

June 2001

**The Economic Impact of Demographic Change:
A Case for More Immigration**

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By 2025 the world's population will have grown by another 1.8 billion or so, bringing it to roughly 8 billion. Ninety-five percent of the increment will be in what today are called developing countries; only five percent will be in the rich industrialized countries. Indeed, birth rates have fallen below the replacement rate (of about 2.1 children per female of child-bearing age) in all the rich countries, as well as in Slavic Europe, Russia, and China. It is down to 1.35 in Japan, and an extraordinary low of 1.2 in Italy.

Demographic inertia will lead to continued population increase for a decade or more in many of these countries, especially China. But in the longer run population (and, presumably, labor force) growth will turn negative, and indeed it is already negative in Japan.

These low births rates, combined with steadily increasing longevity, imply aging societies, with a number of important implications for the nature of economies and societies. The implications for pensions, health care, and nursing care are usually mentioned. In addition, however, there will be profound changes in other dimensions, about which we can only speculate, since we have no experience in managing societies with secular declines in population since the beginning of the industrial revolution two centuries ago.

Some obvious points are that the demand for traditional education -- schools, textbooks, and teachers -- will decline with declining numbers of children. The demand for housing -- and for consumer durables to fill them -- will decline with declines in new household formation. Henceforth, demand will be confined to replacement, plus new products and upgrades of old ones. Similarly, the demand for automobiles will be confined to replacement, unless other peoples follow Americans in acquiring second or even third cars per family.

There will be fewer new entrants to the labor force, implying lower productivity growth for two quite different reasons. First, learning by doing

(acquisition of experience) is presumably most rapid with new entrants to the labor force, so productivity growth will decline as the ratio of new entrants declines. Second, new entrants are presumably the most mobile members of the labor force, particularly in those countries, such as Japan and continental Europe, with practices (sometimes reinforced by law) of long-term employment with a single employer, so inter-sectoral mobility of the labor force will decline, reducing the economy's flexibility to respond to changes in patterns of demand or competitiveness.

Finally, as Nicholas Eberstadt has pointed out, there will be drastic changes in social relations, particularly those concerning the family. If Italy's low birth rate continues for two generations, for instance, almost 60 percent of that nation's children would have no siblings, no cousins, no aunts or uncles; conversely, less than five percent of children would have both siblings and cousins. In short, the extended family (beyond grandparents and, increasingly, great-grandparents) would virtually disappear, and with it its role in socialization of new generations of youngsters. What will provide the substitute?

Declines in growth of the labor force could be postponed by increasing labor force participation rates -- most obviously of women, but increasingly also of the aged, made possible by better health of "senior citizens." There is no reason why the increased leisure made possible by rising productivity should be taken predominately or exclusively in more retirement years. Rather, working years could be extended with improved health, and the working week made more flexible in timing and length throughout one's working life. Flexibility of the labor market could be enhanced by breaking the practice of "lifetime" employment with single employers, by encouraging employment at all ages and by improving the institutional arrangements for life-long learning, thus extending the educational sector beyond K-12 plus four years of college. Labor force adaptability is required in a world of continual technical change, such that the working place can be radically transformed not only once but even twice in a single (ever-lengthening) lifetime.

The outlook for the United States is quite different from that for Europe and Japan, partly because the birth rate has not (yet) fallen so far (birth rate about 1.9 children per female), but also because it remains (along with Australia and Canada) open to extensive immigration, and indeed does a remarkable job of integrating immigrants and especially their children into American society.

Immigration deserves much greater attention than it normally receives in discussion of aging in the United States and other rich countries. As of 1990, there were an estimated 120 million "foreign born" people in the countries of the world, 2.3 percent of the world population -- the same percentage as in 1965. The rich industrialized (OECD) countries had 54 million of them, 4.5 percent of their population, up from 3.1 percent in 1965, demonstrating an increase of on average 2.3 percent a year. The United States had 20 million foreign born in 1990, double the number in 1965 and representing a rise from 5.1 to 7.9 percent of the US population, up 2.9 percent a year.¹ As noted above, over a billion people will be added to the world population in the next decade and a half, overwhelmingly in developing countries, many of which are struggling for growth and burdened with high urban unemployment as people increasingly migrate from rural areas to the cities. As labor force growth in rich countries declines, farms, firms, and governments (including the armed forces) will have increasing difficulty recruiting. Firms (and farms, especially at harvest time) will press for more imported foreign workers. Why should not these developments in supply and demand, separated by national boundaries, be matched?

Immigration is rarely discussed as a policy variable, but it should be. US Census population projections simply assume constant net immigration into the United States for the indefinite future (at 820,000 a year on the middle variant).² That is not consistent with historical experience, nor is it consistent with significant decline in natural population growth in the future. Yet the projections would be altered significantly by assuming a proportionate rise in immigration, even more a disproportionate rise to

compensate for the short-fall in natural growth.

Suppose, for instance, that immigration into the United States were allowed to increase over the period to 2025 at a rate rapid enough to keep the "dependency ratio" -- the ratio of non-working age population to working age population -- approximately what it was in 2000. Assuming no change in participation rates or in tax structure, such a condition would retain the relationship between tax-paying residents and non-tax-paying residents that obtained at the beginning of the 21st century -- a ratio that generated overall budget surpluses and a surplus in the social security trust fund.

The US dependency ratio is projected (Census Bureau, 2000, middle variant) to rise from .618 to .734 between 2000 and 2025. I will make the strong assumption that all additional immigrants (over the levels assumed in the population projections) between now and 2025 are of working age, 18-64. (This would of course require a substantial alteration of the existing heavy emphasis on family unification in the Immigration Act of 1990, but only for the incremental migrants; family unification on its current scale could continue. Political refugees could also continue at their current level of over 100,000 a year.)

To return the 2025 dependency ratio to the 2000 level would require admission of 36.4 million extra immigrants over this 25 year period, an average of 1.46 million a year. That would nearly treble the immigration assumed in the projections, but I believe it is manageable. Provided the immigrants were well-diversified as to source -- in practice, that most of the increment did not come from Mexico and central America -- the United States could absorb this number of additional immigrants. By assumption, they are of working age, so should not put heavy initial burdens on schools, welfare, or social security.

The incremental immigration could sensibly be admitted on a rising trajectory, rather, as in current official projections, at a constant level. Thus the incremental immigration could start, say, at 500,000 a year -- only a small increase on the over one million immigrants that are thought to enter

the United States annually today, counting illegal immigrants -- and rise to 2.4 million a year by 2025 to yield the average of 1.46 million a year. Of course, to the extent the participation ratio exceeded the average for Americans, the total number of immigrants could be lower and still result in the desired additions to the labor force. Moreover, many of them could be admitted as contract workers rather than full-time immigrants, being engaged for instance in seasonal farm work or contract construction.

An effort to retain the dependency ratio of 2000 is of course arbitrary.

Smaller numbers of additional immigrants could nonetheless help compensate for the economic and fiscal problems created by a declining birth rate and increased longevity. The calculation above is designed, rather, to show that retention of the current dependency ratio through immigration could be possible.

The United States is fortunate in having a tradition of successful immigration. The demographic decline is greater in Europe and Japan than it is in the United States, and the tradition for absorbing immigrants is less strong -- although in fact Germany today has a higher ratio of "foreign-born" population than does the United States. Immigration alone is therefore less feasible as a total solution to the problems created by demographic decline.³

Nonetheless, the prospective decline of natural population growth likely to be observed in the coming decades suggests a prediction: immigration into all rich countries will occur on a much greater scale than is currently envisioned in official population projections, illegally if not legally; on balance such immigration will be more welcome than it seems to be at present, and indeed will even be encouraged.

Endnotes

- 1... Interestingly, foreign-born persons made up a higher fraction of the labor force than of the total population in Australia, Canada, and the USA, whereas the reverse was generally true in Europe and Japan. Evidently immigrants had larger-than-average families in Europe, and/or they were drawn by the relatively generous welfare programs there.
- 2... The Census projections of 2000 drop this constant rate of net immigration

in favor of a trajectory that falls from 970,000 in 2000 to 720,000 in 2010 and then rises to 918,000 in 2025 -- a figure that is below the immigration assumed for 2000. This trajectory provides a better starting point, but a decline of 250,000 a year over the next ten years seems implausible.

3... Enlargement of the European Union by the 12 applicants would, no doubt, result in substantial additional immigration into the current 15 members, whose per capita incomes are substantially higher than those of the applicants. But such migration would aggravate demographic decline in the applicant countries, most of whom have also experienced sharp reductions in birth rates.