

The Family in America

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Missing Children: How Falling Birthrates Turn Everything Upside Down

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SOMETIME AROUND 1969—no one is sure of the exact date—a turning point occurred in the history of the human race. Then and still today, most people had no idea that it had occurred, much less grasped its consequences for the twenty-first century. Even among the very few professional demographers who noticed the first data point, most regarded it as a mere measurement error.

As with many contagious phenomena, however, it is possible to reconstruct roughly where this one began and to map its eventual spread across the globe. Though there had been hints of it before in different populations, its first major breakout was officially recorded in Scandinavia. In 1970, when Sweden, Finland, and Denmark conducted their annual tallies of births and deaths for the previous year, the numbers suggested that young adults were having so few children that they might not succeed in replacing their generation.

Not for many years could this be shown definitively; most demographers at the time were strongly inclined to believe that it would never prove true. The explanation for the dwindling number of annual births in these countries, many believed, was simply that members of the rising generation were typically delaying getting married and having their first child. This trend, which was obvious to anyone familiar with the

changing lifestyle of Scandinavia's young adults in the late 1960s, would logically enough drive down the annual birthrate in the short term. But it left open the possibility that young Scandinavians would later get around to producing enough children to avoid population decline.

The reigning theory of population at the time also pushed most demographers to this conclusion. It held that as death rates and particularly rates of infant and child mortality declined in a developing nation, so too, with a lag, would birthrates. The lag would cause a temporary explosion in population, as had occurred in Europe in the late-eighteenth and throughout the nineteenth centuries. But eventually, as parents realized that they no longer needed to have four or five children just to be sure that two survived, birthrates and death rates would balance.

So it was to be expected that birthrates in advanced countries like Sweden, Finland, and Denmark would decline, but only to the point that they matched death rates. At that point, theory predicted, birthrates would stabilize around 2.1 children over the lifetime of the average woman. This was the average number needed, given current rates of mortality, to sustain population over time. Crudely put, the supposition was that the typical woman over her lifetime would wind up having one child to replace herself, and another to replace her husband, plus about one-tenth of a child on average to replace those children who did not survive long enough to have children of their own.

This expectation was particularly high among demographers because the unprecedented affluence of Scandinavia and the rest of the Western world at the time. To be sure, there had been periods during the 1930s when birthrates had briefly dropped below replacement levels in major Western countries.¹ This was explained away, however, especially after the fact, as a temporary effect of the Great Depression and the trauma and insecurity leading up to World War Two. Theory, as well as common sense, dictated that in a prosperous, peaceful nation encompassing a substantial population, birthrates would go no lower than replacement levels. To believe otherwise would be to believe that humans had somehow become maladapted to their environment and on the road to extinction,

1. Jan Van Bavel, "Subreplacement Fertility in the West before the Baby Boom (1900–1940): Current and Contemporary Perspectives," *Interface Demography*, September 1, 2008.

which was quite literally, unthinkable.

There were also more subjective reasons why demographers and other observers were inclined to dismiss the birth data coming out of Scandinavia as indicating anything more than a short-term, local aberration. It is hard to exaggerate how much of the zeitgeist of the late 1960s was informed by fears of overpopulation. Youth bulges then convulsed the United States and other Western countries, as huge numbers of Baby Boomers, born during the late 1940s and 50s, came rebelliously of age. In India and many other developing nations, where the average woman still had five or six children over her lifetime, population was also exploding. At exactly the moment when Scandinavia was showing the first statistical signs of subreplacement fertility, its own population was still growing robustly while the world as a whole was reaching the fastest rate of population growth ever recorded.

Just as it is very difficult at the very top of a long market rally to persuade anyone that the bubble is about to burst, so was it nearly impossible even to contemplate in this era that the growth rate of human population would soon decline, much less go negative. As the rate of world population growth reached what we know to have been its peak in the late 1960s, biologist Paul Erlich was writing his worldwide bestseller, *The Population Bomb*, which predicted that the 1970s would be an apocalypse of Malthusian famine and plague.²

Meanwhile, many powerful cultural and political agendas, most notably feminism, had become attached to the conviction that overpopulation was a dire threat to humanity. In the first chapter of *The Feminine Mystique*, Betty Friedan had tellingly fretted about the ongoing “population explosion” before comparing the typical, highly fertile American family of the 1950s to a “comfortable concentration camp.” The link between feminism and population control had become explicit and mainstream by 1972 when President Nixon’s Commission on Population Growth and the American Future, headed by Nelson Rockefeller, recommended not only government-funded abortions, but passage of an Equal Rights Amendment to the Constitution as a means of discouraging the fertility

2. Paul R. Erlich, *The Population Bomb* (New York: Ballantine Books, 1968).

of American women.³ Fear of over-population helped to foster a climate of opinion in which the decoupling of sex from reproduction seemed not only personally desirable, but also socially useful, thereby legitimizing a revolt against the pro-natal norms of “patriarchy.”

The emerging environmental movement also drew great strength from projections, such as those produced by the Club of Rome, showing human population exceeding the earth’s carrying capacity in short order.⁴ So, too, did liberal calls to increase Social Security benefits, enact Medicare, and otherwise expand benefits for the elderly. If each new generation was going to be much larger than the last, then every generation could win under a system in which the evermore numerous young supported the old through mandatory transfers of income. As the Nobel laureate economist Paul A. Samuelson explained in 1967, in defense of the American Social Security system, “A growing nation is the greatest Ponzi scheme ever devised. And that is a fact, not a paradox.”⁵ So long as the Baby Boom would go on forever, as it then seemed to Samuelson and many others it would, Social Security could easily afford to make benefits to the elderly far more generous.

All these belief structures had emerged powerfully by the early 1970s, and many had become institutionalized. A young person entering the field of demography in that era could find government or foundation funding for studies of the “unmet demand for contraception,” or other topics related to population control. Yet such a scholar would have been considered a crackpot for even raising the prospect that the human race might casually decide not to reproduce itself. Thus, by self-selection, the field of demography came to be dominated by people who were making it their life work to figure out how to decrease birthrates, especially in the “teeming” Third World. And as expected, they were just about the last people in the world to notice that their paradigm was about to shatter.

3. *Commission of Population Growth and the American Future* (Washington: U.S. Government Printing Office, 1972).

4. Donella H. Meadows, *The Limits to Growth: A Report for the Club of Rome’s Project on the Predicament of Mankind* (Universe Books: 1974).

5. *Newsweek*, February 13, 1967.

The Bubble Pops

By the mid-1970s, Scandinavian birthrates were continuing to sag to well below replacement levels. Moreover, the phenomenon began to spread south. It was sweeping across the German-speaking world by 1972 and enveloped the Netherlands, Belgium, the United Kingdom, and France by 1975. For a while, this southward march paused, as if checked by the Alps and the Pyrenees, but by 1977 it had spread into Italy and by 1982 had diffused throughout the Iberian Peninsula.⁶

Few people of any stature realized what was going on at the time. One exception was former French Prime Minister Michel Debré, who began speaking out about what he called the “peril of the declining birthrate.” Debré attributed the phenomenon to the “whole cultural, political and social climate” of the times, including television shows that portrayed the happy family as a couple with at most one or two children. As an encouragement to larger families, he not only advocated paid maternity leave and other pro-natal measures adopted much later by France, he also floated a proposal that was not enacted. Realizing that the decline in birthrates would lead to a rapid aging of the population, which would in turn give pensioners an ever stronger share of the electorate, he introduced a bill that would give fathers one additional vote for each son, and mothers one additional vote for each daughter, in national elections.⁷

At the time, Debré was widely regarded as a once serious man who had somehow aged into an eccentric *pater familias* obsessed with baby making. As he sounded his warnings, young French women were demonstrating in the streets of Paris for the right to receive free abortions and contraceptives. Nor were many population “experts” inclined to back him up. Through the 1970s and even into the 1990s, many demographers refused to believe that the spread of subreplacement fertility throughout Europe was an enduring, or even a real phenomenon. They continued to

6. European Commission, Eurostat NewCronos database, Theme 3: Population and Social Conditions (Brussels: Eurostat, 2002); and Council of Europe, “Recent Demographic Developments in Europe,” Demographic Yearbook, 2003, <http://www.coe.int/t/e/social_cohesion/population/DTAB3.xls>.

7. Jonathan Kandell, “French Ex-Premier Seeking to Foster Population Growth,” *The New York Times*, June 6, 1978, p. A2, <<http://select.nytimes.com/gst/abstract.html?res=F5061FF9385513728DDDAF0894DE405B888BF1D3>>.

argue that the plunge in birthrates was mostly just a statistical fluke or “tempo effect,” resulting from the rising average age of first childbirth. To be sure, they acknowledged, there were obvious biological limits to how long childbearing could be postponed, especially if families were to have more than just one or two children. Yet these demographers nonetheless argued that women of the then-younger generation would get around to having at least enough children to replace themselves and their male counterparts, and no one could say for sure at the time that they were wrong. As an example of this consensus, the United Nations Population Division, when making its long-term projections for world population, assumed that fertility rates in all but a very few developed nations would soon rebound to at least replacement levels. Not until 1998 did the division assume that subreplacement fertility was an enduring phenomenon. Even today, its median variant projection assumes that birthrates will rise in developed countries over the next forty years.⁸

We now know, however, how wrong the experts were. Fertility rates among older women did eventually increase, which had the effect of increasing annual births, but not by enough to bring the lifetime number of children born to the average woman up to replacement levels. Today, one no longer has to guess about this because European women of the postwar generation have by now aged beyond the biological limits of reproduction. When the counting up of babies is done, the phenomenon of healthy, wealthy, peaceful populations failing to reproduce themselves is indeed real. Italian women born in 1965, for example, reached age 45 having produced only 1.5 children on average, which is 29 percent below the level to sustain population over time. The numbers are similar for such major countries as Germany, Spain and Greece.⁹

Among the generation now passing beyond reproductive age in France and the Nordic countries, completed family size is somewhat higher. There, many women, taking advantage of paid maternity leave,

8. “Completing the Fertility Transition,” *Population Bulletin of the United Nations*, Special Issue Nos. 48/49 (2002), p. 56.

9. National Statistical Offices, 2010, and Eurostat Demographic Statistics, 2010, reprinted in Completed fertility rates cohorts of women born in 1950 and 1965, OECD Family Database, Chart SF2.1.B, <www.oecd.org/els/social/family/database>.

subsidized daycare and other pro-natal state benefits, did eventually come to have at least two children before reaching menopause. Yet an unprecedented share—up to one fifth—also remained childless, so that the overall birthrate still remained too low to replace their generation.

Moreover, though there have been slight upticks in annual births in Sweden and some other European countries since the 1980s, these are largely the effect of massive immigration. In France, for example, more than a third of the officially estimated increase in the fertility rate between 1997 and 2004 came from women of foreign nationality.¹⁰ By 2008, nearly a fifth of all children born in France had at least one parent who was a foreign citizen. Yet even with this boost in fecundity from mostly Algerian and Moroccan parents, French birthrates remained below replacement levels and the population was rapidly aging.¹¹

As the evidence became unambiguous that subreplacement fertility was a real and enduring phenomenon in Europe, many observers naturally supposed that there was something unique to the European experience at work. Among the most fascinating theories to emerge was one pioneered by Ron Lesthaeghe and Johan Surkyn, which they labeled the Second Demographic Transition Model.¹² The two Belgian demographers gathered extensive data on the values revolution among the young that swept through Europe starting in the 1960s. They looked at indicators such as changing attitudes toward divorce, contraception, extra-marital sex, single-parenthood, and organized religion and noticed a clear geographical pattern. Attitudes once termed “counter-cultural,” and today associated with mainstream secular liberalism in Europe, first gained prominence in Scandinavia in the late 1960s. They then spread south, eventually diffusing through Spain after the death of Franco in 1975 and then on to Portugal, Italy and Greece by the later part of the

10. France Prioux, “Recent Demographic Developments in France: Fertility at a More Than 30-Year High,” *Demographic Trends*, 2007, Institut national d'étude démographiques, <http://www.ined.fr/en/publications/demographic_trends/bdd/publication/1345/>.

11. Bilan démographique 2009, Institut national d'étude démographiques, <http://www.insee.fr/fr/themes/detail.asp?reg_id=0&ref_id=bilan-demo&page=donnees-detaillees/bilan-demo/pop_age3c.htm - naiss-nat-parents-fm>.

12. Ron Lesthaeghe and D. J. van de Kaa, “Twee Demografische Transitie?” in R. Lesthaeghe and D. J. van de Kaa, eds., *Bevolking: Groei en Krimp, Mens en Maatschappij* book supplement (Deventer: Van Loghum-Slaterus, 1986), pp. 9–24.

1970s and through the 1980s. As these attitudes spread, birthrates fell almost in lockstep.

Further research showed powerful correlations in Europe between an individual's believing in "politically correct" values and a low proclivity to marry or raise families. So, for example, surveys showed that Europeans who said they found nothing wrong with abortion, euthanasia, or homosexuality turned out to be far less likely to wed and bear children than those who answered oppositely to such questions.

To those of a certain political persuasion, such findings could be easily summed up: European decadence, particularly among "the generation of 68," explained European sterility. But then, a new bizarre twist emerged. The phenomenon of subreplacement fertility began spreading beyond Europe, beyond even developed countries to places that were hardly rich and in many instances, deeply traditional to all appearances.

The Epidemic Spreads

By the early 1990s, the phenomenon of subreplacement fertility had already swept east across all the former Warsaw Pact countries and the Russian core of the former Soviet Union, which began to shrink in absolute size by 600,000 people a year. At the time, many observers dismissed this particular breakout as a temporary consequence of the severe social and economic dislocations caused by the failures of communism and the difficult transition to capitalism. A similar collapse in birthrates in Japan was widely attributed to the bursting of its real estate bubble in 1989. China's plunge into subreplacement fertility was explained away by its infamous one family/one child policy. Yet the phenomenon kept spreading, encompassing countries rich and poor, under all forms of government, even including an Islamic republic.

In 2002, when the Islamic Republic of Iran concluded a survey of households, it emerged that members of the current generation of young Iranian women were on course to bear only about 1.87 children over their lifetimes, compared to an average of more than six children born to their mothers. Around the same time, Lebanon joined the list of subreplacement-fertility nations, followed soon by Tunisia, while collapsing birthrates in other Middle Eastern countries such as Turkey and Morocco

left them just on the cusp.¹³

Moreover, the decline in fertility among more and more developing countries was occurring much more quickly than had ever been recorded in any Western country. During the last decade, the projected number of lifetime births per woman, known to demographers as the Total Fertility Rate (TFR), shrank in a single generation from six or more to less than two in places ranging from Chile, Cuba, Trinidad, and El Salvador to Thailand, Taiwan, South Korea, and even to the little-known South Pacific islands of Wallis and Futuna.

As a consequence, these and many other developing countries are also on course to see their respective populations age much more quickly than had occurred in the West. In France, the percentage of the population 60 or older increased gradually from 16.9 percent in 1960 to 23.2 percent in 2000. By contrast, the sharp decline in birthrates in Mexico, combined with some modest improvement in life expectancy at older ages, will cause the share of Mexicans age 60 and over to jump from 9.4 percent in 2010 to over 28 percent in 2050, according to United Nations projections.¹⁴ France, at least, had a chance to grow rich before it grew old. Mexico, along with most other developing nations, may well not.

Even stranger has been the lack of correlation between falling birthrates and government measures to control population. India, which embraced population control, even to the point of forced sterilization programs during the 1970s, saw dramatic reduction in birthrates. But not all regions of the country experienced the same decline. Birthrates fell to below replacement levels in its southern, mostly Hindu states, but remained higher in the mostly Muslim north, yielding a national fertility rate estimated by the Indian government to be 2.3 children per woman in 2011.¹⁵

13. United Nations, Department of Economic and Social Affairs, Population Division, World Fertility Data 2008 (2009), "Period Fertility Indicators," <<http://www.un.org/esa/population/publications/WFD2008/Main.html>>.

14. United Nations, Department of Economic and Social Affairs, Population Division, "World Population Prospects: The 2008 Revision Population Database," <<http://esa.un.org/unpp>>.

15. Ministry of Health and Family Welfare, Government of India, Family Welfare Statistics in India, 2009, Table A.25; Fertility Indicators for Major States, 2004 to 2008, Table A.6; Projected Population Characteristics as of March 1, 2001–2026, India, <<http://mohfw.nic.in/CompleteBOOK/CompleteBOOK.pdf>>.

In Brazil, the government never promoted family planning and yet its birthrate went down even more than in India. Brazil had slipped into subreplacement fertility by 2005 and the most recent estimate puts the TFR at 1.71 in 2011.¹⁶ Curiously, birthrates declined in one province after another, coincidental with the introduction of television, exposure to which demographers believe is a major, if imperfectly understood force in driving down family formation in the developing world.¹⁷ Once stereotyped as a nation of youthful exuberance, Brazil has seen its population of children drop by more than 2 million in the last ten years without any government coercion whatsoever, though the effects of soap operas are deeply implicated.¹⁸

The power of population control to push down birthrates might seem obviously on display in China, whose one-family/one-child policy has involved egregious abuses of human rights. Yet we can see with the benefit of hindsight that the policy probably did not lower birthrates much beneath where they otherwise would have sunk. To be sure, the fall-off in birthrates is so extreme that its working-age population is already starting to decline, and the number of Chinese children age 0–4 has dropped by nearly a third since 1970. Yet the most dramatic decrease in the birthrate occurred before the policy was imposed. Moreover, other nearby countries, such as Singapore, South Korea, Taiwan, and Japan have seen their birthrates decline still lower, even as their governments have been encouraging more childbearing through public-service announcements, baby bonuses, and officially sanctioned “speed dating.”¹⁹

16. Instituto Brasileiro de Geografia e Estatística, “Projeção da População do Brasil por Sexo e Idade, 1980–2050,” Revisão 2008 (2008), Tabela 13, <http://www.ibge.gov.br/home/estatistica/populacao/projecao_da_populacao/2008/projecao.pdf>.

17. Eliana La Ferrara et al., “Soap Operas and Fertility: Evidence from Brazil,” Bread Working Paper 172, Bureau for Research and Economic Analysis of Development, March 2008, <<http://ipl.econ.duke.edu/bread/papers/working/172.pdf>>.

18. Instituto Brasileiro de Geografia e Estatística, “Projeção da População do Brasil por Sexo e Idade, 1980–2050.”

19. United Nations, Department of Economic and Social Affairs, Population Division, “World Population Prospects: The 2008 Revision Population Database,” <<http://esa.un.org/unpp>>; Therese Hesketh, Li Lu, and Zhu Wei Xing, *New England Journal of Medicine* 353 (September 15, 2005): 1171–76, <<http://www.nejm.org/doi/full/10.1056/NEJMhpr051833>>.

Hidden Dynamics of Fertility Decline

So there is no longer any question that subreplacement fertility is a global megatrend, even if few people anywhere can see it unfolding in their experience of day-to-day life. One reason the trend is hard to see is that the world population is still growing, even in many countries whose birthrates have been below replacement levels for two generations. This might at first seem a paradox but it is explained by the role of momentum in human population dynamics. When members of an anomalously large generation, such as the postwar Baby-Boom generation, collectively bear too few children to replace themselves, they may nonetheless produce more children than a smaller generation that went before.

This is because, within a large generation, there are, of course a large number of potential parents. Thus, even if each woman in a large generation has dramatically fewer children than her mother did, population may well still grow for a while, albeit at a declining rate. The primary reason why the population is still growing despite the spread of subreplacement fertility is this momentum effect that built up during the past era of rapid population growth.

Population momentum, plus modest increases in life expectancy, also explains another seeming paradox. According to United Nations projections, *more than half* of the global population growth in the pipeline between now and mid-century will come from increases in the number of persons 60 and over, all of whom have already been born. Meanwhile, the absolute number of children in the world is expected to be lower in 2050 than it is today.²⁰ We still do, in other words, face a population explosion, but of old people—primarily of aging Baby Boomers who are rapidly swelling the ranks of the once, comparatively scarce elderly.

In twenty to thirty years, however, most members of the post World War Two Baby-Boom generation in the West will be dead. Not long afterwards, so too will be members of the very large generations that emerged in the developing world in the 1970s and 80s, whose members are, like

20. United Nations, Department of Economic and Social Affairs, Population Division, "World Population Prospects: The 2008 Revision Population Database," <<http://esa.un.org/unpp>>. Note these projections are from the U.N.'s "median variant" scenario, which assume a substantial *increase* in the developed world's birthrates.

Western Baby Boomers, typically having far fewer children than their parents. As these large generations die off, and the trend of subreplacement fertility continues, there comes a tipping point when the momentum of population growth is lost and turns viciously negative.

This tipping point will occur at different times in different populations, but will have a common feature. Beyond it, there are fewer and fewer women of reproductive age. Italy provides an early example. There the number of women of childbearing age is expected to be 27 percent lower in 2035 than it was in 1995—a projection that is quite certain since most of these women have already been born.²¹ Thus, even if annual Italian birthrates were to increase substantially in the near future (as they well may, with an increase of women having their first child at older ages), negative population momentum will still likely leave population declining, and at a compounding rate.

To see how this works, think of a train that runs short of fuel as it struggles up a hill. At first, the locomotive's forward momentum will allow it to continue advancing, but at a slower and slower rate until it stalls. Then gravity will start pushing it back down the hill at a faster and faster rate. In this analogy, fuel is to fertility as gravity is to mortality. Once fertility is no longer strong enough to overcome mortality, the pace of population growth at first slows down, then pauses for an instant before commencing to fall and at geometrically faster and faster rates.

As population momentum from the past fades away, the most credible estimates show that world population peaking (due primarily to increase in the numbers of old people) well within the lifetimes of today's children before heading into absolute decline around 2070.²² According to one United Nations projections, human population in 2300 could be as low as 2.3 billion on current trends, or just a third of what it is today.²³

21. Ibid.

22. See, for example, Wolfgang Lutz et al., "The End of World Population Growth," *Nature* 412 (August 2, 2001): 543–45, and the International Institute for Applied Systems Analysis, "2007 Update of Probabilistic World Population Projections," <<http://www.iiasa.ac.at/Research/POP/proj07/index.html?sb=5>>.

23. United Nations, Department of Economic and Social Affairs, Population Division, *World Population to 2300*, Figure 6, <<http://www.un.org/esa/population/publications/longrange2/WorldPop2300final.pdf>>.

The Growth Illusion

Another reason the phenomenon of subreplacement fertility has so far been hard to observe in day-to-day life is that it has almost always been accompanied so far by sharp increases in per-capita consumption and therefore in pollution and congestion. Thus, for example, even as the number of young children in China rapidly declines, the population of cars is exploding. Similarly in Greece, even as the number of children under 15 *decreased* by 19 percent between 1990 and 2005, its per-capita carbon emissions *increased* by 24 percent, smothering Athens in traffic and smog.²⁴ The casual observer sees the deep pockmarks in Parthenon caused by air pollution and concludes that the world is totally over-populated. Yet this impression is gathered even as the onlooker is standing in place where people are no longer having enough children to avoid steep population decline.

Subreplacement fertility is also almost always accompanied by, and indeed largely caused by, large flows of the population from the countryside into cities. Metropolitan Athens and Paris, for example, continue to grow more densely populated even as rural Greece and France empty out. This pattern is pronounced in the developing world, where the growth of mega-cities such as Lagos or Mexico City is depopulating the surrounding countryside. Today, more than 50 percent of the world's population lives in urban areas—up from 29 percent in 1950.²⁵

Thus, more and more of humanity finds itself living in places that are becoming so crowded and expensive that many people there feel they cannot afford, or should not afford, to have children. In Hong Kong, the TFR dropped in 2005 to less than one child per woman, which, in the absence of immigration and what little population momentum remains left, would drop the city's population by more than half in a single generation. Yet though Hong Kong is perhaps the world's deepest demographic

24. United Nations, Department of Economic and Social Affairs, Statistics Division, "Millennial Development Goals Indicators," <<http://mdgs.un.org/unsd/mdg/Data.aspx>>, and Population Division, "World Population Prospects: The 2008 Revision Population Database," <<http://esa.un.org/unpp>>.

25. United Nations, Department of Economic and Social Affairs, Population Division, "World Urbanization Prospects: The 2009 Revision Population Database," <<http://esa.un.org/wup2009/unup/>>.

black hole, no one can visit this city and experience it as anything but a super-crowded and hyper-competitive place where there seems to be literally no space or time for children.²⁶

Subreplacement fertility also, by freeing up many more women from the burdens of childrearing, increases the numbers competing for university admissions, jobs, and promotions. The delay of marriage and the spread of childlessness also brings an increasing number of one-person households, which further drives up competition for housing, as does the relatively high spending power of the growing number of dual-income, childless couples. The high levels of both discretionary income and leisure time enjoyed by those not burdened by the duties of family life also drives up the competition for rarified forms of consumption such as high-end restaurant meals and jet travel to exotic locations. These deeply sought-after experiences are often said to be “ruined” by the presence of too many others seeking the same luxury, so the impression of overpopulation is reinforced, particularly among elites.

For these and many other reasons, people who live in countries with subreplacement fertility often view the world as seriously over-crowded, and viscerally believe that they and humanity would be better off if only there were fewer people in their way. Thus, even for those who are intellectually aware that their countries are depopulating or on the verge thereof, the attitudinal response to low birthrates is often to turn childlessness into a virtue and environmentalism into a religion, all the while being deeply disturbed by Malthusian thoughts of other people breeding humanity into extinction.

The Vicious Cycle of Low Fertility

Still to be seen is whether subreplacement fertility will continue to develop a self-reinforcing negative spiral, but there are several more important reasons to believe it will. For one, low birthrates lead to population aging. Going forward, this means there will be higher and higher numbers of old people relying on a dwindling number of working-age people. This

26. The Government of the Hong Kong Special Administrative District, Demographic Statistics Section, Census and Statistics Department, <http://www.censtatd.gov.hk/hong_kong_statistics/statistical_tables/index.jsp?subjectID=1&tableID=004>.

is true straightforwardly within formal intergenerational transfer programs such as Medicare and Social Security in the United States. For countries with larger welfare states, such as Sweden, France, or the United Kingdom, growing expenditures for the elderly also threaten to crowd out the state funding for paid daycare, family allowances, and other prenatal measures which even at today's generous levels have proven insufficient to return birthrates to replacement levels. Faced with fiscal crisis, the U.K.'s new government has recently proposed axing all child benefits for couples in which one parent earns more than £44,000 and to put a cap on all subsidies available to parents of lesser means.²⁷

The same dynamic threatens to play out within families and the private sector generally. The declining ratio of working-aged people to dependent elders means there will be relatively fewer and fewer people available to play the role of caregiver (whether paid or unpaid) to the aged. For women, who typically provide the overwhelming share of informal support for the elderly, the tension between becoming a mother and tending to an aging parent will be most extreme. This tension will become even more acute as likely further cuts in old-age benefits, such as those that are already scheduled to take effect in Sweden, make the elderly's need for such informal family caregiving all the greater. As the burden of supporting the growing ranks of the old through both increased taxes and increased individual support grows, it stands to reason that many more young couples will come to feel increasingly squeezed for both the time and after-tax income they would need to start families of their own.

The load on taxpayers and individual caregivers will be relieved for a while by decreasing numbers of dependent children to look after. Yet in advanced societies, the per-capita consumption of the elderly (mostly in the form of health care and pensions) far exceeds that of children, even as each remaining child must support more and more elders.²⁸ In China,

27. "Child Benefit to Be Scrapped for Higher Taxpayers," BBC, October 4, 2010, <<http://www.bbc.co.uk/news/uk-politics-11464300>>.

28. At all levels of government, the United States, for example, spends 2.4 times as much on the elderly as on children, measured on a per-capita basis, with the ratio rising to 7 to 1 if looking just at the federal budget. See, for example, Julia B. Isaacs, "Spending On Children and The Elderly," Brookings Center on Children and Families, November 2009, <http://www.brookings.edu/~media/Files/rc/reports/2009/1105_spending_children_isaacs/1105_children_elderly_isaacs.pdf>.

where the single-child family is becoming the norm, demographers already speak of the emergence of a “4-2-1” society in which a single child becomes responsible for two parents and four grandparents. Viewed from the vantage point of prospective parents, such a society is also one in which few people have siblings, cousins, nephews, nieces, uncles or aunts to help provide informal child care. Thus the financial and time burdens of raising just a single child eventually come to seem all the more prohibitive in an aging society.

There is also evidence that after a generation or two of subreplacement fertility, young adults come to see small families as the norm. In Germany and Austria, for example, where an increasing share of the young adult population has grown up without brothers or sisters, surveys show that their ideal family size averages to only 1.7 children. Thus it appears that the decline in actual family sizes is beginning to create a “new normal” in which young adults not only delay childbearing into early middle age, but also no longer even aspire to have more than one or two children.²⁹

The evidence for such an outcome is further bolstered by the burgeoning social-science literature on the effects of childbearing on parental happiness. In one illustrative study, for example, which used identical twins to eliminate the possibility of genetic effects, it was found that having a single child increases the reported happiness of both parents, while having a larger family does not add to the happiness of fathers and diminishes the happiness of mothers, especially if they are young. Though the study was limited to Denmark, this and other evidence implies that the mere pursuit of happiness is not enough to motivate the average couple in rich countries to have the second and third children necessary to avoid population decline.³⁰

Meanwhile, the increasing demand for human capital in an aging society also perversely works against securing its supply. In today’s advanced societies in which obtaining a college degree has become for most people

29. Joshua Goldstein et al., “The Emergence of Sub-Replacement Family Size Ideals in Europe,” *Population Research and Policy Review* 22 (2003): 479–96.

30. H. P. Kohler, J. R. Behrman, and A. Skythe (2005) “Partner + Children = Happiness? The Effects of Partnerships and Fertility on Well-Being,” *Population and Development Review* 31.3 (September 2005): 407–45.

a minimum prerequisite for achieving a living wage, many people are not even done with their schooling, let alone established in their careers, before their own or their spouse's biological fertility is already in steep decline. Adding to the reproductive predicament of modern life, if such a couple nonetheless does succeed in starting a family, the same upward trends in the cost and duration of education will leave them scrambling to figure out how they can ever afford to endow their children with the minimum education required to succeed in twenty-first century job markets. Thus we should not be surprised to see, especially after the economic downturn of that started in 2008, not only a resumption of the fall in birthrates and delays in the average age at first child birth, but an acceleration of the trend of single "boomerang" children living with their parents well into their 20s and even 30s.³¹

Social and Policy Impediments

Other ongoing trends also reinforce a negative feedback loop that discourages fertility. In country after country, leading indicators of the emergence of subreplacement fertility have been the retreat from marriage, the rise of cohabitation, and the increase in divorce and of children born out of wedlock.³² The twin phenomena of falling birthrates and rising out-of-wedlock births may have many causes, among which no doubt is the steep decline in the earning power among young men in advanced economies since the early 1970s. But regardless of how exactly we got here, an extraordinarily high share of young women will have to face the prospect of raising any children they might have on their own.

This is a daunting prospect, even in places where the state offers generous support for single parents. In Sweden, one-out-of-four single parents now live below the poverty line, defined there as less than 60 per-

31. Robin Marantz Henig, "What Is It About 20-Somethings?" *The New York Times Magazine*, August 18, 2010, <<http://www.nytimes.com/2010/08/22/magazine/22Adulthood-t.html>>.

32. Ron Lesthaeghe and Johan Surkyn, "When History Moves On: The Foundations and Diffusion of a Second Demographic Transition," Interface Demography Conference, draft, p. 1, <http://sdt.psc.isr.umich.edu/pubs/online/WhenHistoryMovesOn_final.pdf>.

cent of the median income.³³ In the United States, which defines poverty as starting at a much lower level of relative income, nearly 30 percent of single mothers are living below the official poverty line.³⁴ The percentage of children born out of wedlock may have risen dramatically over the last generation—indeed to 41 percent in the United States at last count, and higher still in Scandinavian countries.³⁵ But how many of those children will grow up wanting to lead the typically harried and financially insecure lives of their single mothers?

Even for those young women who succeed in securing supportive husbands, the emergence of the two-income household as a social norm (and often an economic necessity) also works against any increase in birthrates. Under the now prevailing division of labor between couples, the arrival of even one child often means the loss of half their income plus tensions between work and family life.

These impediments to family formation can only be partially smoothed over by more family allowances, subsidized daycare, and flexible workplaces and gender roles, as is evident from the example of Sweden and other Scandinavian welfare states. There, “cradle to grave” subsidies still leave the cradle insufficiently full to balance the cost of those approaching the grave. Fertility rates, though higher than in the 1970s and 80s, thanks primarily to the late surge of women having children at older ages, still remain below replacement and the population continues to age—and this even before both trends force inevitable retrenchment of the welfare state itself.

Until recently, many observers believed that the United States would be the one great exception to all these trends. In the late 1970s, the U.S. TFR briefly slipped below replacement levels but then recovered by the

33. Peter Vinthagen Simpson, “More Single Parents Living in Poverty: Report,” *The Local: Sweden’s News in English*, April 12, 2010, <<http://www.thelocal.se/26022/20100412/>>, citing the report of Parliamentary Investigative Service.

34. Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, “Income, Poverty, and Health Insurance Coverage in the United States: 2009,” U.S. Census Bureau, Current Population Reports, P60-238 (Washington: U.S. Government Printing Office, 2010), <<http://www.census.gov/prod/2010pubs/p60-238.pdf>>.

35. Gretchen Livingston and D’Vera Cohn, “The New Demography of American Motherhood,” Pew Research Center, May 6, 2010 (Revised August 19, 2010), <<http://pewresearch.org/pubs/1586/changing-demographic-characteristics-american-mothers>>.

1990s to nearly 2.1 children per woman. Yet as in France, the rise in officially recorded birthrates largely masked the role of immigration. In the United States, nearly one out of four babies born in 2009 were children of legal or unauthorized immigrants.³⁶

As rates of immigration to the United States fall sharply, due to diminishing job opportunities, stricter law enforcement, and the dramatic fall in birthrates throughout Latin America, the United States is poised to rejoin the rest of the developed world in no longer producing enough babies to sustain population growth over time. By the end of the last decade, the annual flow of unauthorized immigration was running at just one-third the rate that prevailed during 2000–05, or a mere 300,000.³⁷ Meanwhile, the latest data indicate that the annual birthrate in the United States, as measured by births per 1,000 women of childbearing age, is down 3 percent since 2007 and 38 percent since 1965.³⁸

To realize the full dimensions of the challenge, consider that even in societies where the two-child family remains (or returns to) the norm, this demographic dynamic still leads to population aging and eventual decline, especially if a large share of individuals remains childless. This pattern has emerged in most Western countries, including the United States, where, among people now in their 50s and 60s, nearly one-fifth never had children. A society in which the average mother bears just two children over her lifetime, while one-out-of-five women of her generation remain childless, will have a TFR of just 1.6 children per woman. This is 24 percent below the number needed to avoid population loss over time, and if continued, leads to eventual human extinction.

Is that result likely? Hardly. Human population will probably fall

36. Jeffrey S. Passel and Paul Taylor, “Unauthorized Immigrants and Their U.S.-Born Children,” Pew Hispanic Center, August 11, 2010, <<http://pewhispanic.org/files/reports/125.pdf>>.

37. Jeffrey Passel and D’Vera Cohn, “U.S. Unauthorized Immigration Flows Are Down Sharply Since Mid-Decade, Pew Hispanic Center,” September 1, 2010, <<http://pewhispanic.org/reports/report.php?ReportID=126>>.

38. Center for Disease Control and Prevention, National Center for Health Statistics, “Provisional Monthly and 12-Month Ending Number of Live Births, Deaths, and Infant Deaths and Rates: United States, January 2009 – June 2010,” <http://www.cdc.gov/nchs/data/dvs/provisional_tables/Provisional_Table01_2010Jun.pdf>; and Stephanie J. Ventura et al., “Births: Final Data for 1999,” *National Vital Statistics Reports*, Vol. 49, No. 1, April 17, 2001, p. 25, <http://www.cdc.gov/nchs/data/nvsr/nvsr49/nvsr49_01.pdf>.

within the lifetime of today's children and may well go back to as low as 2 billion. Yet there still will be, as there always have been, people who raise families regardless of whether prevailing social and economic conditions make this seem irrational to most other members of society. This is why the family is by far the most enduring and successful of all human institutions, despite its often high costs to individual self-fulfillment and aspiration and the frequent revolts against it, going back to antiquity.

If only by default, the future of humanity always belongs to those who continue to go forth and multiply, whether because they believe God has commanded them to do so, or by accident, or for whatever other reason. The spread of effective contraception and abortion just serves to make the composition of the next generation all the more reflective of the values, genes, and dispositions of those increasingly few number of couples who still assume the burden of raising children despite having the easy option of enjoying sex without procreation. Human population may shrink to some minimum, but with the concurrent change in its composition, an eventual rebound will come. Rome, too, once faced sterility among its elites, but that was not the end of humanity, or even of civilization, as more fecund people took control of history.

Some will view this process as implying the death of Enlightenment. Others will be encouraged by the prospect of a return to patriarchy and "traditional values" even if the result is achieved by a purely Darwinian process. But there is no doubt that the global spread of subreplacement fertility puts us on the cusp to another huge turning point in the cycle of human history.

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