



# Wealth of the Nation

Who Will Do the Jobs?



## About the David Hume Institute

The David Hume Institute is an independent, non-partisan, evidence-based policy institute that has been operating at the heart of Scottish policy debate for more than 30 years.

### Research on some of the country's most pressing challenges

We aim to produce original research with an emphasis on economic and education policy issues. Our research is independent and evidence-based, and we share our ideas with policy makers from all sides of the political spectrum.

We take the perspective of the Scottish public rather than that of any interest group. To safeguard our independence, we receive no government funding and do not undertake commissioned work. We are rigorous in obtaining the best-available evidence from our own data analysis and from published work.

### Events that are open to all

We host thought-provoking events which bring together expert speakers and an informed, interested and engaged audience. Our speakers come from across the political spectrum, both nationally and internationally.

For details on how to support our work, see [www.davidhumeinstitute.com](http://www.davidhumeinstitute.com).

## Acknowledgments

This report was written by Jane-Frances Kelly, Director of the David Hume Institute, and Mark Mitchell, Fraser of Allander Institute.

The Fraser of Allander Institute provided substantial research assistance. We'd particularly like to thank Graeme Roy, Mairi Spowage, Stuart McIntyre and Ben Cooper. We would also like to thank Christina Boswell, Stephen Boyd, Stephen Boyle, Michelle Brown, Kristian Kerr, Martin McCluskey, David Torrance, Becca Llewellyn and Sarah Wotton.

The opinions in this report are those of the authors and do not necessarily represent the views of the David Hume Institute's trustees, supporters or affiliates. Any remaining errors or omissions are the responsibility of the authors.

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License and may be cited as Kelly, J-F., Mitchell, M. (2019) *Wealth of the Nation: Who Will Do the Jobs?* David Hume Institute.

September 2019



## Overview

Current employment rates in Scotland are at a near-record high, and we have become used to thinking that the labour market is in good health. Meanwhile, coverage of the jobs market tends to focus on “noise” (minor fluctuations in quarterly data), rather than the “signal” (significant longer-term trends).

However, Scotland has a lower birth rate than all other parts of the UK, as well as 29 of the 36 OECD member countries. Our population is also ageing fast: since 1998, there has been an increase of 31% in the number of people in Scotland aged at least 75, and a decline of 8% in those aged 15 and under.

In addition, recent population growth in Scotland has been driven by positive net migration. Just over 7% of employment in Scotland comprises non-UK nationals, 71% of whom come from EU member states. But migration to Scotland, which was already lower than that to England, has been falling in recent years. Looking ahead, there is enormous uncertainty over the impact of Brexit on future immigration rates.

By 2041, the pension-age population is projected to increase by 265,000, while the working-age population is only projected to rise by 38,000.

The defining challenge of the future will therefore be a

shortage of workers. And, given the ageing population, the health and social care sector is likely to be particularly affected by labour shortages.

This report seeks to refocus attention on the labour supply challenges heading Scotland’s way – and what we can do to meet them.

There is room for an increase in participation rates: for example, male participation rates are below historical highs. Technological change will make some difference, though historical experience suggests this is usually over-predicted. But even together these will not be enough to cover expected shortages.

Immigration must, therefore, be a priority.

Scotland has different needs to our larger southern neighbour, so we need an immigration policy that takes account of requirements in different parts of the UK.

The Canadian immigration system does exactly that, and, in a detailed case study, this report explores what the Scottish and UK Governments can learn from how the Canadian provincial and federal governments work together on an immigration system that works for both.

<b>1. Introduction.....</b>	<b>1</b>
<b>2. The future of the Scottish labour market.....</b>	<b>2</b>
2.1 What is the labour market? .....	2
2.2 Changing labour supply .....	2
2.3 Changing labour demand.....	8
2.4 Summary of challenges.....	11
<b>3. Scottish and UK Government policy.....</b>	<b>12</b>
<b>4. Case study: the Canadian immigration system</b>	<b>18</b>
<b>5. Conclusion .....</b>	<b>26</b>
<b>References .....</b>	<b>27</b>

## 1. Introduction

### 1.1 What this report is about

Fifteen to twenty years ago, it looked as though Scotland's population might dip below five million people, and politicians and policymakers worried about running out of people. Then population decline went into reverse, thanks to increased immigration, including from other EU countries.

Now, however, it looks like we are once again going to face a significant shortage of workers. This report, therefore, seeks to spotlight the under-appreciated demographic challenges facing the Scottish labour market.

The intended audience is anyone who cares about the future of the Scottish economy. Only a small proportion of those are economists and, as the labour market is for most people an abstract economic concept, we have sought to explain its functioning in layperson's terms.

### 1.2 What this report is not about

This report is predicated upon current constitutional arrangements. This does not imply a political preference, but recognises that demographic challenges – and many of the

possible responses to those challenges – remain similar whatever Scotland's future relationship with the UK and EU.

This report does not seek to provide definitive accounts of how the Scottish labour market works. For example, the report does not concentrate on job mobility, job quality, the gender pay gap or regional variations. These subjects, and many more relevant to the labour market, are vital, but are not the focus of this report, which concerns the overall demographic challenge facing Scotland.

We acknowledge that this report is far from comprehensive. There will be many important examples and research that we have missed; we encourage readers to point them out to us.

### 1.3 How this report is structured

Chapter 2 of this report describes how the Scottish labour market currently works and how it might evolve in the future, particularly its demographic aspects. Chapter 3 looks at current Scottish and UK Government policy settings, while Chapter 4 explores how the Canadian immigration system works, and what we might learn from it. Our findings – and their implications for Scotland – are summarised in Chapter 5.

## 2. The future of the Scottish labour market

This chapter briefly describes what a labour market is and then looks in more detail at labour supply (workers) and labour demand (the businesses and others who need people to fill jobs). In discussing supply and demand, we focus in particular on how those might change in the future.

### 2.1 What is the labour market?

The word “market” suggests a forum in which something is bought and sold. Loosely speaking, in the “labour market” the something being “bought” and “sold” is work. All those willing to work define the supply of labour, and the available jobs determine demand for that supply.

The number of people available for work, however, does not completely describe labour supply. The characteristics of individual workers, such as the qualifications and training they bring to the labour market, are equally important. It is also not enough to think of the total number of jobs as fully characterising labour demand: each industry and occupation requires a different skillset from its workers.

In many economies, government plays a central role in the labour market, mainly through establishing “institutions” with the purpose of managing supply and demand. These

institutions can take the form of laws, agencies, welfare or education and training systems.

Currently, employment and unemployment rates in Scotland are at near-record levels, suggesting the labour market – by this measure – is in fact functioning well.<sup>1</sup>

Labour markets are also extremely dynamic. As an economy’s workforce, the economy itself, wage levels, technology or the political landscape change over time, so does labour supply and demand. This makes the labour market a complex, interdependent system, the evolution of which is hard to predict.

### 2.2 Changing labour supply

The number of individuals who have completed mandatory education and are either in, or actively seeking, work, constitutes an economy’s labour supply.<sup>2</sup>

These individuals will differ in, among many other things, their

---

<sup>1</sup> Scottish Government, 2019b. There are, of course, many important aspects of both work and the labour market that employment and unemployment rates do not measure.

<sup>2</sup> Often the workforce is defined as the “working-age population”, which in the UK is currently defined as those aged 16-64.



skills, qualifications, gender and age. It is these attributes that dictate the composition of labour supply.

The change in the number of people available to do jobs is determined by two main demographic flows: the movement of people in and out of the workforce as they become ready for their first job and then later retire; and “net migration”, the difference between those who have come to the country from elsewhere to work, and those of working age who have left.

Not everyone of working age, however, is available to work. Participation in the labour market – broadly defined as being in or actively looking for work – is therefore important in determining the size of the workforce.

This section looks at each of these characteristics of labour supply in turn: population change (births, deaths and the age structure of the population), net migration and participation.

### Population change

For most of the three decades preceding the turn of the millennium, Scotland’s population was in decline. Since 2000, however, there has been an increase of just under 400,000 in the number of people living in Scotland. As a result, it is estimated that in 2018 the country had 5.44 million residents.<sup>3</sup>

---

<sup>3</sup> National Records of Scotland, 2019a.

In recent years, this growth has slowed. Between 2016 and 2018, the annual change in Scotland’s population fell from 0.6% to 0.25%, and for the entire period between 2000 and 2018, growth averaged 0.4% per year.<sup>4</sup>

The nation’s population has also been ageing for the past two decades. Since 1998, there has been a 31% increase in the number of people aged at least 75, and a 28% increase in those aged 65-74. Over the same period, the population aged 15 and under has declined by 8%.<sup>5</sup> In addition, Scotland currently has a lower rate of births than all other UK nations and regions, as well as 29 of the 36 OECD (Organisation for Economic Cooperation and Development) member countries.<sup>6</sup>

This ageing is projected to continue until at least 2041 as the gap between deaths and births grows and the children of the baby boomers age. As a result, the vast majority of any population growth over the next two decades will be driven by growth in the pension-age population, not those currently considered to be of working age (16-64; Figure 1).

The proportion of the population aged over 65 has been steadily rising in many countries over the past two decades, while birth rates have declined. As such, the old-age dependency ratio in Scotland – the ratio between the number

---

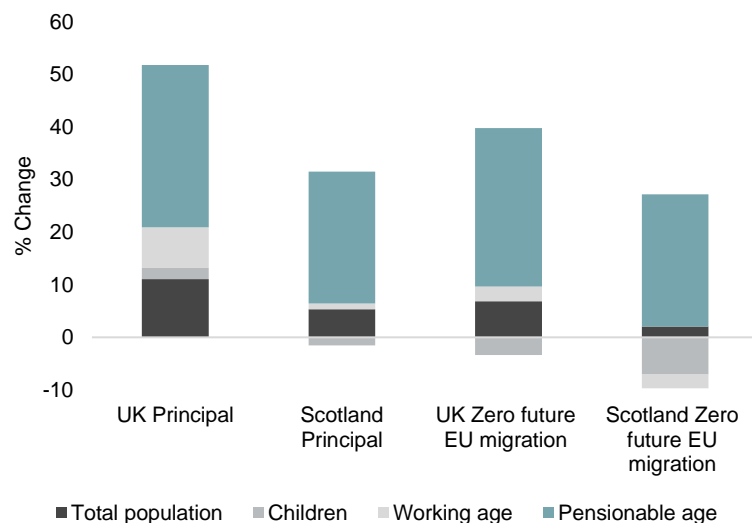
<sup>4</sup> Ibid. Population estimates are mid-year estimates.

<sup>5</sup> National Records of Scotland, 2019a.

<sup>6</sup> OECD, 2019a; National Records of Scotland, 2019b.

of people aged at least 65 and those aged 15-64 – is similar to that of the UK as a whole, and slightly below the EU average.<sup>7</sup>

**Figure 1 - Projected population by age group, Scotland, 2016-2041**



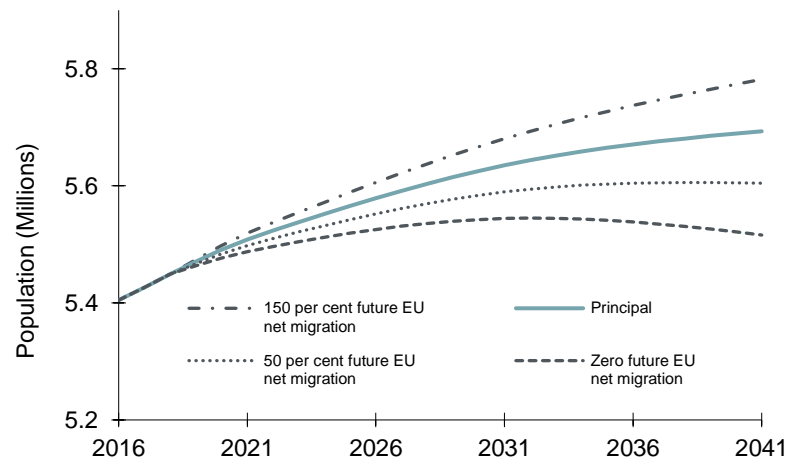
**Note:** Zero *net* migration; **Source:** National Records of Scotland, 2017.

National Records of Scotland (NRS) projections suggest Scotland’s slower growth is set to continue, with its population projected to increase by only 5.3% until 2041 (Figure 2).<sup>8</sup>

<sup>7</sup> OECD, 2019b; National Records of Scotland, 2019a; OECD, 2019a.

<sup>8</sup> National Records of Scotland, 2017. Population projections rely on assumptions about death and birth rates, net migration, retirements, the prison population and Armed Forces movements. All projections come with

**Figure 2 - Projected population, Scotland, 2016-2041**



**Source:** National Records of Scotland, 2017.

Given the uncertainty surrounding the impact of the UK’s exit from the European Union, the NRS also offers projections under a number of post-Brexit scenarios. When considering more extreme reductions in inward migration from EU countries, Scotland’s population growth is projected to be even weaker (Figure 2).

high levels of uncertainty and can change drastically when the assumptions are varied.

**Box 1 - The Scottish population over the last 150 years**

Scots have long left their country for new beginnings around the world. From the 1850s until around 2000, Scotland had the second-highest emigration rates of any part of north-western Europe.<sup>i</sup> Depopulation, therefore, has been a characteristic of Scottish life for generations. Some of this can be attributed to events such as the Highland Clearances, but as Michael Anderson has highlighted, “for most of the second half of the 19<sup>th</sup> and all of the 20<sup>th</sup> centuries, rates of out-migration and emigration were at least as high from most areas of lowland Scotland as from the highlands and islands”.

This evidence is largely at odds with our national story. While other countries – such as Ireland – have confronted their high levels of emigration, Scotland has not. This is a striking omission, given that, as Anderson also concludes, “the persistence of [Scotland’s] population decline was unique in Western Europe in the second half” of the twentieth century.

Some of this emigration can also be explained by the loss of industrial jobs and the resulting movement of people to find employment elsewhere. However, recent evidence suggests that Scotland has never generated the economic opportunities to meet demand within its borders.<sup>i</sup> This has led to a significant Scottish diaspora (see Box 2). But Scotland now faces a different problem as, for the first time, we will need more people than we have to fill the available jobs.

**Net migration**

Scotland’s recent population growth has been driven by positive net migration, not the “natural” change that occurs as births outnumber deaths.

Since 2001, net migration from both the rest of the UK (rUK) and overseas has been positive, while there have been more deaths than births in 10 of the last 18 years (Figure 3).<sup>9</sup> This is not to say, however, that Scotland has experienced mass inward migration from overseas. Non-UK nationals only make up 6.6% of Scotland’s population, compared with roughly 10% in England and a UK average of 9.3%.<sup>10</sup>

In fact, reduced migration from overseas has underpinned the recent slow-down in Scotland’s population growth. In 2018, net rUK and overseas migration to Scotland were roughly similar, while in much of the past 18 years net migration from overseas has been much higher than from other parts of the UK.<sup>11</sup> This is typically the case because, although more people move to Scotland from other parts of the UK than from overseas, many more Scots move to other parts of the UK than go abroad.

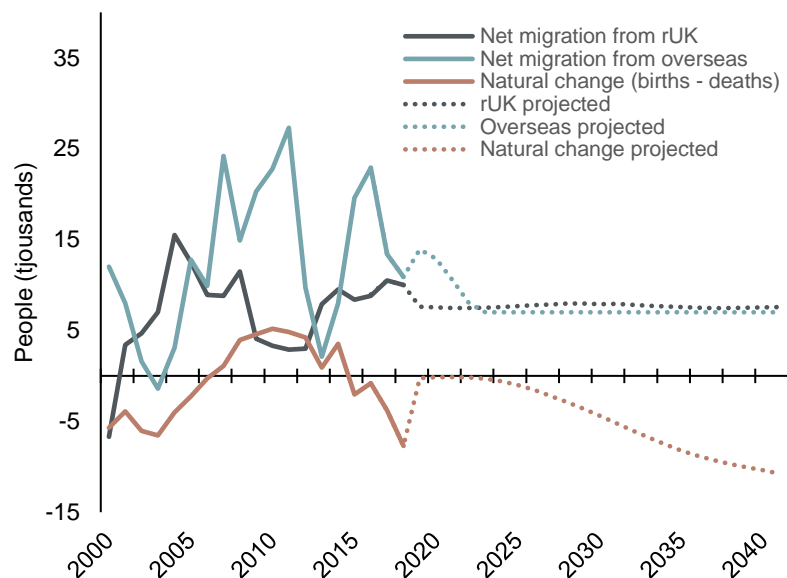
<sup>9</sup> National Records of Scotland, 2019a.

<sup>10</sup> ONS, 2019c.

<sup>i</sup> Anderson, 2018.

<sup>11</sup> National Records of Scotland, 2019a.

**Figure 3 - Sources of population change (thousands), Scotland, 2000-2041**



**Source:** National Records of Scotland, 2017.

Net migration from overseas, however, is projected to reduce significantly in the coming years. According to the main NRS projections, a sharp decline in those moving to Scotland from abroad is expected until 2023 after which, although still positive, net migration from overseas is expected to remain constant and slightly lower than that from rUK.<sup>12</sup>

Some industries depend heavily on immigration as a source of

<sup>12</sup> National Records of Scotland, 2017.

labour. For example, in 2018, non-UK nationals accounted for 12.1% of total employment in the distribution, hotel and restaurant industries.<sup>13</sup>

As is typical of migrants worldwide, non-UK nationals living in Scotland are on average considerably younger than the domestic population. In 2018, 67% of people moving to Scotland from overseas were aged 16-34, compared with the 24% of the Scottish population who fall into this age bracket.

The extent to which net migration from overseas is reduced in the coming years will, therefore, contribute to the ageing of Scotland's population.

Migrants are also typically more qualified. Non-UK nationals who live and work in Scotland are, on average, more likely to have at least a degree-level qualification than UK nationals: 38.4% and 42% of EU and non-EU nationals in Scotland have completed some form of tertiary education, compared with 28.7% of UK nationals.<sup>14</sup>

<sup>13</sup> Scottish Government, 2018a

<sup>14</sup> Ibid.

**Box 2 - The Scottish diaspora**

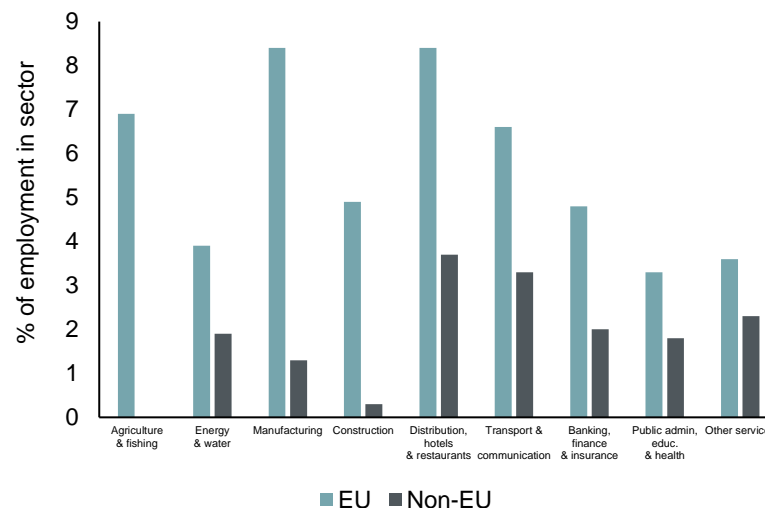
Many people from Scotland have left to find work and build a new life elsewhere. The Scottish diaspora is often wealthy, highly skilled and suited to many of the roles that Scotland needs to prosper. Despite this, Scotland has never successfully cultivated or targeted its diaspora, even though many of them are in London – less than 400 miles from the Scottish border.

The lack of a targeted campaign in Scotland is in striking contrast to places like Ireland, Australia and New Zealand, who have targeted recent emigrants for their skills and encouraged them to return home. In the 1990s, Ireland managed to reverse its pattern of net emigration by targeting Irish emigrants and their children.<sup>ii</sup> People returning home at Christmas and Easter vacations were welcomed with an invite to “give Ireland a second chance”.

The Scottish Government should seek to mobilise the Scottish diaspora. Many are well off, highly skilled and could contribute to the Scottish economy. This could either be pursued with a concerted strategy as in other countries, or with efforts to encourage short-term returns to make a contribution in particular jobs or sectors. The latter could be achieved with short-term return fellowships, which could encourage Scots to take up academic or industrial posts.<sup>iii</sup>

Lower-skilled occupations also rely heavily on migration from overseas. For example, in 2017 it is estimated that 15.1% of those employed in occupations categorised as “elementary” were non-UK nationals (12.1% from the EU). Similarly, just over 6.4% of employment in “caring, leisure and other services” relied upon migrants.<sup>15</sup>

**Figure 4 - Employment of EU and non-EU nationals in industry sectors in Scotland, 2018**



**Note:** Share is of total number of each nationality in employment.

**Source:** Scottish Government, 2018a.

<sup>15</sup> Scottish Government, 2018a.

<sup>ii</sup> Alexander, 2003.

<sup>iii</sup> Fullilove & Flutter, 2004 make a similar proposal for Australia.

## Participation

Not all people of working age participate in the labour market. Participation can be influenced by – among other things – labour demand, culture, pensions policy, economic change and the availability of education and training. The proportion of Scotland’s working-age population who are working or actively looking for work is currently at around 78.4%, an increase of around 1 percentage point since 2005.<sup>17</sup>

Over the same period, participation rates have changed depending on age. Those aged 50-64 are now much more likely to engage in the labour market than they were 15 years ago, with their participation rate rising by almost 8 percentage points over that time. Those over 65 have also experienced a 3.4 percentage point increase in their participation.<sup>18</sup>

In the case of workers aged over 65, it is likely that changes in the state pension age have played a role in their increased participation rates. Since the passage of the *Pensions Act 1995*, the state pension age increased from 60 and 65 for women and men respectively, to 65 for both. In the face of longer life expectancies and an ageing population, this is set to increase to 66 by October 2020, and eventually to 67 by 2028.

---

<sup>17</sup> ONS, 2019a.

<sup>18</sup> Ibid.

In younger age groups, participation of those aged 16-24 has declined, driven mostly by increased rates of enrolment in tertiary education.<sup>19</sup>

The trajectories of male and female participation rates have been quite different. Since the early 2000s, the male participation rate has fallen by just over 1 percentage point, whereas the female rate has increased by 3. Indeed, over the past 15 years, the increase in participation among females aged 50-64 has driven the 8 percentage points increase in participation among all workers of this age.

## 2.3 Changing labour demand

The future is notoriously difficult to predict, as predictions rely on many assumptions. These include future investment, consumer behaviour and technology. However, since we all age at the same rate, demographics are among the more predictable changes, so this section looks first at the likely impact on labour demand for health and social care. We then consider the need to replace retiring workers (or those leaving the workforce for other reasons), known as “replacement demand”, and the role that technological change might play.

---

<sup>19</sup> Ibid.

## Health and social care sector

Figure 5 shows the proportion of employment in Scotland in nine broad industries. By far the largest of these is public administration, education and health, which accounts for just over 30% of all Scottish employment.<sup>20</sup>

In the coming decades there will likely be large increases in the number of jobs required to support demand for health and social care services in Scotland. Since the population will age considerably over this period, the number of people seeking GP services, hospital care, personal care, palliative care and prescription medicine are all likely to increase.

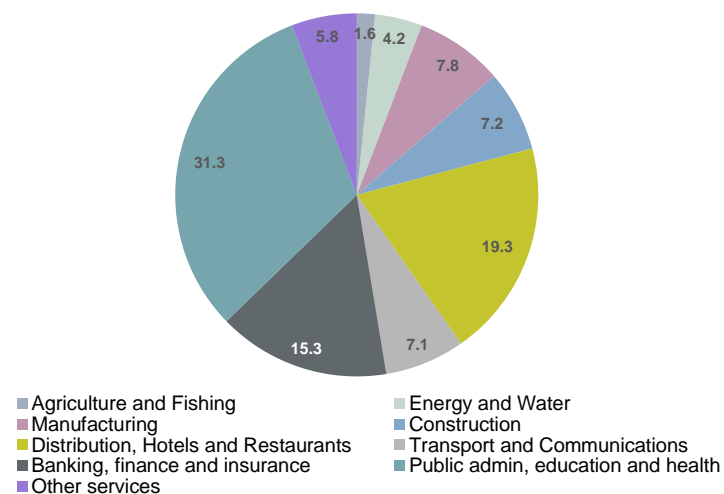
This will place a strain on these services, and likely require sizeable increases in staff in order to meet demand, something recognised by the Scottish Government and Audit Scotland.<sup>21</sup> For example, the Scottish Government's 2016 Health and Social Care Delivery Plan cites Scotland's ageing population as a critical threat to the provision of these services.<sup>22</sup>

<sup>20</sup> ONS, 2019b.

<sup>21</sup> Scottish Government, 2019c; Scottish Government, 2016a; Audit Scotland, 2018.

<sup>22</sup> Scottish Government, 2016a.

Figure 5 - Proportion of employment by industry, 2019



**Note:** Due to rounding, numbers do not sum to 100; **Source:** ONS, 2019b

## Replacement demand

One of the main drivers of demand is the need to replace workers exiting the labour force. This can be caused by people leaving the country or leaving the workforce to take up care responsibilities. Another large contributor to this “replacement demand” is retirement: as workers retire, they often leave behind a vacant position.

As a workforce ages, the number of workers exiting jobs will outstrip the number of young workers entering the labour

market in search of jobs, and employers' ability to meet any replacement demand becomes increasingly constrained. This is particularly relevant for Scotland its population has aged over the past few decades and is projected to continue do so for at least the next 20 years.

In work carried out for Skills Development Scotland (SDS), Oxford Economics has forecast that by 2029 92% of vacancies expected to arise in Scotland (across all sectors) will be the result of the need to replace departing workers.<sup>23</sup>

### Technological change

It has been argued that technological advances such as automation and Artificial Intelligence (AI) will displace workers and eradicate some jobs.<sup>24</sup> Often, however, these discussions do not consider the ways in which the same advances might also improve or increase employment prospects. Rather, they choose to focus on jobs “at risk” of replacement.

The effect of technological advances on aggregate labour demand depends upon a number of factors, including their

---

<sup>23</sup> Skills Development Scotland, 2019. Note that these forecasts only extend until 2029, while the demographic projections discussed in the previous subsection extend to 2041. This is because of the level of uncertainty surrounding forecasting outcomes such as demand.

<sup>24</sup> For example, Osborne & Frey, 2017 calculate the probability of 702 occupations being computerised to determine the number of jobs at risk of redundancy in the United States.

impact on workers' productivity, how they alter the skills required within occupations, the boost they have to the wider economy, and the extent to which they create new jobs.<sup>25</sup> It should also be considered that “routine job destruction”, whereby a proportion of jobs cease to exist each year, will continue, with the labour market adjusting accordingly.

It is also difficult to estimate when, if at all, technological advances will filter through to the economy on a scale that might cause serious displacement. For example, the adoption of robots in production or service industries is costly and its practicalities unknown. Adoption of such technologies will likely occur over an extended period of time and at different rates across industries, rather than in a co-ordinated wave.

Even though it is not possible to know exactly how, or in which industries, this change will be most pronounced, it is likely that the most immediate disruption will occur in low-skilled occupations, as tasks become automated.

Highly-skilled industries, however, are also susceptible to disruption as technology advances. For example, the financial services sector could face the most immediate effects of the emergence of AI as the use of software and algorithms increases within the profession.

---

<sup>25</sup> Acemoglu & Restrepo, 2019 and Acemoglu & Restrepo, 2018 discuss the overall effects of technological advances in the US labour market.



It is even possible that technological innovations, for example, change the demand for some types of labour in ways that overwhelm demography-related changes in labour supply.

This uncertainty around the impact of automation and AI, as well as its potentially broad-based (although not necessarily equal) effects, suggests that flexibility – in terms of skills and labour market functioning – will be important.

## 2.4 Summary of challenges

This chapter has considered the challenges facing future labour supply and labour demand in Scotland.

### The future of labour supply

- Population growth is slowing again, driven by low fertility and reduced net migration.
- The population is ageing, which will result in increased old-age dependency.
- While we do not yet know the immigration impact of Brexit, it may be significant, in a context where Scotland already attracted fewer migrants than England.

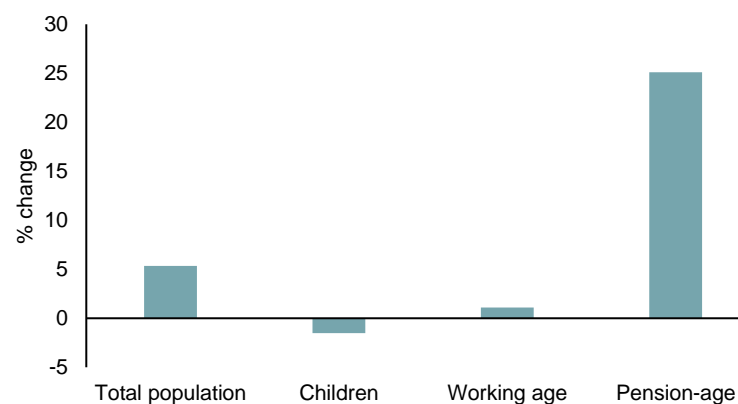
### The future of labour demand

- The health and social care sector will be particularly strained as increased demand is placed upon it by an ageing population.

- That same ageing population will result in significant demand to replace retiring workers.
- Technological change will alter the number and kinds of jobs required by the economy. It is impossible to predict the exact impact of these changes, but it is worth noting that they have often been over-estimated in the past.

The scale of the challenge can be illustrated by looking at the NRS's main population projection. This estimates that by 2041, the pension-age population is projected to increase by 265,000, while the working-age population is only projected to increase by 38,000 (Figure 6).<sup>26</sup>

**Figure 6 – Population increase in Scotland by age group, 2016-2041**



**Source:** National Records of Scotland, 2017.

<sup>26</sup> National Records of Scotland, 2017.

### 3. Scottish and UK Government policy

Both the Scottish and UK Governments have responsibilities in relation to the labour market. From its establishment in 1999, each successive Scottish Government has developed policy in relation to the labour market. This chapter considers the evolution of Scottish labour market policy, and then looks at UK Government policy in relation to participation and immigration.

#### 3.1 Scottish policy

##### The Scottish Executive 1999 - 2007

Since the first Scottish Executive was formed in 1999, there have been a wide range of strategies and initiatives focussed on Scotland's labour market. Many have attempted to grapple with how Scotland can meet the skill needs to produce high-quality, highly-paid employment through:

- Upskilling those currently in the labour market via lifelong learning;
- Providing young people with the skills they need – and the country needs – while they are in education;
- Attracting new entrants to the labour market by making Scotland a popular destination for migrants.

The first Scottish Executive published *The Way Forward: Framework for Economic Development in Scotland* in June 2000.<sup>27</sup> This prioritised “strengthening the basic education system” and embedded three elements for improving human capital infrastructure:

- Enhancing levels of attainment in schools;
- Restructuring the post-school qualification system;
- Emphasising the central role of lifelong learning in enterprise development.

Ensuring high participation in the labour market was also part of the Executive's social justice agenda: *Social Justice...a Scotland where EVERYONE matters*.<sup>28</sup>

Both documents placed a heavy emphasis on the need for partnership working. Scottish public agencies, local government and UK government departments were all seen by the first Scottish Executive as crucial partners in delivering its targets for increasing skills and achieving full employment.

---

<sup>27</sup> Scottish Executive, 2000.

<sup>28</sup> Scottish Executive, 1999.

At the time, several agencies responsible to the Executive provided support for skills across the country. Primarily, this fell to Scottish Enterprise and Highlands and Islands Enterprise, with Careers Scotland a part of both organisations. The former provided some support for lifelong learning while the latter primarily provided career guidance for younger people.

While it was recognised that Scotland had distinct migration needs, in the early years of the Scottish Executive there was no distinct approach to immigration policy. This changed after the second Scottish Parliament elections in 2003, when the Executive launched its “Fresh Talent” initiative in order to help the “managed migration of new people to Scotland”.<sup>29</sup> Among other initiatives, this included a two-year visa extension for foreign-born graduates of Scottish universities, in order to encourage them to remain in Scotland. Although strictly speaking a matter “reserved” to Westminster, this was achieved through joint working between the Scottish Executive and the UK Home Office.

### New policy settings: 2007 onwards

The election of the SNP in 2007 brought several changes in Scottish Government economic policy. In 2007, it published a “National Performance Framework” with eleven “purpose

<sup>29</sup> Scottish Executive, 2004.

<sup>iv</sup> Scottish Government Social Research, 2008.

### Box 3 - Fresh Talent

The Fresh Talent Initiative was launched in February 2004 by First Minister Jack McConnell, who had identified Scotland’s falling population as “the single biggest challenge facing Scotland as we move further into the 21<sup>st</sup> Century”. A number of initiatives to reverse the trend were adopted, including an international advertising campaign to promote Scotland as a destination for immigration, the launch of a relocation advice service and improving first impressions of the country.

The “Fresh Talent” initiative was intended to encourage qualified international graduates to remain in Scotland. It allowed students at Scottish universities or colleges, studying for Higher National Diploma (HND) level and above, to stay for an additional two years after completion of their studies and to seek any type of work during this period. After two years, they were able to transfer to other migration routes.

Data on the success of the programme is limited, but the experience of the first wave of Fresh-Talent graduates suggested that around 50% stayed for more than three years, with the vast majority in employment.<sup>iv</sup>

In 2008, the scheme was subsumed into the UK Government’s new points-based system and, since then, the flexibility for Scotland has been removed.

targets” and a number of national indicators. One of the indicators, which has been measured since, was to “improve the skill profile of the population”. This is measured by the percentage of the working age population with Scottish Credit and Qualifications Framework (SCQF) Level 4 qualifications or below. The new set of National Indicators, published in 2018, also added “skill shortage vacancies” and “skills underutilisation” to those already being measured.

In 2008, the Scottish Government also established Skills Development Scotland (SDS), which combined functions previously executed by Scottish Enterprise and Highlands and Islands Enterprise with Careers Scotland. This meant skills policy was spread between the new SDS and the Scottish Funding Council (SFC), which had been established by the previous Scottish Executive in 2005.

The Scottish Government is currently working to its 2015 economic strategy, which aims to “increase the ability of people to participate in the labour market in Scotland”.<sup>30</sup> In 2016, it published a Labour Market Strategy<sup>31</sup> which established the Strategic Labour Market Group in order to “advise ministers on future developments in the labour market”.

Also in 2016, the Scottish Government launched an Enterprise

---

<sup>30</sup> Scottish Government, 2015.

<sup>31</sup> Scottish Government, 2016.

and Skills Review with the aim of “significantly improving enterprise and skills support”. This is currently in the implementation phase, and is being overseen by the Enterprise and Skills Strategic Board. One of the main recommendations from this review is that SDS and SFC should be more closely aligned,<sup>32</sup> sharing jointly-agreed evidence bases and skills investments.

The European referendum of June 2016 instigated renewed discussion of Scotland having its own distinct approach to immigration. The Fresh Talent Initiative had been subsumed into the UK points-based migration system in 2008, and the closure of the replacement post-study work visa in 2012 had brought to an end this Scottish deviation from UK immigration policy.

As part of the 2017/18 Programme for Government,<sup>33</sup> the Scottish Government set out plans to publish a discussion paper on Scotland’s approach to immigration. This was published in 2018 and contained options for devolving some power over immigration to the Scottish Parliament.<sup>34</sup> This debate is still ongoing.

Since employment law is reserved to the UK Parliament, the Scottish Government is limited in what action it can take to

---

<sup>32</sup> Scottish Government, 2017b.

<sup>33</sup> Scottish Government, 2017a.

<sup>34</sup> Scottish Government, 2018b.

improve conditions at work. The Fair Work agenda is central to the Government's approach and is underpinned by the Fair Work Action Plan, published in 2019.<sup>35</sup> The Action Plan sets several targets across three areas:

- Supporting employers to adopt Fair Work practices;
- Delivering Fair Work to a diverse and inclusive workforce;
- Embedding Fair Work across the Scottish Government.

The Government works alongside the Fair Work Convention and shares their vision that “by 2025 people in Scotland will have a world-leading working life where Fair Work drives success, wellbeing and prosperity for individuals, businesses, organisations and society”.<sup>36</sup>

The Fair Work agenda involves voluntary action by businesses and trade unions to improve conditions, such as adopting the living wage. However, the Government also makes some support to businesses conditional on them making a commitment to Fair Work.

---

<sup>35</sup> Scottish Government, 2019a.

<sup>36</sup> Ibid. Fair Work Convention, 2019.

## 3.2 UK Government policy

### Labour market participation

In the past nine years, the UK Government has pursued a number of policies in an attempt to increase labour market participation. These have been implemented via the benefits system, and also by improving incentives to make it easier for people to enter the labour market.

One of the ways the Government has attempted to increase participation is through introduction of the National Living Wage in 2016. This is a minimum wage paid to workers over the age of 25, offset for small employers against National Insurance discounts. The policy received early criticism from larger employers, particularly in the retail sector, but has had a positive effect on increasing earnings, with the percentage of low-paid employees falling between 2015 and 2018.<sup>37</sup>

It is still too early to tell exactly what the effect of this policy has been on employment, but a study for the Low Pay Commission suggests there has been a small positive effect among certain groups of workers. The study concludes that there has been no negative effect on employment retention for any demographic group and a small increase in employment retention for the very lowest-paid part-time female workers. The study also found a small decrease in hours worked

---

<sup>37</sup> Cominetti, et al., 2019.

among some demographic groups, which could be a result of employers cutting hours to counter higher wages.<sup>38</sup>

The Government has also made it easier for people who may have previously found it difficult to enter the labour market, by introducing more family-friendly policies such as tax-free childcare.

Since 2010, the UK Government has introduced several childcare options with differing eligibility. The emphasis has been on rewarding people in work: 15 hours of free childcare a week is available to all families in England, while working families with a household income under £100,000 are eligible for 30 hours a week.<sup>39</sup>

The Government also introduced tax-free childcare in 2014. All working families across the UK are eligible for this scheme, which sees the Government add £2 for every £8 contributed to childcare. This scheme can be combined with the 30 hours free childcare if families are eligible for both. Tax-free childcare replaced the Government's childcare vouchers, which were closed to new applicants in October 2018.

Finally, the Government has attempted to increase labour market participation by increasing conditionality for benefits, such as Universal Credit, making it more difficult to claim and

incentivising people into work. Policies such as the Work Programme, which has recently been replaced by the Work and Health Programme, are intended to provide people with support and guidance to re-enter the labour market. The previous Work Programme was heavily criticised for not providing effective routes into work for people classed as long-term unemployed.

### Immigration

The UK relies on immigration to prosper. This applies at all levels, from filling low-skilled vacancies to attracting high-skilled talent from around the world.

Under the previous Labour Government, a points-based system with multiple tiers was introduced in order for the UK to have more control over which non-EU immigrants it chose to admit. This did not have any impact on EU migrants, who were eligible under freedom of movement, many of whom filled low-skilled vacancies.

The 2010 Conservative manifesto committed to bringing net migration down to the "tens of thousands". In government, this translated into a cap on non-EU migrants. Despite this cap, the target was never met. Since the European referendum of 2016, there has been an ongoing debate about the future of the UK's immigration policy. The Government's plan to remove the UK from the Single Market and Customs Union would mean the end of freedom of movement, and would

---

<sup>38</sup> Aitken, et al., 2019.

<sup>39</sup> Arrangements differ in Wales and Northern Ireland.

likely mean EU migrants will be treated in the same way as non-EU migrants.

The recent Migration Advisory Committee (MAC) report suggested that the cap on highly-skilled migrants should be scrapped and that, in future, EU migrants should indeed be treated in the same way as non-EU migrants.<sup>40</sup> The MAC report also suggests priority should be given to a number of roles on a “shortage occupation list”, including geophysicists, cyber security experts and paediatric consultants. These roles would also be subject to a £30,000 salary threshold for visas, which has caused some controversy, as it has been regarded as too high for some sectors in some parts of the country.

The recommendations of the Migration Advisory Committee would fit with the Government’s proposed “Australian style points-based system”, which would see potential migrants accrue points based on criteria such as language ability, skilled work experience and education. While the UK’s system now is “points-based”, the points are accrued largely by securing a visa sponsor and meeting a number of administrative criteria.

The future of immigration in the UK will largely be determined by the manner in which the UK withdraws from the EU, as well as the result of negotiations on the UK’s future relationship with the EU. While the status of current EU migrants in the UK

is relatively certain, future EU migration is unclear. A transition period following a withdrawal agreement would see freedom of movement continue until the future relationship is agreed. Regardless, the UK has a significant challenge ahead in both filling low-skilled vacancies currently taken by EU migrants and convincing the world that the UK remains open to migrants in general.

---

<sup>40</sup> Migration Advisory Committee, 2018.

## 4. Case study: the Canadian immigration system

In *Wealth of the Nation: Scotland's Productivity Challenge*, we argued that looking at comparable countries (and/or places with similar levels of devolution) can be a powerful way to learn from what has worked elsewhere, and set expectations for what can be achieved.

Findings from overseas, however, cannot be imported wholesale to Scotland. Scotland and the UK are different from Canada, and we do not suggest that the latter's immigration model should be adopted here: we will need to come up with our own bespoke blend of answers.

But for the UK, where asymmetric devolution has been the norm since 1999, the example of Canada is pertinent. While there are commonalities between the immigration agreements for each of its provinces, they are not identical, and Quebec operates a wholly different system to meet its distinct needs.

### The role of immigration in Canada

Canada was built on immigration and the country has an approach to new arrivals that is broadly viewed as tolerant and welcoming. More than one in five of the population of

Canada are foreign born<sup>41</sup> and only 35% of Canadians believe immigration levels are too high.<sup>42</sup>

Today, the Canadian Government promotes immigration as part of the solution to “challenges such as an ageing population and declining birth rate”.<sup>43</sup> The country's fertility rate has been below the replacement level for more than 40 years.<sup>44</sup> This means that Canada is largely reliant on immigrant labour to expand its workforce. While this is common to most western countries, the Canadian Government actually has a target to grow levels of migration, with a 60% target for those in the “Economic class” (see below) by 2020. In common with Australia, this target is explicitly linked to demographic goals (as well as others).

Such a commitment is easier in a country where high levels of immigration are less politically controversial. Canada's status as a multicultural country has been accepted to the extent that it was enshrined in law in 1988, having been government policy since the early 1970s.

---

<sup>41</sup> Statistics Canada, 2017b.

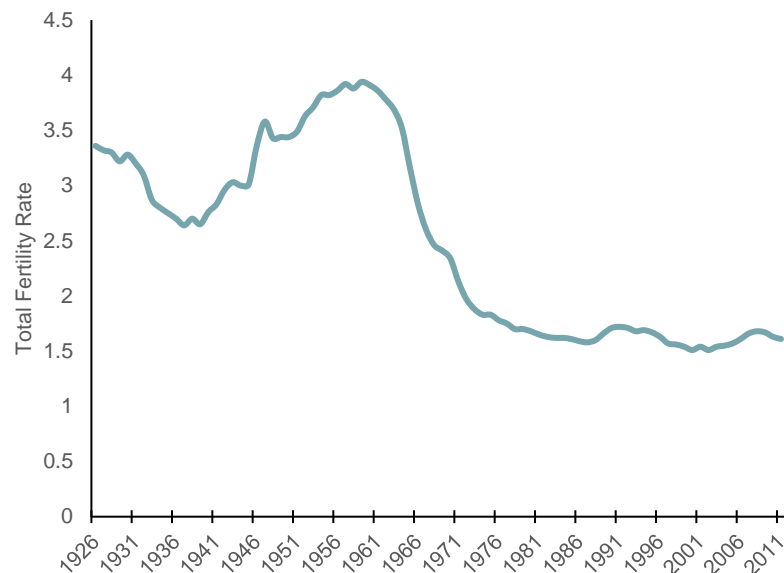
<sup>42</sup> Environics Institute for Survey Research, 2019.

<sup>43</sup> Government of Canada, 2019.

<sup>44</sup> Statistics Canada, 2018.



**Figure 7 - Total fertility rate, Canada, 1926 to 2011**



**Source:** Statistics Canada, 2018.

### Canada's immigration system

Canada's immigration system welcomes tens of thousands of people every year. In 2017, 286,479 permanent residents were admitted, with a further 78,788 people issued work permits under the Temporary Foreign Worker Programme, and 224,033 under the International Mobility Programme.<sup>45</sup>

<sup>45</sup> Ibid.

Immigrants can enter Canada under one of several different immigration categories:

- Economic class – selected for their skills and ability to contribute to Canada's economy;
- Family class and Protected Persons – enables family reunification by allowing a Canadian permanent resident to sponsor a relative for immigration to Canada;
- Refugees, Humanitarian and Compassionate – offers asylum to those who meet the relevant criteria.

In the Economic class, the express entry system – which operates a points-based lottery for admission to Canada – is the most popular route. It is also in this class, however, that provincial immigration systems come into play.

Canada operates a points-based system (the Comprehensive Ranking System, CRS) which allocates points to migrant applicants based on relevant characteristics such as skills, education and work experience.

The CRS operates at national level and migrants are admitted by the federal government, with flexibility afforded to the provinces to enable them to attract the migrants they want through the Provincial Nominee Programme (PNP). Quebec has more flexibility than other provinces and territories. Most applicants come to Canada under the "Express Entry" system,

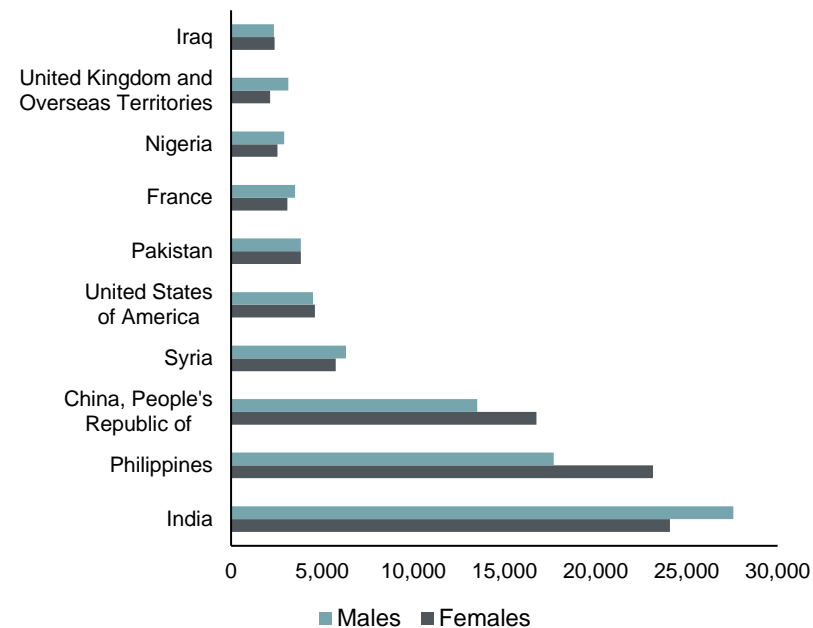
which prioritises applicants based on the number of points they accrue during the application process.

Migrants who opt to apply through the PNP are awarded additional points and, as such, can more quickly reach the front of the Canadian migration queue, or be able to enter when they otherwise would not have met the federal threshold.

Canada attracts immigrants from a diverse range of countries. In 2017, there were 185 countries of origin; 61% of new permanent residents came from ten countries (see Figure 8), with India and the Philippines consistently among the top countries of origin.

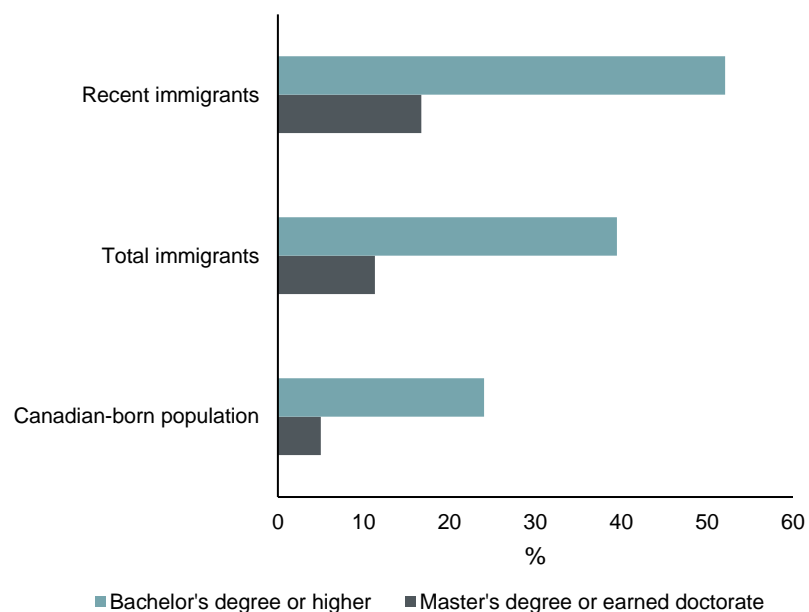
Canada has generally attracted highly-qualified immigrants to meet specific skills needs. In the five years prior to the last Canadian census in 2016, more than half had a bachelor’s degree or higher, compared with a quarter of the Canadian population as a whole. The percentage of immigrants who hold a master’s or doctorate, meanwhile, is twice that of the Canadian-born population.

**Figure 8 – Admissions of permanent residents to Canada from top ten source countries, 2017**



Source: Government of Canada, 2019.

**Figure 9 – % of population aged 25-64 with selected degrees, by immigrant status and period of immigration, Canada, 2016**



**Note:** 'Recent immigrants' are those who first obtained their landed immigrant or permanent resident status between January 1, 2011 and May 10, 2016; **Source:** Statistics Canada, 2017a.

### The role of the Provinces

The role of Canada's provincial administrations in immigration law is well established. In the *Constitution Act 1867*, which created the Union of Canada, New Brunswick and Nova Scotia, joint responsibility for immigration was granted to both the federal and provincial legislatures "as long and so far as it is not repugnant to any Act of the Parliament of Canada".<sup>46</sup> This clause effectively meant the federal government had ultimate authority over migration policy.

The early years of the Canadian federation saw federal-provincial conferences on immigration held each year from 1868 to 1874, with the 1868 conference leading to the first inter-governmental immigration agreement. However, for much of the next century, there was limited involvement from provincial administrations.

This changed in the 1960s, when a growing nationalist movement in Quebec led to calls for greater autonomy. There were subsequently four immigration agreements between Quebec and the federal government: the first allowed Quebec to post an Information Officer in designated countries; the second, in 1975, enabled a modest role in immigrant selection, a role that was later enhanced in a 1978 agreement.

The most extensive changes came after the collapse of the

<sup>46</sup> Constitution Act, 1867, 30 & 31, c. 3 (U.K.).

talks leading to the Meech Lake Constitutional Accord. While the Accord was never agreed, the immigration proposals were taken forward by the federal and Quebec governments in 1991, providing significant new powers to the province, including the power to select all economic migrants.

During this time, the role of other provinces in immigration policy was rather limited. This was despite the *Immigration Act 1976* allowing the Government of Canada to “enter into an agreement with any province...for the purpose of facilitating the formulation, coordination and implementation of immigration policies and programs”.<sup>47</sup> Demands from other provinces for similar powers to Quebec were met in the early 1990s through establishment of provincial nominee immigration programmes.

These bilateral programmes allowed Canadian provinces to identify a number of nominees who could become permanent residents.

### The Provincial Nominee Programme (PNP)

The PNP remains the primary means by which Canadian provinces can direct their own immigration policy. It is negotiated on a bilateral basis and gives the provinces and territories the ability to design requirements suited to their needs. The federal government retains responsibility to

---

<sup>47</sup> Immigration Act, 1976.

ensure that selected migrants have sufficient resources to live and work in Canada, intend to reside in the province to which they have applied and meet a number of security and medical requirements.

The establishment of the PNP came with a recognition from the Canadian Government that the economic benefits of immigration had to be spread across the country. Since the election of the Liberals in 2015, the federal government has been even more open about the need to attract immigrants to all parts of Canada, admitting that “with an ageing population and low fertility rates, immigration plays an important role in ensuring Canada’s population and labour force continue to grow”.<sup>48</sup>

PNP design varies by province, with each creating programmes that can allow them to best meet their labour market needs. For example, the Manitoba PNP had a specific stream to attract international students who had completed a programme of study in the province; Alberta, with its large oil and gas sector, had a “Strategic Recruitment” stream which included a category for engineers; and British Columbia had a specific stream for health professionals. These streams increasingly link entry to a job offer. Many provinces also had categories for entrepreneurs who could demonstrate significant wealth, although many of these streams have now

---

<sup>48</sup> Government of Canada, 2019.

been closed amid allegations of corruption.<sup>49</sup>

Immigration, Refugees and Citizenship Canada (a government department) set out four main objectives for the PNP:

1. To increase the economic benefits of immigration to provinces/territories based on their economic priorities and labour market conditions;
2. To distribute the benefits of immigration across all provinces/territories;
3. To enhance federal-territorial collaboration;
4. To encourage development of official language minority communities.<sup>50</sup>

The emphasis of most programmes has been on the first two objectives, while ensuring economic benefits were widely spread was a critical driver for the provinces who originally demanded more powers over immigration.

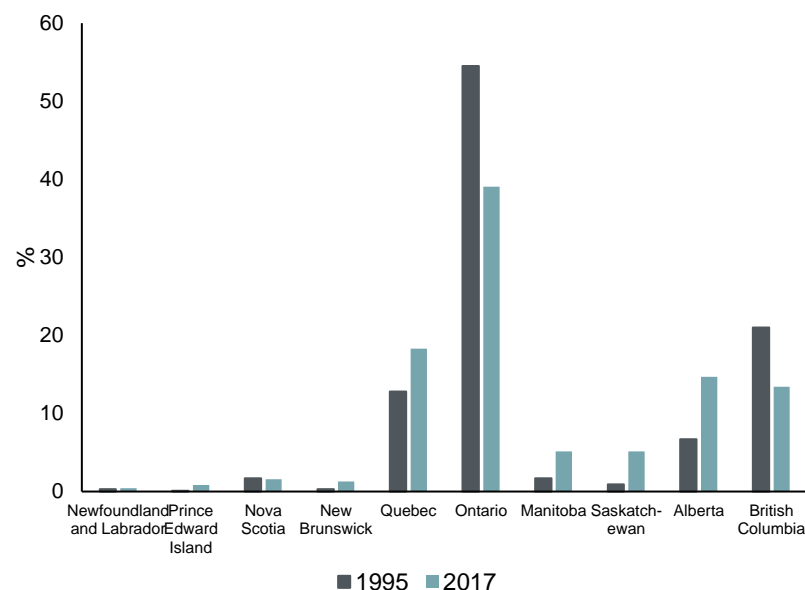
The evidence from more than 20 years of the PNP is that it has achieved its objective of spreading migrants across Canada. In 1995, 87% of economic immigrants settled in Ontario, British Columbia and Quebec (which contained the largest cities of Toronto, Vancouver and Montreal); by 2015, 76% of Provincial Nominees had settled outside these three

<sup>49</sup> It is worth noting that a similar UK scheme was closed for the same reason and has only recently been reopened in a new form.

<sup>50</sup> Evaluation Division, Citizenship and Immigration, 2011.

provinces.<sup>51</sup> Citizenship and Immigration Canada found a similar drop in the most populous provinces and a marked increase in immigration to the Prairie and Atlantic provinces between 1995 and 2012.

**Figure 10 – Distribution of permanent immigrants in Canada by province, 1995 and 2017**



**Note:** The territories are omitted due to their small proportions.

**Source:** Citizenship and Immigration Canada, 2003; Immigration, Refugees, and Citizenship Canada, 2018.

<sup>51</sup> Evaluation Division, Citizenship and Immigration, 2017.

As noted earlier, those admitted to permanent residency through the PNP are under no obligation to stay in the province they are admitted to. The majority, however, do. On average, 83% of those admitted between 2002 and 2014 stayed in the province they were admitted to. However, the retention rates differ significantly by province, from 27% in Prince Edward Island to 95% in Alberta.<sup>52</sup> Of those who do not stay in the same province, 69% cite economic reasons for moving, most often because they found a better job elsewhere. It is worth noting that Canada's Bill of Rights bars any restriction on the movements of permanent residents.

While retention is lower in some provinces, in many the PNP has been widely recognised as helping to transform migrant numbers. In Manitoba, which celebrated 20 years of its PNP in 2018, the provincial government estimates that GDP growth would be 30% lower without the migrants the programme has attracted. The programme there has also significantly increased Manitoba's population, reversing the trend in a province whose population was previously stagnant.

### Challenges to the Provincial Nominee Programme

The PNP, and the greater flexibility afforded to provincial administrations in Canada, has largely been a success. However, as the scheme has developed there are some areas where changes have been required.

The significant discrepancies in some of the business or entrepreneur schemes in many provinces has led to some schemes being shut down. In certain provinces, police investigations raised suspicions that these schemes were being used as a back door for people to "buy" permanent residency, with no real intention to start a business in Canada.

Some evaluations also raised questions about overlaps between federal and provincial schemes. As the Canadian Government has expanded its Express Entry scheme, there has been less need for the Provincial Nominee Programme in some areas. There have been calls for the PNP to be recalibrated so that it once again focuses on areas of need, rather than duplicating federal government programmes.

Finally, as the programmes have developed there appears to be a need for greater co-ordination between federal and provincial administrations. Given the bilateral nature of the agreements, insufficient thought was given to the impact of each scheme on Canada as a whole. Developing such a scheme for the UK would require close co-ordination between central and devolved administrations, providing an opportunity to build joint working into the system from its beginning.

---

<sup>52</sup> Evaluation Division, Citizenship and Immigration, 2017.

## Learning from Canada

Canada has demonstrated the benefit of allowing individual provinces to have a significant say over defining their immigration needs in partnership with the federal government. The Canadian PNP and the Canada-Quebec Accord show that systems can be built to accommodate the distinct needs of sub-national units within a federation or union. The Canadian example also demonstrates that asymmetric devolution – such as that in the UK – could be acknowledged via bilateral agreements between central and devolved governments.

Evidence suggests this approach has mitigated depopulation in some provinces, and has had a significant economic benefit. With more than 80% of participants remaining in their province of arrival, the evidence also suggests that as long as economic opportunities exist, many people will settle long-term in their new community.

While Canada has formal recognition for the role of provinces in immigration policy (unlike the UK), its success has more to do with the good relations and agreements that exist between provincial and federal administrations.

Technically, there are several ways Scotland could differentiate its approach. Many of these have been examined in detail by the Scottish Parliament's Culture, Tourism and

External Relations Committee.<sup>53</sup> As its report concludes, there is no “right way for sub-state territories to approach the issue of immigration. Instead, analysis has revealed how sub-state territories...have developed a variety of responses to population change that meet regional needs but work in parallel ways with central government projects.”

As Boswell et al. make clear, the pattern of immigration to Scotland is very different to “settler” countries such as Canada.<sup>54</sup> As well as convincing UK governments of the need for further migration and a differentiated approach, the Scottish Government may also need to convince the Scottish people.

The biggest challenge to implementing such a system in the UK would be the tradition of centralised decision making in this area, as well as the lack of a political consensus over the benefits of immigration. Furthermore, there would have to be a high level of trust between central and devolved administrations in order to operate a system requiring detailed co-ordination.

---

<sup>53</sup> Hepburn, 2017.

<sup>54</sup> Boswell, et al., 2017.

## 5. Conclusion

Since the early years of this century, EU migration to Scotland has masked underlying demographic trends of an ageing population coupled with one of the lowest birth rates in the developed world. Now that net migration is falling, and we face the coming challenge of Brexit, we find ourselves once again facing a major demographic challenge.

By 2041, Scotland's pensionable-age population is projected to increase by 265,000, while the working-age population is only projected to increase by 38,000.<sup>55</sup> This will have a major impact on Scotland's health and social care sector.

It is possible technological innovations might alter demand for some types of labour in ways that overwhelm demographic changes in labour supply, though it would be brave to rely on this when technological transformations have so often been over-predicted in the past.

There is room for an increase in participation rates: for example, male participation rates are below historical highs. But while increasing participation will be important (not least for achieving an inclusive labour market), it is unlikely to be enough to cover the scale of expected shortages.

We can – and should – attract more workers from the rest of the UK, including returning members of the large Scottish diaspora.

The need will remain, however, for international immigration.

Scotland's future immigration needs are distinct from those of England: in particular, we need higher rates of migration. This means that we require a system which can take account of different needs in different parts of the UK, as well as different needs across Scotland. The immigration system will also need to be able to target high and lower skilled migrants, since a significant proportion of lower-skilled jobs are currently occupied by non-UK workers.

Co-operation on immigration policy between Canada's federal and provincial governments offers a potential way forward. Making progress will require politicians at both Scottish and UK level to engage constructively with meaningful proposals. If strong agreements were put in place alongside robust governance arrangements, there is little to stop us taking a similar approach and developing an immigration system that works for Scotland and other parts of the UK.

---

<sup>55</sup> National Records of Scotland, 2017.



## References

Acemoglu, D. & Restrepo, P., 2019, Forthcoming. Robots and jobs: Evidence from US labor markets. *Journal of Political Economy*.

Acemoglu, D. & Restrepo, P., 2018. The race between man and machine: Implications of technology for growth, factor shares, and employment. *American Economic Review*, 108(6), pp. 1488-1542.

Aitken, A., Dolton, P. & Riley, R., 2019. *The Impact of the Introduction of the National Living Wage on Employment, Hours and Wages*: National Institute of Economic and Social Research.

Alexander, W., 2003. *Chasing the tartan tiger: lessons from a Celtic cousin?*: The Smith Institute.

Anderson, M., 2018. *Scotland's population from the 1850s to today*: Oxford University Press.

Audit Scotland, 2018. *NHS in Scotland, 2018*.

Boswell, C., Kyambi, S. & Smellie, S., 2017. *Scottish and UK immigration policy after Brexit: Evaluating options for a differentiated approach*: School of Social and Political Science, University of Edinburgh

Citizenship and Immigration Canada, 2003. *Fact and figures 2003: Immigration Overview, Permanent and Temporary Residents*.

Cominetti, N., Henehan, K. & Clarke, S., 2019. *Low Pay Britain 2019*: Resolution Foundation.

EnviroNics Institute for Survey Research, 2019. *Canadian public opinion about immigration and refugees*. [Online] Available [here](#). [Accessed August 2019].

Evaluation Division, Citizenship and Immigration, 2011. *Evaluation of the Provincial Nominee Program*: Government of Canada.

Evaluation Division, Citizenship and Immigration, 2017. *Evaluation of the Provincial Nominee Program*: Government of Canada.

Fullilove, M. & Flutter, C., 2004. *Diaspora: the world wide web of Australians*: Lowy Institute for International Policy.

Government of Canada, 2019. *2018 Annual Report to Parliament on Immigration*.

Hepburn, E., 2017. *Options for Differentiating the UK's immigration system*: Scottish Parliament Culture, Tourism and European Relations Committee.

Immigration, Refugees, and Citizenship Canada, 2018. *Facts and Figures 2017: Immigration Overview - Permanent Residents*. [Online]  
Available [here](#). [Accessed September 2019].

Kelly, J.-F., Mitchell, M. & Zymek, R., 2018. *Wealth of the Nation: Scotland's Productivity Challenge*: David Hume Institute.

Migration Advisory Committee, 2018. *EEA migration in the UK: Final report*.

National Records of Scotland, 2019a. *Mid-Year Population Estimates Scotland, Mid-2018*.

National Records of Scotland, 2019b. *Scotland's Population: The Registrar General's Annual Review of Demographic Trends, 2018*.

National Records of Scotland, 2017. *Projected Population of Scotland (2016-based): National population projections by sex and age, with UK comparisons*.

OECD, 2019a. *Fertility rates*. [Online]  
Available [here](#). [Accessed August 2019].

OECD, 2019b. *Population*. [Online]  
Available at:  
<https://data.oecd.org/pop/population.htm#indicator-chart>  
[Accessed August 2019].

ONS, 2017a. *Table XD1-6, 50% future EU migration variant - Scotland summary*. [Online]  
Available [here](#). [Accessed August 2019].

ONS, 2017b. *National Population Projections: 2016-based statistical bulletin*.

ONS, 2017c. *Table XC1-6, 0% future EU migration variant - Scotland summary*. [Online]  
Available [here](#). [Accessed August 2019].

ONS, 2019a. *Nomis: Annual Population Survey*. [Online]  
Available [here](#). [Accessed August 2019].

ONS, 2019b. *Nomis: Labour Market Profile - Scotland*. [Online]  
Available [here](#).  
[Accessed August 2019].

ONS, 2019c. *Population of the UK by country of birth and nationality*. [Online]  
Available [here](#). [Accessed September 2019].

Osborne, M. A. & Frey, C. B., 2017. The future of employment: How susceptible are jobs to computerisation?. *Technological forecasting and social change*, Volume 114, pp. 254-280.

Scottish Executive, 1999. *Social Justice: a Scotland where everyone matters*.

Scottish Executive, 2000. *The Way Forward: Framework for Economic Development in Scotland*.

Scottish Executive, 2004. *New Scots: Attracting Fresh Talent to meet the Challenge of Growth*.

Scottish Government Social Research, 2008. *Fresh Talent: Working in Scotland Scheme. An Evidence Review*.

Scottish Government, 2015. *Scotland's Economic Strategy*.

Scottish Government, 2016a. *Health and Social Care Delivery Plan*.

Scottish Government, 2016b. *Scotland's Labour Market Strategy*.

Scottish Government, 2017a. *A nation with ambition: the Government's Programme for Scotland 2017-2018*.

Scottish Government, 2017b. *Enterprise and Skills Review: Report on Phase 2 - Skills Alignment*.

Scottish Government, 2018a. *Non-UK nationals in Scotland's workforce: Statistics from the Annual Population Survey 2018*.

Scottish Government, 2018b. *Scotland's population needs and migration policy: Discussion paper on evidence, policy, and owers for the Scottish Parliament*.

Scottish Government, 2019a. *Fair Work Action Plan*. [Online] Available [here](#). [Accessed September 2019]

Scottish Government, 2019b. *Scotland's Labour Market Tables and Charts*. [Online]

Available [here](#). [Accessed August 2019].

Scottish Government, 2019c. *Shortage occupations list 2018: call for evidence - our response for health and social care*.

Skills Development Scotland, 2019. *Regional Skills Assessments: An agreed evidence base to help us and our partners plan future skills investment*. [Online] Available [here](#). [Accessed September 2019].

Statistics Canada, 2017a. *Education in Canada: Key results from the 2016 Census*. [Online] Available [here](#). [Accessed September 2019].

Statistics Canada, 2017b. *Immigration and ethnocultural diversity: Key results from the 2016 Census*. [Online] Available [here](#). [Accessed August 2019].

Statistics Canada, 2018. *Fertility: Fewer children, older moms*. [Online] Available [here](#). [Accessed August 2019].