



Isle of Man
Government

Reiltys Ellan Vannin

Meeting our Population Challenges

Cabinet Office

February 2018

GD 2018/0014

Contents

Foreword.....	2
Introduction.....	4
1. Isle of Man Population Projections	7
2. Declining Fertility	8
3. Emigration of Young adults.....	14
4. Growing population of older people.....	25
5. Active Ageing Index	28
6. British Irish Council Demography Work stream	31
7. Summary of Recommendations.....	32
Appendix I : Isle of Man Population Projections	34
Appendix II: Active Ageing Index – Employment Domain	46
Appendix III: Active Ageing Index – Participation Domain	48
Appendix IV: Active Ageing Index - Independent, Healthy and Secure Living Domain	50
Appendix V: Active Ageing Index - Capacity and enabling environment for active ageing domain	52
Appendix IV – British Irish Council Demography Work stream – Rapid Reflection Tool	54

Foreword

Increasing our economically active population is one of six strategic objectives in the Programme for Government.

The importance of this became more evident when the 2016 census results were published in March 2017 and they revealed both the first fall in the Island's population since 1986 and significant emigration of young people. They also confirmed the Island's population was naturally declining, with deaths greater than births and a growing number of older people.

The Programme for Government is full of policy statements and policy action aimed to deliver this objective, but it also seemed helpful to step back and further analyse where things are and to consider the policy responses. That is the background to this white paper, *Meeting our Population Challenges*, which is aimed to encourage debate in Government and throughout society so that population-related policy can be reviewed and joined up action will result. As Sir Miles Walker put it in March 1987 in his document about *The Development of Policy* at the beginning of the Council of Ministers era:

“Responsible Government involves detailed analysis and the co-ordination of policies which have been considered, taking account of all factors The population projections reveal the importance of immigration to the Isle of Man. Without migration there will be a significant fall in population between now and the year 2000 and the structure will alter significantly.”

So, alongside chapters about fertility, migration and ageing, this white paper also updates the population projections. These show the size and makeup of the Island's population and its demography depending upon how the Island addresses its population challenges.

It seems a 'plan, monitor and manage' approach will be needed for both the population projections and population-related policies. For instance, which of the alternative migration trends is observed and is the distribution of migration continuing in line with the profile observed during the most recent decade?

This implies the enhancement of techniques to monitor population and demographic change, as outlined in the *Census Project Review with Recommendations* which was published in March 2017.

The white paper also calculates for the first time the UNECE Active Ageing Index and presents some elements of the excellent British-Irish Council Demography Report 2016, *Population-Ageing-Society: Policy Implications*.

So I invite you to examine the evidence here and to consider the policy options that are presented. Clearly there is no silver bullet to reverse the decline in the Island's working age population; but we can make it a population blip, as the short decline in the 1980s was, given, as I put it in Tynwald in 2015:

“increasing life expectancy does not necessarily mean an ageing population on our Island, as our population is determined primarily by migration the Isle of Man could actually affect its demographic profile by population policy change”.

But we cannot afford to be complacent. There are challenges. Our Island has to be an Island of Enterprise and Opportunity providing career and life opportunities for everyone. This white paper can only help all of us focus us on the challenges and options for policy response.

Hon Chris Thomas MHK
Minister for Policy and Reform
28 February 2018

Introduction

The 2016 Census showed the first fall in population for thirty years. It also revealed underlying challenges in our population structure, specifically the declining numbers of births, emigration of young people and a growing number of elderly persons.

The paper details some of the issues that have arisen from these demographic changes and explores some options for policies that could be developed to mitigate them. It also includes the population projections that have been developed from the 2016 Census and the calculation of Active Ageing Index.

The paper is made up of seven sections:

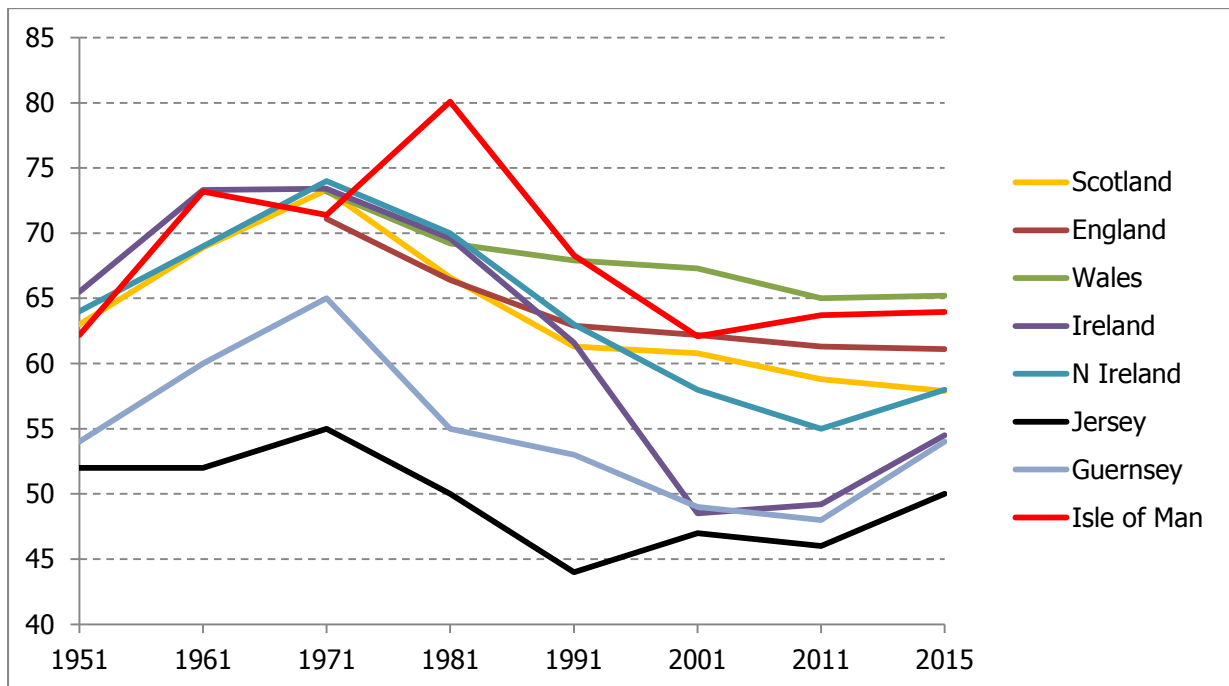
1. Population projections
2. Declining Fertility – Challenges and responses
3. Emigration of young people – Challenges and responses
4. Growing population of older people – Challenges and responses
5. Active Ageing Index – calculation
6. British Irish Council Demography Workstream summary
7. Summary of recommendations

Background

The population structure of the Isle of Man is important for a number of reasons. Firstly, with a relatively open border and high levels of migration (typically around 2,000 out of population of 83,000 every year), the Island can quickly see significant changes in patterns of demand for public services and shortages of labour in key economic sectors as a result of small shifts inward or outward.

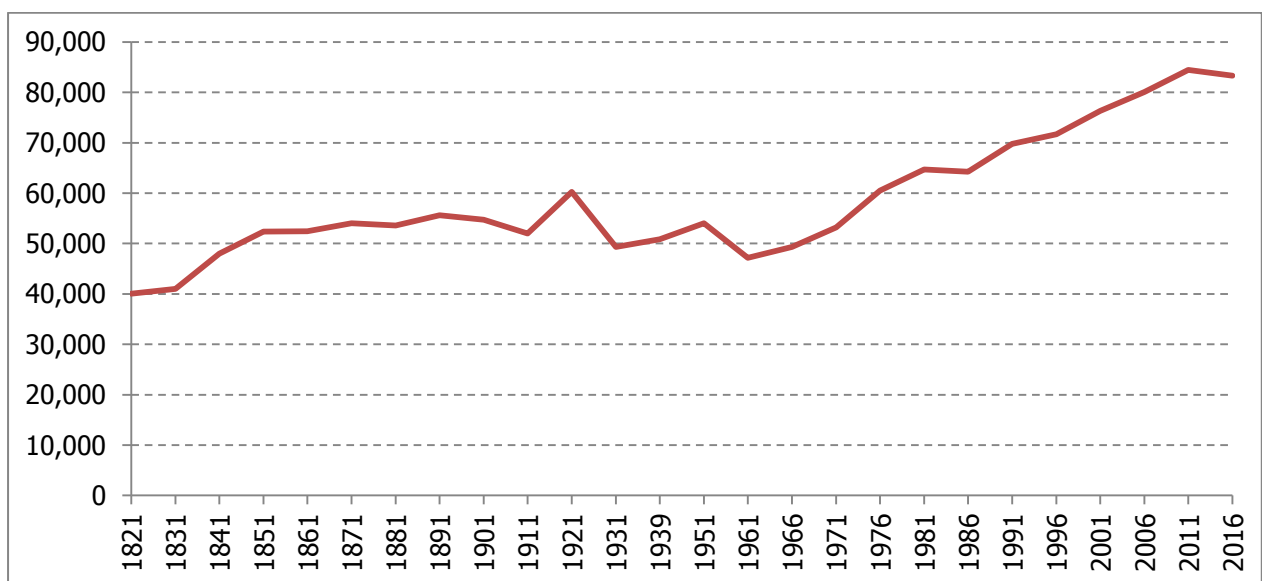
An example of this was in the 1960's when a policy of immigration of retired persons and the emigration of the young pushed the dependency ratio (the proportion of non-working to working people) to more than 80% by 1981, the highest ever seen in the British Isles, as shown in Figure 1.

Figure 1 Dependency Ratios 1951-2015, British Irish Council members



Historically, the Island’s population was generally stable through the nineteenth century, with increases in the early twentieth century due to the shift from an agricultural to a tourism economy. With tourism’s relative decline in the 1960’s, the population structure altered as the Government attracted retired people to live on the Island. By the late 1980’s and 1990’s, the finance sector became the main employer. In recent years ICT and e-Gaming have provided the majority of new jobs.

Figure 2 Isle of Man Population



What is clear from this is that the Island's periods of population growth and decline have been predominately related to growth or decline of the dominant economic sector at any time. In that regard, the reduction in employment in financial services post 2008 has had an impact here as well as elsewhere.

There have been two approaches to these strategic shifts, firstly to delay or defer the impact of population change by government intervention, and secondly to accelerate the growth of new businesses and opportunities. Usually Government has tried both.

There has been a long history of population being considered by Tynwald. The New Residents Policy of the 1960's was followed by the report of the Commission on the Imbalance of Population in 1968, and further reports in 1973, 1980, 1982 and 1985. The fact that policies around population levels have not been considered since that time seems reason itself for a review at this time.

1. Isle of Man Population Projections

The Isle of Man Government has produced population projections after each census since 1986 when the 'Population Unit' was first created. Population projections are important for Government when considering its service provision for areas such as education, health and social care, policing and other areas. It also forms an important part of Government's planning policy, particularly in relation to the strategic and area plans.

The 2016-2036 Isle of Man population projections include three variants, each based upon different possible scenarios of net annual migration:

- 1) a "Zero" variant, which projects total population growth if net migration over the next twenty years (2016-2036) summed to zero;
- 2) a "Moderate" variant, which projects total population growth if net migration over the next twenty years (2016-2036) adds a net total of 500 persons to the Isle of Man population, distributed by sex and age according to the migration patterns observed over the past ten years (2006-2016); and
- 3) a "High" variant, which projects total population growth if net migration over the next twenty years (2016-2036) adds a net total of 1,000 persons to the Isle of Man population, distributed by sex and age according to the migration patterns observed over the past ten years (2006-2016).

Age group	2016 Census	2036, Zero variant	2036, Moderate variant	2036, High variant
0-15	14,233	11,835	16,195	19,919
16-64	51,876	43,743	50,962	58,022
65+	17,205	21,305	22,715	23,111
Total	83,314	77,875	89,872	101,051

Further detail on the assumptions used is contained in Appendix 1.

2. Declining Fertility

The number of births on the Island has fallen dramatically in recent years. Falling fertility rates are not a unique issue to the Isle of Man, with nearly all developed countries around the world having to respond to the consequences that falling birth rates present to their economies and societies.

The most common comparator across countries for fertility is the Total Fertility Rate (TFR) which is the number of children a woman would have if she were to pass through the child bearing years (16 to 46), bearing children according to the age specific fertility rates (which is simply the number of children born to women at a given age).

In order to maintain a constant population, excluding migration, a total fertility rate of 2.1 is required, and is known as the 'replacement rate'. In the developed world, most countries do not achieve this, for example in 2011, of the EU member states, only France and Ireland came close to achieving this rate at 2.01 and 2.05 respectively.

Current Situation in the Isle of Man

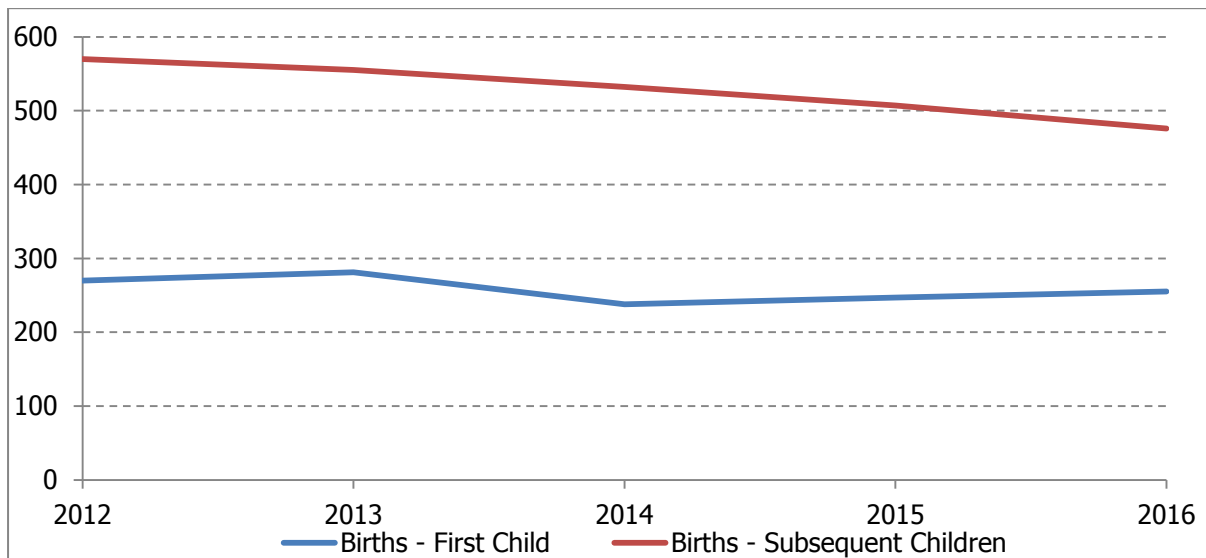
Fertility rates on the Island have generally been on a downwards trend since 1996, with the exception of 2011 where the rate recovered, only to continue to fall to 1.69 in 2016.

	1986	1991	1996	2001	2006	2011	2016
Fertility Rate	1.79	1.83	1.94	1.64	1.73	1.89	1.69

Part of the explanation for the fall in the fertility is that there has been a decline in the number of women on the Island of child bearing age of 8% (16,590 in 2011 to 15,223 in 2016) and this will have had an impact upon the fertility rate. However the fertility rate has fallen by over 11% during that period and therefore there must be additional factors on Island which have resulted in fewer children.

Notably, the number of subsequent children that women are having on the Island has fallen considerably since 2012, with the number of first time mothers having decreased slightly over that same period, as shown in Figure 3.

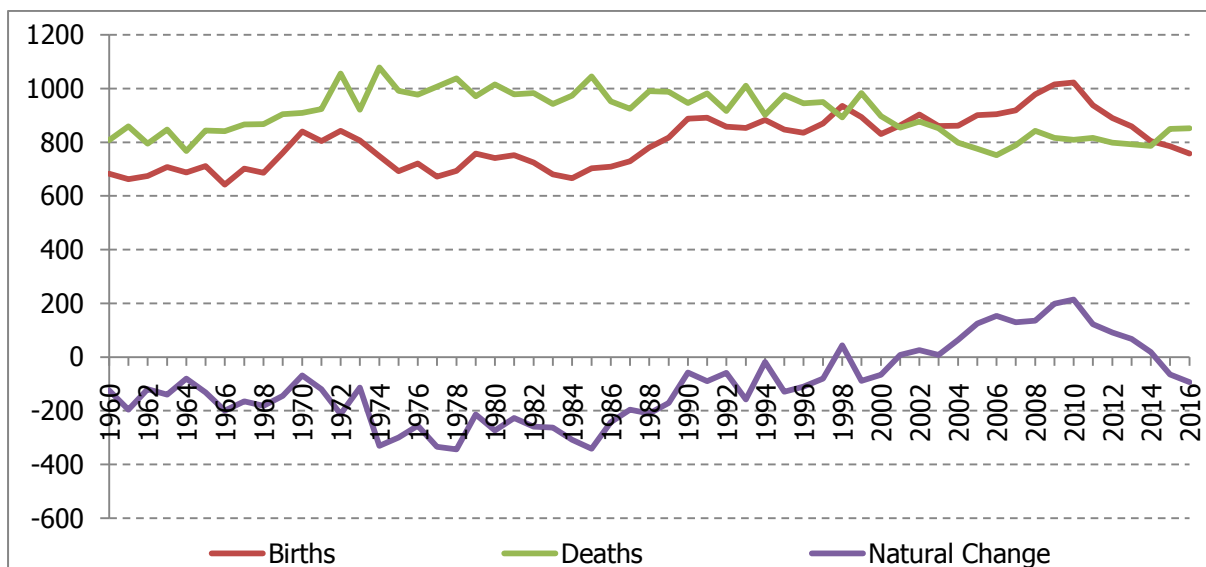
Figure 3 Number of births, by first and subsequent children



In the four years since 2012, the number of subsequent births has fallen by 16%, and first child births have fallen by 9%.

Due to the falling number of births on the Island, the Isle of Man is now experiencing a naturally declining population, which is the normal standard for the Island, as the only time that the Island has had a naturally increasing population since 1960 is during the period between 2001 and 2014, and in 1998.

Figure 4 Naturally Changing Population



Causes of lower fertility

Throughout various studies and literature there are a number of causes linked to lower fertility. There have been a number of structural changes as society across the

developed world that have fed into lower fertility rates, but there are also areas that can be influenced by policy:

- Greater access and longer period of education for women which increase the age at which women have their first child, and therefore reducing the number of years available to have subsequent children.
- High labour force participation of women, which, depending on the policies in a given country, has increased the opportunity cost of leaving the workforce, particularly where existing policies result in an incompatibility between professional and family roles.
- Changes in personal values that emphasise self-realisation and freedom from traditional authorities, such as a change in the nature of relationships away from marriage and towards cohabitation.
- State pension systems that mean the elderly do not need the support of their own children, in financial terms.
- Modern contraceptive methods which whilst primarily serve to delay childbearing can have an impact upon the number of children someone may have.
- Economic crises can have an impact, although generally they result in a postponement of childbearing, but longer crises may have a longer lasting effect.
- Changing societal and cultural norms, such as those determining the division of home responsibilities and the welfare and tax systems that may or may not support this.
- The greater delay in young people being able to move to independent living, due to issues around income and access to housing which may have an impact upon when they begin having children.

Consequences of lower fertility

The consequences of lower fertility upon a country are significant and wide ranging, from the provision of services by Governments, economic growth and political changes. Due to the impact that low rates of fertility can have upon a country, it may pose a greater problem to society than longer life expectancy at old age, as lower fertility can rapidly increase the pace at which a society ages. The main consequences of low fertility rates are:

- A smaller working population in the longer term, which will reduce production and therefore limit economic growth. A smaller working population is likely to further exasperate skills shortages that are already being experienced.

- Many social security systems, including the Island's, operate on a pay as you go principle, and with a reduced working population, there will be lower contributions, resulting in potentially high spending deficits or needing make steep increases in taxes and social contributions.
- A growing number of individuals who have no, or few, immediate family ties, who are then likely to increase the demand for formal care services, which will need to be provided by the Government or private sector.
- Social cohesion may suffer as a greater burden may fall upon the working population, and particularly the younger working population who will be shouldering the burden for the longest, however older generations may hold greater political power due to size of their population versus the younger population. This may be deepened further if policies which benefit the young are sacrificed in order to support the social security systems.

Policy Responses

As previously mentioned, due to the highly private nature of deciding whether to have children, be that the first or subsequent children, many countries within the developed world have generally avoided the implementation of specific policies designed to increase fertility rates. Instead many policies are shaped to address other areas such as child poverty, early year's education or gender equality, with a secondary benefit to fertility rates.

The policy responses broadly fall into four categories:

- Financial incentives;
- Support for parents to combine work and family responsibilities;
- Childcare provision; and
- Maternity and parental leave

Financial Incentives

Financial incentives often take three form forms:

- Child related cash payments, which may either be regular payments for each child, such as Child Benefit, or one off payments when each child is born (or at any other given age). Typically this type of benefit has been targeted at reducing child poverty, especially with the benefit being paid to the mother, as they are more likely to be used for the child's benefit.
- Tax expenditures, either in the form of tax reductions/allowances or tax credits, based upon the presence of the child. These can be used either to offset the

cost of children or to increase mothers' return to work. These kinds of incentives are less likely to be directly spent on children, however administration costs are often generally lower than providing cash benefits.

- Subsidies and subsidised services, such as housing subsidies the offer explicit support to families with children, or at least more favourable conditions. Subsidies services would cover education, medical and dental services, public transport and recreation services which aim to reduce the cost of children.

However where tax and benefit systems treat different types of relationship differently (such as marriage and cohabitation) these policies can also harm fertility rates, particularly among the young who are more likely to cohabit more than previously has been the case.

Support for parents to combine work and family responsibilities

Policies in this area are often designed to make it easier for parents, most often mothers, to return to the labour market after having children. Policies in this area often relate to retraining opportunities, the ability to request flexible working hours and measures to encourage a more equitable division of family responsibilities between men and women. For example in Sweden parents have a legal right to reduce their working hours by 25% until the child turns 8 and each parent is entitled to temporary parental leave of up to 120 days a year, until the child turns 12, for staying at home looking after sick children.

Childcare Provision

Childcare provision falls into two areas, of availability of childcare and the cost of childcare. Further to this, the childcare needs to also be of a quality that parents, and children, will value and therefore make use of. Childcare provision also links to the ability to support parents to combine work and family responsibilities that it allows parents the time to return to work. There are different approaches across countries, which often have varying impacts upon one or the other, and rarely are aspects combined successfully. For example countries that rely upon private provision of childcare are likely to have a high level of availability of childcare, but the cost of the childcare is high. Comparatively those that have greater levels of public provision, the cost to the household maybe lower, but availability maybe diminished and tax rates maybe higher to support these costs.

As a comparison, for a household of two pre-school children, the cost of childcare can often be up to 50% of the gross household income of a UK family, whereas in Sweden the cost is 10% or less.

Maternity and Parental Leave

Parental leave, particularly maternity leave, is a feature of most developed countries, however depending upon its design, they can harm mothers' career prospects and financial security which may dissuade women from having a child, or subsequent children. Whether the maternity leave is paid or unpaid can also significantly impact the benefit that parental leave policies are able to have. Parental leave policies can however also work against gender equality if they favour the mother as it may prevent equal sharing of responsibilities due to fathers being unable to take similar time off.

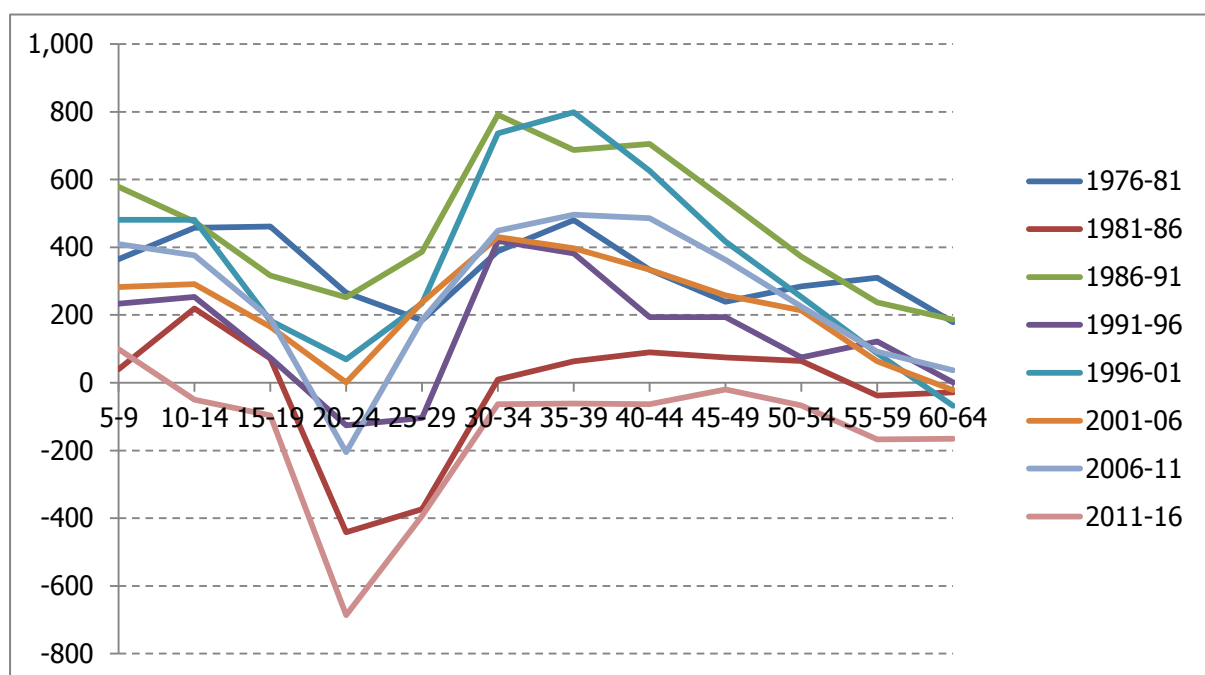
The current capacity for childcare providers on the Island is also very limited, with only enough places available for 5.2% of 0-2 year population (with a further 3.0% provided by individual child minder services) and 80% of 3-5 year olds, whereas the exemplar countries achieve around 50% of 0-2 year olds and 90%+ for 3-5 year olds. Further work is also needed to investigate the provision of care for children with disabilities, which has not been possible to analyse from the data available in the census, however the Department of Education, Sport and Culture consider this to be an area for further investigation.

3. Emigration of Young adults

Emigration of young adults is not a new phenomena. In every Census over the last 30 years the biggest fall or smallest increase in any five year group has always been amongst the 20-24 year olds.

As Figure 5 shows, migration on the Isle of Man has always shown the same shape, and rather than altering, where the Island has experienced higher levels of migration, the distribution of migration shifts upwards but still remains lower than other cohorts.

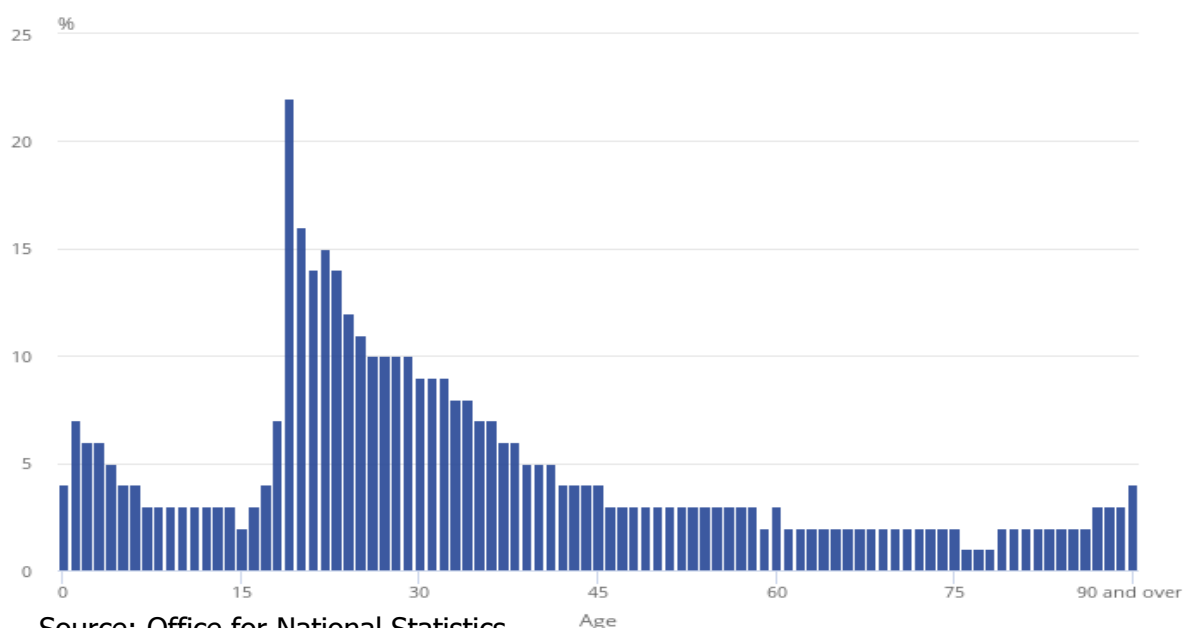
Figure 5 Migration by Age Cohort, Isle of Man Census



This pattern of migration is not exclusive to the Isle of Man, as both the Channel Islands have seen similar patterns, and the UK Office of National Statistics note that from 19-30 large proportions of the UK population change location.

As would be expected, much of this internal migration within the UK for this age group is related to relocating for university, as shown by the peak in Figure 6 around age 19, although it remains at or above 10% through until individuals reach 30.

Figure 6 Moves into local authorities in England and Wales (including moves from Northern Ireland and Scotland), year ending June 2015, as a proportion of the mid-2015 population estimates



There are two drivers behind the movement of young people which need to be considered, although it is likely that the drivers for why they may not return to the Island, for those undertaking university education, or leaving for those that do not.

Education

Around 50% of Island based students go overseas for education, largely to the UK. Data from the Manx Graduates’ Survey 2017 that was undertaken by the Department for Education, Sport and Culture (then Education and Children) suggests that around 48% of graduates either have or are likely to return to the Island after their degree. According to Isle of Man in Numbers 2017, in 2016/17 there were 1,259 students in receipt of grants relating to degrees or Higher National Diplomas, which suggests that 604 of them will not return to the Island. Further analysis of the graduate survey can be found further in this report.

Work

As mentioned above, there are 1,259 people attending university for a degree (whether that is locally or elsewhere), the 19-24 age cohort is around 4,000 individuals, and therefore there also needs to be a consideration of the circumstances of those who may leave the Island. Many of the issues will of course be common to both those who have and have not attended university. As young people start to consider their careers, they may or may not be present on the Island. There has also been significant research in the millennial generation (those born

between 1980 to 2000) regarding what they want from their employers and workplaces.

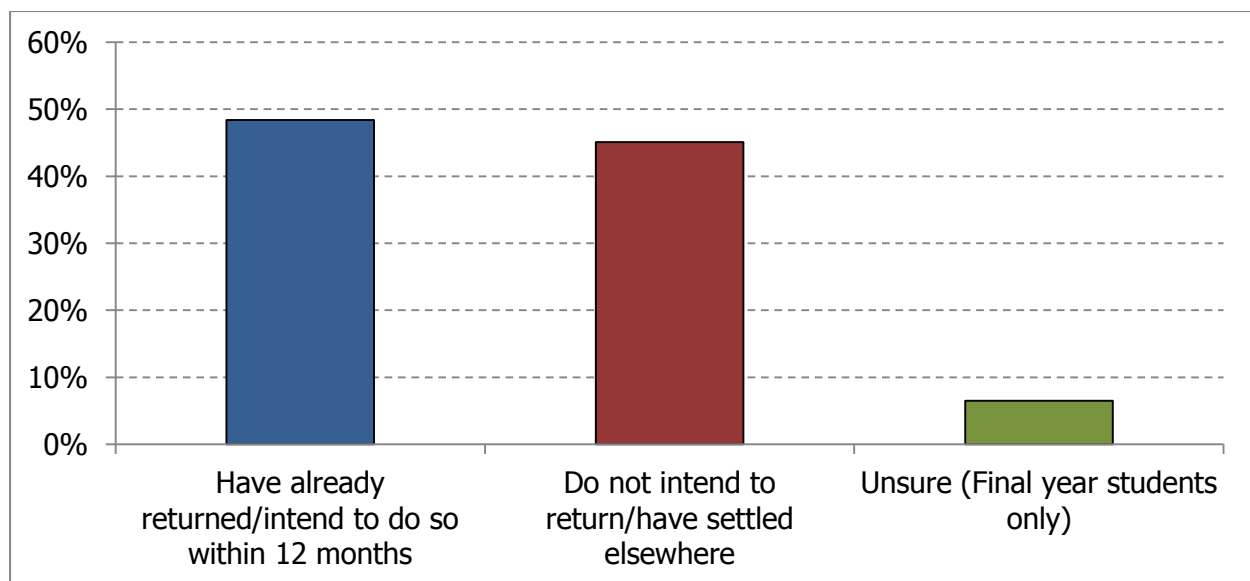
It should however be acknowledged that there will always be an element of this cohort that will look to leave the Island regardless of what is on offer, as the draw of places like London or other large cities is always likely to be present.

Manx Graduates' Survey 2017

The Manx Graduates' Survey 2017 was undertaken during May 2017 and looked to obtain information regarding the returning intentions of both those graduating in 2017 and also those who had already graduated. In total 452 individuals replied to the survey, of whom 116 were due to graduate in 2017 (referred to as 'Final year students in this report) and 336 had already graduated between 2012/13 and 2015/16 (referred to as Graduates in this report).

As mentioned earlier, the survey indicated that around 48% of individuals either have, or expect to, return to the Island after completing their studies, as shown in Figure 7.

Figure 7 Returning intentions of Manx graduates



Whilst the survey did not allow each group to provide the same range of reasons for not returning to the Island, there are some common themes between the two groups. Figure 8 details the reasons for not returning for the final year students and Figure 9 for those who have already graduated. It should be noted that individuals could provide multiple reasons as to why they had chosen not to return to the Island, and the results clearly show that for both groups, multiple policies will need to be considered in order to improve retention rates.

Figure 8 Reason for not returning to the Island, Final Year Students

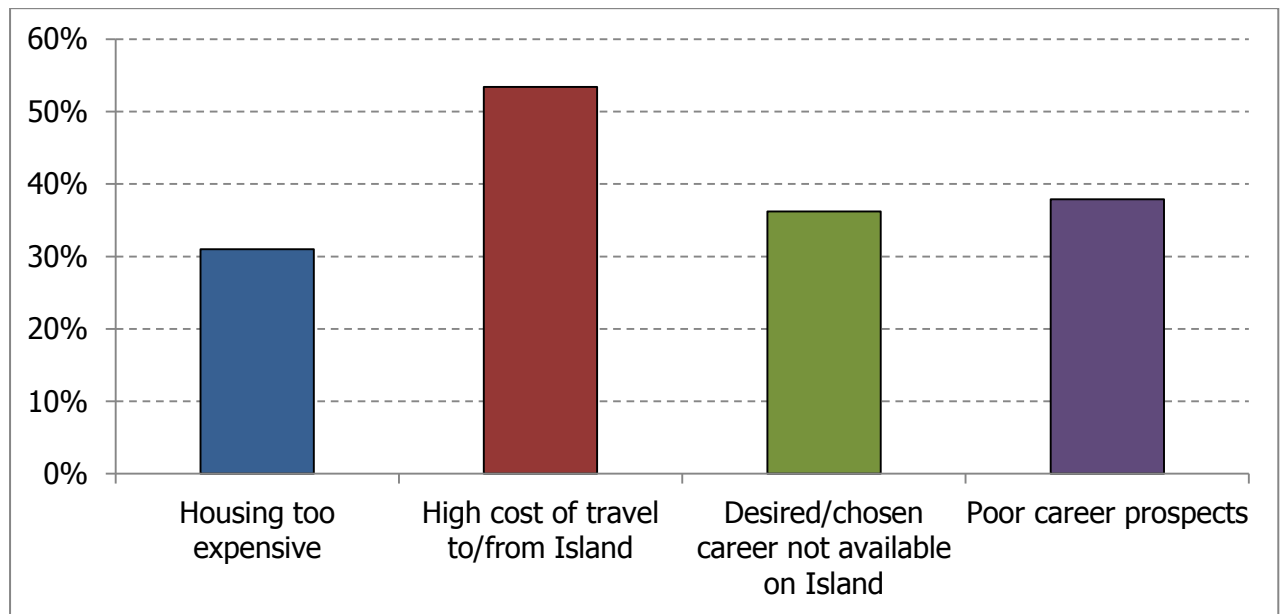
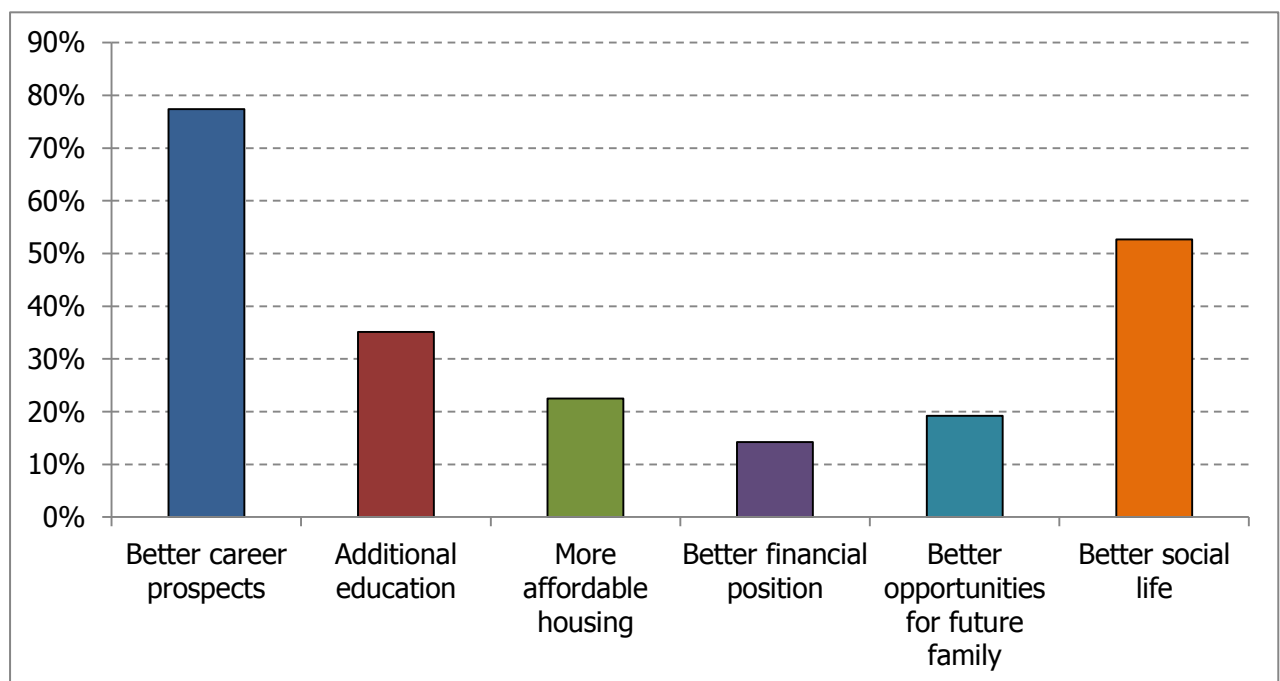


Figure 9 Reason for not returning to the Island, Graduates

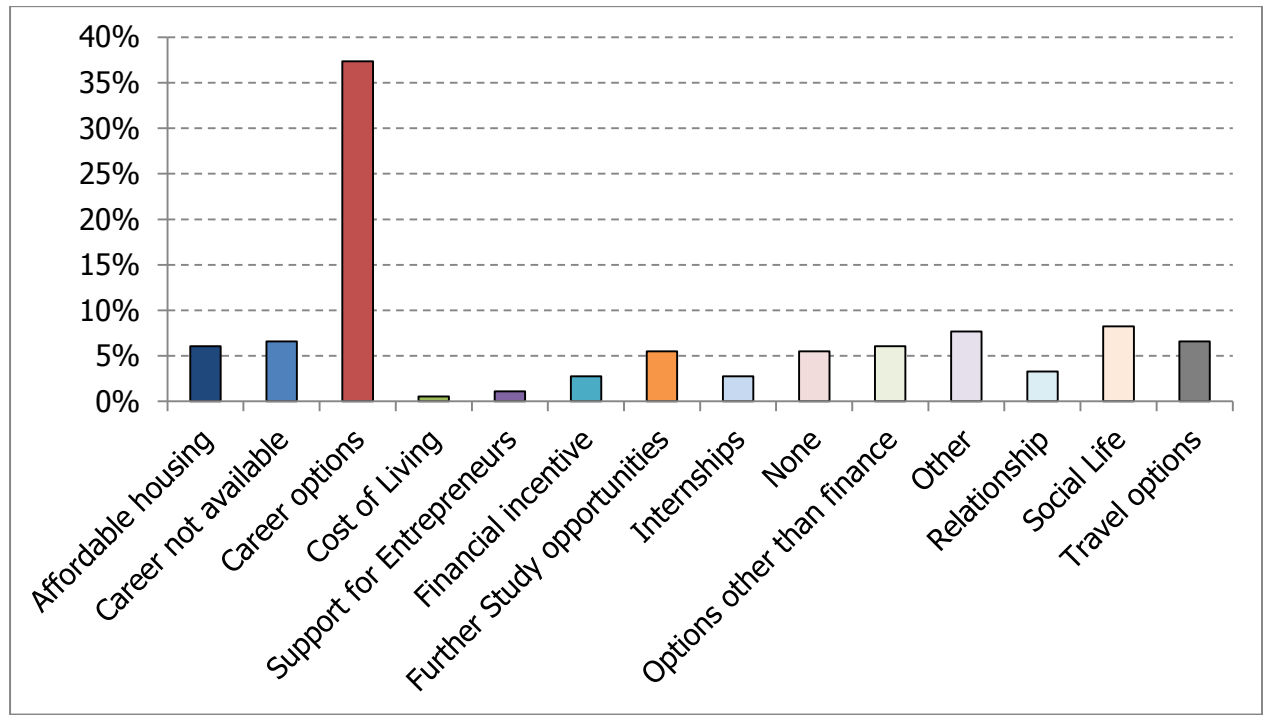


The availability of careers is a clear similarity between the two groups, with nearly 80% in both groups citing a career related reason for not returning to the Island. It is notable, however, that housing appears to be less of an issue for those who have graduated prior to 2017, and may be a reflection of the fact that they have begun a career where this cost may not be as significant for them.

The survey also provided individuals an opportunity to provide suggestions regarding improvements to those aspects of Island life that may encourage them to return to the Island. These responses have been coded by Economic Affairs in order to

analyse respondents' suggestions. The data provided relates to suggestions provided by the Graduates group, with feedback from 180 individuals. The results of these responses are shown in Figure 10.

Figure 10 What could be improved to encourage graduates to return to the Island



As shown, career related issues account for over 40% of the responses from the Graduates group. The detail behind this reason provides some further information into the types of career that graduates are looking to move into.

- Law
- Film/Animation
- Construction
- Sports Events
- Environmental Science
- Architecture
- Biomedicine/Technology
- Civil Engineering

Where no specific career or sector was mentioned, the most common statement cited a desire for a greater variety of graduate opportunities in general. There was also a significant number of individuals who specifically addressed the desire for better diversity of job opportunities by directly highlighting their belief that the only options available to them revolved around finance.

After career related options, the most common responses related to improving the travel options on the Island, where cost of travel was specifically highlighted, alongside improving the availability of affordable housing. As expected there were some respondents who have no intention of returning to the Island regardless of what might be improved.

Millennials in work

It is clear from the graduate survey that employment opportunities are a major, but not isolated, factor shaping young people's decisions about where to locate themselves. However, alongside providing those opportunities to enter the workplace, research for PwC and Deloitte has suggested that millennials want and expect different experiences and outcomes from their careers as well. The PwC report¹ highlights eight key areas that employers will need to adapt to in order to attract and retain workers from the millennial generation, particularly as it is estimated that they will make up 50% of the world's working population by 2020. The report highlights the following features of this section of the workforce:

- Millennials are likely to be **less loyal** towards an employer than previous generations, with 54% expecting to have between two and five employers, and over 25% expecting to have six or more employers. This fact links into the other features of the workforce, that if they do not find an employer to be meeting other expectations, as shown further in this report, they are more than happy to move to another employer who might.
- The survey found that 72% of millennials made some kind of **compromise** when finding their current position in order to get into work. However, as economic fortunes improve in many economies, these compromises may no longer seem necessary, with 38% saying they are actively looking for a different role and 43% being open to offers.
- **Development and work/life balance** are highly valued benefits from employers: opportunities for further development and flexible working are the top two desired benefits, with cash bonuses coming in third. Flexible working, however, extends not only to the hours that they work, but also how and where this work is done, focussing on the outcome of the work rather than the number of hours put into achieving it.
- Millennials seem to be less tolerant of **broken promises** particularly around issues of flexible working and diversity, with 28% feeling they had been over-promised the opportunities for flexible working, and over 50% concerned that whilst companies talked about diversity, they did not follow through with this.
- A defining feature of this generation is that they have grown up with **digital technology** throughout their lives, and this is reflected in their working practices in the expectation that an employer should be making good use of IT as part of their business. This feature, however, can also be a flash point for conflict within companies, as many millennials appear to believe that they are being held back by rigid and outdated working styles.

¹ Millennials at work Reshaping the workplace, PwC, 2011
<https://www.pwc.com/m1/en/services/consulting/documents/millennials-at-work.pdf>

- **Career progression** is also important, with 52% of millennials saying that the ability to progress quickly through an organisation was the main attraction of any employer, over and above salaries.
- Millennials also strongly want to work for employers that they are attracted to as consumers. It appears that **branding** is important, particularly when it comes to corporate social responsibility. There is also some evidence, in some countries, that millennials are put off from working in entire sectors; for example in Switzerland, 30% of millennials said they would not work in Banking & Capital Markets.
- They also have a strong desire to **work overseas**, with 71% expecting and wanting an overseas assignment at some point during their career.
- Whilst millennials state that they are comfortable working with older generations, especially if they provide a mentoring role, there are some signs of intergenerational tension, particularly around senior management being unable to relate to younger workers, or the perception that millennials' high personal drive was intimidating to older workers.

The Deloitte report² findings agree with those of PwC, however Deloitte's findings also expand upon the millennial belief that businesses can be a force for good and that their performance should include more than just financial performance. As part of this, millennials are also looking for a sense of empowerment, that their jobs have meaning or that they are able to make a difference.

Value of local education

Many universities provide significant benefits to host areas, as highlighted by Oxford Economics³ who conducted a study into the value of universities to the UK economy. Most notably they stated that universities have a gross value added multiplier of 2.17 (for every pound of gross value added, £1.17 is supported elsewhere in the economy) and an employment multiplier of 2.07 (for every 100 jobs, 107 are supported in other industries), which is higher than the spending in public administration & defence or the health sector.

As shown earlier in this report, university education is a significant driver of migration of young people throughout the UK and also from the Isle of Man. At the moment the Island has a limited higher education offering for inward migration and focuses on local provision for local residents. It is estimated that Isle of Man students spend around £11 million per annum on tuition with UK institutions, money that could, in theory, be spent on Island.

² The 2017 Deloitte Millennial Survey, Deloitte, <https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html>

³ The economic impact of UK Universities, 2014-15, Oxford Economics.

Isle of Man students mainly attend North West Universities. Table 1 shows the distribution the proportion of students from the Isle of Man, which suggests that the Isle of Man is supporting the North West economy by £3.3m in tuition fees, and potentially a further £2.4m in other spend, as it is estimated that £8m per year is spent by Manx students in the UK, of which around £0.5m of VAT is incurred on this spending.

Table 1 Distribution of Manx Students 2011/12

Region	Number of Students	%
North East	88	7%
North West	350	30%
Yorkshire and The Humber	175	15%
East Midlands	68	6%
West Midlands	68	6%
East of England	28	2%
London	72	6%
South East	92	8%
South West	76	6%
Subtotal (England)	1,023	86%
Wales	56	5%
Scotland	96	8%
Northern Ireland	12	1%
Total	1,186	100%

In 2011/12, the Higher Education Statistics Agency published student retention data of students, and it is clear, as shown in Table 2, that the Islands have a low, but not unusual level of graduate retention.

Table 2 Student return rates by region, 2011/12⁴

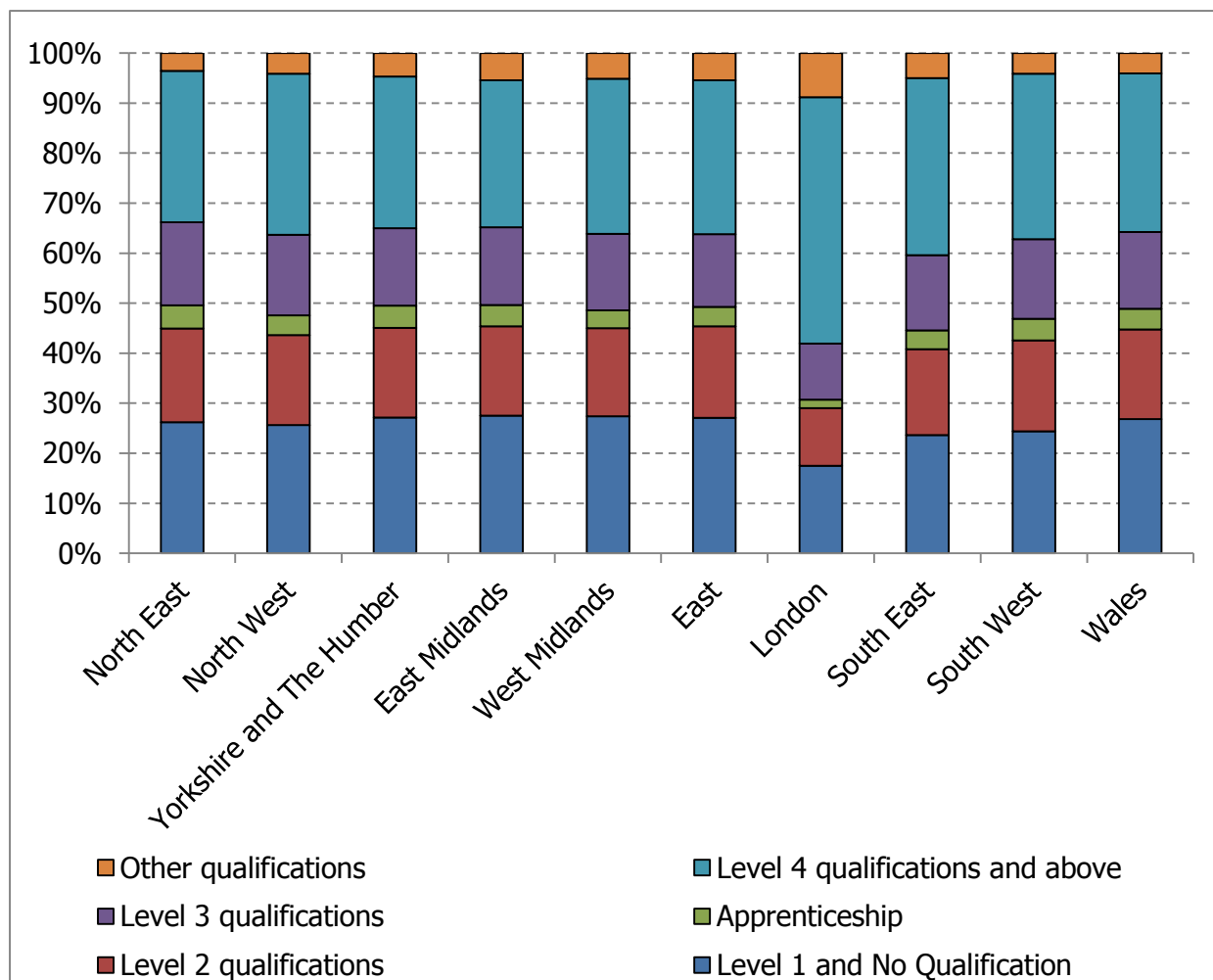
Region	Distribution
North East	77%
North West	76%
Yorkshire and The Humber	64%
East Midlands	61%
West Midlands	69%
East of England	56%
London	79%
South East	59%
South West	65%
Wales	75%
Scotland	88%
Northern Ireland	79%

⁴ This is the latest freely available data from the Higher Education Statistics Agency by region. The latest survey suggests that our return rate of students may have fallen slightly since 2011/12.

Guernsey, Jersey and the Isle of Man	59%
UK Average	70%

Perhaps unsurprisingly, London has one of the highest levels of student retention within the UK, but it also remains a major attraction for graduates from all parts of the British Isles, with many of the students that do not stay in the same region as their university migrating towards London. Figure 11 shows the stark contrast in the qualification level of the workforce between the rest of the UK and London.

Figure 11 Qualifications of the working population, by region, 2011 UK Census



Policy Responses

There are a number of options that might be available to improve the retention rate of Isle of Man students and also the younger generation in general. There are also opportunities to improve inward migration of younger people, albeit perhaps temporarily whilst they undertake their studies. The possible responses fall into two broad categories of improving return rates of Manx students (which may also attract non-Manx graduates) and the provision of degree education.

Improving return/retention rates

- The data from the Manx Graduates' Survey 2017 shows that there is a clear gap between perception and reality of what careers are available on the Island. A number of the sectors that were directly named by respondents are already present on the Island. Improving the Island's presence at recruiting or employer fairs at UK universities, particularly those in the North West of the UK may help to alter this perception and encourage students to return.
- Increasingly universities are offering sandwich degree courses which provide the opportunity for students to spend a year in industry prior to undertaking their final year of studies. In many cases these years in industry have to be arranged by the students themselves, and therefore a scheme that creates a portal or 'one stop shop' that brings together students and employers could yield results, particularly if it was marketed via the universities. This may help students to find an employer that they may wish to return to after graduating.
- A graduate internship scheme could also help to improve the perception gap that many students appear to have of the Island's economy. In order to be seen as worthwhile however the scheme would need to ensure that participants received tangible benefits for it, particularly as there is a perception in the UK at the apprenticeship scheme is used by some employers to access cheaper labour. This scheme could be supported by Government in terms of a central portal that graduates and employers could make use of, and the scheme could be supported perhaps by tax incentives such as National Insurance relief or holidays, however there would need to be measurable benefits to the graduate for an employer to qualify.
- In order to address the need for affordable housing, for all young people, Government develop a first time buyers scheme specifically for young people or graduates or at least a scheme which addresses this need. The need for such support was shown by the Isle of Man Housing Market Report 2016⁵ which showed that housing affordability for young people is currently at 9.75 times the median salary for under 25s for a lowest quartile house. In doing this, such a scheme would help to encourage younger people to 'put down roots' on the Island and improve the likelihood of them staying on Island.
- Whilst the provision of social activities is generally best left to the private sector, and requires a critical mass of demand to be viable, the Government could consider a scheme to underwrite or financially support facilities that are attractive to young adults in order to counter the perception of there being 'nothing to do'. The cost of travel and cost of living were also identified by the Graduate Survey as key issues which will need to be addressed.

⁵ Isle of Man Housing Market Review 2016, Economic Affairs, Cabinet Office, <https://www.gov.im/media/1356177/2016-housing-market-report.pdf>

Provision of higher education

- The Manx Graduates' Survey suggests that there is a significant proportion of graduates who are looking to further the studies (35% of the Graduate group) and therefore institutional partnerships with UK universities that are able to provide Masters and Doctorate level qualifications in some areas may help in retaining students and also bringing in non-Manx students.
- Development of an 'Isle of Man Campus' that one or more UK universities could use as a site for the provision of parts of courses in the Isle of Man, which would both help to capture more of the spend of Manx students who go to the UK to study and also bring over UK students for sections of a course or full degree programmes. Examples such as the University of Central Lancashire in Cyprus show that this model is possible, particularly if the campus also provides research and development facilities, as such activities are important to universities being able to fund themselves.
- Such a campus, depending upon the specialities present, may also attract companies looking to benefit from the research and development being undertaken, which may provide job opportunities for graduates to return to.

A change in attitudes

As the PwC and Deloitte studies have found, there also needs to be a change in attitudes from employers, both public and private, in order to retain the younger generation of workers, who, if they cannot find what they are looking for, appear more than happy to relocate in order to do so.

The reports also make clear that some employers are successful at adjusting to these attitudes, and Government could set up or support a forum that allows employers to share best practice in regards to employment or provide support and training to employers to adapt.

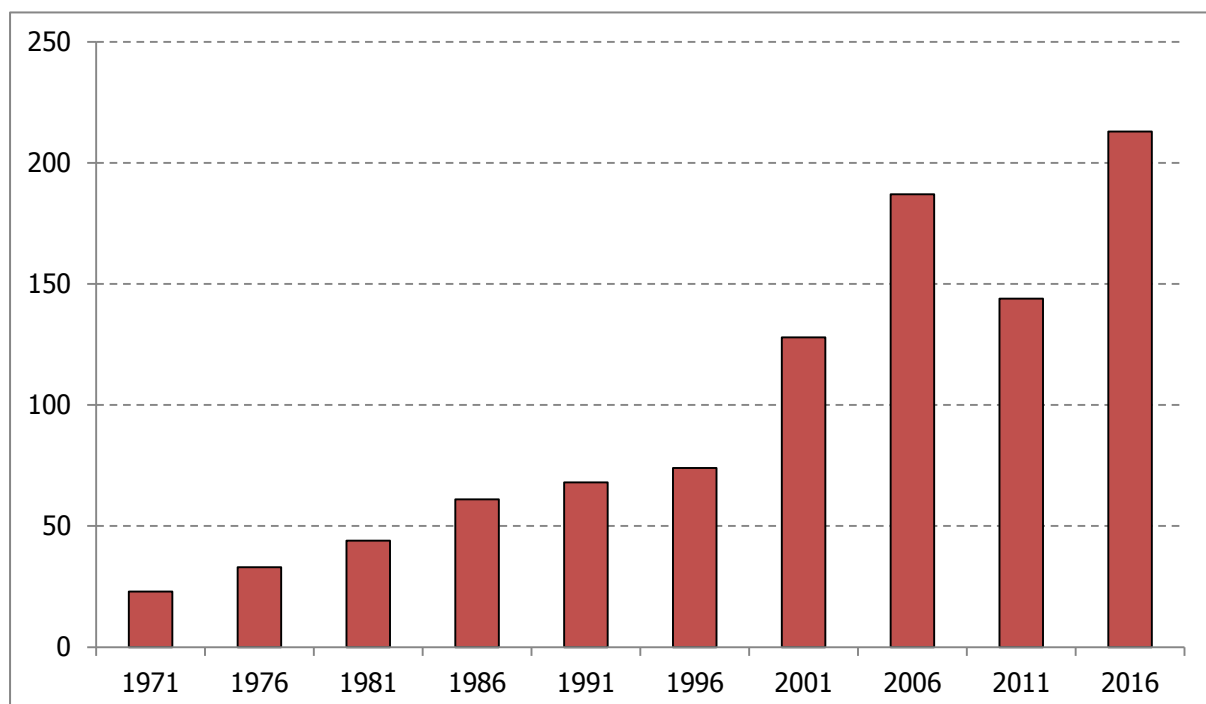
4. Growing population of older people

Regardless of whether the Isle of Man is successful in attracting working age individuals to migrate to the Island, it is, like many European countries, going to face a growing population of older people.

A growing population of older people primarily presents issues for the provision of public services, concerning health and social care, housing and pensions amongst other things, which were first highlighted in a report in 2013 titled 'Research into threats and opportunities of an ageing population in the Isle of Man'⁶. As shown by the population projections, the over 65 population is expected to increase from 17,205 in 2016 to at least 22,453, an increase of 30%. Whilst improving life expectancy should be hailed as a success of any country, it does present issues that have to be addressed, in terms of funding state pensions for longer than ever before but also that where possible increases in life expectancy are matched or exceeded by improvements in health life expectancy. If not, health and social care services are going to be placed under increasing strain to meet these demands.

Figure 12 shows how the Island's Over 95 population has grown over the last 40 years.

Figure 12 Over 95 Population



⁶ Research into the threats and opportunities of an ageing population in the Isle of Man, Isle of Man Government <https://www.gov.im/media/1347343/ageing-population-report.pdf>

High level Impact of an increasingly older population

As mentioned at the beginning of this section, an increasingly older population presents issues in relation to the funding of state pensions, and also of health and social care for older people, as well as for housing and other things. These have not formed part of this paper as work has already been undertaken by Treasury in respect of the new Manx State Pension which will be introduced from April 2019, and the Council of Ministers Social Policy Sub-Committee is investigating issues around the funding of health and social care for older people and will report in July 2018 on the residential and nursing care dimension. Information gleaned from the 2011 and 2016 censuses in respect to the age at which people enter residential and nursing care is presented below.

An older and changing population also has impacts for various other services such as the Emergency Services who may come under additional pressure if an ageing population requires them to become more involved in social care in dealing with a greater risk of falls in the home, fire risks and the Police having to provide further support to ambulance calls.

Based upon the Island's current annual net expenditure on health and social care, the table below represents a projected estimate of increases in annual health care costs, both for the total projected population and for the group aged 65+. It is estimated that, by 2036, population aging alone will account for approximately 15% of increases in health care costs.

Whilst no data relating to health care spending by age is available for the Isle of Man, data from the Organisation for Economic Co-Operation and Development (OECD)⁷ has been used and applied to the Department for Health and Social Care's net expenditure. These estimates only take into account the additional cost of the ageing population based upon today's expenditure, any increase in the cost of services and treatments above today's prices would result in a greater increase.

Table 3 Estimated projected Health and Social Care Expenditure

Health Costs	2016	2036 (+500)	2036 (+1,000)
Total	209,996,685	243,729,677	262,811,434
% Increase		16.1%	25.2%
65+ Population	17,205	22,715	23,111
65+ Annual Cost	86,373,298	118,206,851	117,406,034
% Increase of 65+ annual cost		36.9%	35.9%

⁷ OECD Statistics, Health, Health Expenditure and Financing, Expenditure by disease, age and gender under the System of Health Accounts (SHA) Framework, Current health spending by age, <http://stats.oecd.org/Index.aspx?DataSetCode=SHA>

% Increase of total cost due to 65+ annual cost		15.16%	14.78%
---	--	--------	--------

Social Care

Using the 2016 Census as a benchmark we can assess the likelihood of older persons needing residential or nursing care. The incidence is as follows.

Age	% in Residential or Nursing Care in 2011	% in Residential or Nursing Care in 2016
60-64	0.31%	0.50%
65-69	0.95%	1.00%
70-74	1.23%	1.50%
75-79	2.86%	3.00%
80-84	7.54%	6.20%
85-89	15.16%	13.30%
90-94	32.35%	22.80%
95-99	48.84%	40.70%
100+	67%	55.60%

Based on the average size of a residential or nursing care home staying the same, and if behaviour is not changed, as the population ages around a further 200 nursing or residential care beds would be required by 2036 (around 10 a year) just to meet additional demand due to aging. Active aging policies are likely to constrain the numbers needing care and help the social care system deal with increasing demand over this period. The nature of accommodation available might also have an impact, and the availability of care and extra care will also make a difference.

5. Active Ageing Index

The generally accepted response to ageing societies that are being experienced all over the developed world is to promote "active ageing", which is being led by the United Nations Economic Commission for Europe. This looks at prolonging healthy life expectancy and focusses on four domains of an older persons life:

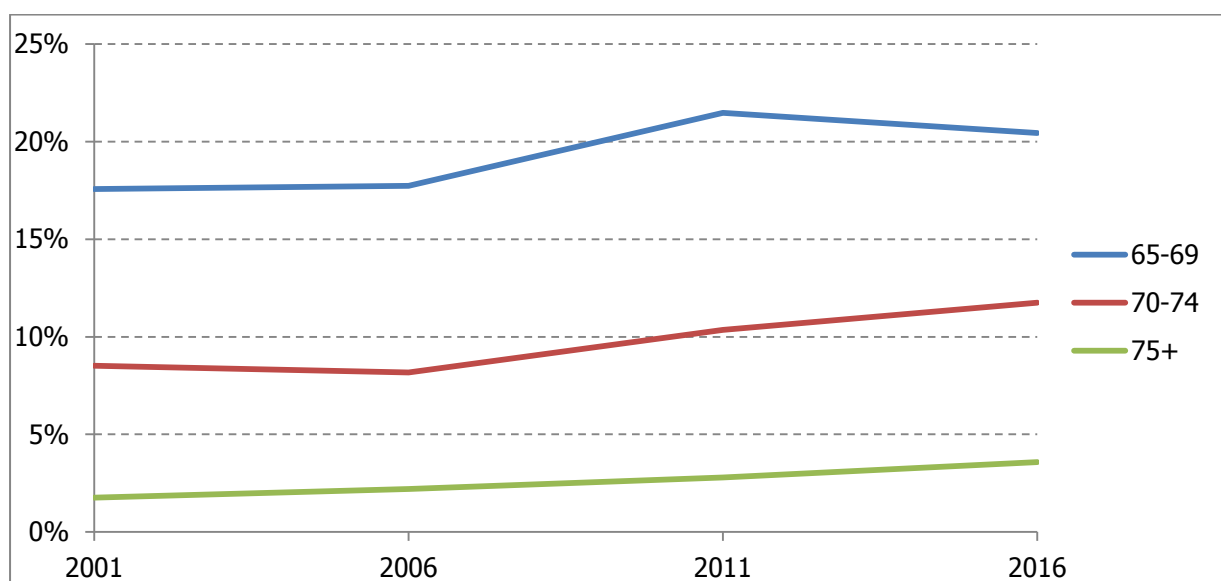
- 1) Employment
- 2) Participation in Society
- 3) Independent, healthy and secure living
- 4) Capacity and enabling environment for active ageing

As mentioned, prolonging healthy life expectancy creates economic benefits and defers costs. Monitoring each of these domains, and improving areas upon where weaknesses are identified, helps to ensuring that these people live active, healthy lives that contribute economically. It also helps to redress some of the stigma that has been developing across a number of countries that the ageing population is placing a burden upon economies, and instead looks at the benefits that such a population can have and provide.

Employment

The trend towards more people working later in life continued in 2016. Despite a small fall in the proportion of 65 to 69 year olds in work the overall level of activity for over 65's increased from 10.2% to 10.9%. These figures are broadly in line with those seen in the 2011 England and Wales Census.

Figure 13 Proportion of over 65's Economically Active 2001-2016



The economic benefits of people remaining in work longer are relatively clear, particularly as it improves their spending power within the economy, however being in work also provides numerous psychological benefits to individuals which may help when looking to improve health life expectancy. In particular being in work is associated with improved recovery from illness and reduces the likelihood of developing long term conditions. It also helps to keep people alert and provides social interaction that may otherwise be missing.

In this regard, the Isle of Man performs well when compared with the other 29 countries that have taken part in the Active Ageing Index. The Island would rank 2 out of 29 European countries in terms of employment. Only Sweden has a higher proportion of older people in work.

The full employment domain analysis is available in Appendix II.

Participation in Society

Whereas the employment domain considers paid work, the participation domain focuses on the value that older people provide to the others through volunteering, providing child care, looking after parents and also how politically active they are. The value of these activities can be particularly high given the cost of both child care and nursing or care homes. An estimate in the UK is that grandparents save parents around £1,900 a year in childcare fees by providing an average of 9 hours.

Perhaps surprisingly the proportion of over 55's volunteering weekly is lower than in other countries. Where the Island scores highly is in the proportion of over 55's looking after older adults.

In the 2016 Social Attitudes Survey around 38% of respondents over 55 took part in some voluntary activity. Around a quarter of these did so on a weekly basis, amounting to around 9.5% of the over 55 population.

The Isle of Man would rank first out of 29 European countries in respect of participation in society, and the full domain analysis is available in Appendix III.

Independent, Healthy and Secure Living

This domain focuses on how well older people are able to look after themselves and addresses physical and mental health alongside their financial ability to support themselves.

Compared with the other domains in which the Isle of Man performs strongly, this domain is weakest area for the Isle of Man, coming 13 out of 29 countries under this section. Whilst physical safety and lifelong learning were amongst the highest seen anywhere, relative median income was the second lowest in Europe with poverty risk also very high.

The full analysis of this domain is available in Appendix IV.

Capacity and enabling environment for active ageing

The final domain addresses the ability for older people to 'actively' age, such as monitoring both life expectancy and health life years of that life expectancy, but also their mental well-being, their use of ICT, social connectedness and educational entertainment. These factors are important as they can facilitate or hinder active ageing in the other domains.

The Isle of Man ranks 3 out of 29 in this domain, with the full analysis available in Appendix V.

Areas of improvement from Active Ageing Index

Whilst the Isle of Man performs relatively well across most of the domains, there are some areas the Island may need to address:

1. That relative poverty is an issue for many older people, as shown in the Household Income and Expenditure Survey 2012/13 with the lowest quartile by income of over 65 households spending more than they receive in income, although this same situation was also present for under 65 households.
2. That strong family ties still allow a lot of care of older people to be done by family members, and vice versa in respect of childcare, however with migration, some of these family ties may be broken and place a greater strain on formal care services.
3. That older people need to be encouraged to be more active.

6. British Irish Council Demography Work stream

Alongside the work undertaken in this report, a significant amount of work regarding populating ageing was undertaken as part of the Isle of Man's involvement with the British Irish Council's demography work stream which specifically looked at the challenges presented by such a demographic shift and took case studies and exemplar policy responses from the various jurisdictions into how they were addressing their population challenges in regards to ageing.

The report⁸ highlights a number of responses that the various jurisdictions are undertaking, some of which are briefly noted below but are more fully detailed in the work stream report.

- Public/Private schemes to help employers support people to work for longer, including retraining, flexible and part time working, and improving occupational health awareness.
- Incorporating into designs of public spaces and other public areas so that the older population are not excluded by certain design features.
- Creation of mixed, extra care housing schemes, which provide suitable housing for people with a range of care and support needs, but also ensures they still have interaction with the wider community.
- Schemes to making societies 'age friendly' including allowing different generations to work together, such as younger generations helping older ones with technology.

Many of the responses that have been undertaken by the various jurisdictions complement the concept of active ageing and could be replicated on the Island as many of the schemes are transferable from a larger jurisdiction such as England or Scotland to the Island.

The report also includes a detailed backstory across all of the jurisdictions as to every jurisdiction has ended up in a similar place. This backstory is available in Appendix VI.

⁸ Populating – Ageing – Society, British Irish Council 2016, <https://www.britishirishcouncil.org/sites/default/files/ebook/Demography%20report%202016/ebook/mobile/index.html#p=38>

7. Summary of Recommendations

The recommendations in this report are as follows and are intended to create a discussion around the types of initiatives that Government may wish to look to undertake in order to address the population challenges that are presented by the census results and the population projections.

Declining Fertility

- Greater financial incentives either through child related cash payments, tax allowances or subsidies which are aimed at offsetting some of the costs that parents incur whilst looking after children
- Looking to support parents in making it easier to combine work and family responsibilities, such as retraining opportunities for those that have taken an extended time out of work to look after children, a better availability of flexible working or making it easier for parents to share parenting responsibilities.
- The availability and affordability of quality childcare was also highlighted as an area for improvement given that there is only enough places for 8% of 0-2 year olds and 50% for 3-5 year olds.
- Considering the balance of parental leave, which is currently heavily focussed on maternity leave may also help to address issues around children, such as allowing parental leave to be shared may help to share parenting responsibilities.

Emigration of young adults

- The Manx Graduates' Survey 2017 showed a perception gap that the Government could address by more effective marketing of employment opportunities at university recruitment fairs and other similar events.
- Creating opportunities for university students to undertake their year in industry as part of studies on the Island may help to encourage both Manx and non-Manx students to return to the Island after completing their studies.
- The introduction of a graduate internship program that allows students, after graduating, to gain experience with employers, with support provided to employers through National Insurance relief
- Developing a first time buyers scheme aimed at graduates and young people to help improve the affordability of getting onto the housing market, which helps them to put down roots on the Island.
- Provide support to the private sector who may wish to provide leisure and social facilities that young people value.

- The Manx Graduates' Survey shows a clear desire from young people to undertake further studies after their degree, and establish partnerships with UK universities to provide Masters and Doctorate qualifications.
- Develop an 'Isle of Man Campus' as a centre of excellence in a given field, or fields, that UK universities could use as a site to provide parts of their courses on the Isle of Man.
- As part of an Isle of Man Campus, help facilitate companies who are interested in research and development to establish themselves close to the site.
- Help to improve employer awareness of the expectations and demands of the millennial workforce which studies have found to differ from previous generations.

Growing numbers in retirement

- Relative poverty is an issue for some pensioners on the Island, although this is not an issue exclusive to pensioners as highlighted by the Household Income and Expenditure Survey 2012/13.
- Whilst there are currently strong family ties on the Island which allows for both older people to be cared for by their relatives, and for grandparents to look after children, continued migration may lead to a situation where these ties are broken and other services have to take on this responsibility
- Whilst the Island performs well in most aspects of the Active Ageing Index, continuing to encourage exercise and participation will be beneficial for both the person concerned and the state.
- A Plan to develop an additional 200 Nursing and Residential Care beds by 2036, alongside a funding regime to pay for them.

Appendix I : Isle of Man Population Projections

Methodological Summary

The Isle of Man 2016 population projections have been produced through application of the intercensal cohort component method, with residual estimation of net migration. The current projection model estimates population change to 2036, and the model is based upon ten-year trend data for fertility, mortality, and single-age net migration (up to age 90) estimated from residuals.

The intercensal cohort component method analyses annual fertility and mortality data to reconstruct trends in natural population change, and incorporates quinquennial population census data to estimate migration patterns from the residual figure in excess of natural change.

Fundamentally, population dynamics are estimated as follows:

- (1) Measuring the size of the population at a given point in time, typically through census;
- (2) Adding registered births and subtracting registered deaths within a subsequent fixed period of time, to calculate natural population change;
- (3) Measuring the size of the population at a second point in time, again typically through census; and
- (4) Subtracting total natural change from total population change to estimate net migration.

$$P_{t+n} = \text{survived population} + \text{births} + \text{net migrants},$$

where t =time of first census, n =time between census periods, and net migrants are the residual produced by the remaining population components.

Once the fertility rate, mortality rate and net migration residual are calculated for each age cohort by sex, a projection table is constructed wherein the baseline population figures (in this case, from the Isle of Man 2016 Census) are projected year by year for a total projection period of twenty years.

Each of the three major population components – fertility, mortality, and migration – must first be examined separately and certain simple statistical results extracted before these are built into the projection model. It is assumed that there is zero error in the fertility and mortality components (i.e. that data extracted from IOM General Registry on births and deaths 2006-2016 is correct and complete). Below are brief descriptions of the process required for each population component.

Fertility

Annual fertility statistics from all years between 2006 and 2016 were collated. Age-specific fertility rates (ASFR) were calculated for females between the ages of 16 and 46, and the mean of these single-age calculations for the years 2012-2016 was the basis for updating the total population fertility rate (TFR) to 1.69.

TFR	2001	2006	2011	2016
IOM	1.64	1.73	1.89	1.69
UK	1.64	2.00	1.90	1.81

The ONS calculates the UK TFR on the basis of a single year's data, while the Isle of Man has traditionally calculated its TFR on the basis of a five-year trend, in order to smooth fluctuation in the annual fertility rate that occurs as a result of the Island's relatively small population size. The Isle of Man's total fertility rate has typically been somewhat lower than the UK rate, but has followed the same general pattern of rise and fall since 2001. Total fertility for the UK is projected to remain relatively stable, at 1.86 between 2025-2030,⁹ and on observed trends we would expect total fertility on the Island to strike close to this figure, albeit somewhat lower.

A TFR of less than 2.1 entails that the Isle of Man is classed as a low-fertility country according to UN standards.¹⁰ World demographic trends assume that all countries will eventually converge to a state of low fertility, and although fertility projections of a high-fertility country would need to take the statistical assumption of declining fertility into account, this is not necessary for the Isle of Man.

Note: While TFR for the Isle of Man is calculated every five years on the basis of the five-year birth rate, the age-specific fertility rates (ASFR) used in the population projection model is based upon the ten-year birth rate. TFR is a separate descriptive statistic, which is not directly incorporated into the projection model.

Annual birth rates for male and female births were averaged across ten years to produce the sex at birth ratio, and this ratio was the basis for the projection of male versus female births in future years. Use of the sex ratio at birth affects the model to the extent that, within sixteen years from the baseline year (2016), the projected cohorts of females enter the ranks of childbearing age, and recursively affect the fertility estimates for all successive years within the projection model. The 2016 five-

⁹ World Population Prospects: The 2017 Revision, Key Findings and Advance Tables. United Nations Department of Economic and Social Affairs, Population Division (New York: 2017).

¹⁰ World Population Prospects: The 2015 Revision, Methodology of the United Nations Population Estimates and Projections. United Nations Department of Economic and Social Affairs, Population Division (New York: 2015).

year sex ratio at birth for the Isle of Man is expressed as 1.05 male births per female birth.¹¹

Mortality

Annual mortality statistics from all years between 2006 and 2016 were collected from the General Registry, by way of the Public Health Division, where staff members have been carefully examining and regularizing the Island's mortality records. Single-age sex-specific mortality rates (ASMR) were calculated for the total population and a life table was constructed to determine age-sex specific survivorship rates over ten years.

Note: It is widely known that life expectancy at birth has been steadily increasing in developed countries for the past several decades, and that population ageing is a pressing concern as the large post-war cohorts transition into retirement. Improvements in health outcomes also indicate the likelihood that aged and super-aged sub-populations will enjoy unprecedented survival rates. Recent findings of the 2016 IOM Lifestyle Survey suggest that life expectancy past age 65 is comparable on the Isle of Man to rates estimated for the UK.¹²

The UN estimates that, in developed countries with high life expectancy, the total life expectancy of females gains approximately 1.25 years every decade.¹³ It should also be made clear that the high rates of increase in life expectancy are slowing in recent years within developed countries, and may reach a plateau in the near future. Life expectancy at birth in the UK is currently projected at 81.8 for 2015-2020, and 83.5 for 2025-2030.¹⁴

Migration

Migration is estimated on the basis of intercensal population change not accounted for by annual fertility and mortality (the 'residual'). Total population counts from the 2006, 2011 and 2016 IOM Censuses were used to determine population change in excess of natural change, and sex-specific single-age migration rates were calculated on the basis of this ten-year trend. This procedure was worked separately for each sex in order to determine the average ratio of male to female migrants.

¹¹ Male births normally outnumber female births, although the accepted upper limit is 1.07 – see Birth Ratios in Great Britain, 2010-14: a report on gender ratios at birth in Great Britain. UK Department of Health, July 2016).

¹² "A Healthy Island?" Isle of Man Director of Public Health Annual Report 2017.

¹³ World Population Prospects: The 2015 Revision, Methodology of the United Nations Population Estimates and Projections. United Nations Department of Economic and Social Affairs, Population Division.

¹⁴ World Population Prospects: The 2017 Revision, Key Findings and Advance Tables. United Nations Department of Economic and Social Affairs, Population Division (New York: 2017).

The major dynamics of migration in the Isle of Man are discussed in greater detail elsewhere in this paper. From a methodological perspective, it is important to note that:

- 1) Total net migration rate between the 2006 and 2016 censuses was positive
- 2) For the 2016 IOM projection model, net migration was estimated to age 90
- 3) The migrant sex ratio for 2006 to 2016 was 115.5 males to 102.4 females
- 4) Net migration 2006-16 was concentrated among the working age population, accounting for 63.12% of total inward migration, and the projection model reflects this observation
- 5) All population projections, and projection of migration in particular, suffer in accuracy among cohorts of relatively small size, such as the aged cohorts of the IOM population. Moreover, migration patterns among the 75+ age groups are highly variable by single age, and significantly different for each gender. Projection of migration trends among the aged cohorts should thus be interpreted with caution, as high internal variability indicates the possibility that the overall trend is unstable and may change in the future.

Figure 14 Female Migration (%), 2006 to 2016 trend

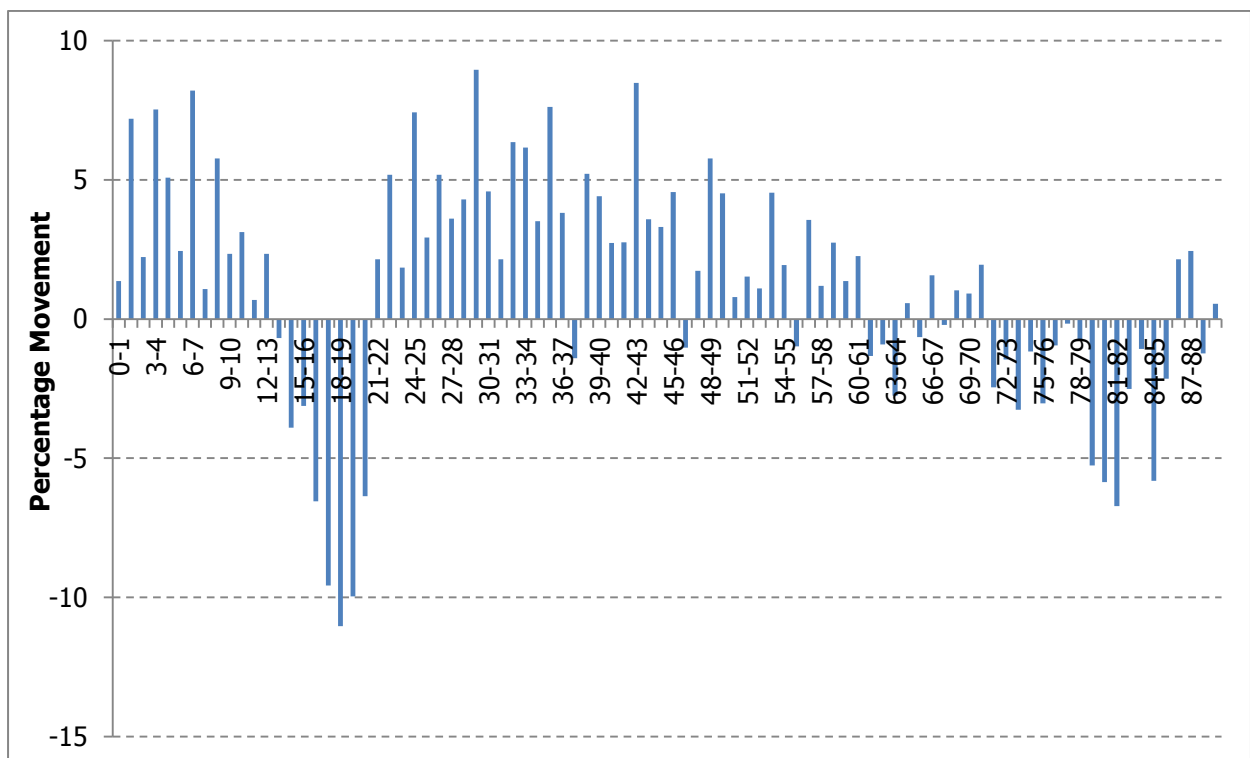
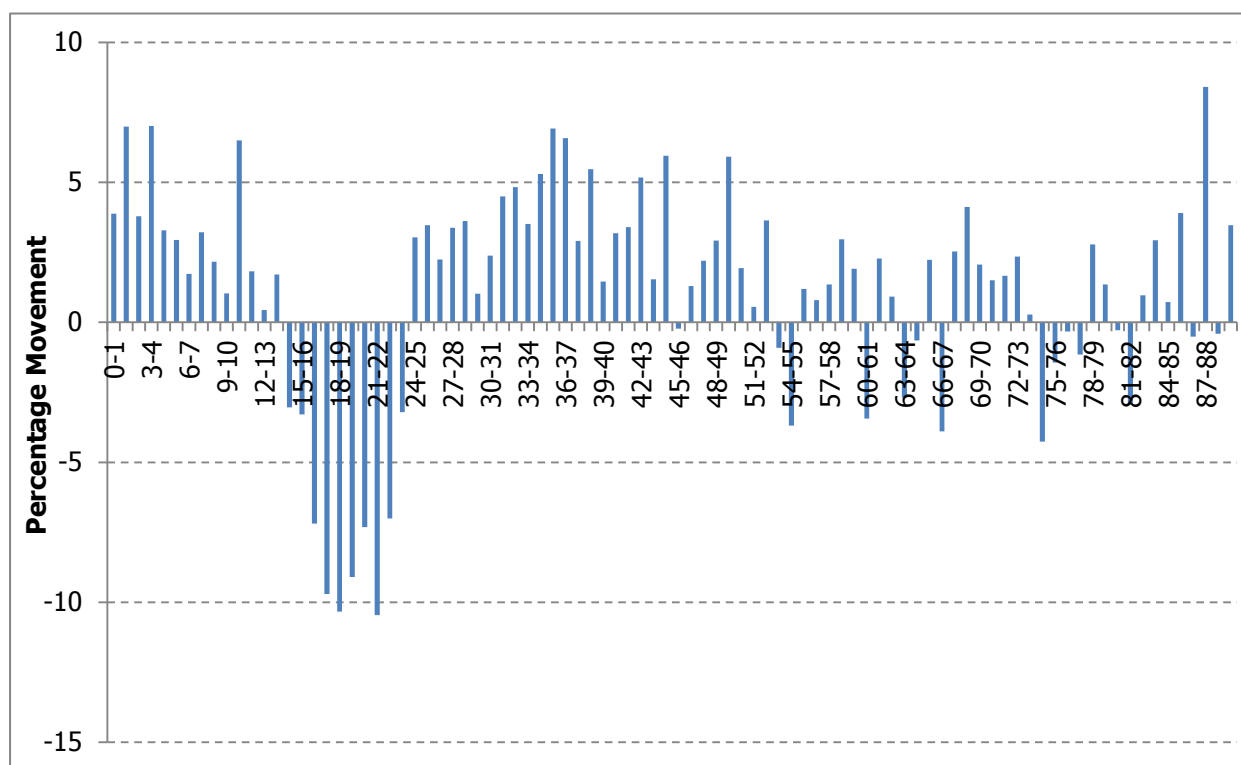


Figure 15 Male Migration (%), 2006 to 2016 trend



Population Projections

The IOM 2016 population projection includes three main variants, all based upon projected migration scenarios. It is assumed in each variant that fertility and mortality rates will remain constant based upon the ten-year trend. The zero trend variant assumes that net migration will sum to zero, and shows only the rate of natural change in the Island’s population; the moderate variant (“Mig. 500”) assumes that migration rates will result in a net gain of 500 per annum, and the high variant (“Mig. 1000”) assumes that migration rates will result in a net gain of 1,000 per annum.

Within the projection model, annual female age-specific migration was taken into account in each single-age group before fertility is calculated for that single-age group – in other words, female newcomers were counted towards the fertility rate in each projection year. Since the majority of incoming females fall within the reproductive age range, higher migration rate variants exert a secondary effect upon projected birth counts.

In each of the three projection variants, projected migrants were distributed through the population by age according to the current estimated age distribution of migrants to and from Island.

As this paper considers the various aspects of the Island’s population, the following tables and figures provide analysis of subsections of the Island’s population, in

particular the youth population (those aged 0-15), the working population (16 to retirement age) and the retired population.

Table 4 Isle of Man Population by 2036

	Zero Trend	500 Net Migration	1,000 Net Migration
Population by 2036	77,875	89,872	101,051
Percentage change from 2016	-6.5%	+7.9%	+21.3%

Figure 16 Projection of Isle of Man Population, 2016 to 2036

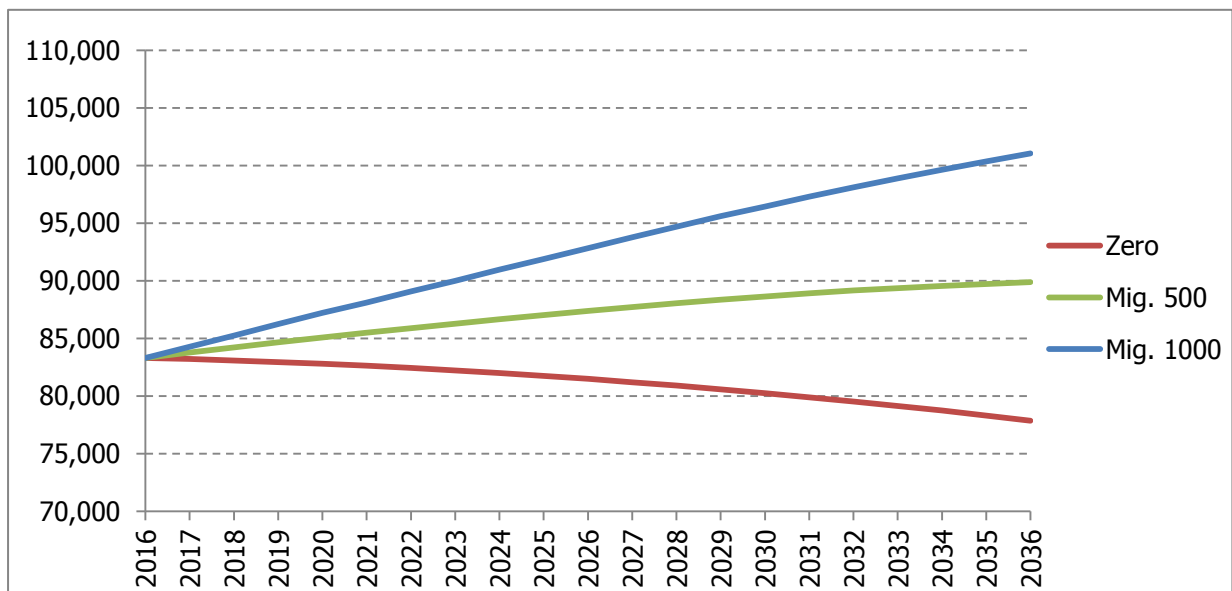


Table 5 Isle of Man Youth Population (0 to 15) by 2036

	Zero Trend	500 Net Migration	1,000 Net Migration
Population by 2036	11,835	16,195	19,919
Percentage change from 2016	-16.8%	+13.8%	+39.9%

Figure 17 Isle of Man Youth Population, 2016 to 2036

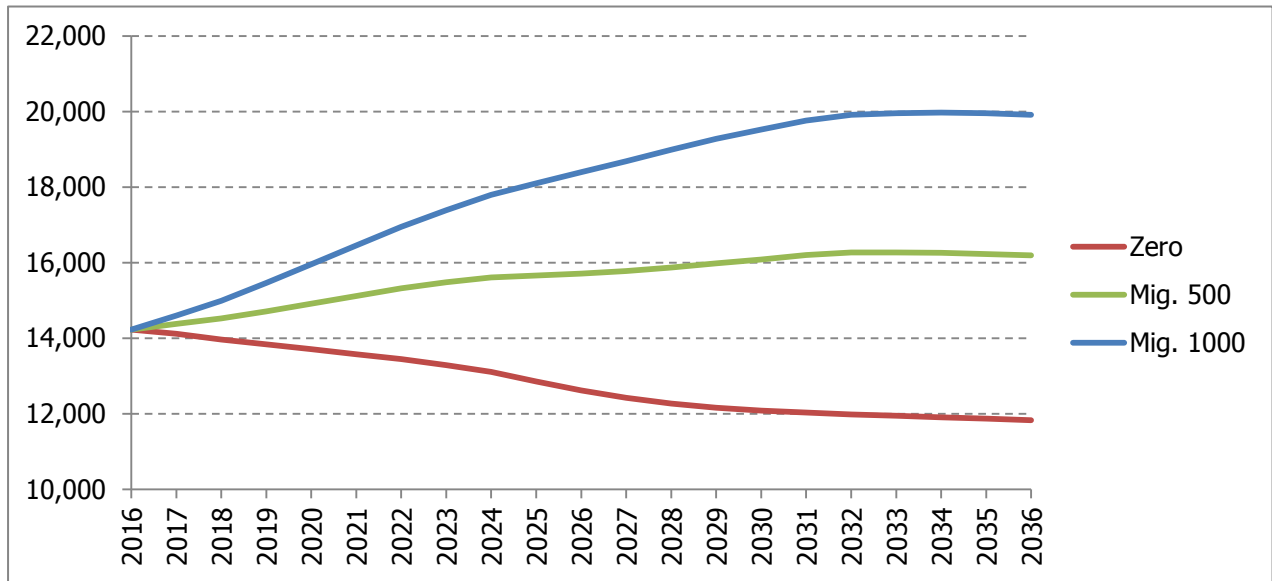


Table 6 Isle of Man Working Age Population

	Zero Trend	500 Net Migration	1,000 Net Migration
Population by 2036	46,005	53,437	60,702
Percentage change from 2016	-9.5%	+5.2%	+19.5%

It is important to note that the state retirement age is progressively increasing over the period of the projections. The state pension age for men is currently 65 in 2016, and for women it will increase from 60 to 65 between April 2010 and November 2018. The classifications of the retired population have been based upon the current published increased state pension (as of February 2018) age for men and women will increase from 65 to 66 between December 2018 and October 2020, from 66 to 67 between April 2034 and April 2036 and from 67 to 68 between April 2044 and April 2046. These changes, as far as 2036, are incorporated into the 2016 population projections when calculating the proportions of the working age versus the retired populations. The positive slope effects in 2020 and 2034 in the line graph below appear as a result of rolling changes in age of retirement. If the projection were extended by an additional decade, another positive slope would appear in 2044.

Figure 18 Isle of Man Working Age Population, 2016 to 2036

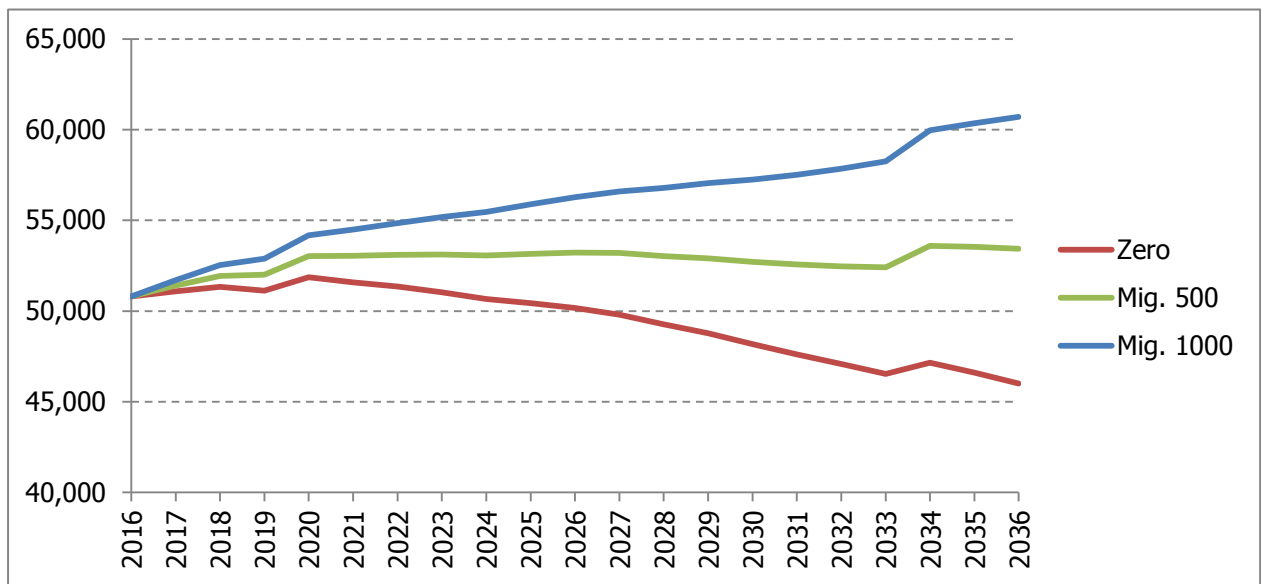
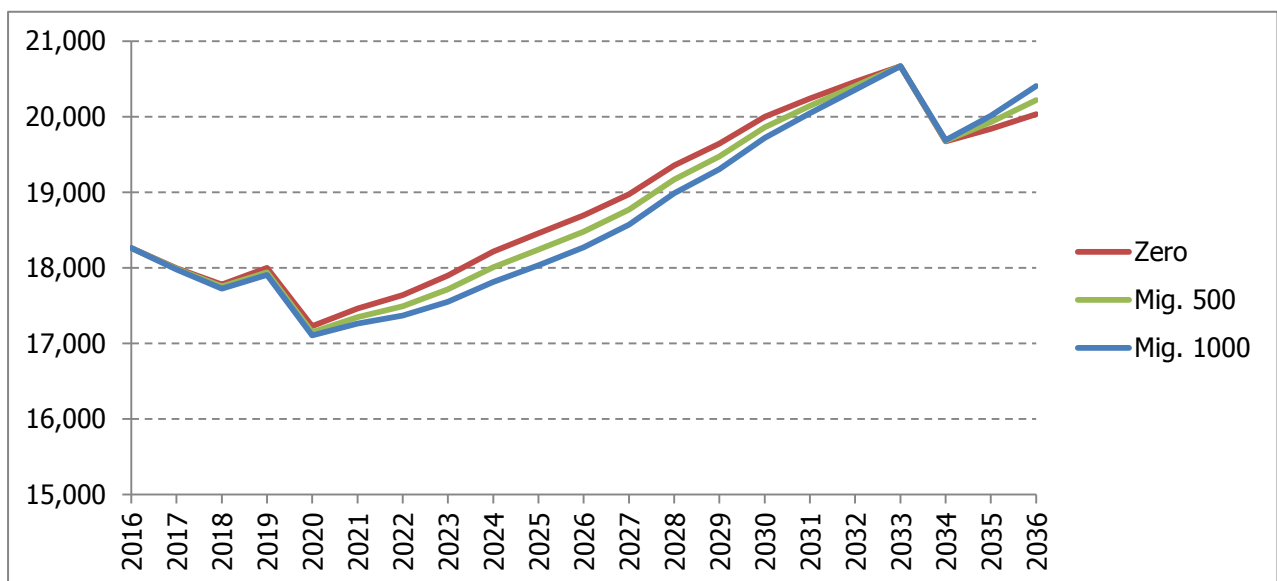


Table 7 Isle of Man Retired Population by 2036

	Zero Trend	500 Net Migration	1,000 Net Migration
Population by 2036	20,035	20,220	20,405
Percentage change from 2016	+9.7%	+10.7%	+11.7%

As seen with the working age population, there are similar drops in the retired population as the retirement age increases as detailed above.

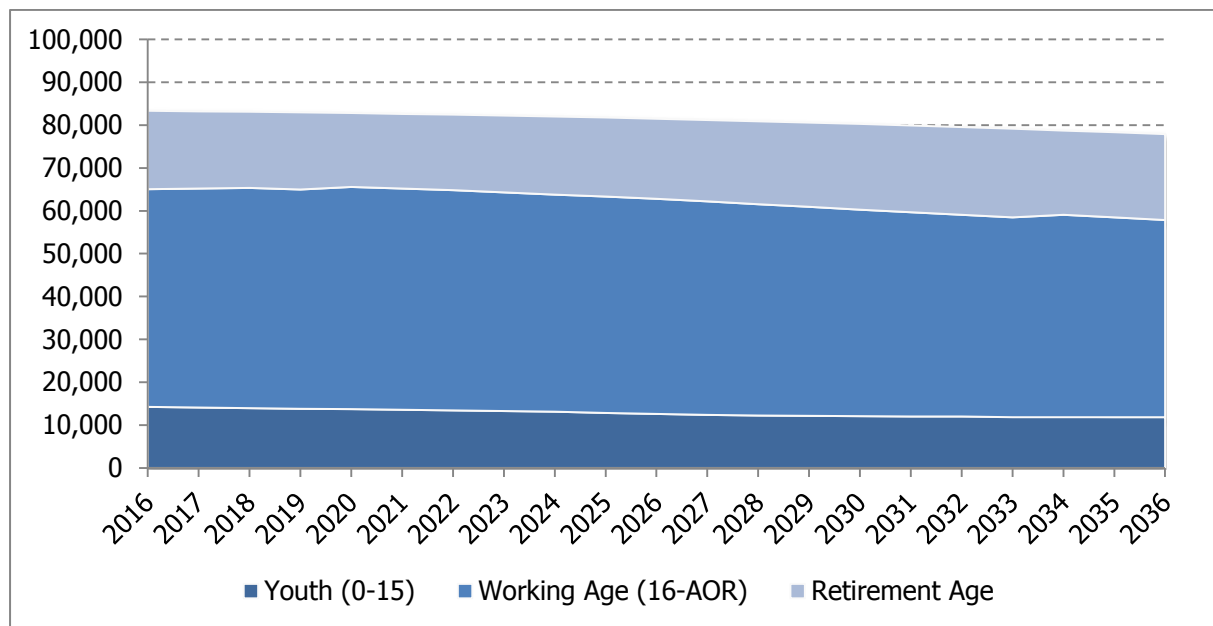
Figure 19 Isle of Man Retired Population, 2016 to 2036



Population compositions

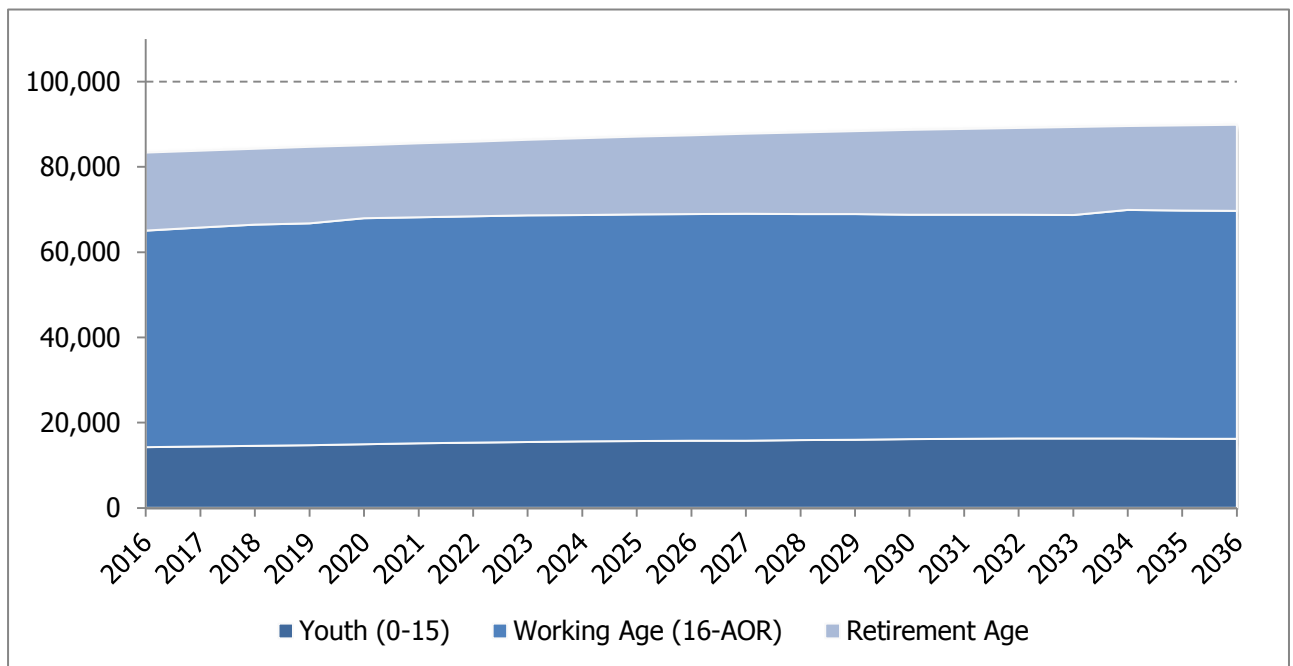
Assumed migration differs significantly in each projection variant. As stated above, an important secondary effect of migration is its impact upon fertility, as each projection variant accounts for migration prior to applying prevailing fertility rates to projected population totals. Over time, total population structure changes as a result. Figures 20 to 23 show the variants of total population change in the Island from 2016 to 2036, by the three age-based segments described above.

Figure 20 Isle of Man Population (Zero migration trend)



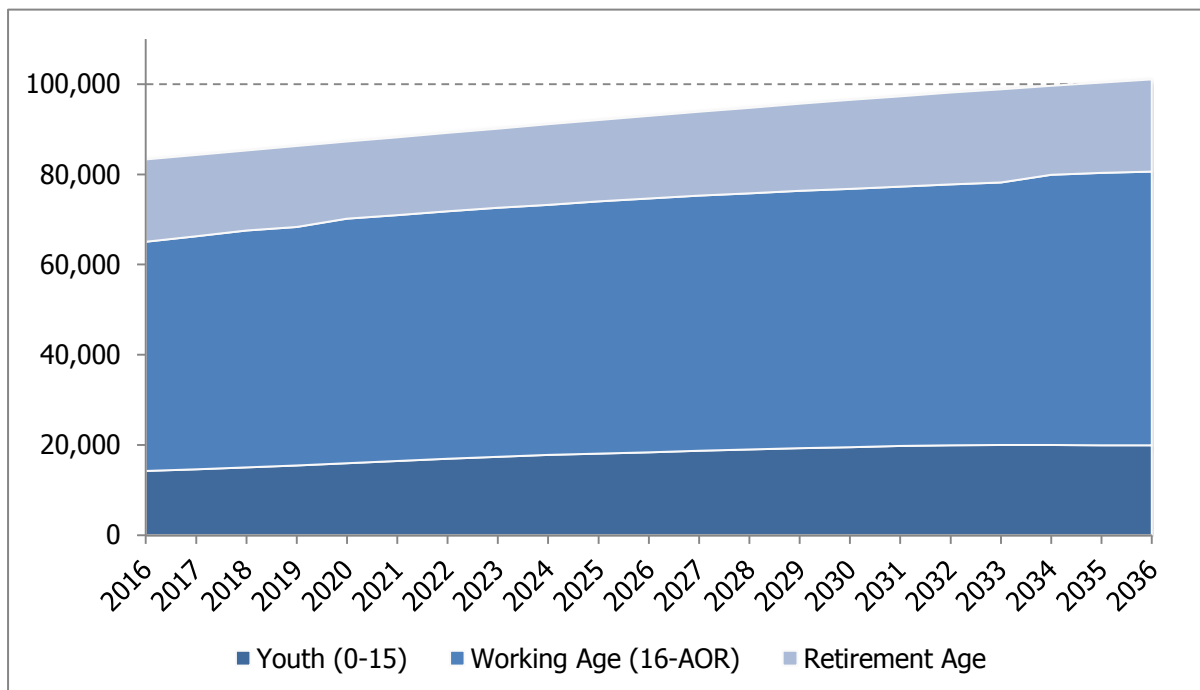
In this variant, by 2036, the population of the Isle of Man would consist of 11,835 young people (aged 0 to 15), a working age population of 46,005 (16 to retirement) and a retired population of 20,035.

Figure 21 Isle of Man Population (500 Net Inward Migration)



In this variant, by 2036, the population of the Isle of Man would consist of 16,195 young people (aged 0 to 15), a working age population of 53,437 (16 to retirement) and a retired population of 20,220.

Figure 22 Isle of Man Population (1,000 Net Inward Migration)



In this variant, by 2036, the population of the Isle of Man would consist of 19,919 young people (aged 0 to 15), a working age population of 60,702 (16 to retirement) and a retired population of 20,405.

Table 8 Population Profile by Quinary Age - 0 Net Inward Migration

	2016	2021	2026	2031	2036
0-4	4,144	3,825	3,725	3,710	3,657
5-9	4,733	4,140	3,821	3,722	3,706
10-14	4,469	4,731	4,138	3,819	3,720
15-19	4,789	4,461	4,723	4,131	3,813
20-24	4,422	4,775	4,449	4,710	4,119
25-29	4,326	4,411	4,763	4,437	4,698
30-34	4,506	4,310	4,394	4,744	4,420
35-39	4,873	4,485	4,290	4,373	4,722
40-44	5,612	4,838	4,452	4,259	4,342
45-49	6,497	5,555	4,791	4,408	4,218
50-54	6,681	6,410	5,478	4,728	4,349
55-59	5,887	6,546	6,278	5,360	4,632
60-64	5,170	5,702	6,333	6,071	5,177
65-69	5,441	4,907	5,429	6,020	5,767
70-74	4,212	5,031	4,526	5,032	5,564
75-79	3,155	3,704	4,403	3,942	4,425
80-84	2,129	2,484	2,929	3,449	3,062
85-89	1,380	1,373	1,604	1,912	2,224
90+	888	938	960	1,073	1,262
Total	83,314	82,626	81,486	79,900	77,875

Table 9 Population Profile by Quinary Age - 500 Net Inward Migration

	2016	2021	2026	2031	2036
0-4	4,144	4,591	4,688	4,662	4,499
5-9	4,733	4,640	5,087	5,184	5,158
10-14	4,469	5,025	4,932	5,378	5,476
15-19	4,789	3,905	4,460	4,367	4,813
20-24	4,422	4,031	3,150	3,704	3,611
25-29	4,326	4,732	4,342	3,464	4,017
30-34	4,506	4,822	5,226	4,837	3,963
35-39	4,873	5,084	5,399	5,801	5,413
40-44	5,612	5,294	5,503	5,816	6,215
45-49	6,497	5,921	5,609	5,815	6,126
50-54	6,681	6,701	6,131	5,826	6,029
55-59	5,887	6,680	6,699	6,136	5,843
60-64	5,170	5,766	6,527	6,544	5,993
65-69	5,441	4,917	5,502	6,216	6,231
70-74	4,212	5,121	4,621	5,189	5,834
75-79	3,155	3,565	4,349	3,888	4,430
80-84	2,129	2,299	2,632	3,228	2,834
85-89	1,380	1,415	1,526	1,754	2,124
90+	888	976	1,003	1,104	1,262
Total	83,314	85,487	87,385	88,914	89,872

Table 10 Population Profile by Quinary Age - 1,000 Net Inward Migration

	2016	2021	2026	2031	2036
0-4	4,144	5,148	5,454	5,418	5,141
5-9	4,733	5,141	6,144	6,449	6,413
10-14	4,469	5,318	5,726	6,728	7,033
15-19	4,789	3,348	4,197	4,603	5,605
20-24	4,422	3,287	1,852	2,699	3,104
25-29	4,326	5,054	3,921	2,491	3,336
30-34	4,506	5,334	6,059	4,930	3,506
35-39	4,873	5,684	6,508	7,229	6,104
40-44	5,612	5,750	6,555	7,374	8,088
45-49	6,497	6,287	6,427	7,223	8,035
50-54	6,681	6,992	6,783	6,924	7,709
55-59	5,887	6,814	7,119	6,911	7,055
60-64	5,170	5,830	6,721	7,017	6,810
65-69	5,441	4,927	5,575	6,412	6,695
70-74	4,212	5,210	4,716	5,345	6,104
75-79	3,155	3,426	4,295	3,833	4,435
80-84	2,129	2,115	2,335	3,006	2,606
85-89	1,380	1,460	1,448	1,596	2,024
90+	888	992	1,000	1,106	1,248
Total	83,314	88,118	92,833	97,293	101,051

Appendix II: Active Ageing Index – Employment Domain

Country	1.1 Employment rate 55-59	1.2 Employment rate 60-64	1.3 Employment rate 65-69	1.4 Employment rate 70-74	Weights				2014 AAI (December 2014)	
					1.1	1.2	1.3	1.4	Value	Rank
Belgium	56.1	21.0	4.7	2.0	25.0	25.0	25.0	25.0	21.0	24
Bulgaria	62.5	29.2	6.6	2.2					25.1	15
Czech Republic	71.2	27.5	9.2	4.2					28.0	14
Denmark	77.8	43.5	14.9	7.0					35.8	3
Germany	74.9	46.5	11.1	5.1					34.4	5
Estonia	71.3	48.6	27.0	12.0					39.7	2
Ireland	57.6	39.8	16.2	8.6					30.6	12
Greece	47.9	24.7	6.9	2.2					20.4	25
Spain	54.8	31.8	5.2	1.5					23.3	18
France	67.1	21.7	5.9	1.8					24.1	17
Italy	57.7	22.8	8.0	3.5					23.0	19
Cyprus	64.2	36.5	15.4	9.6					31.4	10
Latvia	66.5	37.9	15.6	7.8					32.0	9
Lithuania	64.6	37.5	14.0	6.0					30.5	13
Luxembourg	56.0	22.5	6.0	2.9					21.9	22
Hungary	56.1	13.9	5.3	1.8					19.3	27
Malta	53.9	15.8	6.9	3.6					20.1	26
Netherlands	72.5	43.9	12.7	6.3					33.9	6
Austria	62.8	21.2	9.1	5.8					24.7	16
Poland	52.6	22.6	9.5	4.7					22.4	20
Portugal	56.6	35.6	21.7	16.6					32.6	8

Country	1.1 Employment rate 55-59	1.2 Employment rate 60-64	1.3 Employment rate 65-69	1.4 Employment rate 70-74
Romania	51.8	29.3	22.4	20.4
Slovenia	47.5	15.2	7.6	6.1
Slovakia	62.6	19.6	3.8	1.6
Finland	73.9	42.9	12.6	5.4
Sweden	82.0	64.2	19.2	8.3
United Kingdom	70.7	45.2	19.4	7.8
Croatia	48.1	24.4	8.0	6.1
Isle of Man	76.5	53.0	20.3	11.7

Value	Rank
31.0	11
19.1	28
21.9	21
33.7	7
43.4	1
35.8	4
21.7	23
40.4	2

Appendix III: Active Ageing Index – Participation Domain

Country	2.1 Voluntary activities (once per week)	2.2 Care to children, grandchildren	2.3 Care to older adults	2.4 Political participation (incl online petition)	Weights				2014 AAI (March 2015)	
					2.1	2.2	2.3	2.4	Value	Rank
Belgium	11.3	38.7	14.5	16.7	25.0	25.0	30.0	20.0	20.2	9
Bulgaria	1.2	27.4	11.8	8.9					12.5	27
Czech Republic	6.2	37.2	14.8	17.4					18.8	11
Denmark	17.4	26.8	6.3	33.3					19.6	10
Germany	10.0	17.9	8.5	20.6					13.6	24
Estonia	3.4	26.5	12.6	7.8					12.8	25
Ireland	20.1	39.4	16.5	21.3					24.1	1
Greece	1.3	34.1	11.3	7.3					13.7	22
Spain	5.9	36.1	15.7	12.9					17.8	15
France	16.5	35.5	13.0	29.3					22.8	4
Italy	11.3	53.7	16.9	13.7					24.1	2
Cyprus	4.3	44.5	9.0	15.8					18.1	14
Latvia	1.4	31.3	10.7	12.1					13.8	21
Lithuania	2.6	33.3	13.5	8.5					14.7	19
Luxembourg	17.5	31.6	11.8	32.0					22.2	6
Hungary	2.4	38.9	13.3	5.3					15.4	18
Malta	9.7	31.7	15.0	12.1					17.3	16
Netherlands	20.6	30.9	14.0	26.8					22.4	5
Austria	15.9	25.0	11.9	22.3					18.2	13
Poland	2.7	22.5	13.3	9.3					12.1	28
Portugal	5.9	27.9	14.6	6.3					14.1	20

Country	2.1 Voluntary activities (once per week)	2.2 Care to children, grandchildren	2.3 Care to older adults	2.4 Political participation (incl online petition)
Romania	2.6	28.7	11.3	7.3
Slovenia	5.8	41.2	10.6	6.6
Slovakia	1.4	31.2	11.5	10.4
Finland	12.8	31.0	17.1	22.0
Sweden	18.3	26.1	10.2	43.8
United Kingdom	15.6	26.7	16.1	30.8
Croatia	5.8	33.7	15.0	21.7
Isle of Man	9.5	34.7	46.3	50.0

Value	Rank
12.7	26
16.3	17
13.7	23
20.5	8
22.9	3
21.6	7
18.7	12
34.9	1

Appendix IV: Active Ageing Index - Independent, Healthy and Secure Living Domain

Country	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	Weights								2014 AAI (December 2014)	
									3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	Value	Rank
Belgium	16.5	94.3	89.1	74.3	92.8	97.1	74.9	2.7	10	20	20	10	10	10	10	10	72.5	12
Bulgaria	0.7	79.6	71.9	73.7	82.6	46.8	57.8										62.7	26
Czech Republic	4.9	93.5	87.6	83.6	98.6	94.0	65.0	3.9									71.2	13
Denmark	25.2	92.0	99.5	75.0	96.7	99.4	87.9	22.9									79.0	1
Germany	12.4	92.5	96.8	87.9	91.6	97.2	74.6	2.0									74.4	8
Estonia	20.0	81.6	83.7	71.8	95.7	92.9	57.9	4.1									67.3	20
Ireland	25.4	95.4	87.2	88.4	92.3	97.7	77.1	2.7									74.9	7
Greece	6.5	82.3	76.2	100.0	92.2	85.7	46.7	0.4									64.8	25
Spain	15.8	89.6	73.4	93.1	93.8	97.1	67.4	4.8									69.8	15
France	22.5	91.2	95.8	100.0	96.2	97.6	67.1	2.0									75.9	5
Italy	5.4	86.8	83.2	94.8	93.0	87.0	67.4	2.3									69.0	17
Cyprus	13.9	88.1	83.6	69.6	86.3	92.5	71.1	2.8									68.0	19
Latvia	12.0	68.4	73.9	79.8	94.5	73.6	39.9	2.9									58.7	28
Lithuania	18.5	91.3	84.2	78.1	94.9	75.9	41.9	1.5									66.2	22
Luxembourg	24.2	95.3	88.0	100.0	97.6	100.0	64.1	4.4									75.7	6
Hungary	5.6	87.5	77.6	97.4	97.7	82.6	66.2	0.4									68.0	18
Malta	17.0	95.5	78.0	80.1	91.0	93.6		2.4									70.1	14
Netherlands	23.4	97.7	97.5	89.7	97.4	99.3	81.5	6.8									78.9	3
Austria	22.2	96.5	83.1	93.4	91.1	98.1	68.7	5.5									73.8	10
Poland	7.0	77.0	68.8	94.9	93.5	85.2	76.7	0.6									64.9	24
Portugal	5.9	78.5	80.0	91.7	93.4	91.6	70.1	3.2									67.3	21
Romania	1.3	70.1	74.4	100.0	91.3	71.4	63.6	0.4									61.7	27
Slovenia	9.6	97.3	84.0	87.4	89.2	93.4	94.6	5.6									74.2	9

Country	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8
Slovakia	5.1	90.5	72.3	81.4	97.2	89.2	58.9	0.8
Finland	48.9	88.2	96.0	77.7	94.5	98.5	89.5	12.1
Sweden	42.6	87.1	98.7	77.5	94.5	99.6	84.0	16.5
United Kingdom	16.9	94.1	94.2	89.4	91.4	85.0	69.4	8.3
Croatia	7.4	87.5	78.3	85.9	84.2	98.6	86.7	0.2
Isle of Man	12.1	87.8	89.2	79.3	79.1	87.1	95.5	16.4

Value	Rank
65.8	23
79.0	2
78.6	4
73.7	11
69.5	16
72.4	13

Components of the Independent, Healthy and Secure Living Domain:

- 3.1 Physical exercise
- 3.2 No unmet health or dental care needs
- 3.3 Independent living arrangements
- 3.4 Relative median income
- 3.5 No poverty risk
- 3.6 No material deprivation
- 3.7 Physical safety
- 3.8 Lifelong learning

Data for some countries was not available when the Active Ageing Index was compiled, and therefore where this data was not present, no weighting was attached to this. For example Bulgaria only had a total weighting of 90 as data was not available for section 3.8.

Appendix V: Active Ageing Index - Capacity and enabling environment for active ageing domain

Country	4.1	4.2	4.3	4.4	4.5	4.6	Weights						2014 AAI (December 2014)	
							4.1	4.2	4.3	4.4	4.5	4.6	Value	Rank
Belgium	55.7	61.8	73.7	55.0	59.6	50.8	33.3	23.3	16.7	6.7	13.3	6.7	60.3	7
Bulgaria	46.7	65.7	55.3	18.0	48.2	66.6							52.2	17
Czech Republic	51.0	56.5	61.4	36.0	44.3	84.3							54.3	14
Denmark	54.0	63.5	87.3	73.0	63.8	65.2							65.1	2
Germany	55.8	41.7	74.6	52.0	46.6	81.3							55.8	13
Estonia	51.6	38.5	54.2	41.0	30.7	81.6							47.5	23
Ireland	56.3	65.2	77.4	43.0	52.5	49.0							60.0	8
Greece	56.4	50.5	48.6	13.0	27.3	38.5							45.8	26
Spain	59.1	52.9	68.2	29.0	67.5	28.9							56.3	12
France	59.4	54.2	67.7	55.0	61.0	54.2							59.1	9
Italy	58.5	46.4	68.4	24.0	58.2	34.4							53.4	15
Cyprus	56.4	52.0	56.8	22.0	39.6	49.0							50.4	19
Latvia	47.8	47.0	51.4	35.0	38.3	79.7							48.2	21
Lithuania	48.8	46.7	49.7	24.0	23.0	78.0							45.3	27
Luxembourg	56.1	63.5	78.2	75.0	57.0	66.1							63.6	3
Hungary	47.4	48.1	61.5	37.0	21.1	65.2							46.9	25
Malta	57.0	71.8	62.2	33.0		17.5							57.1	11
Netherlands	55.9	56.0	73.7	77.0	67.3	56.4							61.8	4
Austria	56.3	52.4	75.3	45.0	52.3	69.8							58.2	10
Poland	51.0	52.0	51.8	24.0	27.1	74.3							47.9	22
Portugal	56.2	44.1	64.5	22.0	73.6	16.0							52.1	18
Romania	47.5	43.5	44.3	13.0	24.0	51.8							40.9	28
Slovenia	54.6	43.4	52.4	28.0	47.2	71.2							50.0	20

Country	4.1	4.2	4.3	4.4	4.5	4.6
Slovakia	48.9	30.6	55.2	37.0	50.2	79.3
Finland	56.1	49.5	81.6	68.0	57.2	66.6
Sweden	56.9	76.1	83.4	78.0	66.9	67.2
United Kingdom	56.2	59.7	67.2	66.0	64.3	67.8
Croatia	49.9	56.0	62.9	20.0	53.9	61.0
Isle of Man	56.8	60.2	75.0	99.1	57.0	63.2

Value	Rank
47.1	24
60.5	6
69.2	1
61.3	5
52.8	16
63.9	3

Components of the Capacity and enabling environment for active ageing domain:

- 4.1 Remaining life expectancy achievement of 50 years at age 55
- 4.2 Share of healthy life years in the RLE at age 55
- 4.3 Mental well-being
- 4.4 Use of ICT
- 4.5 Social Connectedness
- 4.6 Educational attainment

Data for some countries was not available when the Active Ageing Index was compiled, and therefore where this data was not present, no weighting was attached to this. For example Malta only had a total weighting of 87 as data was not available for section 4.5.



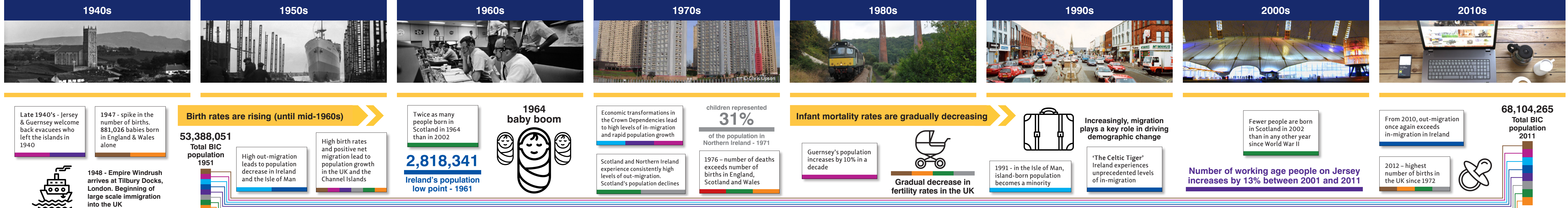
This project supports the strategic framing of the policy discussion around both our population ageing and responding to our ageing societies. We explore our shared backstory and the structural conditions underpinning our options.

Our backstory

how we got here...

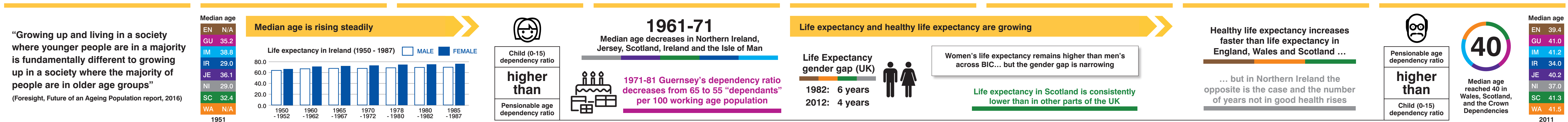
Our populations are growing

Overall, from the late 1940s, all BIC Member Administrations have seen their populations grow, influenced by changes in fertility, mortality and inward and outward migration



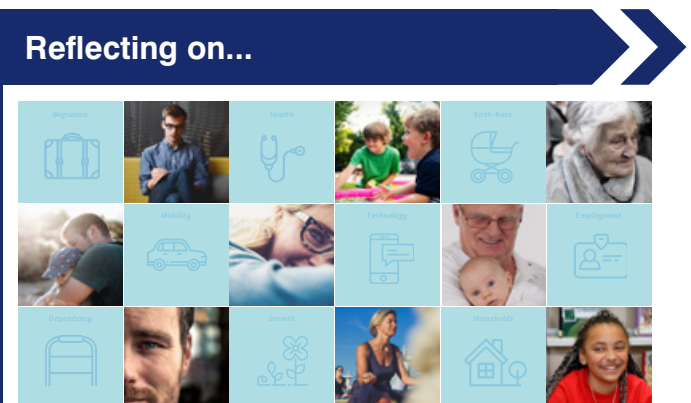
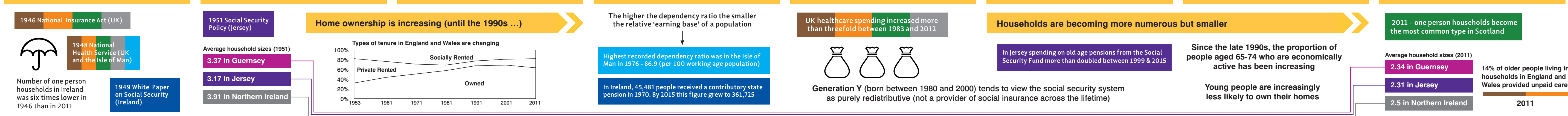
Our populations are ageing

In that time, median age and life expectancy have increased resulting in a larger proportion of older people in our populations



How we live is changing

BIC members have more but smaller households with more people living alone. Care demands and responsibilities are shifting



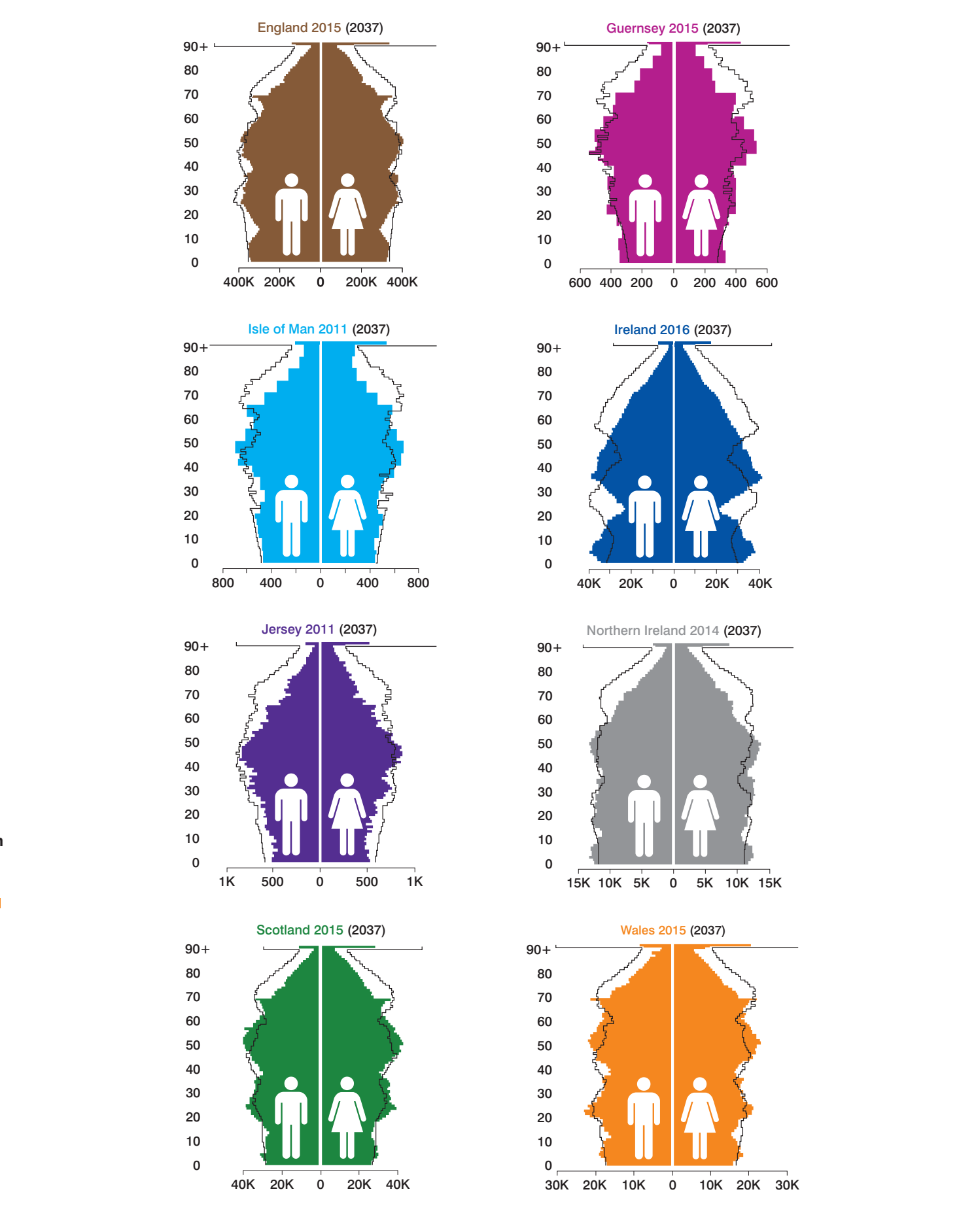
Our demography story is shaped by mortality, fertility and migration patterns. These are embedded within broader socio-economic factors and developments, which impact people's attitudes and expectations, changing the ways in which we live, and framing our demographic experience.

Population ageing is one of the key drivers of societal change in Europe. Increasing numbers of people living to a very old age is an achievement of modern science and healthcare. But it brings challenges which necessitate a response. (Commission of the European Communities' Renewed Social Agenda, 2008)

Population ageing can no longer be ignored ... But the social and economic implications of this phenomenon are profound, extending far beyond the individual older person and the immediate family, touching broader society and the global community in unprecedented ways. (Ban Ki-moon in UNFPA and Help Age International's Ageing in the Twenty-First Century report, 2012)

Unlike most of the changes that societies will experience during the next 50 years, these underlying trends are largely predictable. We know that the demographic transition to older populations will occur, and we can plan to make the most of it. (WHO's World report on ageing and health, 2015)

Our populations today and in 2037





Isle of Man
Government

Reiltys Ellan Vannin



This document can be provided in large print and audio tape on request

Copyright

Isle of Man Government