsibilities between mothers and fathers
22. Shared housework among males and females
23. Changed traditional roles of males and females so men take on more female roles at home
24. Preferences for parents with dependent children, e.g., priorities in mortgages, housing, loans, government services and benefits, etc.
25. Political/legal system more responsive to couples with children, e.g., granting extra voting rights to adults with minor children

With few exceptions, the first four entries, i.e., to restrict or limit contraception, abortion, girls' education and women's employment, are universally considered unacceptable, being in violation of international laws, rights and norms. The encouragement of early marriage might also be seen as falling within this grouping of unacceptable policies.

For purposes of this paper, the remaining twenty entries may be grouped into five broad categories of measures aimed at raising low fertility. The first promotes marriage, childbearing and parenting through various means, including public relations campaign and match making services. Many public relations campaigns promote the vital role of maternity and motherhood, stressing that women are making a valuable contribution to the welfare of the family and societal developmental. These campaigns have been especially prominent among a number of East Asian countries, including Japan, Republic of Korea and Singapore. For example, a recently launched campaign by the Government of the Republic of Korea has the slogan: "Let's Have One More Kid".

A second category of policies aims at transferring some of the costs and activities related to childbearing and childrearing from the parents to the larger community. Examples of these policies include cash bonuses and/or recurrent cash supplements for births or dependent children, infant and childcare facilities, and pre-school and after school care facilities. Recently, payments of cash bonuses for the birth of a child (or additional child) have been popular in such countries as France and Italy.

A third set of policies is aimed primarily at assisting women combine their labor force participation and family building responsibilities. Measures to make employment demands and family responsibilities "compatible" for working couples, again especially working women, include maternity leave, part-time work, flexible working hours, working at home, and nurseries and day care at the office.

In parallel, another category of policies is aimed primarily at men. These measures are intended to increase the involvement of men in activities that have been traditionally considered female, e.g., parenting, family maintenance, and household chores and related responsibilities. Although these measures include paternity leave, the principal emphasis of this category of measures is to encourage husbands to share with their wives the rearing of children and the undertaking of domestic work.

The fifth category of policy measures centers on financial, political and legal preferences to couples with children. This includes giving parents priorities or assistance in securing mortgages, loans, low cost or subsidized housing, welfare assistance, government services and benefits. More recently, some governments, e.g., Austria, are considering changes in the political system in order to be more responsive to the needs and concerns of couples with children. For example, granting extra voting rights to the parents of minor children may provide an opposing counterweight to the increasing political strength of elderly voters.

## IV. Discussion

The literature on theories and hypotheses relating to the decline of fertility, particularly its determinants and consequences, is vast (e.g., Caldwell 1982; van de Kaa 1987; Brewster and Rindfuss 2000; Cleland and Wilson 1987; Coale 1974; Easterlin 1978; Davis 1963; Freedman 1979; Hirschman 1994). Also, governmental and non-governmental programs, e.g. family planning programs, are widespread throughout developed and developing regions of the world.

International efforts to facilitate fertility decline in less developed countries are also widely acknowledged, firmly established and supported financially. Consider, for example, the following frequently cited quotation, which is contained in principle 8 of the Programme of Action of International Conference on Population and Development, which stresses a rights based approach to family planning:

“All couples and individuals have basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so. (United Nations 1995)

In contrast, considerably less has been written on raising below replacement fertility. In addition, relatively few international efforts have been established to assist countries that may wish to increase their low levels of fertility. A number of reasons account for this situation. First, the issue of below replacement has come to the attention of governments comparatively recently. Moreover, it has taken some time for governments to begin to appreciate the consequences of population decline and ageing resulting from continued levels of below replacement fertility.

There are also important ethical questions revolving around the legitimacy of governments attempting to influence or interfere with decisions about family size. Understandably, governments are reluctant to be seen as encouraging citizens to breed for the sake of the country. This is especially true for governments providing international assistance to family planning programs in countries aiming to reduce their comparatively higher rates of fertility and population growth. Most governments of low fertility countries, especially democracies, declare that their policies are aimed at assisting couples with bearing and rearing children are for purposes of family welfare and equity. A brief look at the specific cases of Germany, the United Kingdom and Japan provides further insight.

The Government of Germany does not believe that population decline constitutes a serious threat to economic growth (Hoehn 2001). For many years, the Government has been doubtful of the lasting impact of pronatalist incentives and “...reluctant to embark on a costly program of incentives to childbearing, the more so since such a program violates the ruling parties’ ideological belief about the family and the individual and might be an infringement of civil liberties” (McIntosh 1983).

Like Germany, the policies of the United Kingdom avoid influencing fertility levels as well as population size and age structure.

“The United Kingdom does not pursue a population policy in the sense of actively trying to influence the overall size of the population, its age-structure, or the components of change except in the field of immigration. Nor has it expressed a view about the size of population, or the age-structure, that would be desirable for the United Kingdom. Its primary concern is for the well being of the population, although it continually monitors demographic trends and developments. The current level of births has not been the cause of general anxiety. The prevailing view is that decisions about fertility and childbearing are for people themselves to make, but that it is proper for government to provide individuals with the information and means necessary to make their decisions effective.” (Dunnell 2001)

Another example of a country that up until very recently has been reluctant to be characterized as pronatalist is Japan. The Government of Japan has considered its fertility to be too low for some time (United Nations 2004). However up until very recently, the Japanese Government had not mentioned in official documents the goal of raising fertility or attaining a specific desired fertility level had not undertaken any media campaign to encourage fertility, had not raised child allowances to the level comparable to many European countries, and had not limited access to methods of fertility control (Atoh 2001). However, increasingly concerned with its falling fertility rate and ageing population, the Japanese Government has now modified its policy within the last year or so to raise the country’s level of fertility (United Nations 2004).

In contrast to Germany and the United Kingdom, a growing number of governments, such as Japan, are moving towards openly pronatalist policies and programs. A good example is Germany’s neighbor, France. At a time when the French Government is struggling with the labor unions over its attempt to raise the retirement age, policies to raise the birth rate are embraced and supported by all political parties. One recent Government measure with widespread support decreed that beginning 1 January 2004, every French woman who has a child will receive a Government award of 800 euros. The bonus is one among many measures the Government has taken to encourage larger families in France. Other measures include: monthly cash payments to families with at least one child younger than three; monthly payments for three years to families in which one parent stops working; partial reimbursement for at-home-child care; and incentives for the development of private nurseries. With the exception of Scandinavian countries, France spends more on families than any other member of EU, 3 percent of GNP (Doroozynski 2003).

While most governments may be reluctant to report that they are encouraging their countrywomen to breed for the sake of the country, the picture is very different regarding parenting and housework. A wide spectrum of governmental and intergovernmental bodies, as well as many non-governmental groups, explicitly acknowledges and actively promotes husbands and wives sharing family and household responsibilities. Many governments, especially among nations of the European Union, have adopted policies regarding the equality between women and men and are encouraging the sharing of parenting and household work among husbands and wives.

The international community of nations also endorses and is actively promoting the equality between men and women, emphasizing equal participation in employment, the sharing of parental and household responsibilities among fathers and mothers. For example,



approximately a decade ago with the launching of the International Year of the Family, the United Nations General Assembly at its 47<sup>th</sup> session adopted a resolution stating:

*“Convinced that equality between the sexes, women’s equal participation in employment and shared parental responsibility are essential elements of modern family policy,”*  
(United Nations 1992, Res.47/237)

A further example from the international community comes from the Programme of Action of the United Nations International Conference on Population and Development held in 1994:

*“4.26 The equal participation of women and men in all areas of family and household responsibilities, including family planning, child-rearing and housework, should be promoted and encouraged by Governments. This should be pursued by means of information, education, communication, employment legislation and by fostering an economically enabling environment, such as family leave for men and women so that they may have more choice regarding the balance of their domestic and public responsibilities.”* (United Nations 1995).

Another example, again clearly indicating the global consensus on men and women sharing parenting and family responsibilities, is found in paragraphs 1 and 29 from the Platform of Action of the United Nations Fourth World Conference on Women held in 1995:

*“1. ... the principle of shared power and responsibility should be established between women and men at home, in the workplace and in the wider national and international communities. Equality between women and men is a matter of human rights and a condition for social justice and is also a necessary and fundamental prerequisite for equality, development and peace.”*

*“29. ...The upbringing of children requires shared responsibility of parents, women and men and society as a whole. Maternity, motherhood, parenting and the role of women in procreation must not be a basis for discrimination nor restrict the full participation of women in society.”* (United Nations 1996).

Returning to the central question of this paper, will the various government policies, programs and efforts to raise fertility, many of which have been outlined above, make a difference? It has become evident to many that if such policies and measures are to be successful, they will have to overcome a great deal of the forces that are leading to very low levels of fertility.

Among the forces exerting downward pressure on fertility are expanding opportunities for women for higher education, careers and economic independence, coupled with highly effective contraception. As a consequence, many young women are postponing or avoiding altogether the onset of motherhood. For instance, American women are staying single longer than in the past. While forty years ago the median age at first marriage was 20 years old, today it is 25 years. Also on US college campuses, women continue to outnumber men. Women's enrollment has increased dramatically during the last decade, from 7.5 million in 1990 to 8.6

million in 2000. At present, approximately 56 of the college student body are women, according to the National Center for Education Statistics. In addition, the US Bureau of Labor Statistics reports that the number of women in the work force has nearly doubled since 1950. While women's wages are about three-quarters of those of men, women's median weekly income has risen steadily during the last two decades.

Further insight into the forces leading to low fertility may be gained from the perspective of the “new home economics” Becker (1981). As the wage levels of men and women rise, the opportunity costs for bearing a child and a stay-at-home mother to rear the child also rise. And therefore, increased earnings encourage or direct couples to lower fertility, higher female employment, and more purchased child-care services.

## V. Conclusions

It is evident even to the casual observer that if fertility remains below the two-child replacement level long enough, then, in the absence of immigration, populations shrink and age. A few calculations permit an appreciation of the nature and extent of the demographic outcome. In a couple of generations, for example, the population of Italy is expected to be 20 per cent smaller than it is today, with the working age population (15-64 years) shrinking by some 40 per cent and one of every three Italians will be aged 65 years or older. Furthermore, if today's demographic conditions for Italy continue over the longer term, say ten generations, then its population would decline to 1 per cent of its current size, or about 600 thousand people.

Obviously, the increasing concerns of many governments around the world with below replacement fertility arise not solely from their desire to improve the welfare of individuals or couples who may wish to have a child or additional children. Quite the contrary, the growing concerns of these governments are societal in nature, centering on the social, economic and political consequences of population decline and population ageing.

In response to these perceived undesirable consequences, a growing number of governments are instituting measures and reviewing a broad spectrum of possible policies and programs to raise fertility. The central focus of this paper has been the question of whether government efforts to raise fertility will make a difference.

As described earlier, the efforts of governments to raise fertility may be grouped into six broad categories:

1. Restrict contraception, abortion and the education and employment of women;
2. Promote marriage, childbearing and parenting;
3. Reduce the costs of childbearing and rearing young children;
4. Make childbearing and childrearing compatible for working couples, especially for working women;
5. Involve men more in parenting and household duties; and
6. Preferences and priorities for couples with dependent children.

While the first category of policies may be effective, with only a few exceptions, these measures are considered unacceptable and would be widely criticized. In contrast, many of the measures within the remaining five categories are increasingly being relied upon or seriously being considered in light of current demographic trends.

Based on national experiences during the past quarter century, it appears that government policies that promote childbearing, reduce the costs of childrearing, facilitate working couples, especially women, encourage greater male involvement in parenting and preferences to couples with children, may be able to influence fertility in an upward direction. Such policies have been observed to have noticeable effects on period total fertility (Hoem 2001, Lestheage 2001, McDonald 2001a and 2001b, Milligan 2002,). Some demographers, while recognising that the wish to have children does not lend itself to precise scientific measurement, say that experience, available evidence and intuition point to a link between fertility rates and public aid to families (e.g., Doroozynski 2003, McDonald 2003, Milligan 2002, Morgan 2003). However, many of these rises in fertility tend to be short lived, usually less than five years. In response to government incentives and programmes, couples may elect to temporarily modify their fertility behaviour by having births earlier than they may have desired. These changes in timing plans may give rise to short-term increases in period rates; afterwards, however, the fertility of many of these cohorts appears to return to the longer-term low fertility levels.

Also, in attempting to make childbearing and childrearing compatible for working couples, especially for working women, many governments are actively promoting: a. equality between the sexes; b. the equal participation of women in employment; and c. shared parental responsibility between father and mother. Also, as noted earlier, the international community is convinced that these three items are essential elements of modern family policy. However, the question that arises in this instance is whether the promotion of gender equality both at work and in the home will raise low fertility. Stated slightly differently, will gender equality in itself bring an end to below replacement fertility?

While many governments, intergovernmental organizations, non-governmental organizations and individuals may strongly support gender equality at work and in the home as a fundamental principle and desirable goal, it is not at all evident how having men and women participate equally in employment, parenting and household responsibilities will raise low levels of fertility. On the contrary, the equal participation of men and women in the labor force, child rearing and housework points precisely in the opposite direction, i.e., below replacement fertility. And this is in fact precisely what is being observed today in an increasing number of countries.

In many of these low fertility countries, working couples find insufficient support from the state for childbearing and rearing more than one child without a great deal of stress. While men may wish to have more time parenting, most are unlikely to let increased household tasks and parenting interfere with their employment and career prospects. Also, there is the question of why would men voluntarily choose to add household chores, such as washing, dusting, cleaning, polishing, etc., on top of their existing work schedules. If they could, would it not make more sense for men to purchase services to do this work? Similarly, working mothers may genuinely wish to have more time parenting; but again, this may interfere or interrupt their

employment and careers. And as men, women who work are likely to prefer to have others do household chores, if they can afford it.

The trends in below replacement fertility are also worthy of investigation because they offer a preview of the possible path that the world may follow in the 21<sup>st</sup> century. For example, will the large developing countries of today, such as Bangladesh, Brazil, Egypt, India, Indonesia, Nigeria, Pakistan, Philippines and Viet Nam, proceed along the path of below replacement fertility in the coming decades? Given the many forces pushing fertility down, e.g., declining infant and child mortality, urbanization, family planning programs, increasing education and employment opportunities for women, increased costs of raising children, and of course life style change, below replacement fertility seems likely to spread to most parts of the world. This is, in fact, precisely what demographers at the United Nations - and elsewhere - are assuming in their projections for the future (United Nations 2003). In other words, in the coming decades increasing numbers of developing countries will be falling below the fertility floor of 2.1 children per woman.

The experiences of the countries with below replacement fertility, as well the possible future path of below replacement fertility for other nations, have not missed the attention of developing countries with relatively high fertility. Some of these governments have expressed a desire to avoid this path. For example, Philippines President Gloria Arroyo disputes the “popular perception that the country has a population problem”. Her nation, with an estimated population of 82 million, has a total fertility rate of about 3.2 children per woman. In October of last year, President Arroyo told journalists that countries that took population control measures seriously in the 1970s were now suffering from low birth rates and greying populations. She went on to say “And who are taking care of these people? Filipinos!” referring to some seven million Filipinos who work abroad, many of them as nurses and maids watching after the elderly in more affluent Asian countries. (*Agence France-Press* 1 February 2004).

In closing, further insight into the effectiveness of government efforts to raise fertility in the future may be gained by considering briefly the conclusions of selected, relevant previous studies.

“...to explore key determinants of fertility tempo and quantum in the European Union: female education, female labor force participation, ideational changes, and patterns of union formation and especially union instability. The outcome for the European Union is that, in contrast to the United States, period total fertility rates are highly likely to remain below the replacement level even if the trend toward childbearing delays stops.” (Lesthaege and Willens 1999)

“By all evidence, it offers thin hope for a reversal of the demographic fortunes of below-replacement fertility populations. Once this realization sinks in, perhaps societies facing depopulation will find the time ripe for moving from the domain of ordinary economic calculus to the domain of political economy: from redistributive jockeying to fundamental changes in the constitutional contract setting the rules of societal interaction. Demographic regeneration may then be within reach.” (Demeny 1999)

“Very low fertility is not an inevitable consequence of economic development. Economic development and concomitant change have eroded rationales for large families. Our review suggests that biological predispositions supported by a pronatalist context could result in a set of rational decisions that produces moderate levels of fertility (i.e., replacement level fertility). However, long term pronatalist policy is difficult to justify given the interwoven nature of the causes of contemporary low fertility and uncertainty about the context within which future decisions will be made.” (Morgan and King 2001)

“In Russia, like in most industrialized countries, the balance of births and deaths will most likely be such in the first half of the 21<sup>st</sup> century that the natural population increased will be negative. If the country’s population will continue to depend largely on the natural reproduction, it will unavoidably decrease in size and will age rapidly. These two trends might be counteracted only by an inflow of immigrants, to a larger or smaller extent, depending on the volume and composition of the immigration flows.” (Vishnevsky 2001)

“The analysis of recent developments in cohort fertility profiles indicates that a return of European fertility levels to, or close to, replacement level is not in the making. Even if the pace of postponement in western countries slows down or stops altogether, only a modest rise in TFRs is envisaged. ... Finally, policy measures directly aimed at influencing fertility have had clear, but only temporary effects, and also sustained policies producing sometimes large income transfers in favour of families with children have not had any substantial effects either.” (Lesthaeghe 2001)

“Given the socio-economic and institutional conditions that favor generally low fertility, it is difficult to foresee any widespread tendency for fertility levels in Europe or other developed countries to return to levels persistently above a TFR of 2.1. Many additional countries are likely to experience below-replacement fertility in the near future, and a TFR of 2.1 does not constitute a natural endpoint to fertility decline.” (Kohler and Ortega 2003)

The overall conclusion of this paper, which appears to be by and large consistent with the above mentioned findings, may be summed up in three points.

- First, it seems likely that fertility will increase somewhat above the very low rates of today as the depressing effect of postponing childbearing runs its course.
- Second, taking into account the considerable social, economic and political constraints facing governments in this realm, the pronatalist policies and measures that most governments will be able to realistically offer to couples in the coming years may have a temporary and modest effect on raising fertility.
- Third, and finally, the current and foreseeable efforts of most government to raise their current low fertility rates to replacement levels seem highly unlikely at least for the near term.

## References

- Agence France-Presse (2004). *Population Growth Still a Problem in Other Asian Countries*. Singapore, 1 February.
- Atoh, Makoto (2001). “The Coming of a Hyper-Aged and Depopulating Society and Population Policies – The Case of Japan” in *United Nations Expert Group Meeting on Policy Responses to Population Ageing and Population Decline, 16-18 October 2000*. (United Nations publication, ESA/WP.168).
- Becker, Gary (1981). *A Treatise on the Family*. Cambridge, England: Cambridge University Press.
- Billari, Francesco C. (2004). *Choices, opportunities and constraints of partnership, childbearing and parenting: the patterns in the 1990s*. Background paper presented to the European Population Forum 2004, Geneva.
- Brewster, Karin L., and Ronald R. Rindfuss (2000). “Fertility and Women’s Employment in Industrialized Nations.” *Annual Review of Sociology*, 26: 271-296.
- Caldwell, John C. (1982). *Theory of Fertility Decline*. New York: Academic Press.
- Demeny, Paul (1999). “Policy Interventions in Response to Below-Replacement Fertility”. *Population Bulletin of the United Nations* 40/41: 183-211.
- Cleland, John and Chris Wilson (1987). “Demand Theories of the Fertility Transition: An Iconoclastic View.” *Population Studies* 41: 5-30.
- Coale, Ansley (1974). “The History of the Human Population.” In *The Human Population: A Scientific American Book*. San Francisco: Freeman
- Daily Express News* (2004). “Asian Economies Desperate for Babies”. Malaysia, 2 February.
- Davis, Kingsley (1963). “The Theory of Change and Response in Modern Demographic History.” *Population Index* 29: 345-366.
- Doroozynski, Alexander (2003). “France Offers E800 Reward for Each New Baby”. *British Medical Journal*, 326(7397), May 10.
- Dunnell, Karen (2001). “Policy Responses to Population Ageing and Population Decline – United Kingdom” in *United Nations Expert Group Meeting on Policy Responses to Population Ageing and Population Decline, 16-18 October 2000*. (United Nations publication, ESA/WP.168).

- Easterlin, Richard A. (1978). "The Economics and Sociology of Fertility: A Synthesis." In *Historical Studies of Changing Fertility*. Edited by Charles Tilly, Princeton, NJ: Princeton University Press.
- De Groot, Gerard (2004). "Child-Friendly Policies Can't Defuse a Population Timebomb". *Scotland on Sunday*, 15 February 2004.
- Freedman, Ronald (1979). "Theories of Fertility Decline: A Reappraisal". *Social Forces* 58: 1-17.
- Frejka Tomas and Jean-Pierre Sardon (2003). *Childbearing Prospects in Low-Fertility Countries: A Cohort Analysis*. Dordrecht: Kluwer Academic Publishers.
- Hirschman, Charles (1994). "Why Fertility Changes". *Annual Review of Sociology* 20: 203-233.
- Hoehn, Charlotte (2001). "Policy Responses to Population Ageing and Population Decline in Germany" in *United Nations Expert Group Meeting on Policy Responses to Population Ageing and Population Decline, 16-18 October 2000*. (United Nations, ESA/WP.168).
- Hughes, David (2003). "Have More Babies, Say the Tories". *Daily Mail* (London), 22 September.
- Hyun-chu, Kim (2003). "Seoul to Use Tax Breaks to Increase Birth Rate". *Korea Herald*, 26 August.
- Kohler, Hans-Peter and Jose Antonio Ortega (2003). "Fertility, Below Replacement". *Encyclopedia of Population*, edited by Paul Demeny and Geoffrey McNicoll, Macmillan Reference USA: New York, vol. 1: 405-409.
- Kohler, Hans-Peter, Francesco C. Billari and Jose Antonio Ortega (2002). "The Emergence of Lowest-low Fertility in Europe during the 1990s". *Population and Development Review*, 28(4): 641-680.
- Lesthaeghe, Ron (2001). "Europe's Demographic Issues: Fertility, Household Formation and Replacement Migration" in *United Nations Expert Group Meeting on Policy Responses to Population Ageing and Population Decline, 16-18 October 2000*. (United Nations publication, ESA/WP.168).
- Lesthaeghe, Ron and Paul Willems (1999). "Is Low Fertility a Temporary Phenomenon in the European Union". *Population and Development Review*. 25(2): 211-228.
- McDonald, Peter (2001a). "Low fertility not politically sustainable". *Population Today* 29(6) 3-8.
- McDonald, Peter (2001b). "Work-family policies are the right approach to the prevention of low fertility". *People and Place* 9(3) 17-27.

- McDonald, Peter (2003). "Family Policy". *Encyclopedia of Population*, edited by Paul Demeny and Geoffrey McNicoll, Macmillan Reference USA: New York, vol. 1: 371-374.
- McIntosh, Alison (1983). *Population Policy in Western Europe*. New York: M.E. Sharpe.
- Milligan, Kevin (2002). *Subsidizing the Stork: New Evidence on Tax Incentives and Fertility*. National Bureau of Economic Research, Cambridge, MA, Working Paper 8845, March.
- Morgan, Philip S. (2003). "Is Low Fertility a Twenty-First-Century Demographic Crisis?". *Demography*, 40 (4): 589-603.
- Morgan, Philip S. and Rosalind B. King (2001). "Why Have Children in the 21<sup>st</sup> Century? Biological Predispositions, Social Coercion, Rational Choice". *European Journal of Population*, 17 (1): 3-20.
- New York Times* (2003). "In Address to Estonians, President Calls on Citizens to Make More Babies". New York, 2 January.
- Reuters (2003). "Italy Offers Cash to Boost Its Birth Rate". 7 December.
- Rowland D.T. (1998). *Cross-National Trends in Childlessness*. Working Papers in Demography, 73, Australian National University.
- Teitelbaum, Michael S. and Jay M. Winter (1985). *The Fear of Population Decline*. London: Academic Press.
- Turner, David. (2003). "Countries Play the Dating Game to Halt the Baby Blues". *Financial Times*, 10 December.
- Straits Times* (2003). "Why Have Cupid and the Stork Failed". Singapore, 22 March.
- United Nations (1992). General Assembly Resolution 47/237. (New York, United Nations).
- United Nations (1995). *Platform of Action Adopted at the Fourth World Conference on Women, Conference, Beijing, 1995*. (United Nations publication, ST/ESA/SER.A/168, New York).
- United Nations (1995). *Programme of Action Adopted at the International Conference on Population and Development, Cairo, 5-13 September 1994*. (United Nations publication, ST/ESA/SER.A/149, New York).
- United Nations (2001). *Replacement Migration: Is it a Solution to Declining and Ageing Populations?* (United Nations publication, Sales No. E.01.XIII.19, New York).
- United Nations (2002). *National Population Policies 2001*. (United Nations publication, ST/ESA/SER.A/211, New York).



- United Nations (2003). *World Population Prospects, the 2002 Revision*. United Nations publication, ST/ESA/SER.A/1xx).
- United Nations (2004). *World Fertility Report 2003*. (United Nations publication, forthcoming).
- United Nations (2004). *World Population Policies 2003*. (United Nations publication, forthcoming).
- Van de Kaa, Dirk J. (1987). "Europe's Second Demographic Transition". *Population Bulletin* 42(1): 1-59.
- Vishnevsky, Anatoly (2001). "Replacement Migration: Is It a Solution for Russia?" in *United Nations Expert Group Meeting on Policy Responses to Population Ageing and Population Decline, 16-18 October 2000*. (United Nations publication, ESA/WP.168).
- Womack, Sarah. (2003). "'Have Three Babies' to Sustain the Population". *Daily Telegraph* (London), 12 December.

Table 1. Countries or Areas with Total Fertility Rate below 2.1 for Most Recent Year.

Rank	Country Name	Year	TFR
1	China: Macao SAR	2000	0.91
2	China: Hong Kong SAR	2001	0.93
3	Czech Republic	2002	1.17
4	Republic of Korea	2002	1.17
5	Ukraine	1998	1.19
6	Slovakia	2001	1.20
7	Slovenia	2001	1.21
8	Latvia	2001	1.21
9	Spain	2000	1.24
10	Bulgaria	2001	1.24
11	Russian Federation	2001	1.25
12	Republic of Moldova	2001	1.25
13	Italy	2002	1.26
14	Belarus	2001	1.28
15	Greece	1999	1.28
16	Poland	2001	1.29
17	Lithuania	2001	1.30
18	Romania	2000	1.31
19	Austria	2001	1.31
20	Hungary	2001	1.31
21	Estonia	2001	1.34
22	Japan	2002	1.37
23	Croatia	2001	1.37
24	China	2001	1.39
25	Germany	2002	1.40
26	Switzerland	2001	1.41
27	Malta	2001	1.45
28	Portugal	2001	1.46
29	Belgium	1995	1.55
30	Canada	1997	1.55
31	Bosnia and Herzegovina	1998	1.56
32	Cyprus	2001	1.57
33	Barbados	1988	1.58
34	Cuba	2000	1.59
35	United Kingdom	2000	1.65
36	Sweden	2002	1.65
37	Serbia and Montenegro	2000	1.66
38	Luxembourg	2001	1.66
39	Singapore	2000	1.66
40	Netherlands	2001	1.71
41	Georgia	1998	1.72
42	Trinidad and Tobago	1997	1.72
43	Finland	2001	1.73
44	Denmark	2001	1.74
45	Australia	2000	1.75
46	Norway	2001	1.78

47	France	1999	1.79
48	The Former Yugoslav Republic of Macedonia	2000	1.89
49	Armenia	1998	1.90
50	Martinique	1992	1.94
51	Thailand	1995	1.98
52	Ireland	2001	1.98
53	New Zealand	2000	2.01
54	Mauritius	2000	2.02
55	Saint Lucia	2000	2.03
56	Puerto Rico	2000	2.05
57	United States of America	2002	2.06
58	Azerbaijan	2000	2.07
59	Iceland	2000	2.08
60	Tunisia	1999	2.09
61	Chile	1999	2.09

---

Source: United Nations (2004).

Table 2. Total Cohort Fertility Rates: 1940, 1950, 1960 and 1965.

Country	Cohort 1940	Cohort 1950	Cohort 1960	Cohort 1965
Austria	2.13	1.87	1.69	1.61
Belgium	2.16	1.83	1.83	...
Bosnia and Herzegovina	2.75	2.17	...	...
Bulgaria	2.08	2.07	1.95	1.83
Canada	2.67	1.93	1.82	1.72
Croatia	1.96	1.86	1.97	1.86
Czech Republic	2.07	2.10	2.03	1.91
Denmark	2.24	1.91	1.90	1.91
England & Wales	2.35	2.06	1.96	1.86
Estonia	...	1.97	2.03	1.83
Finland	2.04	1.86	1.95	1.90
France	2.41	2.11	2.10	1.98
Germany (Former FRG)	1.97	1.69	1.59	1.48
Germany (Former GDR)	1.98	1.79	1.80	1.56
Greece	2.10	2.02	1.92	1.72
Hungary	1.92	1.95	2.02	1.96
Italy	2.12	1.86	1.68	...
Latvia	...	1.87	1.94	1.76
Lithuania	1.99	2.01	1.88	1.70
Macedonia	3.06	2.35	2.29	2.20
Netherlands	2.22	1.89	1.85	1.76
Norway	2.45	2.10	2.09	2.06
Portugal	2.67	2.08	1.90	1.83
Romania	2.39	2.43	2.16	1.91
Russia	1.95	1.88	1.83	1.66
Serbia and Montenegro	2.38	2.28	2.28	2.13
Slovak Republic	2.55	2.31	2.18	2.04
Slovenia	2.01	1.90	1.87	1.76
Spain	...	2.16	1.75	1.57
Sweden	2.05	2.00	2.04	1.95
Switzerland	2.08	1.79	1.77	1.64
United States	2.73	2.03	2.01	2.04

Source: Frejka and Sardon (2003).

Table 3. Percentage Childless by Birth Cohorts: 1940, 1950 and 1960.

Country	Cohort 1940	Cohort 1950	Cohort 1960
Austria	15.0	17.0	...
Belgium	13.0	14.0	...
Bosnia and Herzegovina	11.6	10.4	16.1
Croatia	8.6	6.1	4.9
Czech Republic	7.6	6.7	6.5
Denmark	...	10.9	10.0
England and Wales	10.6	14.5	20.5
Germany (Former FRG)	12.0	17.0	...
Germany (Former GDR)	11.0	7.3	7.8
Greece	11.4	9.7	10.7
Hungary	9.1	9.1	7.6
Italy	14.6	12.7	14.8
Macedonia	4.0	5.7	5.7
Netherlands	11.2	14.6	17.7
Norway	9.5	9.4	...
Romania	...	6.3	8.1
Russia	...	...	5.8
Slovenia	8.3	4.4	4.7
Spain	...	...	10.5
Sweden	...	...	13.3
United States	9.9	15.6	15.4

Source: Billari (2004), based on Frejka and Sardon (2003) and Rowland (1998).

Table 4. Proportions of Governments Viewing Fertility Level Too Low and Having Policy to Raise Fertility for World, More Developed and Less Developed Regions: 1976-2003.

	World			More developed regions			Less developed regions		
	View	Policy	N	View	Policy	N	View	Policy	N
1976	11	9	150	21	21	34	8	5	116
1986	13	12	164	26	24	34	10	8	130
1996	15	14	193	40	33	48	6	8	145
2003	20	16	194	58	42	48	8	8	146

Source: United Nations (2004)

Table 5. Countries Viewing Their Fertility as Too Low and Their Policy to Influence Fertility by Total Fertility Rate and Year.

	Country	Policy	TFR	Year
1	Armenia	Raise	1.90	1998
2	Austria	Raise	1.31	2001
3	Belarus	Raise	1.28	2001
4	Bosnia and Herzegovina	no intervention	1.56	1998
5	Bulgaria	Raise	1.24	2001
6	Croatia	Raise	1.37	2001
7	Cyprus	Raise	1.57	2001
8	Czech Republic	Raise	1.17	2002
9	Estonia	Raise	1.34	2001
10	France	Raise	1.79	1999
11	Gabon	Raise	4.26	1998
12	Georgia	Raise	1.72	1998
13	Germany	no intervention	1.40	2002
14	Greece	Raise	1.28	1999
15	Hungary	Raise	1.31	2001
16	Israel	Raise	2.95	2000
17	Italy	no intervention	1.26	2002
18	Japan	Raise	1.37	2002
19	Kazakhstan	Raise	2.12	1997
20	Latvia	Raise	1.21	2001
21	Lithuania	Raise	1.30	2001
22	Luxembourg	Raise	1.66	2001
23	Niue	Raise	...	...
24	Norway	no intervention	1.78	2001
25	Poland	Raise	1.46	2001
26	Portugal	no intervention	1.46	2001
27	Republic of Korea	Raise	1.17	2003
28	Republic of Moldova	Raise	1.25	2001
29	Romania	Raise	1.31	2000
30	Russian Federation	Raise	1.25	2001
31	Serbia and Montenegro	Raise	1.66	2000
32	Singapore	Raise	1.66	2000
33	Slovakia	Raise	1.20	2001
34	Slovenia	Raise	1.21	2001
35	Spain	no intervention	1.24	2000
36	Switzerland	no intervention	1.41	2001
37	Ukraine	Raise	1.19	1998
38	United Arab Emirates	Raise	5.04	1993
39	Uruguay	Raise	2.20	2000

Source: Based primarily on United Nations (2004).