The Baby Boomers

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Baby boomers are all those born in the U.S. between 1946 and 1964. As illustrated in Figure 1, in the post World War II period the General Fertility Rate (GFR) in the U.S. rose from what had been an all-time low in 1936 of 75.8 children per 1000 women of child-bearing age to a high of 122.7 in 1957 – and then fell to a new all-time low of 65.0 in 1976. All races, religions and ethnic groups participated in the boom. Total births per year during that period grew from 2.3 million to 4.3 million and then fell to 3.1 million. The baby boom is defined as having occurred during the peak years of this roller coaster ride: its legacy was a population bulge destined to leave its imprint on each phase of the life cycle as it passed through. That imprint included the creation of an "echo boom" of births during the 1980s and 1990s.

Because the baby boom lasted nearly twenty years, many have objected to treating the baby boomers as a single cohort, suggesting terms such as "Generation X" for those born during the latter half of the boom – but the original appellation has held through the years, and tends still to refer to the entire population bulge produced during the boom.

Similar baby booms occurred during the same period in many other western industrialized nations, with peak fertility rates in Canada, New Zealand and Iceland even higher than those in the U.S.[1] However, the term "baby boomer" has tended to be used most commonly in reference to those born in the U.S. – and they are the focus of this entry. Figure 2 compares the baby booms in the U.S., Canada, Australia, New Zealand, Ireland and Iceland, which experienced the most pronounced and prolonged booms.

There are approximately 79 million baby boomers in the U.S. at the beginning of the twenty-first century: about 29% of the total population.[2] Following the boom in 1965, 38% of the total population were baby boomers, but by 2050 their share is projected to drop to only 5%, with 18 million surviving at age 85 or older in that year. As they retire their numbers will grow relative to the size of the working age population, until in 2030 there will be three retired baby boomers for every ten workers (and about four retirees in total for every ten workers – a ratio

[1] See Macunovich (forthcoming, 2001a).
[2] The population estimates and (medium) projections are taken from U.S.Census (2000).

projected to remain fairly constant thereafter). Nevertheless, despite their declining share in total population, they do and will remain a characteristic bulge in the age structure throughout their lifetime.

What caused the baby boom?

There is no consensus regarding the cause of the baby boom: social scientists suggest a complex mixture of economic, social and psychological factors. The majority of it occurred not through an increase in family size but rather through a sharp decline in the proportion of women choosing to remain childless.[3] For many older women these were births postponed during the Depression and World War II. They account for most of the immediate 1946/47 "spike" in births associated with returning troops at the end of the War. But in addition younger women departed from an historic upward trend in female labor force participation in order to stay home and start families – a departure that lasted for nearly twenty years. Exhilaration and optimism after the War seemed to combine with a general feeling of affluence in a booming postwar economy, and generous provisions for returning GIs, to make young couples feel able and willing to support children.[4]

But this apparently positive relationship between income and fertility fails to explain why fertility rates then suddenly plummeted in the early 1960s, causing the "baby bust". There was a tendency at the time to attribute the decline to the introduction of the Pill in 1963 – but it is generally acknowledged now that the Pill merely facilitated a trend that originated several years earlier, in the late 1950s. Economists have attempted to develop a "unified theory" to explain both the boom and bust. Their focus has been primarily on three factors: male income, the female wage, and material aspirations (desired standard of living). They assume that fertility will tend to rise as male income rises, but fall when material aspirations increase and when female wages rise. The female wage is assumed to represent the value of time foregone in the labor

[3] Westoff (1978).

[4] Bean (1983) summarizes many of these factors, and Jones (1981) provides an excellent description of the general mood at that time.

market in favor of childbearing: the “opportunity cost” or “price” of women’s time spent in childcare and hence a significant element in the cost of raising children.[5]

One school of economic thought suggests that the baby boom in the 1950s was caused by rising male incomes and falling women’s wages (as women were displaced from wartime jobs), while in the later decades falling male income and rising female wages generated the baby bust.[6] Unfortunately data needed to test this hypothesis fully are not available for the complete boom- and bust- period – although the data that are available suggest that these two factors account for only a portion of the baby boom (and bust).

However, adding the third factor – material aspirations – provides a more complete explanation for the phenomenon. This third factor has been the focus of another school of thought among economists, which assumes that shifts over time in the desired standard of living temper young adults’ responses to intergenerational changes in income. That is, it is assumed that young adults will feel affluent only if their income – regardless of its absolute level – allows them to meet or exceed their material aspirations, which are assumed to be in large part a function of the standard of living they experienced while growing up.[7] And a couple’s ability to achieve a given standard of living are affected by the size of their birth cohort relative to that of their parents. An excess supply of younger less experienced workers depresses their wages relative to older workers, and excess demand produces the opposite result.[8] Since those older workers are the parents of the young adults, and are assumed to affect their children’s desired standard of living, it is assumed that large cohorts will have a difficult time achieving their material aspirations – and conversely small cohorts will be favored.

This economic approach assumes that the fertility cycle experienced between 1936 and 1976 was one of the demographic adjustments young adults made in response to “relative cohort size”-induced changes in “relative income”. It suggests that the small cohorts born

[5] Becker (1981).
[6] Butz and Ward (1979).
[7] This school of thought is presented in Easterlin (1987).
This strong effect of relative cohort size on wages was demonstrated by Welch (1979) and later by Macunovich(1999).

during the Depression entered the labor market in the 1950s with relatively low material aspirations and found themselves favored not only by the strong economy but also by their small relative cohort size. Their high relative income generated the baby boom, but when the boomers themselves entered the labor market in the 1970s and 1980s their experience was diametrically opposed to that of their parents: high material aspirations coming out of their parents' homes, but low earnings relative to those expectations thanks to their large cohort size. The boomers' fertility rates plummeted as they scrambled to maintain their desired standard of living.[9]

The boomer lifestyle

Low fertility isn't the only characteristic that differentiates the baby boomers from their parents' cohort. Female labor force participation soared among the boomers, and young women began moving into previously male-dominated professions, while marriage rates declined precipitously and cohabitation and divorce rates increased dramatically. Age specific crime rates and drug use among young males soared as baby boomers passed through the 15-24 age group.[10] Some social scientists believe that these changes were demographic adjustments made primarily in response to low relative income. And although average male earnings fell for baby boomers – especially in relative terms – the term "Yuppie" (Young Urban Professional) was coined to describe the high-consumption, low-savings lifestyle of many boomers.

The baby boomers were the first generation of children and teenagers with significant spending power, and that combined with their numbers fueled the growth of massive marketing campaigns and the introduction of new products – and new terminology, such as "pop group" and "Hippie" – targeted at the boomers' current stage in the life cycle. Fashion followed the boomers' needs – from the mini-skirt and bell bottoms to "relaxed fit" jeans. Even fringe commercial benefitted, as, for example, the nation began wearing "army surplus" clothing, and

[9]see Macunovich (1998) for a comprehensive review of studies testing the model.

Pampel and Peters (1995) find little evidence of "relative income/relative cohort size" effects in boomer behavior, unlike Macunovich (forthcoming, 2001b).

drug use spread, some say as a result of the boomers' heavy participation in the Vietnam War.[11]

Overcrowded schools introduced "porta-cabin" classrooms and half-day sessions when the boomers were young, and later the "day care" industry emerged to accommodate boomers who chose to combine career and motherhood. The country's identity seemed shaped by the boomers, from the "youth culture" in the 1960s and 1970s to the "greying of America" in the twenty-first century. The evolution of the automobile provides a prime example of the boomers' life cycle impact. Station wagons became the vogue in the 1950s in response to the needs of boomers' parents. Those mutated into " vans" to accommodate "Yuppie" boomers in their thirties and forties and then into "SUV's" for boomers as empty nesters, many going through "mid-life crisis". The next stage in this progression, it is reported, is a car/van that accommodates devices for the disabled, in anticipation of baby boomers in old age.

Boomers in retirement

But despite the tendency for the entire culture to take on the boomers' current persona as it evolves through the life cycle, the boomers are in reality an extremely diverse group. Income inequality is high among the baby boomers: one study suggests that inequality among the boomers is nearly 15% greater than it was among their parents at the same age.[12] In the mid-1990s median income in white boomer families was nearly twice that in black boomer families, while the poverty rate among Black and Hispanic boomers was more than double that of whites.[13] "Leading edge" boomers (those born during the first half of the boom) have fared better economically than their younger counterparts.[14] Boomers who served in Vietnam have never been able to close the wage gap with their more fortunate counterparts who stayed at

At its peak in the 1968-1970 period 31% all 20-21 year old boomer males were serving in the military.

[12] Easterlin et al. (1993).

[13] Levy (1989).

[14] Sabelhaus and Manchester (1993).

home.[15] Half of full-time private wage and salary workers among the baby boomers were not covered by private pensions and nearly half of baby boomers did not own homes as they progressed through middle age.[16]

Approximately 18 million baby boomers are members of racial minorities. As a result, the Census Bureau projects that while 87% of the elderly population in 1990 were white non-Hispanic, this proportion will drop to 76% in 2030 and to 70% in 2050. Some suggest that because members of minority groups work disproportionately in “physically arduous and partially disabling working conditions”, they may be disproportionately affected by increases in the early retirement age.[17]

Over one tenth of baby boomers are high school dropouts, including four percent with less than a ninth grade education. Their median household income at the start of the 1990s, after adjusting for inflation, was less than that of a similar household in their parents’ generation. Similarly, the proportion of baby boomers heading single parent households has tripled relative to their parents at the same age. 90% of those households were reported to have less wealth than income, and income levels only one-third the size of that for married couples with children.[18]

Those thought to be at the greatest risk with regard to retirement prospects are singles – especially single mothers, and more than one tenth of female baby boomers head their own households – those with lower levels of education, those with non-stable employment patterns, non-homeowners, and the youngest of the baby boomers.

In general analysts tend to agree that boomers will on average exceed their parents' standard of living in retirement – and will do so by a substantial margin – although some suggest that replacement rates (the ratio of retirement to pre-retirement income) may fall.[19]

[15] Angrist (1990).
[16] Kingson (1992).
[17] Kingson (1992), Lee and Skinner (1994).
[18] Kingson (1992).
Easterlin *et al* (1993), Congessional Budget Office (1993), Sabelhaus and Manchester (1993), Employment Benefit and Research Institute (1994) and House Ways and Means (1987).

They have, on average, exceeded their parents' standard of living at all points in the life cycle to date by 50-60% and more on a per capita basis. However, there is some disagreement on this topic, based on analyses that focus solely on male earnings and family or household income, rather than on per capita income.[20]

In addition, some have emphasized the effects of the demographic adjustments made by the boomers to raise per capita incomes (delayed/foregone marriage, reduced fertility, and increased divorce). It is suggested that the boomers in retirement are less likely than their parents to be living with a spouse, and are likely to have fewer adult children. As a result, although economic well-being may be relatively high for the average baby boomer in retirement, total well-being may suffer.[21]

Analysts disagree about the adequacy of boomers' savings for retirement. Some project that 50% more retired boomers than non-boomers will receive income from private pensions, with nearly three-quarters of boomers receiving any pension money at all and the average boomer receiving nearly two-fifths of retirement income from pensions – some 60% more than is received by non-boomers.[22] However, many have voiced concern about the boomers' savings: and in this case the younger boomers seem to be doing better than the older boomers. The median ratio of wealth to income for younger boomers has risen about two-thirds relative to that of their parents, but for older boomers the ratio has remained relatively constant. And while their parents' savings benefitted from windfall gains later in life, it has been suggested that the boomer ratio of wealth to income will fall as retirees age, because of lack of protection against inflation in private pension plans.[23] In addition, some feel that many baby boomers' plans are subject to high levels of risk, and that many baby boomers are underestimating their longevity in saving for their retirement.[24]

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[20] Levy and Michel (1991).
[21] Easterlin *et al* (1993)
[22] Andrews and Chollet (1988)
[23] Ball (1988)
[24] House Ways and Means (1987)

It has been projected, based on the current system, that Social Security will provide 60-70% of retirement income for boomers in the bottom half of the income distribution in 2019. For most baby boomers, retirement incomes will be well above those of today's retirees (50-60% higher), and will be more than adequate, but the projections indicate that the proportion of elderly baby boomers who will be poor or near-poor may reach almost twenty percent, with the majority of these being singles, and especially single women.[25]

However, some have questioned the reliability of the more optimistic forecasts, due to what they see as significant effects of the baby boom on the economy itself – in areas such as the housing market and stock market, interest rates, savings, and inflation rates.[26] Based on these historic effects some suggest a potential "asset meltdown" when retiring baby boomers cash in their holdings.[27] This view is highly controversial, however.[28]

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[25] House Ways and Means (1987)

Blomquist and Wijkander (1994), Mankiw and Weil (1989), Fair and Dominguez (1991), McMillan and Baesel (1990).

[27] Schieber and Shoven (1994).

[28] See, for example, Swan (1995) and Woodard (1991).

References

Andrews, Emily S. and Deborah Chollet (1988). ``Future Sources of Retirement Income: Whither the baby boom'', in *Social Security and Private Pensions*, Susan M. Wachter (ed.), Lexington Books.

Angrist, Joshua D. (1990). "Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records." The American Economic Review. 80(3):313.

Bean, Frank (1983). "The baby boom and its explanations," *The Sociological Quarterly*, 24(Summer 1983):353-365.

Becker G (1981). *A Treatise on the Family*, Cambridge: Harvard University Press.

Blomquist, N.S. and H. Wijkander (1994). ``Fertility Waves, Aggregate Savings and the Rate of Interest'', *Journal of Population Economics* 7:27-48.

Butz, William P. and Michael P. Ward (1979). "The Emergence of Countercyclical U.S. Fertility," *American Economic Review 69*(3), 318-328.

Coleman, David (1996). "New Patterns and Trends in European Fertility: International and Sub-national Comparisons", pp. 1-61 in D.Coleman (ed.) *Europe's Population in the 1990s*. Oxford University Press.

____________ (1999). Zip Files of Total and Age-Specific Fertility Rates made available as part of the *Oxford Population Project* at http://marx.apsoc.ox.ac.uk/oxpop/.

Congressional Budget Office (1993). ``Baby Boomers in Retirement: An Early Perspective'', September.

Easterlin, Richard A. (1987). *Birth and Fortune, second edition*, Chicago: University of Chicago Press.

Easterlin, Richard A., Christine M. Schaeffer and Diane J. Macunovich (1993). ``Will the Baby Boomers be Less Well Off than their Parents? Income, Wealth and Family Circumstances over the Life Cycle in the United States'', *Population and Development Review*, 19(3):497-522.

Employment Benefit Research Institute (1994). ``Baby Boomers in Retirement: What are their prospects?'', EBRI Special Report SR-23, July.

Fair, Ray C. and Kathryn M. Dominguez (1991). ``Effects of Changing U.S. Age Distribution on Macroeconomic Equations'', *American Economic Review*, 81(5):1276-1294

House Ways and Means (1987). ``Retirement Income for an Aging Population'', U.S.House of Representatives, WMCP:100-22, August 27, 1987.

Jones, Landon Y. (1981). *Great Expectations: America and the Baby Boom Generation.* New York: Ballantine Books.

Kingson, Eric (1992). ``The Diversity of the Baby Boom Generation: Implications for the retirement years", prepared for Forecasting and Environmental Scanning Department, AARP, April.

Lee, Ronald D. and Jonathon Skinner (1994). ``Assessing Forecasts of Mortality, Health Status, and Health Costs During Baby Boomers' Retirement", Presented at a conference on Retirement Income Modeling, September, Washington DC: National Academy of Science.

Levy, Frank and Richard C. Michel (1991). *The Economic Future of American Families*, Washington DC: The Urban Institute Press.

Macunovich, Diane J. (1998a). "Fertility and the Easterlin Hypothesis: An Assessment of the Literature," *Journal of Population Economics*, 11:53-111.

_________________(1999). “The Fortunes of One’s Birth: Relative Cohort Size and the Youth Labor Market in the U.S.*”* *Journal of Population Economics,* 12(2):215-272.

_________________(forthcoming 2001a). “Baby booms and busts in the twentieth century” in *International Encyclopedia of the Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Baltes.. Pergamon Press.

_________________(forthcoming 2001b). *Birth Quake: the Baby Boom and Its Aftershocks.* Chicago: University of Chicago Press.

Mankiw, NG and DN Weil (1989). “The Baby Boom, the Baby Bust, and the Housing Market”,, *Regional Science and Urban Economics*, 19(1989):235-258.

McMillan, Henry M. and Jerome B. Baesel (1990). ``The Macroeconomic Impact of the Baby Boom Generation", *Journal of Macroeconomics*, 12(2):167-195.

NCHS (2000). “Births: Final data for 1998", *National Vital Statistics Reports* 48(3).

Pampel, Fred C (1993). “Relative Cohort Size and Fertility: The Socio-Political Context of the Easterlin Effect”, *American Sociological Review*, 58(4):496-514.

Pampel, Fred C and Peters H. Elizabeth (1995). “The Easterlin Effect” *Annual Review of Sociology*, 21:163.

Sabelhaus, John and Joyce Manchester (1993). ``Baby Boomers and Their Parents: How Does their economic well-being compare in middle age?", Urban Institute and CBO, November.

Schieber, Sylvester J. and John B. Shoven (1994). ``The Consequences of Population Aging on Private Pension Fund Saving and Asset Markets", Working Paper No. 4665 (National Bureau of Economic Research, Cambridge, MA, March).

Swan, C (1995). “Demography and the demand for housing: A reinterpretation of the Mankiw-Weil demand variable.” *Regional Science and Urban Economics*. 25(1):41.

U.S.Census (2000). “Population estimates by single year of age”, http://www.census.gov/population/www/estimates/popest.html and “Population projections by single year of age”, http://www.census.gov/population/www/projections/popproj.html.

Welch, Finis (1979). "Effects of cohort size on earnings: The baby boom babies' financial bust", *Journal of Political Economy*, 87:S65-S97.

Westoff, Charles F (1978). “Some speculations on the future of marriage and fertility” *Family Planning Perspectives* 10(2):80.

Woodard, S.E. (1991). “Economists' prejudices: Why the Mankiw-Weil story is not credible.” *Regional Science and Urban Economics*. 21(4):531.

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Figure 1: A comparison of the historic U.S. birth rate (TFR: the number of births a woman would experience throughout her childbearing years, at current age-specific rates) and numbers of births in the U.S.
Source: *Vital Statistics, Natality,* various years.

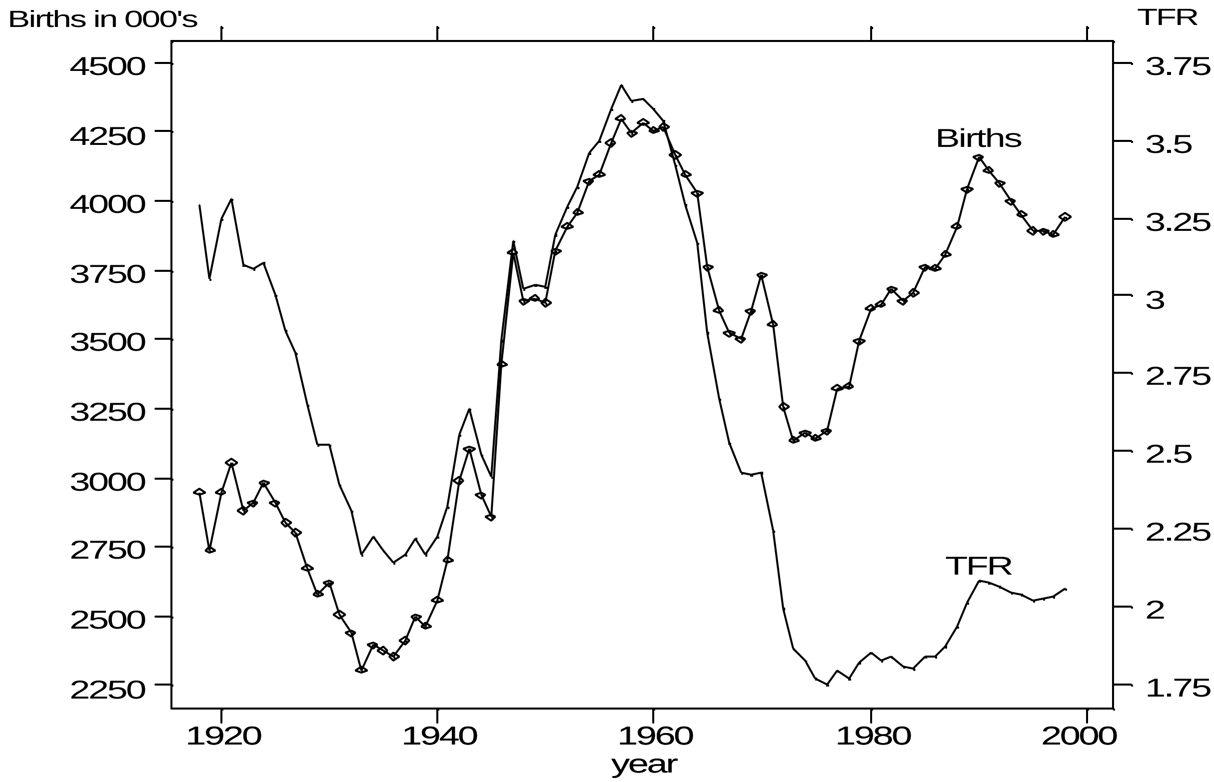

Figure 2: A comparison of baby booms in several western nations using the Total Fertility Rate (TFR: the number of births a woman would experience throughout her childbearing years, at current age-specific rates). The "official" baby boom years are indicated (1946-1964), and the dashed line marks a TFR of 2.1, which is replacement-level fertility.