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# Ireland's growing population – an emerging challenge

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## Background

The principal focus of this chapter is projecting the population of Ireland. This will draw on the work we have carried out in the Central Statistics Office (CSO) on national population and labour force projections[2] and more recently on regional population projections[3]. Some of the issues which will be touched on are the likely magnitude of the young, old and working age populations, the mix between Irish and foreign born persons, labour market movements and regional projections.

The chapter will also touch on related topics such as different household types, the changing urban/rural mix and commuting patterns. However, these will not be based on formal projection models but rather on observing past trends and postulating about the likely shape of future developments.

The chapter sets out to provide a statistical backdrop to the contributions of other speakers at the Social Policy Conference. I am more than happy to leave it to them to tease out the societal implications of the projections with particular focus on fairness and

1 The views expressed in this chapter do not necessarily reflect CSO thinking.

2 Central Statistics Office, 2004. Population and Labour Force Projections, 2006-2036, Pm 4017.

3 Central Statistics Office, 2005. Regional Labour Force Projections, 2006-2021. Statistical Release.

wellbeing – the theme of today's conference. The present chapter will confine itself to remarking only on the more obvious policy implications of the projections reported on.

## Assumptions

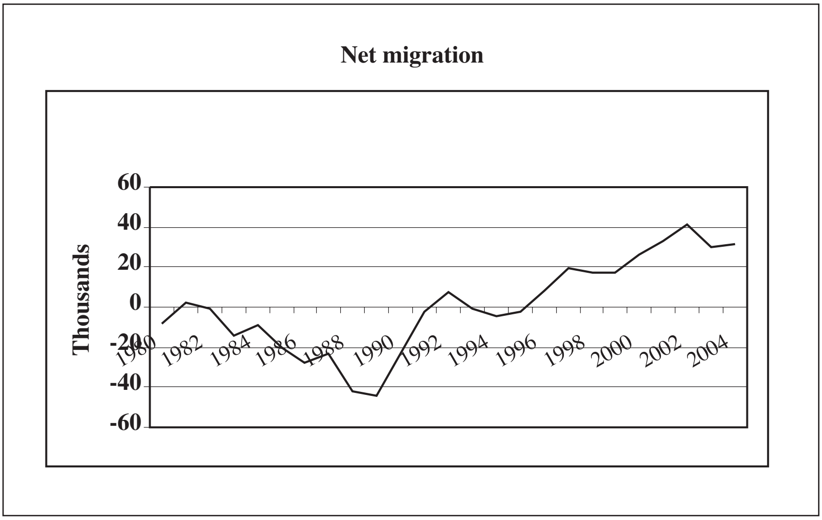
All projections rely on assumptions to guide them. Normally the debate is not around the methodology employed in the projection model but rather whether the assumptions used are perceived to be realistic or not. Of course, only time will ultimately tell how realistic they are. For population projections we need to concern ourselves with births, deaths and the difference between the number of immigrants and emigrants (i.e. net migration). While births and deaths are usually fairly predictable, the magnitude and indeed the direction of net migration are more difficult to forecast. Net migration may fluctuate in any given period although in recent years it has been consistently inwards.

Looking at births first, what we really need to focus on is the number of women in the child bearing age groups and the fertility rates of these women i.e. the average number of children per woman. The child bearing age groups are essentially within the 15 to 49 year age range but it is really sufficient to focus on women aged 20-39 who account for over 90 per cent of all births. It is a popular misconception (no pun intended) that fertility in Ireland did not begin to decline until after 1980 whereas in fact the process had begun as far back as the mid-1960s. While the peak number of births (74,000) did occur in 1980 the total fertility rate had been in decline from its 1965 level of four children per woman to 3.2 by 1980 (it currently stands at 2 children per woman). The explanation lay in the fact that the increase in the number of women of child bearing age more than counterbalanced the decline in the fertility rate during the 1960s and 1970s. As to the future, the most likely scenario is that our fertility rate will approach that of our Northern European neighbours. Translated into numbers this assumes that the total fertility rate will fall from its current level of 2 to about 1.85 by 2011 and remain constant thereafter. However, the projected increase in the number of women aged 20-39 will more than compensate for this assumed decline in fertility. The resulting average annual number of births over the next 25 years will probably be about 5 per cent higher than over the last quarter of a century.

The second ingredient in the mix is the number of deaths. Despite the continuing fall in the mortality rates of men and women in this country, life expectancy at birth in Ireland is still relatively low compared with many of our European neighbours. The 2002 figures stood at 75.1 years for males and 80.3 years for females compared with European highs of 79.0 (Iceland) and 83.6 (Spain), respectively. There is general agreement that the improvements in life expectancy will continue in the foreseeable future. For our population projections we have assumed that the average annual improvements observed over the past fifteen years or so will continue for the next thirty years. This will result in life expectancy at birth in 2030 being of the order of 81.5 for men and 86.0 for women – narrowing but not eliminating the gap between ourselves and the best of the European countries.

The final component of the projections is net migration – the difference between inward and outward migration. The graph illustrates the volatility of the situation over the past 25 years. The recent period will be familiar to most – immigration averaging 55,000 a year, emigration averaging 25,000 a year over the past six years resulting in net inward migration of approximately 30,000 annually. However, we have to look no further back than the late 1980s to experience net emigration of over 40,000 a year. The recent situation is clearly linked to the strong performance of the Irish economy and labour force. However, what does the future hold in store? Certainly the outlook in relation to migration has been altered by the experience of recent years to the extent that it now appears unlikely that net immigration will be reversed to any sustained degree in the coming decade or two.

Two migration assumptions were used. The highest of these (M1) assumed a continuation of net inward migration of 30,000 per annum for the next decade to be followed by 20,000 per annum for the following decade and finally by 15,000 per annum in the last five years to 2030[4]. The present chapter uses the results derived from this high migration scenario.




## Population of 5 1/2 million by 2030?

Most of the change in population over the last quarter of a century has been as a result of natural increase i.e. the excess of births over deaths. Births averaged 60,800 annually while deaths numbered about 33,000 each year leading to an annual natural gain in population of 27,800. As the earlier graph showed, net migration was outwards in the 1980s and early 1990s and strongly inwards ever since leading to a fairly neutral position over the last 25 years. In fact over the entire 25 year period net inward migration was a mere 11,000.

4 The low migration scenario M2 assumes average annual inflows of 9,000 over the next 25 years.

Looking to the future, projected births and deaths over the next 25 years will not differ significantly from the corresponding earlier period. Births are projected to average around 63,300 annually with deaths averaging 32,400 - leading to an annual natural increase in population of 30,900. However, migration is projected to differ markedly from that experienced in the past. The assumptions underlying the projections imply an annual average migration gain of about 25,000 over the next quarter of a century.

Using the above fertility, mortality and migration assumptions gives a projected population of 5_ million in 2030 compared with the present level of just over 4 million. To put matters into perspective this implies that the population is projected to grow by about 1.2 per cent on an annual average basis in the next 25 years compared with 0.7 per cent in the last 25 years.

It is worth dwelling on what the impact of the M1 migration assumption would be for the composition of our population 25 years hence. In a recent OECD[5] study Ireland ranked eleventh highest of twenty-six OECD countries in terms of percentage of foreign-born population (10.4% compared with an average of 7.8%)[6] and eighth highest of twenty-three of the countries in terms of percentage of non-citizens (5.9% compared with an average of 4.5%). On the basis of the high migration assumption the proportion of foreign-born persons could exceed 1 million[7] by 2030 compared with 400,000 at the time of the 2002 census. This would equate to about 18 per cent of the population in 2030, higher than the present rate in the following high immigration countries: Sweden, United States, Germany and Austria; though lower than the present rates in Canada, New Zealand, Switzerland, Australia and Luxembourg.

5 Dumont, Jean-Christophe and Georges Lemaitre, 2004. Counting Immigrants and Expatriates in OECD Countries: A New Perspective, OECD, Directorate for Employment, Labour and Social Affairs.

6 Half of the 10.4% were born in Britain, many to Irish parents who returned to live here with their children.

7 The country of birth breakdown of the projected 1 million would differ significantly from the composition of the current 400,000 foreign born persons.

In the absence of migration the population would still continue to grow between now and 2030 - albeit at a more modest rate of 0.6 per cent per annum – close to what was achieved in the previous 25 years. It should be borne in mind that this "modest" projection would still exceed the rates projected by Eurostat for all but two (Cyprus and Luxembourg) of the EU25 member states!

## An ageing population

The projections do not simply provide us with an estimate of the overall magnitude of the projected population; they also provide an indication of its likely age structure. Just over 30 per cent of the population was aged under 15 years in 1980 while the relevant proportion aged over 65 years was 10.7 per cent. At present these percentages are 20.9 per cent and 11.2 per cent, respectively. By 2030 it is projected that the young will make up 18.8 per cent of the projected $5^1/_2$ million population while older persons will account for 17.5 per cent of the total. By expressing the young and the old populations as a percentage of those aged 15 to 64 years (i.e. the so-called population of working age) we get an estimate of the age dependency of the population. This has fallen from 70 per cent 25 years ago to its present level of 47 per cent but is projected to increase again, mainly as a result of an ageing population, to reach a level of 55 per cent by 2030. We are thus at a very advantageous demographic stage at present with the situation projected to deteriorate somewhat into the future.

## The labour market

First, a word of caution. Because of the uncertainties involved, Statisticians rarely project the labour market beyond a 10 to 15 year time horizon. However, as the period to 2030 is our focus here it was necessary to roll the official projections on a further 10 years or so. The approach taken has been to maintain the participation rate assumptions constant at their 2016 level for the remainder of the extended projection period thereby allowing demographic projections to determine labour force growth beyond 2016. The results are somewhat conjectural for the latter part of the forecast period.

The likely magnitude of the projected population of working age will clearly be a key determinant of the labour market into the future. Under the M1 migration assumption this will increase from its present level of $2\frac{3}{4}$ million to $3\frac{1}{2}$ million persons by 2030. However, the participation rates of persons of working age will also have a major role to play. In this regard it is necessary to distinguish between males and females. It is unlikely that there will be much change in the labour force participation of males aged less than 55 years while a tightening labour supply situation may result in a greater proportion of males aged 55 years and over continuing on in the labour force. The participation rates of females, especially those with children, are assumed to continue to increase. Despite the major gains in recent years these rates currently lag behind those of our Northern European neighbours.

The link between economic and labour force growth and migration is a critical one. Since the early 1990s economic growth, as measured by GNP, has averaged about $5\frac{1}{2}$ per cent per annum. Throughout this period the labour force has grown at an annual average rate of over 40,000 (2.7 per cent per annum) while annual net inward migration has averaged 17,000. Looking to the next decade, the M1 migration scenario would allow labour force growth of 38,000 annually (1.8%) while zero net migration would constrain annual growth to around 17,000 (0.8%). The relationship between the labour force and migration is such that for every 10,000 shortfall in the projected labour supply an additional 15,000 immigrants would be required to bring supply and demand into balance.

Looking at the 25 year period to 2030, reliance solely on domestic demographic sources would slow average labour force growth to 9,000

(0.4%) per annum. The M1 migration scenario (net immigration of 30,000 per annum reducing to 20,000 and then 15,000) would yield annual labour force growth of 26,000 (1.2%). This would result in a labour force of 2.6 million in 2030 compared with 2 million at present with over two thirds of the increase coming in the first decade of this period.

## The regional dimension

Inter-regional migration movements were both stable and predictable during the 1980s and 1990s – they tended to be towards Dublin and the Mid-East from all other regions in the State. However this pattern changed radically in recent years and culminated in a so-called "over spill" situation whereby the net flow was outwards from Dublin to the Border, Mid-East, Midland and South-East regions. The main reason put forward for this was a shortage of affordable housing in Dublin. Making projections in such a changing environment is therefore fraught. For this reason it was decided to focus on the period to 2021 only in the official projections.

Three scenarios were chosen: the *recent* scenario envisaged recent trends continuing in the medium term and then moderating by 2021; the *traditional* scenario envisaged a reversion to the long-term 1980s and 1990s pattern in the medium-term while the *medium* scenario is located between the recent and traditional variants.

With strong population growth projected at national level it is hardly surprising that all regions are projected to experience population increases regardless of the scenario chosen. Annual regional growth rates in the period to 2021 will be in the range 0.9 to 2.3 per cent for *recent*, 1.0 to 2.2 per cent for *medium* and 0.9 to 2.1 per cent for *traditional*. The Dublin region will be the one whose population growth rate will be most affected by the differing internal migration assumptions. The growth rate will vary from 0.9 per cent for *recent* to

1.3 per cent for *medium* to 1.7 per cent for *traditional*. The Mid-East will grow at an average annual rate in excess of 2 per cent, while the West region will also gain population share, regardless of the internal migration variant chosen.

## Living arrangements

Declining fertility, increased life expectancy and a greater propensity towards earlier household formation have seen the number of private households increase from 867,000 in 1979 to 1,280,000 by 2002 – an increase of 47.6 per cent or 1.7 per cent per annum. Average household size declined steadily from 3.8 to 2.9 over the same period. Over two-thirds of all households had fewer than four persons in them in 2002 compared with just over a half in 1979. In particular, the proportion of one-person households has risen steadily from 16 per cent in the earlier period to 21 per cent in recent times. Among these are household occupied by old persons i.e. those aged 65 years and over. At present over one in four old persons are living alone – up from one in six in 1979.

The downward trend in average household size is likely to continue over the next 25 years, if not quite at the pace of the last quarter of a century. Even on a conservative basis this would result in about 2 million private households by 2030. Three out of four of these households are likely to have less than four persons in them while the number of one-person households is projected to increase from its present level of over 270,000 to half a million by 2030. With an ageing population it is to be expected that the proportion of persons aged 65 years and over living alone will also maintain its upward path.

The increasing trend towards urbanisation is also likely to continue apace. Approximately 60 per cent of the population lived in urban areas in 2002 compared with 38 per cent in the late 1970s. Based on current settlement patterns it is highly likely that three out of four persons will live in built up areas by 2030. However, a major question is whether the low-density urban sprawl, which has occurred over the past decades, is allowed to continue or whether existing built up areas are developed to allow for more medium and high rise apartment blocks. Continued urban sprawl will bring in its wake a number of undesirable side-effects, including:

- an increased reliance being placed on private transport – 69 per cent of workers used private transport to travel to work in 2002 compared with 49 per cent in 1981.
- longer distances being travelled to work – up from 6.7 km in 1981 to 15.7 km in 2002; and
- more time being spent commuting.

## Lessons

The pace of demographic change experienced in this country in the last quarter of a century has been unparalleled elsewhere. The outlook is for continued population growth, which even in the absence of net immigration is likely to be well in excess of that projected for our European counterparts. While the annual numbers of births and deaths have been reasonably predictable, both the magnitude and direction of migration have been strongly influenced by economic and labour market developments. For example in the late 1980s, when economic growth rates were depressed, the unemployment rate exceeded 16 per cent and net outward migration was running at over 40,000 per annum. In the more recent environment of high economic growth the unemployment rate has fallen to 4 per cent and net inward migration has been averaging around 30,000 annually.

But high growth rates have also posed a number of interesting challenges. Problems have arisen in the housing market with affordability being one of the main concerns. As a result individuals and couples have had little option but to locate their dwellings at significant distances from their workplaces. The car has tended to be the only realistic means of transportation to work with the result that longer commutes have put additional pressure on an already overburdened road system. The provision of suitable crèche facilities has also proved to be a fairly intractable problem.

The inevitable question is whether the pursuance of maximum growth should be the goal of economic policy any longer. The alternative policy of aligning economic growth more closely with our ability to supply the necessary labour force from domestic sources is worthy of serious consideration. Domestic sources of labour force supply could still see economic growth rates of 3 to 4 per cent being attained with due allowance being made for productivity gains. Persisting with the present policy will see additional pressure being brought to bear on already over stretched infrastructure.