A return to boom and bust (in births)

How birth cycles will affect public spending pressures over the coming decade

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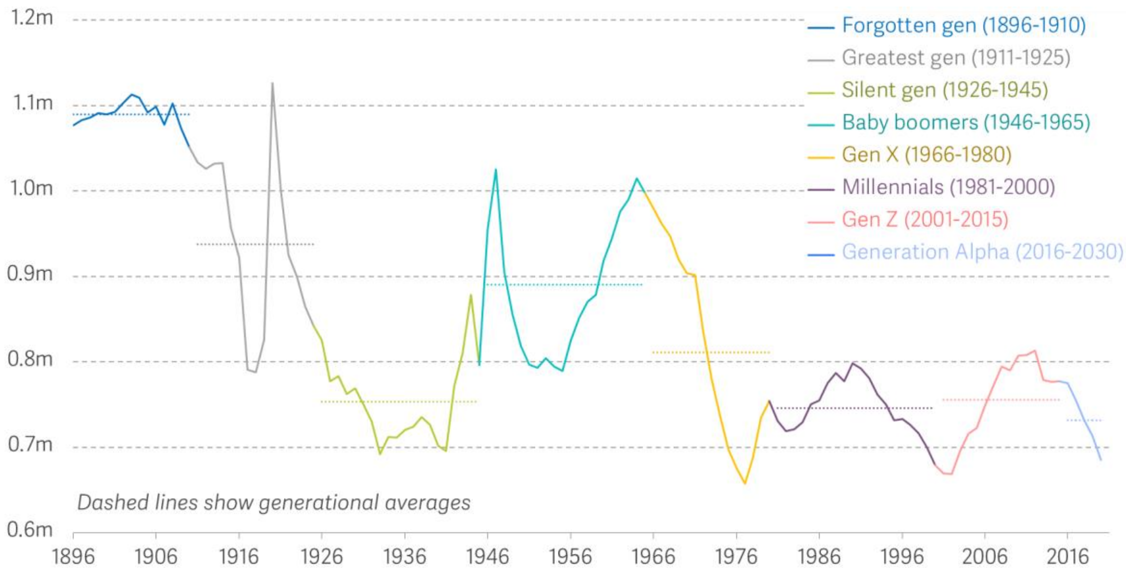
The demographic impact of the Baby Boomer generation on public spending is frequently discussed as they move out of work and into retirement, but the most recent birth cycle – in which births hit a low point in 2002, a high point in 2012, and have been declining since – is having profound impacts on the education system. For example, pressure for pre-school places looks set to fall over the next few years, as the number of 2-4-year-olds falls by 7 per cent by 2022. But pressures in the post-16 education system are likely to grow, with the number of 16-18-year-olds set to increase by 15 per cent by 2025. Baby booms are not always bad news, though: the baby boom in the first decade of this century means the country now has an opportunity to shape the skills profile of a large cohort of new workers to match the sectors that will be growing in future. But to harness these changes for the better, it is vital that we better understand the implications of demographic changes, and particularly so as the Government confirms public spending plans for the next three years.

What has happened to births over time?

The long-run decline in births over the past few decades – part of the second demographic transition – is a phenomenon common to many developed economies, with the average number of births per woman in the OECD having fallen from 2.8 in 1970 to 1.6 in 2019. Over the same time frame, the UK has seen a similar development, with average births per woman falling from 2.4 to 1.6. This is unsurprising: over the longer term, spending longer in education, shifting gender norms, greater career opportunities for women, and advances in health care have all encouraged families to have fewer children, and to have them later in life.

But this gradual decline in births in the UK has not been smooth, and there have in fact been considerable cycles of boom and bust. The most well-known of these is the boom in births immediately following the end of the Second World War, the generation we now call the Baby Boomers. But the UK has seen two more birth cycles, albeit less dramatic, since then, as shown in Figure 1. The first of these involved a peak in births in 1990, and the second one peaked in 2012. Interestingly, although we cannot yet tell whether the recent cycle of boom and bust in births has completed, we can see that it could be slightly bigger than the one preceding it: the 2012 peak had 10,000 more babies born than in the previous peak in 1980 although slightly more children were still born in 2020 than at the previous low-point in 2002.

Figure 1 **In the current cycle, birth numbers peaked in 2012**
Births per year and generational averages: UK



NOTES: Northern Ireland data is unavailable for 2020, and so is estimated based on births in 2019.
SOURCE: ONS, Birth Characteristics (England and Wales); NRS, Births Time Series Data (Scotland); NISRA, Live births, 1887 to 2015 (Northern Ireland).

As well as the factors affecting fertility trends over long periods of time, shorter-term factors influencing these birth cycles will have included entitlement to childcare and other income support policies for families with children, as well as the extent of economic uncertainty. In particular, birth rates tend to go down following economic recessions, as shown in Figure 1. Births dipped in the early 1980s, during and after the early 1990s recession, and also peaked just after the 2008 financial crisis and subsequent economic contraction.

Because of this, many predicted that the pandemic would see births fall further, and others have drawn on recent epidemics to speculate on potential fertility changes after Covid-19 and considered different scenarios with various changes to birth numbers. In addition, what is different about the Covid-19 crisis compared to the financial crisis is that births were already falling just before the pandemic hit; in 2008, they were still rising. So predictions of a further drop in fertility seem very plausible, but it is still too early to be clear on the size of any Covid-19 effect on births. We know that births in December 2020 and January 2021 – mostly corresponding to conceptions that happened as the scale of the pandemic became clear, and in the first weeks of the Spring 2020 lockdown – were significantly lower than a year earlier, but since then, they seem to have recovered slightly. For example, 147,000 children were born in England and Wales in the first three months of 2021: that is 1.4 per cent fewer than the figure a year earlier, but this represents a smaller year-on-year decline in births than that seen between 2012 and 2019.[1]

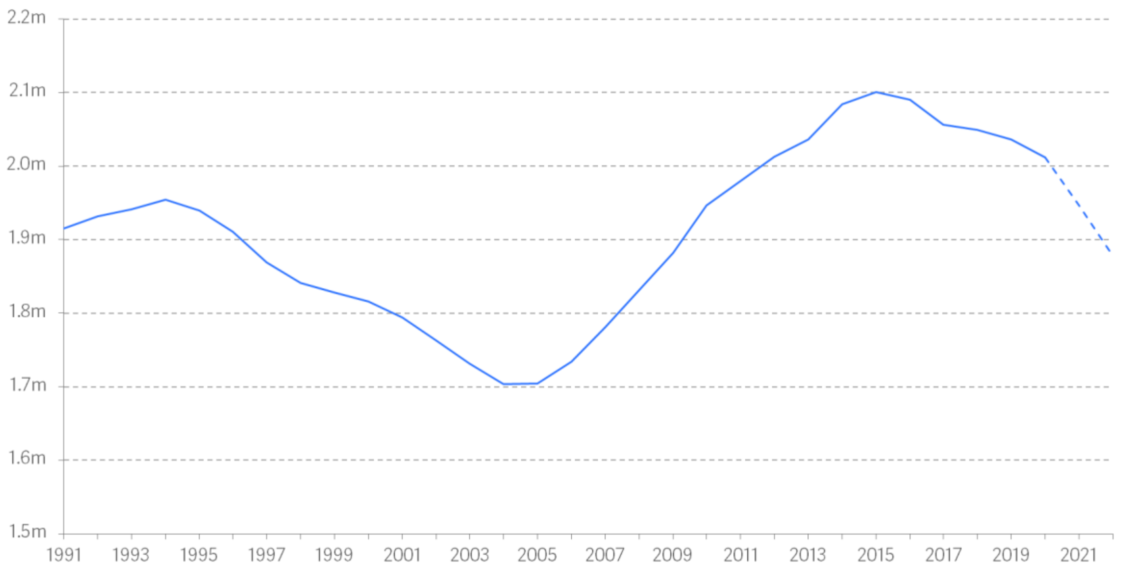
But as we wait to see what eventual impacts the Covid-19 crisis will have, it is the children and young people born through our most recent birth cycle that are currently making their way through the early years and education system, and the implications from this recent boom and bust in births are something that the Government should consider carefully in their upcoming Spending Review. In what follows, we go through some of the most important consequences and their policy implications (and, because education policy issues are devolved, we will from here on focus on England).

Demand for early years and education places may fall in the next few years

With births starting to fall in 2012, so the number of children needing early years care and education also started to fall a couple of years later. In England, the peak in the number of young children who needed early years care and education occurred in 2015, when there were 2.1 million children between the ages of 2 and 4 (Figure 2). With births continuing to fall, pressure on early years places will continue to ease, with the number of 2-4-year-olds falling by 7 per cent – or 134,000 – between 2020 and 2022. This is starting to become evident in the increased availability of early years places. In 2015, for example, only 41 per cent of local authorities in England had sufficient childcare for 3-4-year-olds in all areas, as reported by the Family and Childcare Trust Survey; the figure from the 2017 survey was 67 per cent,[2] and by 2020 sufficiency had increased to 82 per cent (for the 15-hour entitlement).[3]

Figure 2 **Falling numbers of births since 2012 mean less need for pre-school provision**

Number of children aged 2-4, actual and projection: England, 1991-2022



NOTES: Dotted line represents projected numbers. Projections are based on the number of children aged 0-3 in 2020 with the assumption that children aged 0-2 in 2020 will be the children aged 2-4 in 2022. These figures do not account for migration, adoption from abroad or death.
SOURCE: ONS, Population estimates by single year of age; RF projections.

The trends shown in Figure 2 suggest that, across England as a whole, pressure on early years education will likely continue to fall over the next decade. This is likely to be good news for parents and children, given the historical under-supply of such places, and it is certainly good news for the Government, as it allows the Department for Education (DfE) to reallocate some of the funding for early years education to other parts of the education sector that will be facing pressures. For private providers, though, this potential drop in demand will not be welcome, particularly as it comes on top of challenges from the fallout of Covid-19, as well as recent real-terms falls in government spending per hour of childcare provided since 2017.

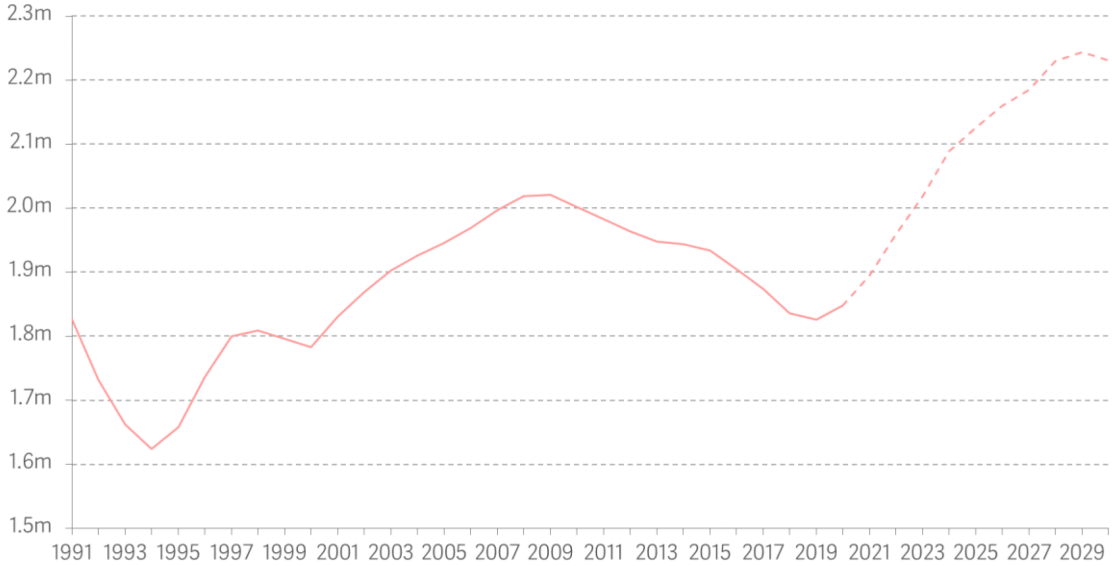
But pressures are building further up in the education sector

The cohort of children born during the last low point for births (2002) began secondary education in 2013, and reached age 16 in 2018. As Figure 1 showed, the number of births then rose in each of the following 10 years. Those increasing cohort sizes have already been putting pressure on the schools budget, contributing to the real-terms fall in per-pupil funding in schools. Now that pressure is about to apply to the post-16 secondary education and training sector.

Figure 3 illustrates the turning point that the sector is facing. After reaching a low point in 2019, the number of 16-18-year-olds in England started to increase last year: between 2020 and 2025 the number of 16-18-year-olds will have risen by 15 per cent (that is, 278,000), and this pressure will continue to build over the course of the next decade as those born around the 2012 birth boom turn 16. The Association of Colleges (AoC) have estimated that this will lead to an additional 90,000 students studying in colleges by 2024/25.

Figure 3 **A rising number of births through the 2000s is about to put pressure on the post-16 secondary education and training sector**

Number of people aged 16-18, actual and projection: England, 1991-2030



NOTES: Dotted line represents projected numbers.
SOURCE: ONS, Population estimates by single year of age; ONS, Population projections by single year of age.

And these demographic challenges come on top of immediate pressures in the education sector caused by the Covid-19 pandemic. First, many will have missed education in the past two school years due to the disruption and need catch-up learning. Second, demand for full-time education is expected to increase because the pandemic has reduced the number of apprenticeship and training places available (with the Institute for Fiscal Studies (IFS) estimating that 15-20 per cent fewer apprenticeship and training places will lead to an increase in the participation rate in full-time education of 1.5-2 percentage points). Finally, any weakness in the labour market, especially as furlough ends later this month, could lead to an increase in the rate of participation. These challenges also come on top of declines in per-pupil funding in further education (FE) colleges and school sixth forms since 2010/11 that have been greater than the other parts of the education system, according to IFS calculations.

Given that student numbers look very likely to be structurally increasing year-on-year, the way that schools and FE colleges are funded – based on enrolment in the previous academic year – will be even less adequate in the years to come. The 16-19 funding system does have an in-year funding mechanism to address within-year growth in student numbers, but it is unreliable, given that it is available subject to affordability, and ultimately it is not designed to address structural growth that is seen widely across the country.

In 2020, the DfE introduced an £83 million capacity fund to help colleges meet additional 16-19 pressures in 2022/23, which will be helpful. However, it is not available to independent providers or school sixth forms, and, given that demographic growth will continue beyond

2022/23, it will not provide a longer-term solution. The further education sector urgently needs a structural solution to funding that can deal with the demographic changes that the country faces.

The rising cohort sizes shown above also have implications for higher education. The Higher Education Policy Institute find that the post-2002 baby boom alone would increase demand for full-time higher education places in England by 40,000 a year by 2035. If on top of this, participation rates continue to rise at a steady pace, then an extra 358,000 places will be needed by 2035. The Government should therefore expect continuing substantial growth in student numbers. Universities in England are funded through a demand-led structure, which means that much of their funding automatically expands with the number of students enrolled in that year. However, there may be physical limits to how many more students they can accommodate, and this suggests that further capital investment to increase capacity may be needed.

As a side note, it is surprising that these projections of future cohort sizes are not used more by the DfE to project pupil numbers in different educational settings. Although the DfE provides pupil projections for those up to the age of 15, they do not do the same for students over age 15, despite the legal obligation to provide some form of education for all young people up to the age of 18. According to the AoC, this makes planning difficult, and also risks leading to lower funding per person. To simplify planning for both colleges and the Government, the DfE should publish student number projections covering 16-18-year-olds across all educational settings.

The post-2002 baby boom will soon mean an influx of new workers

Responding to the challenges of providing high-quality education to everyone in the most recent birth boom will not only be important to the individuals themselves: it is also a rare opportunity for the country to educate a new, large cohort of future workers. As the UK enters a decade of monumental change as it takes on the challenges of Brexit, Covid-19 and the Net Zero transition, it will need to prepare its workers for the emergence of new jobs and the disappearance of others.

Having a large cohort of young people at the precipice of engaging in specialised education is a rare opportunity for the country to take advantage of a large number of workers and their fresh human capital. However, it is not a given that this opportunity will be taken. As we have documented previously, young people are increasingly concentrated in low-paid industries (retail, hospitality, and arts and leisure). We will come back to some of the ways the country can take on opportunities to address the challenges of Brexit and Covid-19 and facilitate the Net Zero transition in our forthcoming Economy 2030 Inquiry work.

Conclusion

This note has discussed some of the implications that the most recent birth boom and bust will have on public funding. We have discussed challenges and opportunities as this cohort of children and young people go through the education system. The underlying demographic boom in young people is a great opportunity – but also a challenge – for the country to gain a boost in human capital. This will be necessary as we look ahead to a decade of change.

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1 The data referred to in this paragraph is from: Office for National Statistics, Birth Characteristics, England and Wales, November 2020; Office for National Statistics, Provisional Births in England and Wales, June 2021.

2 These figures are based on surveys from local authorities in England, Scotland and Wales, which were returned to the Family and Childcare Trust between November 2017 and January 2018.

3 These figures are based on surveys from local authorities in England, Scotland and Wales, which were returned to Coram Family and Childcare between November 2020 and January 2021.