



Migration Policy Development Board

Interim Report

24th October 2019

Foreword by the Chair of the Migration Policy Development Board

In order to advise all parties of the work of the Migration Policy Development Board and to help inform the debate on this emotive, yet complex issue, I have pleasure in publishing this interim report of the Migration Policy Development Board.

The Migration Policy Development Board is an advisory panel for the Chief Minister on policies relating to a more responsive control over who can live and work in Jersey, it is not a decision making body.

This report summarises the Board's research surrounding migration controls and how any changes could be used to help reduce the island's reliance on inward migration.

I would like to thank all of the Board members for their hard work and dedication in discussing and researching these matters.

The Board continues to gather evidence from the island's business sector as well as wider stakeholders in the community as part of its ongoing work.

The Board publishes details of its meetings and evidence [online](#).

Anyone who wishes to provide additional evidence or comments to the Board is welcome to make a written submission to MigrationPolicy@gov.je

A handwritten signature in black ink, appearing to read 'H Taylor', with a long horizontal flourish extending to the right.

Connétable Christopher Taylor

Interim Paper

1. Introduction

The Migration Policy Development Board (MPDB) was established on 7th March 2019. Its purpose is:

‘To develop comprehensive migration policy proposals which will deliver more responsive controls over who can come to live, work and access public services in Jersey, improving consistency wherever practical and helping to reduce the Island’s reliance on inward migration.’ (see Appendix 2).

The MPDB acts as an advisory panel for the Chief Minister on policies relating to a more responsive control over who can live and work in Jersey, it is not a decision making body.

The initial background and context of the MPDB is covered in the document. ‘Project Scope – Developing a New Migration Policy Development Board’ (see Appendix 3)

To date the MPDB has considered a number of factors which impact upon, and which are impacted by, amendments to the controls of migrants to Jersey. The matters considered by the MPDB are summarised below, are published at: www.gov.je/migrationpolicy and are included in the appendices to this report. The home page of this site also contains a full list of the Board members.

2. Brexit

The future effects of Brexit on the island’s economy are not yet known.

The UK Government intends to remove the right of EU nationals to live and work freely in the UK, and require EU nationals to apply for immigration permissions to do the same. These changes will be mirrored in Jersey. The impact of these potential changes upon the flow of EU migrants to Jersey is not yet clear.

Future migration controls will need to have flexibility within them to adapt to changing circumstances.

3. Summary of MPDB research

3.1 Jersey Customs & Immigration Service (JCIS) & Immigration Controls (Appendix 4)

The Common Travel Area (CTA)¹ is established as a matter of law to facilitate free movement of British and Irish citizens between the UK, Republic of Ireland and the Islands. There are no formal immigration border controls in the CTA.

¹ The UK, Channel Islands, Isle of Man and the Republic of Ireland collectively form the Common Travel Area (CTA).

The UK set the primary legislation for Immigration matters and to maintain the legitimacy of the CTA Jersey needs to follow the UK's Immigration Rules. Jersey can amend these to some degree through secondary legislation in some areas, e.g. in relation to work permits, but must not have weaker border controls than elsewhere in the CTA.

EEA² citizens are currently allowed free movement to Jersey and do not require Immigration permission to work.

JCIS uses various Immigration laws to control the access to the island and work for all persons who are not British or Irish citizens or members of the EEA.

3rd country citizens (those who are not EEA nationals) are required to have immigration permission to enter and work in Jersey.

Following Brexit it is expected that EEA nationals will be treated in the same way as 3rd country nationals, and will require Immigration permissions to enter Jersey and to be able to work.

'Immigration' work permits are issued to employ 3rd country nationals

- where the employer can demonstrate and provide evidence that the vacancy cannot be filled from within the permit free UK and EEA labour market; and
- for up to 9 months for unskilled seasonal employment in the hospitality (150/year quota) and agricultural sectors (130/year quota).

This scheme is on a trial basis for a 2 year period until the end of 2020.

3.2 Population Office and Migration controls (Appendix 5)

The Population Office administers controls on residential and employment status through the Control of Housing & Work (Jersey) Law 2012 (CHWL), whose purpose is:

'To enable Jersey to preserve and maximise the benefits of its resources. To further those aims, the Law aims to control the overall population density of Jersey and the availability of work and housing for people with strong connections or associations with Jersey, and, more generally, in such a way that is in the best interests of the community'.

The controls apply to housing and work, recognising that British and European (EEA) nationals do not require immigration permission to live or work in Jersey. This approach of restricting housing and work is similar to that adopted in Guernsey and the Isle of Man.

This legislation applies to all people looking to live and work in Jersey regardless of their nationality.

The CHWL controls population by delimiting access to employment and to certain categories of housing.

The Chief Minister is responsible for the Law and delegates those responsibilities to the Assistant Chief Minister, who chairs the Housing and Work Advisory Group (HAWAG). This Group currently includes the Ministers for Housing and Social Security, and the Assistant

² EEA European Economic Area: all EU countries plus Norway, Iceland and Liechtenstein.

Minister for Economic Development. HAWAG meet approximately every two weeks to consider applications, and to develop policies in support of the Law.

Officers have delegated powers to make decisions under the Law, but may refer applications to the Assistant Chief Minister - in particular, where there is a concern about Jersey's reputation in commercial or financial matters; or where an applicant appeals a decision; or for larger applications where there may be a significant impact.

Guidelines are published under CHWL in some areas but decision making is not transparent under the current system. This leads to a significant volume of enquiries from businesses, as well as the need to refer a high proportion of individual cases to HAWAG.

The current application of the CHW system allows for '*graduation*' from *registered* to *entitled to work* status after five years in Jersey. In 2017 it is estimated that 16% of registered staff graduated, and were subsequently replaced by new migrants with registered status. This annual and automatic graduation has led to an increase in the population of approximately 600-700 each year, including dependents. The link <https://youtu.be/REwLYj7q8dl> gives a more detailed explanation.

The current application of the CHW system allows businesses to hold licences for registered and licensed staff that are not being utilised. At the end of December 2018 of the 5,896 permanent registered permissions issued to businesses, 4,279 were filled, meaning 1,617 registered permissions were vacant (27%).

Whilst some businesses hold 'spare' permissions to ease recruitment, in some cases the holding of registered permissions can form an unintended competitive advantage. Some of these permissions have no expiry date.

3.3 Estimating government receipts and expenditure for Jersey households (Appendix 6 & 7)

Statistics Jersey has published a report that provides theoretical estimates of the level of government receipts and expenditure to and from Jersey households (i.e. the revenues from and the costs of such a Jersey household), calculates a 'tax break-even point' for specific households, and compares the differences in these figures between recent residents (migrants) and a theoretical 5 year resident. Examples range from a single adult to a couple with three children and identify the significant government costs associated with larger family units.

As it is an analysis of household types at a particular point of time, these estimates do not take account of the changes that naturally take place in a household over time.

A major study commissioned by the UK government noted: 'When considering the contribution of each individual migrant, it must be remembered that today's working adult, paying large amounts of tax, will become tomorrow's state pensioner, with above-average healthcare costs. Today's secondary-school pupil, educated at the expense of the taxpayer, will tomorrow contribute through the income taxes they pay once they enter the labour market. From the perspective of a policy-maker, therefore, what really matters is whether an additional migrant is likely to make a positive or negative net fiscal contribution over their entire time in

the UK, from the day of arrival to the day they leave or the end of their life' (*The Fiscal Impact of Immigration on the UK, MAC, June 2018*³).

Every individual comes with different impacts on the Island.

3.4 Long-term Expenditure & Revenue Model (Appendix 8)

The Chief Economist has developed a model which combines demographic, fiscal and economic data to project Government expenditure and revenue through to 2050. The impact of three variables – productivity, net migration & sectoral composition – upon these projections are modelled.

Conclusions from the modelling are that there will be continued long-term structural pressures on public finances. It is likely that a combination of policy options will be needed to maintain balanced budgets. These could include:

- productivity improvements within sectors;
- sectoral shifts from low to high productivity sectors;
- targeted inward migration;
- savings and efficiencies;
- new/increased sources of revenue to be identified.

3.5 Jersey Resident Population Estimate (Appendix 9 & 10)

Population growth is predominantly driven by the net inward migration rate. The resident population of Jersey at year-end 2018 was estimated as 106,800.

During 2018 the resident population was estimated to have increased by 1,200 persons, with net inward migration accounting for 1,100 of the annual increase, and natural change (births minus deaths) accounting for 100 of the estimated annual increase.

Whilst Statistics Jersey cannot predict the future population of Jersey, it can apply different rates of net inward migration to the current population to give a range of forecasts to indicate the possible impact upon the overall population level, the relative increase in the proportion of elderly, and the impacts on the dependency ratio.

The estimates suggest the following:

- as the population ages the dependency ratio increases;
- as the net migration rate increases the dependency ratio decreases;
- as the net migration rate increases, the rate of increase in population increases.

The rate of inward migration has little impact on the ageing of the resident population in the short-medium term. The number of people aged over 65 will increase steadily over the next 30 years, whatever migration controls are in place. With no inward migration this would lead to a

3

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/759376/The_Fiscal_Impact_of_Immigration_on_the_UK.pdf

reduction in the number of working age people, as more older people leave the work force compared to the number of younger people joining the workforce.

A net inward migration rate of approximately +325 a year will maintain the working age population at around today's level. Inward migration below this would lead to a smaller working age population; migration above +325 would lead to a larger working age population.

A net inward migration rate of approximately +325 a year will lead to an increased dependency ratio. Inward migration below this level would lead to higher increases in the dependency ratio; migration above +325 a year would mitigate some of the impact of an increasing dependency ratio.

3.6 Social Security Fund (Appendix 11)

The Social Security Fund (SSF) of the States of Jersey is primarily designed to provide benefits in old age, and on death and incapacity to those who have paid the required contributions. The SSF is financed by a combination of social security contributions from individuals and employers and a States grant.

An actuarial review of the SSF as at 31st December 2017 (published March 2019) includes projections over the period from 2017 to 2077.

Two main sets of results are presented in this report:

- the projected "break-even" contribution rates; this is the rate that would be required in order for contribution income to equal expenditure on benefits and administration costs, ignoring any balance built up in the two funds and the investment return earned thereon;
- the combined balances in the Social Security and Social Security (Reserve) Funds (together "the Fund"), as a multiple of annual expenditure, assuming that the current rates of contribution remain unchanged

Based on the central assumptions, the ageing of the population means the breakeven contribution rate will rise above the current total contribution rate (10.5%) over the next 5 to 10 years under all migration scenarios. This puts pressure on the Fund, which (based on the current benefit and contribution structure) is expected to decline during the following 20 years and not recover unless net immigration is maintained at or around 700 people a year (or investment returns are substantially greater than assumed in the central assumptions).

Indeed, under the lowest assumption for future inward migration (325 a year) the Fund is expected to be extinguished during 2070. Once the Fund is extinguished, the contribution rate would need to be raised to at least 13.1%.

The Board is due to explore this further in its final report.

3.6 Migration Systems (Appendix 12)

Australia, New Zealand and Canada are often quoted as exemplars of immigration selection systems. In the main this is because they invest heavily in their immigration systems,

continually evaluate their economic and skills shortages, assess how well migrants integrate, and frequently adjust their systems and policies accordingly.

These systems control the immigration of foreign migrants who make up the majority of migrants into their countries. Little account needs to be given to the free movement of citizens from outside of their own countries.

In Jersey the free movement of EEA nationals, the continued (regardless of Brexit outcomes) free movement of British and Irish citizens within the CTA, and the reliance upon the UK's immigration system would make the implementation of a 'Jersey immigration system' to control inward migration problematic in Jersey.

In order to stay within the CTA, Jersey cannot utilise immigration controls on British and Irish citizens - who account for the majority of inward migration to Jersey.

The other Crown Dependencies (Guernsey and the Isle of Man) are impacted by the same considerations. All Crown Dependencies have sought to manage their population growth by controlling access to employment and/or housing in order to preserve and maximise the benefits of their limited resources (e.g. housing and land). This approach is UN Human Rights compliant.

Jersey will need to continue to rely on the control of access to housing and employment as the key direct means by which to control inward migration, and therefore the overall population level. The performance of Jersey's economy, and the skills of the resident working population, will also affect demand for inward migration over the medium and longer term.

Historical statistics indicate that whilst the current CHW system in place in Jersey provides for controls in respect of both access to housing and work, the current application of those controls has allowed inward migration levels to continue at a higher rate than that desired by successive Governments.

3.7 Migrant access to services (Appendix 13)

It is right to ensure that adults who access public services have paid a fair contribution into the system that they are using.

Migrant access to services such as healthcare, education and benefits is currently complicated and confusing with different rules operating in different parts of government.

Many migrants, especially those with shortage skills, are operating in a global market where multiple jurisdictions are competing for their services. Migrants often look to compare the packages available to them in each potential destination and the services that a migrant can access need to be clear, fair, logical, and well communicated.

3.8 Skills (Appendix 14 & 15)

Ensuring that the domestic workforce has the right mix of skills, aligned to the current and future needs of business, government and society, is key to reducing the skills vacuum that draws migrants to the island today.

Where skills gaps and labour shortages cannot be avoided, plans can be made to attract migrants with the required skills to fill those spaces.

In an island with limited resources a balance must be struck between the number of migrants and their dependents that can come to live and work in Jersey, and the benefit that those migrants bring in helping to drive our economy and diversify our community.

Whilst looking to control net inward migration Jersey must be mindful that migrants' skills are in demand globally. For the most in-demand migrants, factors such as business environment, income and opportunities, and settlement prospects play an important role.

The Education Minister is currently undertaking a major review of the Jersey education system which will set the ambitions of Islanders for the next 20 years.

3.9 Island Plan, Housing & Infrastructure (Appendix 16 & 17)

Work is underway on the Island Plan 2021 to 2030, which will help shape Jersey's future.

The new Island Plan will set out and plan for the island's positive growth over the next ten years and provide the framework against which planning decisions are made. The plan is key to delivering sustainable development; balancing the future economic, environmental and social needs of the island in a way that is best for Jersey and which reflects the vision and aspirations of islanders.

The recommendations of the MPDB and subsequent new migration policy will form an important part of the Island Plan's considerations.

The Objective Assessment of Housing Need⁴ considers future housing needs, in relation to a number of population scenarios and is used to draw out the demand for housing to be considered in the next Island plan, as directed by any given migration policy. It identifies that demand could range from 2,000 additional houses, if net migration was zero each year from 2021-2030; to around 7,000 homes if net migration continues at around 1,000 a year. In addition Statistics Jersey has estimated that a shortfall of 1800 homes has arisen in recent years due to net annual migration being higher than forecast in the current Island Plan.

The recent Island plan strategic option paper, in relation to the assumptions around migration levels used to derive housing demand, states that;

"In the absence of a clear migration policy direction and associated regulatory levers to effectively manage migration, the preparation of the new Island Plan would need to be based on planning assumptions about migration and population levels over the plan period. This would need to reflect the evidence of migration and population change, based on trends."

The adoption by the States Assembly of a migration policy will allow the Island Plan process and the review of the independent Planning Inspector, to take account of the proposed outcomes of the new policy.

⁴ <https://www.gov.je/Government/Pages/StatesReports.aspx?ReportID=4193>

Considerations over this period include the impact of decreasing household sizes, the increase in ageing population, and requirement for key workers.

The infrastructure of the island includes transport, energy generation and distribution, water supply, sewerage, digital, coastal resilience, and social & community buildings and space.

Infrastructure is upgraded to achieve a proportionate balance between expected demand, the supply of a finite resource and the security and resilience required. Different infrastructure reaches capacity at different points in time. Some upgrades require significant investment once step changes in demand are reached.

For example, the new liquid waste treatment works, due for completion in 2022, is based upon a population of 118,000. It has a design life until 2045 and has potential for expansion for an additional 20% capacity.

3.10 Related strategies

The impact of any changes to CHW Law controls and the level of the future population will be inextricably linked with related government strategies such as skills⁵, the future economy programme, housing, and the Island Plan.

4. Principles

Having reviewed the available evidence in detail, the Board agrees that maintaining recent rates of population growth would be unsustainable.

It believes that migration controls, combined with other government policies, can be used to reduce the Island's rate of, and reliance on, inward migration.

Achieving a sustainable balance across Jersey's environmental, social and economic needs will require migration controls that are adaptive, transparent and trusted.

Following its considerations so far, the Board is now working to the following principles:

4.1 General principles

- Amendments to the Control of Housing & Work Law and/or its operation can be used to create a more responsive migration system.
- The future use of the Control of Housing & Work Law controls should work seamlessly with Jersey Customs and Immigration Service controls for non CTA migrants.
- Control of Housing & Work Law controls and the governance of the Control of Housing & Work Law will be transparent and include clear guidance to all employees, employers and dependents.

4.2 Potential impact of changes to CHW Law and/or its operation

- Changes to the application of Control of Housing & Work Law controls will only impact overall population levels if they are used alongside other government policies (e.g. skills strategy, economic framework, housing strategy, Island Plan)

- Changes to the application of CHW controls will need to be managed carefully to avoid unintended negative impacts on the economy and society
- Failure to adapt to the tightening of CHW controls may lead to the closure of existing businesses.

4.3 Improving controls on new migrants

- Criminal checks on all applicants will be included for all levels of Control of Housing & Work Law permissions. This is already in place for anyone applying for a 9 month work permit.
- A serious conviction in Jersey may lead to the withdrawal of an individual's Control of Housing & Work Law status.
- A form of photographic or digital identification will be included on all Control of Housing & Work Law cards

4.4 Family life

- Control of Housing & Work Law controls will recognise family life with spouses and civil partners gaining CHW status from their partner.
- Control of Housing & Work Law controls will ensure that all children accompanying new migrants are registered on entry to Jersey
- The overall system of controls should ensure that migrants feel valued and welcome

4.5 Fee levels within the Control of Housing & Work Law

- Fee levels within the Control of Housing & Work Law will form part of the control mechanism
- Control of Housing & Work Law permissions may require applicants to pay a contribution to cover access to Jersey healthcare as part of the application process.

4.6 Decision making within CHW Law

- Decision making on the overall availability of permissions (renewals and new) across different sectors and skills levels will be taken by executive members (e.g. Ministers) with regular reviews to reflect current conditions, with those guidelines published
- Decision making on individual cases (applications from businesses and individuals) will be undertaken by officers working to the published guidelines

5. Next stages

This report summarises the Board's research to date and sets out some core principles.

The Board are meeting with invited stakeholders throughout October & November 2019, to help it develop its final proposals for changes to the operation of the Control of Housing & Work Law. These will include representatives from agriculture, hospitality, finance, utilities and small businesses. The Board will also meet environmental groups and representatives of charities and minority community groups.

In addition, the Children's Commissioner will meet the Board to discuss the impact of migration controls on children and advise on meaningful engagement with children and young people.

In these stakeholder meetings the Board will discuss four hypothetical work permissions as shown in Appendix 1.

This report will also be published on the Board's website and the Board welcomes written submissions on possible changes to the operation of the Control of Housing & Work Law.

Questions to consider include:

1. Do you think that the Island needs increased controls on who can live and work in Jersey?
2. Do you agree with the Board's assumptions in section 3?

What are your thoughts on the hypothetical permissions W, X, Y and Z. For example:

3. What are the pros and cons of issuing time limited permissions to businesses and / or individuals? How would this impact your business?
4. Should individuals be able to automatically 'graduate' from one permission to another?
5. Should dependents (partner and children) be able to move to Jersey with a new migrant?
6. Should fees be different by sector or skill?
7. Should fees include an upfront premium to access health care?
8. Do you think the CHW system should set fixed quotas ?
9. Who is best placed to identify skills gaps?
10. Who is best placed to allocate permissions?
11. Would you accept increased administration in order to improve the control of the overall CHW system?
12. How else would you change the CHW system?

6. Proposed timetable

- Ministerial Decision to approve a Migration Policy Development Board (MPDB) – 8th February 2019
- MPDB established – 7th March 2019
- Research & policy development – March-September 2019
- Interim report published - October 2019
- Brexit – 31st October 2019?
- Targeted consultation – October - November 2019
- Review consultation findings – December 2019
- COM report published – March 2020
- States debate on COM proposals – Spring 2020

Appendices Index

Appendix 1

Hypothetical system of work permissions

Appendix 2

Terms of reference

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Terms%20of%20Reference%20NS.pdf>

Appendix 3

Migration Policy Development Board Project Scope

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/P%20Migration%20Policy%20Development%20Board%20NS.pdf>

Appendix 4

Jersey Customs & Immigration Service, Immigration Controls and Work Permits

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20JCIS%20Presentation%20Immigration%20Controls%20and%20Work%20Permits%20NS.pdf>

Appendix 5

Control of Housing and Work (Jersey) Law - Briefing session for Migration Policy Development Board

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Control%20of%20Housing%20and%20Work%20Law%20Briefing%20session%20for%20MPDB.pdf>

Appendix 6

Statistics Jersey – Presentation - Estimating Government receipts and expenditure from Jersey households

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Statistics%20Jersey%20Presentation%20on%20Estimating%20Government%20receipts%20and%20expenditure%20from%20Jersey%20households.pdf>

Appendix 7

Statistics Jersey – Background report - Estimating Government receipts and expenditure from Jersey households

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Statistics%20Jersey%20Report%20on%20Estimating%20Government%20receipts%20and%20expenditure%20from%20Jersey%20households.pdf>

Appendix 8

Chief Economist – Presentation – Long-term expenditure & revenue model

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Economic%20Unit%20Presentation%20Longterm%20expenditure%20and%20revenue%20model.pdf>

Appendix 9

Statistics Jersey – Presentation – Jersey resident population 2017 estimate & Jersey population projections 2016

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Statistics%20Jersey%20Presentation%20on%20Jersey%20resident%20population%202017%20estimate.pdf>

Appendix 10

Statistics Jersey – Jersey resident population 2018 estimate

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20PopulationReport2018%2020190621.pdf>

Appendix 11

Government actuary's report on the financial condition of the Social Security Fund as at 31 December 2017

<https://statesassembly.gov.je/assemblyreports/2019/r.31-2019.pdf>

Appendix 12

Paper – Migration systems in other parts of the world

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/Migration%20systems%20in%20other%20parts%20of%20the%20World%20-%20Final%20-%20020519.pdf>

Appendix 13

Paper – Migrants' access to services

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Discussion%20Paper%20Migrants%27%20access%20to%20services%20for%20MPDB.pdf>

Appendix 14

Children, Young People, Education & Skills - Presentation – Migration: Impact of skills

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Presentation%20on%20Migration%20-%20Impact%20of%20Skills.pdf>

Appendix 15

Paper – Skills

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Discussion%20Paper%20Migration%20Policy%20Development%20Board.pdf>

Appendix 16

Presentation – Island Plan & Housing

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Presentation%20on%20Island%20Plan%20and%20Housing%20RD.pdf>

Appendix 17

Presentation – Infrastructure & carrying capacity

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Infrastructure%20presentation%20270619.pdf>

Migration Policy Development Board



Appendix 1:

Hypothetical system of work permissions

Building on its stated principles the MPDB has produced a hypothetical system of work permissions. Four new types of CHW permission ("W", "X", "Y", "Z") are outlined below.

They are examples of the type of changes that could be made. They are not firm proposals.

Please note that these are purely hypothetical work permissions. They are not policy proposals and all contain weaknesses.

They are not proposed as a future migration control system but are designed as a starting point to stimulate conversation, challenge the thinking of the Board, gauge the potential impact upon different sectors and businesses, on communities and on migrants themselves, and so to judge the potential effectiveness of different levers.

Permission name	"W"
Underlying need for migration	Temporary labour shortage (usually low skilled)
Criminal records check	Yes
Digital ID / photo on card	Yes
Who controls the permission	Employer
How are permissions allocated to businesses	Employer applies for a total number of permissions on a two year cycle. Business must re-apply every two years.
How does individual get permission	Allocated by employer to any worker with basic CHW checks completed
How long does individual's permission last ?	No more than 9 months in any 12. Worker can apply again after 3 months away
Accommodation	Highly restricted – staff accommodation, lodging house, purpose built/converted hostel type No children permitted
Family	No Children cannot enter Jersey under the parental responsibility of an adult with a "W" permission
Health care	Health surcharge applied each time worker arrives in Jersey to provide access to all hospital and primary health services
Residency status	Not ordinarily resident Periods of residence do not accumulate towards any other rights
End of individual's permission period	Must leave island for at least 3 months before reapplying for any CHW permission
Transfer to permission "Z" ?	No
How are limits/quotas/targets set	<p>"W" workers do not gain residency or bring dependents with them. Short term permissions can be adjusted up or down in line with current demands. They do not put direct pressure on local housing market.</p> <p>As such the number of permissions may not need tight control. Economic policy will determine the level at which Jersey businesses continue to rely on short term low skilled migrant workers.</p> <p>An annual target could be set by sector with some room for leeway.</p>

Permission name	"X"
Underlying need for migration	Skills shortage – medium level
Criminal records check	Yes
Digital ID / photo on card	Yes
Who controls the permission	Employer
How are permissions allocated to businesses	Employer applies for a total number of permissions on a four year cycle. Business must re-apply every four years.
How does individual get permission	Allocated by employer to any worker with basic CHW checks completed who satisfies the specific skills need
How long does individual's permission last ?	No more than 4 years in total Worker can apply again after 1 year away
Accommodation	Unrestricted – buy or rent any property
Family	Yes – partner can live and work in Jersey. Can bring children who are individually registered on entry
Health care	Health surcharge applied to worker, partner and each child who arrives in Jersey to provide access to all hospital and primary health services for first year.
Residency status	Ordinarily resident. NB – maximum 4 year period does not allow worker to apply for "settled status"
End of individual's permission period	Must leave island for at least 1 year before reapplying for any CHW permission
Transfer to permission "Z" ?	Worker completing 4 years can apply for "Z" permission on grounds of significant work record (skills / management etc) and social /cultural contribution. Limit on number workers who are accepted through this route each year
How are limits/quotas/targets set	<p>"X" workers can bring partners and dependents with them who will access local housing, education etc. However, they cannot settle permanently in Jersey.</p> <p>"X" workers will help to fill skills gaps in area that will support economic growth and social needs.</p> <p>A successful Skills Strategy will help to reduce the need for migration at this level. These medium level skills will often be skills that can be developed locally.</p> <p>The number of "X" permissions will need to be controlled if demand for additional housing is to be managed. An annual target could be set by sector with limited room for leeway.</p>

Permission name	"Y"
Underlying need for migration	Skills shortage – high income / critical skill
Criminal records check	Yes
Digital ID / photo on card	Yes
Who controls the permission	Employer
How are permissions allocated to businesses	Employer applies for a total number of permissions on a four year cycle. Business must re-apply every four years.
How does individual get permission	Allocated by employer to any worker with basic CHW checks completed who satisfies the specific skills need
How long does individual's permission last ?	No more than 4 years in total Worker will gain "Z" permission at end of 4 years, subject to remaining in employment
Accommodation	Unrestricted – buy or rent any property
Family	Yes – partner can live and work in Jersey. Can bring children who are individually registered on entry
Health care	Health surcharge applied to worker, partner and each child who arrives in Jersey to provide access to all hospital and primary health services for first year.
Residency status	Ordinarily resident
End of individual's permission period	Successful transfer to "Z" – permission is made permanent Transfer not agreed – must leave island for at least 1 year before reapplying for any CHW permission
Transfer to permission "Z" ?	Worker will gain "Z" permission at end of 4 years, subject to remaining in employment and no serious criminal record
How are limits/quotas/targets set	<p>"Y" workers can bring partners and dependents with them who will access local housing, education etc. Most of them will be allowed to settle permanently in Jersey.</p> <p>"Y" workers will help to fill high level skills gaps in area that will support economic growth and social needs.</p> <p>A successful Skills Strategy will help to mitigate the need for migration at this level. However, these high level/ critical skills may not be able to be developed locally.</p> <p>The number of "Y" permissions will be less than the other categories but they will put the most pressure on long term resources. At the same time, these workers will have a high positive impact through their economic activity and/or the critical skills they bring to the island. There will also be a natural limit on the number of additional workers needed each year in this category.</p>

Permission name	"Z"
Underlying need for migration	Varied, but "Z" permission only granted to migrants who have demonstrated significant commitment to the island through employment record and/or social/cultural contribution
Criminal records check	Previously approved but have not been convicted of serious offence during time in Jersey
Digital ID / photo on card	Yes
Who controls the permission	Individual
How are permissions allocated to businesses	N/A
How does individual get permission	On application from existing X / Y permission
How long does individual's permission last ?	Permanently whilst living in Jersey. Can be lost after absence from Jersey
Accommodation	Unrestricted – buy or rent any property
Family	Yes – partner can live and work in Jersey. Can bring children who are individually registered on entry
Health care	Full access to health services
Residency status	Ordinarily resident
End of individual's permission period	N/A
Transfer to permission "Z" ?	N/A
How are limits/quotas/targets set	Transfer from X will be strictly controlled.

Migration Policy Development Board



Appendix 2:

Terms of reference

Migration Policy Development Board

Developing a new migration policy

Policy Development Board

Terms of Reference

Purpose

To develop comprehensive migration policy proposals which will deliver more responsive controls over who can come to live, work and access public services in Jersey, improving consistency wherever practical and helping to reduce the Island's reliance on inward migration.

Background and rationale

In recent years, net migration has been at record levels as our economy has produced more jobs.

This economic activity is important as it generates job opportunities locally, and the taxes that pay for public services. Nevertheless, the level and nature of inward migration fundamentally affects Island living. In particular, housing affordability is a challenge.

Indeed, while some migration is necessary to bring in new skills and experience, and to help businesses grow, successive governments have sought economic growth driven by productivity improvements, and not migration.

For this reason, the Council of Ministers has pledged to reduce reliance on inward migration in the Common Strategic Policy.

This will be done alongside work to deliver a more sustainable economic future based around productivity and skills, feeding into a new Island Plan and as part of balancing population pressures against environmental needs.

Inclusions and Exclusions

- The board should rely on statistical and economic modelling, including long term fiscal modelling and analysis of the implications for taxes, services, and our economy, of migration.
- The board should consult with local businesses and may wish to survey public opinion.
- The board should review the migration policy lodged by the previous Council of Ministers
- The work should be cognizant of and cover wider population policy issues, such as fiscal policy, the ageing demographic, public service provision, planning, transport policy and the impact of migration on housing affordability.
- The work should cover immigration controls, i.e. controls at the border of the Common Travel Area, as well as controls over work and housing, ensuring a consistency of approach.

- This work will need to anticipate and prepare for changes to British immigration controls related to Brexit, in particular, any future limitations on movement by EEA nationals.
- The board should consider policies which affect new migrants and their families, including access to services and housing
- With the agreement of the Chair and the Chief Minister, any other matter which may be relevant may be considered

Membership

Connetable of St John, Christopher Taylor (Chair); Deputy John Young, Minister for Environment; Deputy Martin, Minister for Social Security; and Senator Sarah Ferguson. The Chief Minister may also attend any meeting.

Senior Responsible Officer: Tom Walker, Director-General, Strategic Policy, Performance and Population Department.

Executive Support: Immigration and Migration Policy Officer, Strategic Policy, Performance and Population Department.

The Board will appoint an agreed number of lay-members.

Roles and Responsibilities

The Board will be supported by officials, to the same standards and applying similar practices, including around the production of evidence, options, any reports, and public engagement, as officials would apply in supporting individual Ministers.

As such, officials are under an obligation to produce reports and provide thereon free and open access to information to members of boards, and impartial advice.

Board members will respect the impartiality of officials, and maintain the confidentiality of any information or advice provided, in so far as it is not already in the public domain.

Timeline

To commence on the 1st February, 2019, and to produce initial proposals for lodging in the Autumn States Sitting 2019, subject to sufficient confidence around Brexit outcomes.

Records and Reporting

Minutes of meetings will be taken to ensure that a proper official record is maintained, and published as soon as practical and appropriate, subject to the relevant FOI exemption concerning policy under development.

The findings of the board will be drafted into a report by the executive support staff and, following approval by the Chair, provided to the Chief Minister. The dissent of any member will be noted where requested. The findings will also be provided to the Council of Ministers, following which the report will be published as soon as practical and appropriate.

Migration Policy Development Board



Appendix 3:

Project Scope

Migration Policy Development Board

Developing a New Migration Policy

Policy Development Board

Project Scope

21 March 2019

1. PROJECT ASSUMPTIONS

- 1.1. In recent years, net migration has been at record levels as our economy has produced more jobs.
- 1.2. This economic activity is important as it generates job opportunities locally, and the taxes that pay for public services. Nevertheless, the level and nature of inward migration fundamentally affects Island living. In particular, housing affordability is a challenge.
- 1.3. While some migration is necessary to bring in new skills and experience, and to help business grow, successive governments have sought economic growth driven by productivity improvements, and not migration.
- 1.4. The Council of Ministers has pledged to reduce reliance on inward migration in the Common Strategic Policy.
- 1.5. This will be done alongside work to deliver a more sustainable economic future based around productivity and skills, feeding into a new Island Plan and as part of balancing population pressures against environmental needs.
- 1.6. The terms of reference for the Board are agreed as follows:

Purpose:

To develop comprehensive migration policy proposals which will deliver more responsive controls over who can come to live, work and access public services in Jersey, improving consistency wherever practical and helping to reduce the Island's reliance on inward migration.

In doing this, the Board should:

- Rely on statistical and economic modelling, including long term fiscal modelling and analysis of the implications for taxes, services, and our economy, of migration;
- Consult with local businesses and may wish to survey public opinion;
- Review the migration policy lodged by the previous Council of Ministers;
- Be cognizant of and cover wider population issues, such as fiscal policy, the ageing demographic, public service provision, planning, transport policy and the impact of migration on housing affordability;
- Cover immigration controls, i.e. controls at the border of the Common Travel Area, as well as controls over work and housing, ensuring a consistency of approach;
- Anticipate and prepare for changes to British immigration controls related to Brexit, in particular, any future limitations on movement by EEA nationals.
- Consider policies which affect new migrants and their families, including access to services and housing;
- With the agreement of the Chair and the Chief Minister, any other matter which may be relevant may be considered.
- Provide, following approval by the Chair, a draft report to the Chief Minister. The findings will also be provided to the Council of Ministers, following which the report will be published as soon as practical and appropriate.

2. BACKGROUND AND CONTEXT

2.1. Common Strategic Policy 2018-22 (CSP)

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/Common%20Strategic%20Policy%202018%20to%202022.pdf>

The CSP specifically covers the establishment of the Migration Policy Development Board to develop an agreed population and migration policy.

We will create a sustainable, vibrant economy and skilled workforce for the future

We will do this by delivering an economic framework to improve productivity, by nurturing and strengthening our financial services industry, by enhancing our international profile and promoting our Island identity, by delivering the best outcomes from Brexit, and by improving skills in the local workforce to reduce Jersey's reliance on inward migration.

Where we need to focus our efforts

We will establish a Policy Development Board to develop an agreed population and migration policy that balances population pressures against economic and environmental needs.

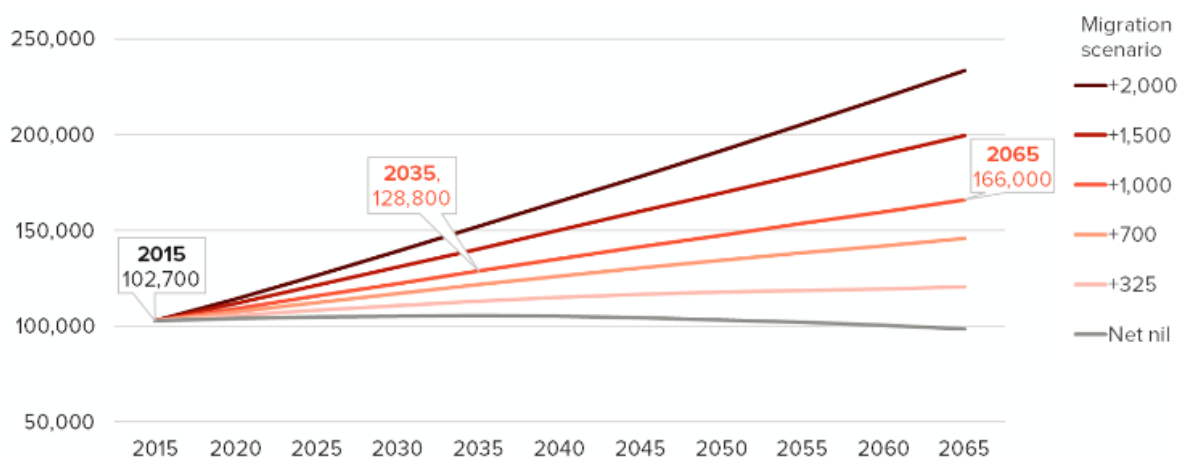
What we will achieve

As a result of our actions during our term of office, we will:

- Improve Jersey's economic performance
- Support and strengthen our financial services sector
- Support and strengthen our tourism industry
- Continue to diversify our economy, including ongoing support for our digital sector and the development of our philanthropic sector
- Be outward facing and promote Jersey on the international stage
- Increase the skills of our workforce with an enhanced focus on digital
- Improve productivity to reduce population pressures
- Develop and implement a comprehensive migration and population policy

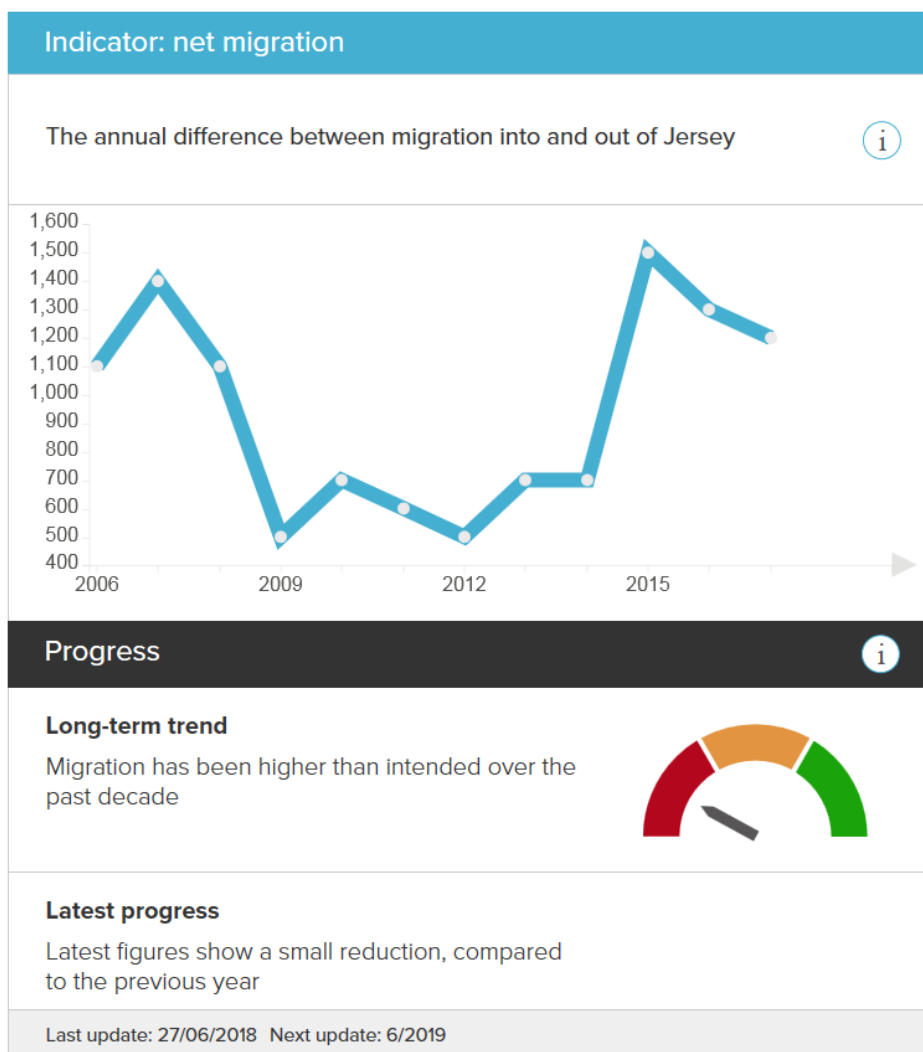
2.2. Population projections

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Population%20Projections%202016%2020161013%20SU.pdf>



Total projected population size 2015 – 2065 under different levels of migration

Since 2001, net inward migration has averaged 700 people per year. However, it fluctuates considerably each year, depending upon Jersey's economic performance.



<https://www.gov.je/government/planningperformance/futurejersey/examine/businessenvironment/pages/migration.aspx>

Net annual migration reached a high in 2007 of 1,400, just before the economic crisis, and in 2015 rose again to 1,500, as the economy delivered record employment growth. This dropped to 1,300 in 2016, but remained high. The latest figures for 2017 show a further reduction to 1,200.

Jersey's resident population is currently estimated to be 105,500, with net inward migration accounting for 77% of the increase over the past ten years.

This was reflected in the 2017 figures, with natural change (births minus deaths) accounting for only 100 of the overall increase - the lowest level recorded since 2002.

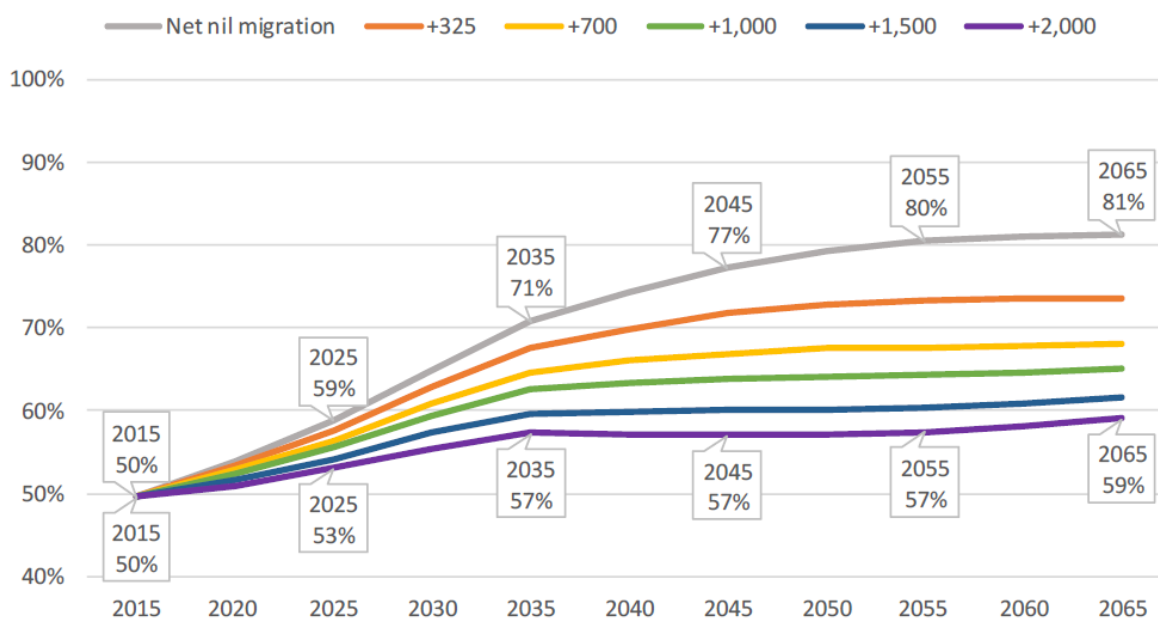
Factors, such as Brexit and exchange rate changes, are likely to influence the migration indicator, with the next reporting due in June 2019.

2.3. Ageing population & dependency ratio

By 2035, Statistics Jersey projects that, there will be 11,000 more people aged 65 or over living in Jersey, and around 3,000 more people over the age of 85 as we live longer lives. These are existing residents growing older. This will place sizeable pressures on our public finances.

The Migration Policy R.134/2017 reported that an ageing population means we need to import more skilled workers into our medical and care sectors. Over the period 2016-2026, at least an additional 280 full time employees are expected to be needed in Health & Social Services alone to fill vacancies for doctors, nurses, paramedics, and social workers. In addition, many more care workers will be needed across both public and private sector care provision.

The dependency ratio (the ratio of non-working age to working age persons in the population) is predicted to rise. The dependency ratio in Jersey was 50% at year-end 2015.



Dependency ratio 2015-2065 under different levels of net migration

A high dependency ratio represents a high number of non-working age being supported by a relatively small number of working-age residents.

2.4. Housing

<https://www.gov.je/Government/Pages/StatesReports.aspx?ReportID=4193>

The January 2019 Objective Assessment of Housing Need Report estimates that almost 7,000 additional homes will be required in Jersey by 2030, assuming that recent trends in net inward migration (+1000/year) continue.

2.5. Infrastructure

An increasing population impacts upon resource management and infrastructure, such as the availability of clean water, solid and liquid waste treatment facilities, traffic on the roads, energy requirements and security of supply, and food security. To date, the planning and specifications for most significant infrastructure has been based on a net figure of +350 per annum. The more recent population scenario reports show that actual migration has been significantly higher than this for a significant period of time. This means we are already at risk of eroding the capacity and life-span terms of our existing infrastructure and resource provision over the short, medium and longer term.

2.6. Previous Population Policy Reports

A number of population and/or migration policies have been put forward by Government. In recent years these include:

1995	"2000 and beyond" Strategy – States policies should be designed to achieve 'a permanent resident population the same or less than the current level' (estimated 85,000)
1999/2002	Population to remain at the same level as autumn 1995
2004	A cap of 1% per annum on the increase in the working population
2009	Allows maximum inward migration at a rolling 5 year average of no more than +150 households per annum (equivalent to net +325 people) to be 'reviewed and reset' every 3 years
2014	Interim Population Policy 2014-2015 Net migration +325 people per year
2017	"Migration Policy" – 'net immigration over the next 20 years to be lower on average than it has been since 2001'. This Policy was withdrawn before debate.

The matter of population or migration control has bridged a number of elections but to date most iterations have been deemed to have failed in controlling the rate of migration to the island.

These policies have often met with delayed political decision making and political and public challenge.

This MPDB provides an opportunity to put in place a policy that can truly address the island's ability to control inward migration, taking into account a wide range of evidence and considering the relative risks of failing to implement effective actions.

2.7. Review Previous Migration Policy

The terms of reference for the MPDB request that the board should review the migration policy lodged by the previous Council of Ministers.

The Migration Policy R.134/2017 presented to the States on 8th December 2017 suggested a number of changes including the introduction of:

- work permits for registered workers of up to 10 months if 'seasonal and temporary';
- work permits up to four years if employment is year round;
- criminal record checks for applicants;
- photographs on Registration Cards;
- improved monitoring of migration in Jersey.

<https://statesassembly.gov.je/assemblyreports/2017/r.134-2017.pdf>

On 18th July 2018 the Chief Minister agreed to withdraw the proposed migration policy, stating 'we need greater consultation before we proceed in debating this policy', and that 'while the proposals in the policy for a work permit regime would function under different Brexit scenarios, precisely how they would operate will depend on how negotiations are concluded.'

<https://www.gov.je/news/2018/pages/WithdrawalOfMigrationPolicy.aspx>

2.8. Brexit

The outcomes and impacts of Brexit are not yet clear. However, the UK Government intends to remove the right of EU nationals to live and work freely in the UK, and require EU nationals to apply for permissions to live and work in the UK. EU nationals currently form a significant part of Jersey's community and workforce. Any changes to the UK Immigration Rules will impact directly upon Jersey, and require EU citizens (who are not 'settled') wishing to work in Jersey to obtain permission to work, by way of a work permit, in the same way as third country nationals, such as USA, Kenyan or New Zealand citizens do presently. New EU citizens would also require permission to live in Jersey.

UK Withdrawal Agreement:

<https://www.gov.uk/government/publications/withdrawal-agreement-and-political-declaration>

The UK's future skills-based immigration system:

<https://www.gov.uk/government/publications/withdrawal-agreement-and-political-declaration>

3. GOVERNANCE

- 3.1. The Board will be supported by the Director-General, Strategic Policy, Performance and Population Department.
- 3.2. The Board will be supported by officials, to the same standards and applying similar practices, including around the production of evidence, options, any reports and public engagement, as officials would apply in supporting individual Ministers.
- 3.3. Officials are under an obligation to produce reports and provide thereon free and open access to information to members of the Board, and impartial advice.
- 3.4. Board members will respect the impartiality of officials, and maintain the confidentiality of any information or advice provided, in so far as it is not already in the public domain.
- 3.5. Minutes of meetings will be taken and published as soon as practical and appropriate, subject to the relevant FOI exemption concerning policy under development.
- 3.6. The findings of the Board will be drafted into a report by the executive support staff and, following the approval by the Chair, provided to the Chief Minister. The dissent of any member will be noted where requested. The findings will also be provided to the Council of Ministers, following which the report will be published as soon as practical and appropriate.

4. DRAFT TIMESCALES⁶

- Ministerial Decision signed to approve a Migration Policy Development Board (MPDB) – 8th February 2019
- MPDB established – 7th March 2019
- Research & policy development – March-September 2019
- Interim report published - October 2019
- Consultation – October - November 2019
- Review consultation findings – December 2019
- Draft report to Chief Minister– January 2020
- Submission to Council of Ministers – January 2020
- Final report published – March 2020
- States debate on proposals – Spring States' sitting 2020

⁶ Amended to account for change of intended Brexit date and to coordinate with Island Plan

Project Board Deliverable:
The Board will produce a report outlining proposals for lodging in the Spring States Sitting 2020.

5. ENGAGEMENT

- 5.1. The Board will need to agree a communication plan on the level of public and stakeholder engagement required for this process.

6. PROJECT RISKS AND OBSERVATIONS

- 6.1. There is no single answer to improve the island's control of inward migration. The decisions that need to be made to truly reduce the island's reliance on inward migration are unlikely to meet with universal approval, with the public or politically, but are important to ensure that the island can strike the right balance between having a sustainable economy, a balanced population and meeting its environmental needs.
- 6.2. Any migration policy proposals are unlikely to convince all States Members or all Island residents. There is a risk that proposals will re-galvanise the arguments for and against migration and not provide the closure that everyone wants about the correct migration policy for Jersey.
- 6.3. The biggest risk facing the project and the Island is failing to consult adequately with the various stakeholders, and failing to ensure that all parties understand the implications of not agreeing a sustainable and effective migration policy.
Other risks include:
- 6.4. Reputational damage to the Government of Jersey and States Assembly if the new migration policy has little, or no effect, on controlling migration levels.
- 6.5. Reducing the Island's reliance on inward migration could stifle business, and/or undermine the Island's economy, unless it is matched to an improvement in productivity.
- 6.6. Relevant time is required for research and the full implications of proposed changes must be mapped in the short and long term.
- 6.7. Making decisions based upon incorrect data/historical data.
- 6.8. Increased controls on migrants may reduce the attractiveness of Jersey to migrants.

- 6.9. Reducing migration could mean higher costs for consumers.
- 6.10. The social inclusion of migrants is important to ensure that those migrants that want to live and work in Jersey continue to feel a valued part of the Island community.
- 6.11. Any system must not be so prescriptive that it fails to allow Jersey to respond flexibly to labour market needs and economic conditions.

This project is closely linked with three other major projects:

- 6.12. A key dependency of this project is the delivery of a skills strategy and an economic framework that improve the skill level and productivity of the local workforce.
- 6.13. A new Island Plan will be agreed in 2021. Migration policy proposals need to be consistent and complimentary with the new Island Plan.
- 6.14. A separate Policy Development Board is examining the structure of the housing market, looking at both short and long term measures.

The project is also dependent on a range of other factors including:

- 6.15. Jersey is part of the global economy, and subject to economic cycles. When economic performance improves, this has historically dramatically increased the number of workers that businesses request.
- 6.16. The outcomes and impacts of Brexit are not yet clear. Any future migration policy will need to take full account of the actions of the UK post-Brexit.
- 6.17. The impact, and influence, that changes to the UK's immigration system will have upon any future migration policy are not yet known.
- 6.18. Sterling falling in value against other countries, may make wages less attractive, and reduce the number of people who want to work in Jersey.
- 6.19. Immigration from the EU is going to reduce and businesses will need to adapt accordingly.

Migration Policy Development Board



Appendix 4:

Immigration Controls & Work Permits

Jersey Customs & Immigration Service



Justice and
Home Affairs

Customs and Immigration Service
Briefing Paper

To: Migration Policy Development Board
Submitted By: Acting Assistant Director Paul Le Monnier
Date: 15th March 2019
Subject: Immigration Controls and Work Permits

Introduction

This briefing paper provides an overview of Immigration controls in Jersey. We tend to think of immigration control at the border, but a considerable amount of immigration legislation and control deals with regulating people either before they leave their home country or once they are in Jersey.

The UK Immigration Act 1971 (the Act), was extended to Jersey by the Immigration (Jersey) Order 1993⁷. It is the primary legislation governing the procedures for “leave to enter” and “leave to remain” for overseas nationals and is the basis of immigration controls in the UK and Jersey.

The Act vests powers in the Minister for Home Affairs to make directions to the practice to be followed for regulating entry and the stay of persons in Jersey who do not have the right of abode. These directions are known as the Immigration Rules (the Rules). The Minister may also make rules as to the practice to be followed for regulating the taking of employment by persons not having the right of abode.

Common Travel Area (CTA)

The UK, Channel Islands, Isle of Man and the Republic of Ireland collectively form the CTA. The CTA is established as a matter of law to facilitate the principles of free movement of British and Irish citizens between the UK, Republic of Ireland and the Islands. There are no formal

⁷ Immigration (Jersey) Order 1993 <https://www.jerseylaw.je/laws/revised/PDFs/21.700.pdf> (as amended by [The Immigration \(Jersey\) \(Amendment\) Order 2017](https://www.jerseylaw.je/laws/enacted/PDFs/L-23-2017.pdf))
<https://www.jerseylaw.je/laws/enacted/PDFs/L-23-2017.pdf>

immigration border controls in the CTA. Border checks are undertaken at the first point of entry to the CTA. Persons who have been granted entry into Jersey are therefore able to travel freely to the UK. In practice, this means that “leave to enter” and “leave to remain” granted in Jersey is deemed to apply in the UK.

Non-European Economic Area (non-EEA) nationals are subject to the immigration rules of the CTA jurisdiction they are entering and residing (visa requirements, restrictions on employment and length of stay).

Jersey’s position in the CTA is crucial in maintaining the integrity of the CTA by having robust immigration controls to prevent illegal entry and abuse.

Jersey Immigration Rules

The Rules set out the requirements to be met by Non-EEA nationals seeking to enter Jersey. The Rules also set out the requirements that need to be met to extend their stay in Jersey for either a limited or indefinite period.

The Rules cover provisions for visitors, students, employment and family members such as spouses, civil partners, partners and dependent children under 18. The Rules also set out how the deportation provisions apply, including the circumstances in which a person is liable to deportation. They also provide a comprehensive framework for assessing and determining claims for asylum in Jersey.

Immigration Controls

These can be split into 3 categories:

1. Pre-entry – Entry Clearances (visas)

The Jersey Customs and Immigration Service (JCIS) Casework section is responsible for working in partnership with British Diplomatic Posts overseas to manage entry clearance (visa) applications for non-EEA nationals seeking to enter Jersey. Applications are assessed against the criteria set out in the Jersey Rules and will approve or reject applications as appropriate.

Applicants are subject to a number of mandatory checks which vary depending on the migration route but include checks against the UK police criminality database, UK Warnings Index and Immigration database.

2. On-entry – Border Immigration Control – JCIS Frontier Section

A physical immigration control is undertaken on all scheduled commercial movements from outside the CTA at the 3 designated ports of entry namely, St Helier, Gorey and Jersey Airport.

European Economic Area (“EEA”) nationals are admitted on production of a valid national identity card or valid national passport and do not require leave to enter under the Rules because of exercising rights of free movement. Non-EEA nationals are granted leave to enter at the controls by way of their entry clearance (visa) which confers leave to enter or by granting leave to enter with a stamp in their passport.

Passengers are subject to mandatory checks on entry and further questioning where necessary.

3. After-entry – Limited leave to remain and Indefinite leave to remain (settlement)– JCIS Casework Section

Persons who have valid leave to enter or remain may apply to extend their stay provided they satisfy the requirements of the relevant immigration category in the Rules.

After a person has lived in the UK and/or the Islands for a certain length of time, they may be able to apply for permission to remain here for an indefinite period (settlement). The right to apply for permission to stay will depend on a person's current immigration category. Normally a person becomes eligible to apply for settlement after 5 years lawful residence.

Applications for further leave and indefinite leave to remain are subject to further mandatory checks including checks against the UK police criminality database.

Irish Citizens

Irish citizens are not subject to Immigration controls and are free to travel, live and work within the CTA. The Republic of Ireland is not considered to be a "foreign country" for the purposes of UK immigration laws, and Irish citizens are not considered to be "foreigners". They have a special status which is separate to and pre-dates the rights they have as EU citizens.

Irish citizens are treated as if they have permanent immigration permission to remain in the UK and Islands from the date they arrive. They may, however, still be liable to deportation or exclusion. The rights of Irish citizens in the British Islands are rooted in the Ireland Act 1949 which was registered by the Royal Court. This position will not change irrespective of the outcome of Brexit.

EEA Nationals

Currently EEA Nationals and their family members enjoy free movement and are admitted at the Immigration controls on production of a valid national identity card or national passport which establishes their identity and nationality. They may enter, live and work in Jersey through Protocol 3 to the UK's Act of Accession.

As a result of the UK leaving the EU the status of EU citizens living in Jersey will change. The UK government reached a deal with the EU to operate a scheme known as the "EU Settlement Scheme" which allows EU citizens to remain in the UK post Brexit. Jersey has launched its own similar scheme. This allows those that have been resident in Jersey for more than 5 years to apply for "settled status". Those that have been resident for less than 5 years may apply for "pre-settled status" and are able to continue to build time until they reach "settled status". This also applies to their non-EU family members.

Applicants to the scheme are subject to UK police criminality checks.

EU nationals will have until the end of the transition period, 31st December 2020, to apply. If the UK leaves the EU with a deal free movement will be maintained until that date.

If the UK leaves the EU without a deal on 29th March 2019 EU nationals arriving in Jersey after that date will have to apply for temporary leave to remain to stay for longer than 3 months.

When free movement ends after 31st December 2020 there will be a new skilled based immigration system which has yet to be designed.

Non-EEA Nationals

Non-EEA nationals are subject to Immigration control. There are nationals who will always require a visa to travel to Jersey irrespective of the purpose or duration of their stay. These nationals are deemed “visa nationals”.

All other Non-EEA nationals, as appropriate depending upon their status and reason for seeking entry, are required to apply for a visa prior to travel and do so via the UK Visa Application Centres. These visas are referred to the JCIS Casework Section for authorisation to issue or refuse and are assessed against the requirements of the Rules.

Work Permits

JCIS Casework Section is responsible for the issue of work permits under the Immigration (Work Permits) (Jersey) Rules 1995 and in line with the policy of the Minister for Home Affairs. There are 2 categories of work permit holders, skilled and unskilled. Work permits are issued to non-EEA nationals pre-entry to the Island for new employees and post entry for extension of work if required.

The Customs and Immigration Service must ensure that the operation of the work permit scheme strikes a balance between the political obligation to protect the resident labour market and growing the economy, by allowing overseas staff, who bring significant experience and expertise, to take employment in Jersey.

Work permit applications are considered from employers in all sectors on a case by case basis and in line with current policy. However, an employer must demonstrate and provide evidence that the vacancy cannot be filled from within the permit free UK and EEA labour market.

In addition JCIS carefully review and consider the immigration aspects of work permit applications to guard against the risk of those who may seek to abuse these controls by not complying with the terms and conditions of their visas.

Work Permits in the majority of cases are issued for no more than 3 years in the first instance and can at the end of this period be granted for a further 3 years subject to satisfactory applications.

Until recently the unskilled category only catered for seasonal employment in the hospitality industry for those who were granted permits prior to May 2004. The policy has now been amended by the Minister for Home Affairs to allow for unskilled seasonal workers in both the agricultural and hospitality industries following applications by both the Jersey Farmers Union and Jersey Hospitality Association. Both sectors articulated a strong business case for the need to recruit non-EEA workers due to difficulties they have been facing recruiting from within the EEA.

The policy allows for the seasonal employment for up to 9 months in both sectors. The number of permits is capped at 130 for the Agricultural industry and 150 for the Hospitality industry. Applicants are subject to the mandatory checks at the visa application stage and are also required to provide Police certificates that summarise criminal history. This is a pilot scheme that will be reviewed in 2 years.

The UK has faced the same issues in recruiting workers for the agricultural sector and has introduced a similar pilot scheme.

Paul Le Monnier

Acting Assistant Director Immigration and Nationality

Migration Policy Development Board



Appendix 5:

Control of Housing and Work (Jersey) Law – Briefing session for Migration Policy Development Board

Population Office



Control of Housing and Work (Jersey) Law

Briefing session for Policy Development Board - Migration
21 March 2019



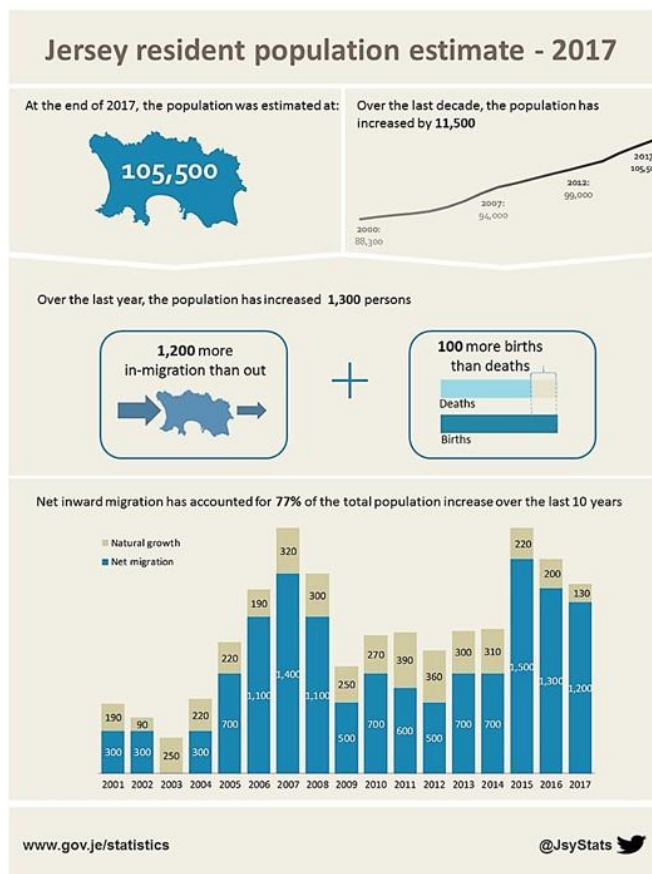
Control of Housing and Work (Jersey) Law 2012

To control :

- The overall population density of Jersey
- Availability of **work and housing** in Jersey for people with strong connections or associations with Jersey, in the best interests of the community

Have regard to :

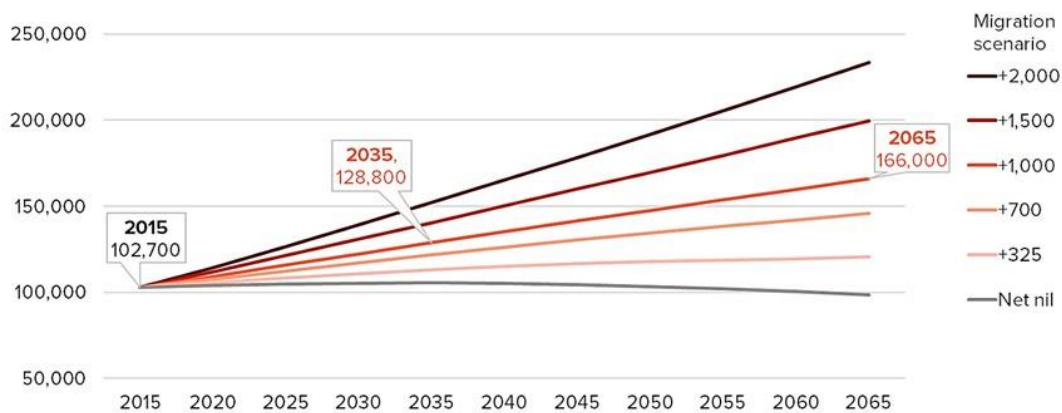
- Preserving and maximising Jersey's resources
- Promoting a balanced and prosperous economy
- Protecting the integrity and reputation of Jersey in commercial and financial matters
- Any relevant States policies
- Public interest



Population projections

Over the last four years, net migration has averaged +1,000 people per year into the Island. If recent migration trends were to continue, it is estimated that Jersey's population would reach 128,800 by 2035.

Total projected population size from 2015 to 2065 under different levels of net migration



Source: States of Jersey Statistics Unit

Registration Cards



- Control of Housing and Work Law introduced 1 July 2013.
- Cards include individual's Social Security number, residential and employment status and an expiry date, where applicable.
- Anyone moving home or changing job requires a valid and appropriate registration card.
- Demonstrates that someone has the correct status to be able to rent or purchase Qualified property, or to be taken on by an employer in line with a business licence.



New Registrations



Total number of newly registered individuals who have obtained registration cards since the introduction of the Control of Housing and Work Law.

Figures do not include Jersey born individuals, or individuals under the age of 18 who are already resident but newly registering. Figures also only account for individuals who have been issued with a registration card.



Controls on Housing



INDIVIDUALS	PROPERTY
<p>Determine individual applications for residential and employment status including:</p> <ul style="list-style-type: none"> ❖ Applications for entitlement on hardship grounds e.g. relationship breakdown, medical, extended absences. ❖ Applications by high value individuals – minimum income tax liability of £145k per annum - social or economic benefit, and in the best interests of the community. <p>Guidance which sets out parameters in which decisions relating to residential and employment status are made, and the ability of the Minister to exercise discretion and consider applications which do not fall within the guidance on an individual case basis can be found on www.gov.je. (Link: Policy Guidance – March 2018)</p>	<p>Determine applications by companies to purchase or lease residential property.</p> <ul style="list-style-type: none"> ❖ Need to demonstrate that proposed purchase is in the best interests of the community, with particular regard to the supply and demand of property and, where relevant, to promoting ownership of residential property by persons with Entitled status. <p>Determine applications to re-categorise residential property designation, e.g. to allow for Qualified property to be occupied by full time staff, or full time students.</p> <ul style="list-style-type: none"> ❖ Need to take into account any relevant factors relating to the supply and demand of housing, particularly in relation to the interests of persons with Entitled status, and any other relevant considering factors.

Residential and Employment Statuses



Residential status	Definition	Housing	Work
Entitled	Someone who has lived in Jersey for 10 years (more details on www.gov.je)	Can buy, sell or lease any property	Can work anywhere and doesn't need a licence to be employed
Licensed	Someone who is an 'essential employee'	Can buy, sell or lease any property, apart from first time buyer restricted or social rented housing, in their own name if they keep their 'licensed' status	Employer needs a licence to employ a 'licensed' person
Entitled for Work	Someone who has lived in Jersey for five consecutive years immediately before the date the card is issued, or is married to or the civil partner of someone who is 'entitled', 'licensed', or 'entitled for work'	Can buy property jointly with an 'entitled' spouse / civil partner. Can lease 'registered' (previously 'unqualified') property as a main place of residence.	Can work anywhere and doesn't need a licence to be employed
Registered	Someone who does not qualify under the other categories	Can lease 'registered' property as a main place of residence	Employer needs a licence to employ a 'registered' person

Controls on Work – Business Licensing



- Every undertaking must have an **appropriate licence to operate in Jersey** (Resident Undertakings, Non-Resident Undertakings, Non-Resident Traders and Hawkers).
- Resident undertakings who wish to employ individuals whose status is **Registered or would be Licensed** must have the appropriate permission(s) to do so.
- The business licence will state **the maximum number of individual(s)** whose status is Registered or would be Licensed who are permitted to work for the undertaking (which may be nil).
- Any individual wishing to start new work has to obtain a registration card showing their residential and employment status. The undertaking then verifies that the individual is permitted to work for the undertaking.

Controls on Work – Business Licensing



- An undertaking may apply for a **variation** of its licence at any time – this predominantly relates to applications to employ individuals whose status is **Registered or would be Licensed**.
- The Minister, with notice, may vary the licence at any time, including **reducing/ removing permission(s)**; and follow due process i.e. the Minister cannot reduce the maximum number of Registered permissions below the number of individuals with that status working in the business at the time of 'variation'.

Controls on Work – Business Licensing



Circa 3,500 – 4,000 applications per year

- To start a resident business (circa 900).
- To employ Registered and/ or Licensed staff (circa 450)
 - 1,232 additional Registers staff requested 2018
 - 281 additional Licensed staff requested 2018
 - 1,513 in total
- For other purposes, such as change in ownership of companies, revisions to business licence due to incorporation, de-incorporation.

Staff Survey



- Circa 8,000 businesses make a return
- Relating to circa 65,000 employees
- Provided twice per year - June and December
- Key information required:
 - Name, Social Security number, Status (Entitled, Registered, Licensed), Employment contract type (Permanent, Non-permanent, Zero Hours), Working hours (Full Time, Part-Time, Zero Hours)

Why is this data collected?

- Data provided to Statistics Unit for multiple purposes, for example the Labour Market Survey, and also the basis for economic analysis by Economics Unit;
- To assess compliance with any staffing permissions.

Compliance

To ensure all undertakings operating in Jersey **have the appropriate licence**

- Resident business licence;
- Non-resident business licence;
- Non-resident traders licence;
- Hawkers licence.

To ensure undertakings are **operating within any permissions/ conditions of that licence**

- Primarily related to any Registered/ Licensed permissions.

To ensure **Qualified residential property is occupied by persons with the appropriate residential status**

- Primarily Entitled or Licensed.

Policy

- Overall policy of States Assembly is to **optimise economic growth while limiting migration**, by **selectively** approving applications to support migration which **delivers the greatest social and economic value**.
- Grant Licensed/ Registered staff where it is demonstrated that this will deliver sizeable economic or social value and Entitled/ Entitled for Work staff are not available.
- Remove Registered permissions from businesses to maximise Entitled/ Entitled for Work employment and limit migration (**capacity reduction**).
- 'Step down' Registered permissions from businesses to maximise Entitled/ Entitled for Work employment and limit migration (**varying licences**).
- New start up businesses - normal policy is to grant a business licence to persons that are Entitled/ Entitled for Work and employ Entitled/ Entitled for Work staff.

General application of policy – Key factors



- **Demand/ cost on Island's resources**
 - Housing;
 - Health;
 - Education;
 - Transport systems;
 - Other infrastructure (sewage, water etc.).
- **Benefits to the Island of the application**
 - Economic value - financial contribution to the Island (turnover, profits, salaries, tax and social security benefits);
 - Social value (for example, provision of Health and Social care services);
 - Entitled/ Entitled for Work job creation (high value, skill shortage areas beneficial the Island (for example, digital);
 - Wider benefits to the community, for example provision of unique/ innovative service to Islanders.
- **Other key factors**
 - Number and percentage of Registered/ Licensed staff versus Entitled/ Entitled for Work staff in the business;
 - Comparative number and percentage of Registered/ Licensed staff versus Entitled/ Entitled for Work staff per sector/ similar businesses (above/ below average, best in class);
 - Is the service provided readily available in the Island? Granting additional Registered/ or Licensed staff would lead to further immigration.

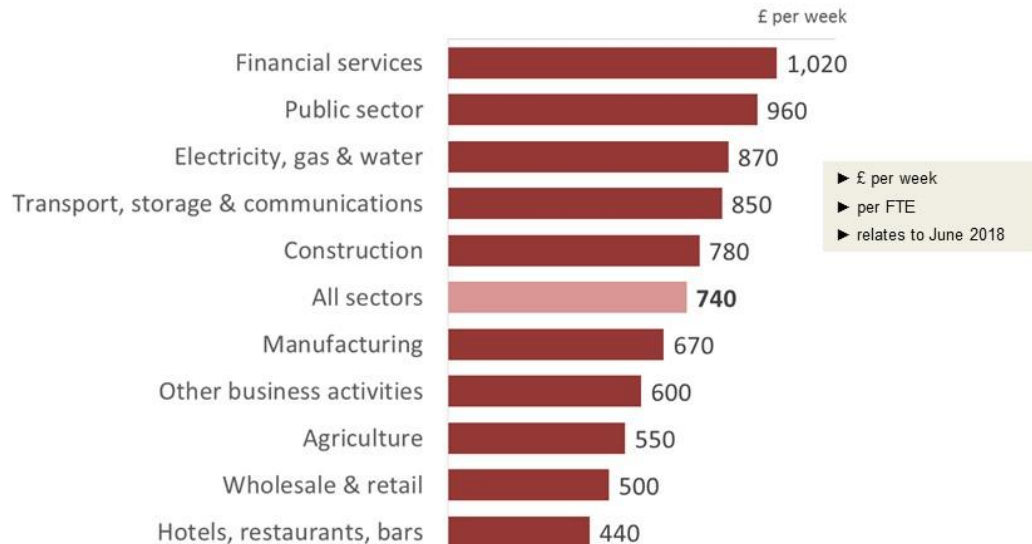
General application of policy



- Each application presents its own unique range of facts and circumstances, and will be considered accordingly within published policy.
- A number of conflicting factors have to be balanced against each other in considering each application. These are matters for the exercise of judgment and discretion in each case within the policy framework.
- The overall test is what benefit does the application have to the Island as a whole, bearing in mind the wish to limit migration.

Application of policy – Average weekly earnings by sector June 2018

Average weekly earnings by sector



“Active” Registered permissions and population growth

Net migration planning assumption

Public services, including infrastructure and housing, are planned using an assumption for net migration of +150 households/ +325 people per year (on average). The Law is used to support these planning assumptions.

Graduation - <https://youtu.be/REwLYj7q8dl>

Assumptions in 2017 population estimate – Statistics Jersey (simplified model)

- 16% of Registered staff “graduate” to become Entitled for Work each year (businesses then use the permission on a new inward migrant);
- To achieve a graduation level corresponding to a +350 migration scenario would require the **removal of** approximately **4,100** active Registered permissions, so the total active permission is stable at around **1,000**;
- Any additions to the current levels of active permissions (Registered or Licensed), through the granting of additional permissions, will result in levels of net migration in excess of the +1,000 scenario;
- Once the required level of “graduation” has been achieved, the **net change** in both Registered and Licenced positions must equal **zero**. That is, **no** new Registered or Licenced positions can be created without a corresponding reduction in the existing population. In order to grant a new Registered or Licensed permission to a business, an existing permission must be removed from somewhere else.

“Active” Registered permissions and population growth

Attaining a baseline of 1,000 active permissions assuming Licenced staff remain constant (example from December 2017 Statistic Jersey Labour Market Report)

- Remove all active Registered permissions from Hospitality sector = **1,830**
- Remove all active Registered permissions from Agriculture sector = **370**
- Remove all active Registered permissions from Wholesale and Retail sector = **530**
- Remove all active Registered permissions from Education, Health and other services = **480**
- Remove all active Registered permissions from Construction = **470**
- Remove nearly all active Registered permissions from Finance and Legal sector = **420**

Reducing Permissions Initiative

Agreed by former Housing and Work Advisory Group to commence 2016.

Aims of initiative

- To further control the level of Registered permissions in the economy;
- To move towards a ‘fairer’ balance of Registered permissions held by businesses by industry sector;
- By reducing the level/ proportion of Registered permissions for those businesses with a higher level/ proportion of Registered permissions compared to the sector average;
- By conditions on the business licence so that Registered permissions ‘fall away’ as Registered individuals gain Entitled for Work status (step down process).

Pressures and Issues

- Buoyant economy/ full employment;
- Businesses across all sectors under pressure to operate within current staffing permissions (cannot expand/ function);
- Significant removal of Registered staffing capacity in first 2 years of CHWL/ decreasing ability to further remove permissions;
- Takes time to 're-organise' allocation of Registered permissions in accordance with the Law and policy due to previous 40 years of application of the Regulation of Undertakings and Development (Jersey) Law, 1973;
- Graduation;
- Lack of affordable Qualified housing (both social rented housing and first time buyers);
- Lack of Registered properties, in particular for families;
- Pressure from businesses and education providers to utilise Qualified properties for full time staff/ students.

Questions

Migration Policy Development Board



Appendix 6:

Estimating government receipts and expenditure from Jersey households

Statistics Jersey

Estimating government receipts and expenditure from Jersey households

4th April 2019

Estimating receipts and expenditure Introduction

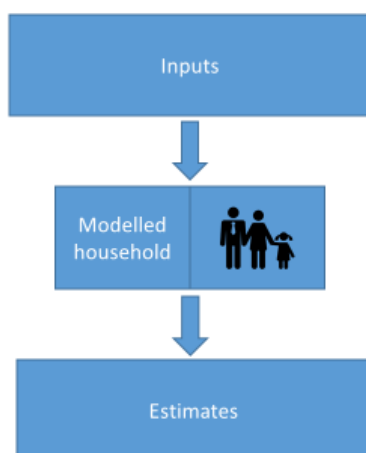
Aim: To provide estimates of the level of government receipts and expenditure to and from Jersey households.

- Receipts considered:
 - Personal income tax
 - Goods and Services Tax (GST)
 - Impôts (excise duty)
- Expenditure considered:
 - Health
 - Education
 - Income support
 - An allowance for “other” States expenditure

Consideration also given in respect of receipts into ring-fenced funds and the application of the States annual contribution into the Social Security Fund (“supplementation”).

Estimating receipts and expenditure

General approach



- Number of working adults in the household
- Number of (school age) children in the household
- Total household earned income
- Income split (if more than one adult is working)
- If the household is entitled to receive income support

- For example: couple with one child & household income of £80,000

- Government receipts
- Government expenditure

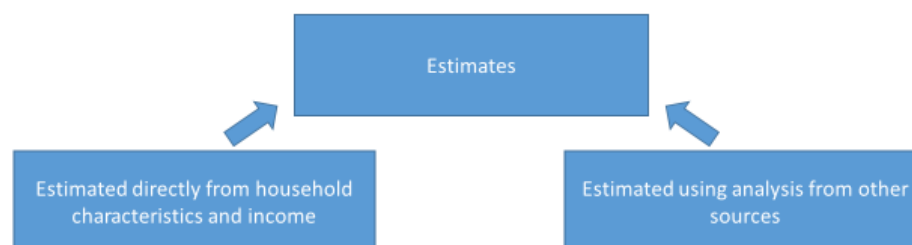
Statistics Jersey

Estimating receipts and expenditure

Basis of estimates



Two main approaches to producing estimates:



Examples:

- Income tax allowances
- Social security contributions and supplementation
- Income support

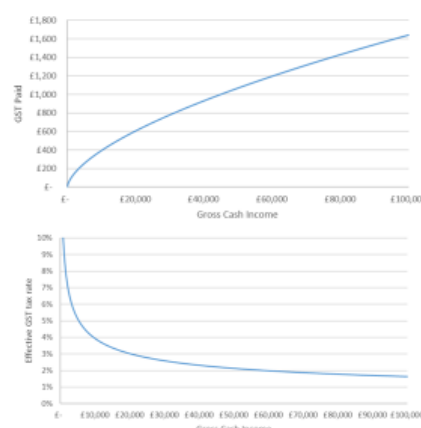
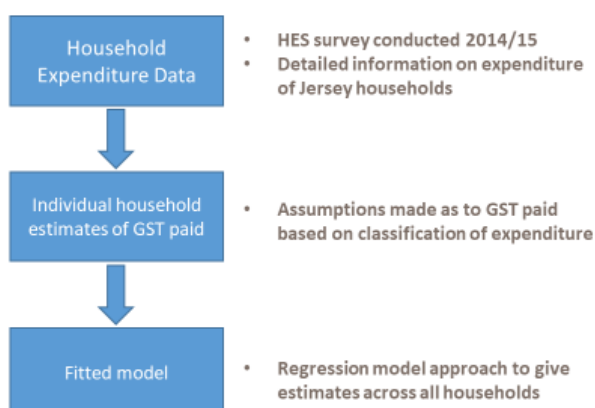
Examples:

- GST
- Impôts
- Income tax relief

Statistics Jersey

Estimating receipts and expenditure

Example of approach from other sources



Statistics Jersey

Estimating receipts and expenditure

Important caveats



- Estimates are for households that contain at least one adult working for an employer.
- Estimates represent broad averages across all households that fulfil the input criteria. Therefore will not be representative of a household's specific circumstances.
- Estimates are dependent on the specific assumptions used - these assumptions can be varied.
- Point in time analysis – based on 2018 rates, allowances etc.
- Should be considered a starting point for further analysis and policy discussion.

Statistics Jersey

Estimating receipts and expenditure

Examples of estimates



Primary outputs consist of a series of tables for example households. These tables provide estimates for:

- Household outflows / expenditure to government
- Estimated receipts (general revenue and funds)
- Estimated expenditure on households
- Overall tax-balance



Statistics Jersey

Estimating receipts and expenditure

Estimates



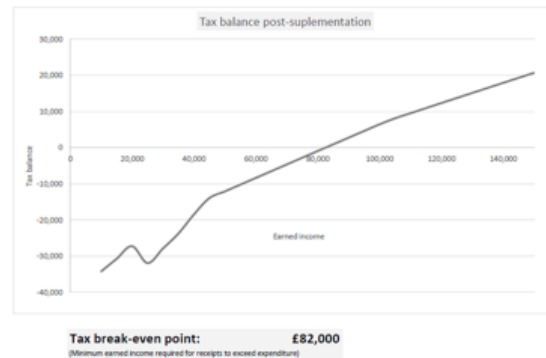
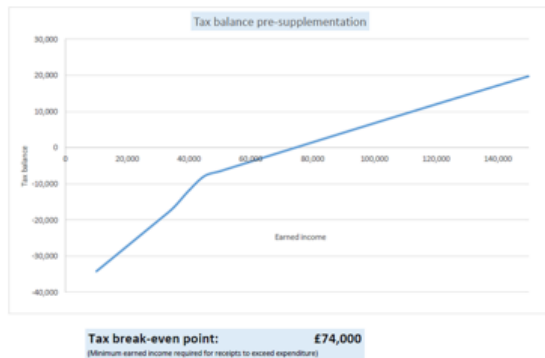
Income Earned income	Estimated receipts from household				Estimated tax-funded expenditure on household				Tax balance		Supplementation	Tax balance
	Tax receipts	SS fund	Health fund	LTC fund	Education	Health	Income support	Other costs	Pre-supplementation		Social Security	Post-supplementation
10,000	1,958	520	80	0	6,987	4,751	22,464	1,980	-34,224		0	-34,224
15,000	1,981	780	120	0	6,969	4,751	19,014	1,980	-30,733		0	-30,733
20,000	2,004	1,040	160	0	6,942	4,751	15,564	1,980	-27,233		0	-27,233
25,000	2,026	1,300	200	0	6,907	4,751	12,114	1,980	-23,725	8,186		-31,911
30,000	2,049	1,560	240	0	6,863	4,751	8,664	1,980	-20,210	7,061		-27,870
35,000	2,168	1,820	280	5	6,812	4,751	5,214	1,980	-16,589	7,136		-23,724
40,000	3,405	2,080	320	66	6,754	4,751	1,764	1,980	-11,844	6,611		-18,455
45,000	4,659	2,340	360	126	5,790	4,751	0	1,980	-7,862	6,086		-13,948
50,000	5,931	2,600	400	186	5,721	4,751	0	1,980	-6,521	5,561		-12,082
55,000	7,197	2,860	440	246	5,647	4,751	0	1,980	-5,182	5,036		-10,217
60,000	8,458	3,120	480	306	5,571	4,751	0	1,980	-3,844	4,511		-8,355
65,000	9,715	3,380	520	366	5,492	4,751	0	1,980	-2,508	3,986		-6,494
70,000	10,968	3,640	560	425	5,412	4,751	0	1,980	-1,175	3,461		-4,635
75,000	12,219	3,900	600	485	5,332	4,751	0	1,980	157	2,936		-2,779
80,000	13,468	4,160	640	544	5,252	4,751	0	1,980	1,485	2,411		-925
85,000	14,715	4,420	680	604	5,172	4,751	0	1,980	2,812	1,886		936
90,000	15,961	4,680	720	663	5,095	4,751	0	1,980	4,135	1,361		2,774
95,000	17,205	4,940	760	723	5,019	4,751	0	1,980	5,455	836		4,619
100,000	18,449	5,200	800	782	4,945	4,751	0	1,980	6,773	311		6,462
105,000	19,692	5,354	824	841	4,874	4,751	0	1,980	8,087	-41		8,128
110,000	20,934	5,354	824	901	4,805	4,751	0	1,980	9,398	-141		9,539
115,000	22,177	5,354	824	960	4,740	4,751	0	1,980	10,706	-241		10,947
120,000	23,419	5,354	824	1,020	4,677	4,751	0	1,980	12,011	-341		12,352
125,000	24,661	5,354	824	1,080	4,617	4,751	0	1,980	13,313	-441		13,754
130,000	25,903	5,354	824	1,139	4,559	4,751	0	1,980	14,612	-541		15,153
135,000	27,145	5,354	824	1,199	4,505	4,751	0	1,980	15,909	-641		16,549
140,000	28,387	5,354	824	1,258	4,453	4,751	0	1,980	17,202	-741		17,943
145,000	29,629	5,354	824	1,318	4,404	4,751	0	1,980	18,493	-841		19,334
150,000	30,871	5,354	824	1,378	4,358	4,751	0	1,980	19,782	-941		20,723

Couple, both working, 1 child, 5 year resident

Statistics Jersey

Estimating receipts and expenditure

Tax-balances

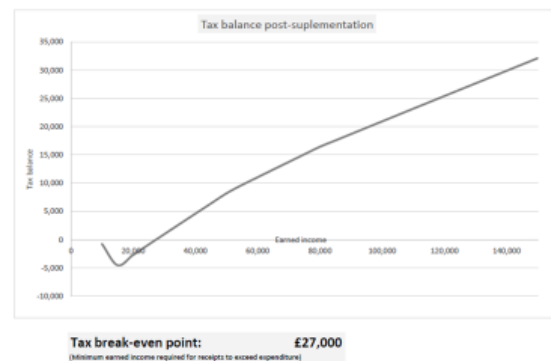
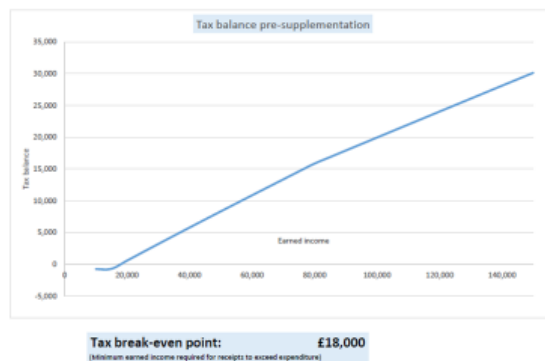


Couple, both working, 1 child, 5 year resident

Statistics Jersey

Estimating receipts and expenditure

Tax-balances



Single adult, recent arrival

Statistics Jersey

Estimating receipts and expenditure

Potential applications



Outputs should be considered a starting point for further analysis and policy discussion.

Can vary which elements included, which not and also changes in rates, assumptions etc.

Some examples of potential applications:

- Overall tax / contribution rates
- Estimates of “take-home” pay
- Applying to model income distributions

Statistics Jersey

Estimating receipts and expenditure

Overall tax / contribution rates



Concept of total effective tax / contribution rate experienced by a household.

Average rate at which a household's earned income is subject to a tax / charge.

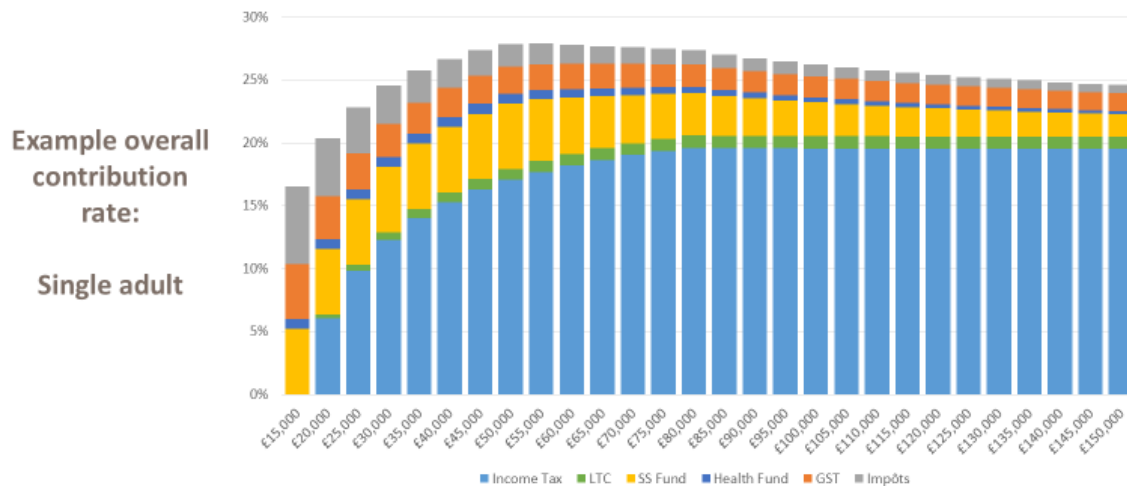
This example includes:

- Personal income tax
- GST
- Impôts
- Social security and health insurance employee contributions
- LTC contributions

Statistics Jersey

Estimating receipts and expenditure

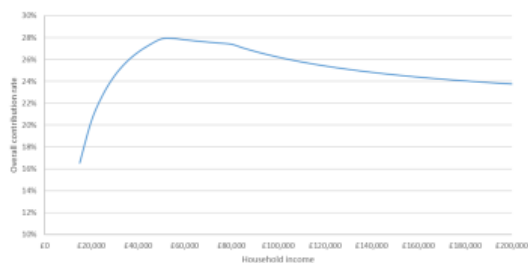
Overall tax / contribution rates



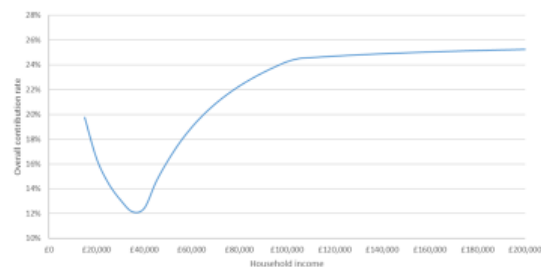
Statistics Jersey

Estimating receipts and expenditure

Overall tax / contribution rates



Single adult



Married couple, both working, two children

Statistics Jersey

Estimating receipts and expenditure

"Take-home" pay



Using as an example:

Includes

- Earned income
- Income support

Less

- Income tax
- Social security employee contributions
- Long-term care charge



Single adult, 5 year resident

Statistics Jersey

Estimating receipts and expenditure

"Take-home" pay



Using as an example:

Includes

- Earned income
- Income support

Less

- Income tax
- Social security employee contributions
- Long-term care charge



Married couple, 50/50 income split, no children, 5 year resident

Statistics Jersey

Estimating receipts and expenditure

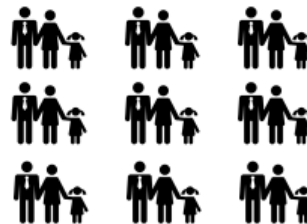
Applying to model income distributions



Work primarily focused
on looking at an
individual household



Can be extended to look
at multiple households
in the aggregate



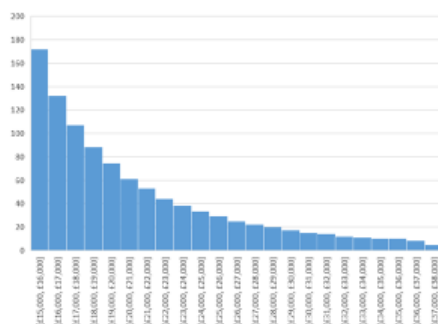
Statistics Jersey

Estimating receipts and expenditure

Applying to model income distributions

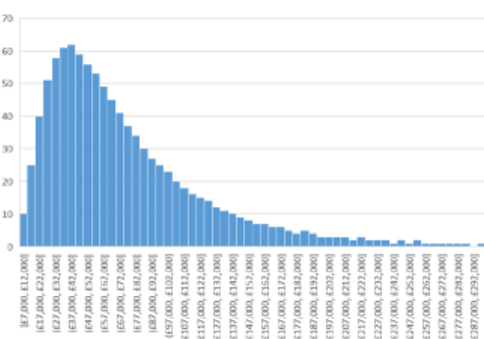


Need an income distribution: Can use a model or can empirically derive



Pareto distribution:

- Full-time workers
- Minimum salary level



Log-normal distribution:

- More suited for general population models

Statistics Jersey

Estimating receipts and expenditure

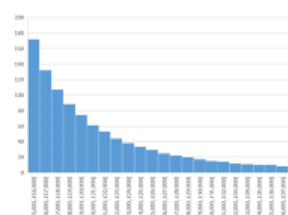
Example full-time worker models



Minimum earnings = £15,000
Mean earnings = £21,000

(Alpha = 2.5)

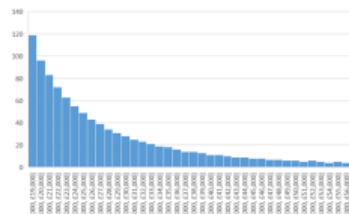
Income tax receipts	£1,408,000
GST	£616,000
Impôts	£937,000
Total tax receipts	£2,962,000
Education expenditure	Zero
Health expenditure *	£1,215,000
"Other" expenditure	£660,000
Total expenditure	£1,875,000
Net tax balance pre supplementation	£1,087,000
Supplementation	£3,220,000
Net tax balance post supplementation	-(£2,133,000)



Minimum earnings = £18,000
Mean earnings = £27,000

(Alpha = 2.0)

Income tax receipts	£3,023,000
GST	£727,000
Impôts	£923,000
Total tax receipts	£4,673,000
Education expenditure	Zero
Health expenditure *	£1,215,000
"Other" expenditure	£660,000
Total expenditure	£1,875,000
Net tax balance pre supplementation	£2,798,000
Supplementation	£2,517,000
Net tax balance post supplementation	£261,000



Statistics Jersey

Estimating receipts and expenditure

Applying to model income distributions



Final points

- Same caveats apply to distributions as to the individual household estimates
- Distributions shown are examples, different scenarios can be explored by varying the parameters of the distribution in the same way as varying the assumptions for the household estimates
- Should be considered a starting point for further analysis and policy discussion.

Statistics Jersey

Estimating receipts and expenditure

Questions



Any Questions?



Statistics Jersey

Migration Policy Development Board



Appendix 7:

Background report - Estimating government receipts and expenditure from Jersey households

Statistics Jersey

Estimating government receipts and expenditure for Jersey households

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Introduction

This report provides estimates of the level of government receipts and expenditure to and from individual Jersey households. These estimates are based on very broad household information consisting of the household type (number of adults and children) and the level of household income¹. We are specifically considering households that contain at least one working adult.

These estimates represent anticipated average levels of government receipts and expenditure from model households and will not reflect a household's specific circumstances.

For the purposes of receipts, we are considering:

- Personal income tax
- Goods and Services Tax (GST)
- Impôts (excise duty)

Excluded from the receipts calculations are:

- Company income tax
- GST payable by companies which includes International Service Entities (ISE)
- Stamp duty
- Island-wide rates
- "Other income"

Stamp duty and Island-wide rates collectively total approximately £50 million of tax revenue received per year and the majority of this revenue is likely to be derived from Jersey households. At this stage, due to the nature of how these receipts occur (particularly in respect of stamp duty) we have not attempted to provide estimates for these items, however they could be the subject of subsequent work. These receipts equate on average to approximately £1,100 per Jersey household per year.

In respect of government expenditure, specific consideration is given to that which provides the main areas of tax-funded services directly to an individual or household. These are:

- Health
- Education
- Income support

An allowance for "other" States expenditure is also included, to reflect, on some level, services not included above but which could still be considered as being directly funded from individual households.

In addition to the above items, which focus on general States of Jersey revenue and expenditure, consideration is also given to the receipts received in respect of the main ring-fenced funds, namely:

- Social security
- Health insurance
- Long-term care

These items represent a significant level of receipts from Jersey households and estimates for receipts into these funds have been included to assist in the presentation of the overall context and also to facilitate additional future work. We have not considered estimated expenditure from these funds at this time, but again this could be the subject of future work.

The current commitment of the States to make an annual contribution into the Social Security Fund (often referred to as “supplementation”) is also considered. While this does not represent either government receipts or expenditure to / from a household, it does have an important impact as to the balance of funds that are ultimately available either as general tax revenue, or within a ring-fenced fund.

The combination of receipts and expenditure allows for the estimate of a net tax balance at an individual household level which is the primary measure presented in the outputs, both before and after the impact of supplementation. This measure should however be viewed as a starting point for further analysis and policy discussion as it is intended that the findings of this report and associated modelling serve as a useful tool for future exploratory work, rather than being viewed as a final outcome.

General assumptions and limitations

The intention of this report is to consider government receipts and expenditure from a very broad category of Jersey households based on a limited set of criteria / inputs. The only inputs considered in this initial report are as follows:

- Number of working age adults in the household
- Number of (school age) children in the household
- Total household earned income
- Income split (if more than one adult is working)
- If the household is entitled to receive income support

The key advantage of restricting the number of inputs in this way is that it allows for relatively easy interpretation of the final estimates and measures which are broadly reflective of a large number of households. However, restricting the inputs in this way does introduce a number of limitations into the estimates. By necessity, the outputs of the completed modelling will be very broad averages and therefore not reflective of any particular household's individual circumstances.

For example, the approach used to model if a child attends a fee-paying or non-fee-paying school is based on a probability, where the probability of that child attending a fee-paying school is estimated based on the level of household income. This results in a gradual change in education expenditure as household income changes. In reality that child will either be in fee-paying education or not, and therefore these modelled intervening states do not reflect actual expenditure for a particular child, but instead an average estimate of expenditure across all households that meet those criteria.

More complex models can also be produced, which, through the use of additional inputs, can better reflect household's individual circumstances. Additional areas that could be explored in future include:

- Tenure, such as owner occupier, private rental, social rental
- A more granular age breakdown of both children and adults
- Specific inputs, e.g. if a child attends a fee-paying school, or if a household pays into a pension

These more complex models can provide better quality overall estimates and also areas for further exploration, but are reliant on having more detailed information available if considering these estimates on a wider population level.

In order to estimate many of the components that are required for subsequent calculations, additional analysis has been conducted on the results of the 2014/15 Jersey Household Expenditure Survey (HES)². This analysis has primarily been conducted using regression analysis³ techniques and based around the above inputs being used as independent variables. Regression techniques are subject to limitations, especially around the final choice of functional form, which can result in erroneous estimates around the extreme tails of a distribution (where there is usually limited data available in order to provide such estimates). Estimates in this report therefore do not consider extremely low (below £5,000) or extremely high levels of income, and care should be taken with any subsequent analysis in these areas.

Finally, the estimates produced have been based on households which contain at least one adult working for an employer. These estimates have not been designed to represent unemployed, self-employed or pensioner households, although these could be the subject of future work.

Personal income tax

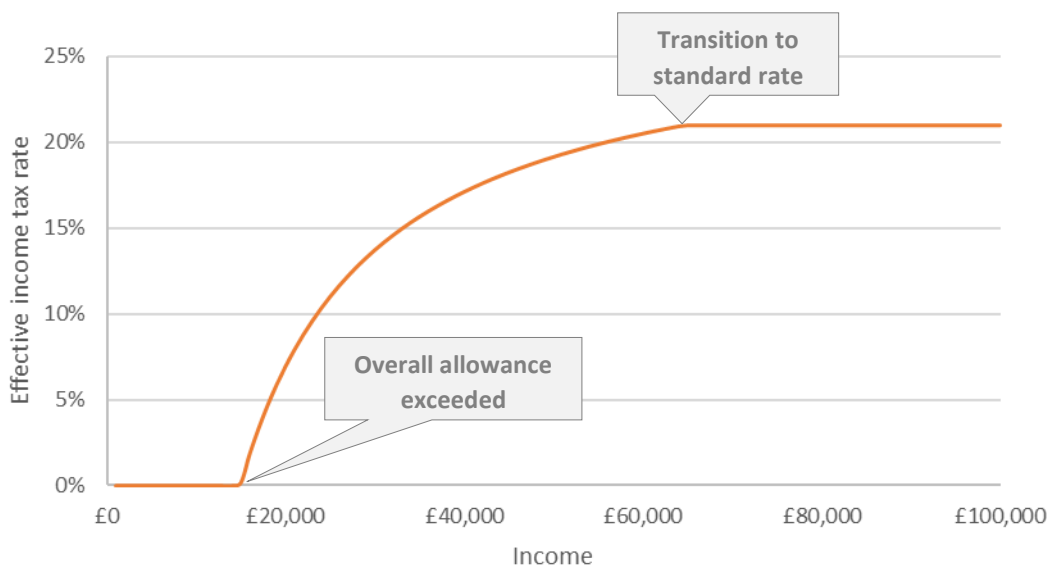
Personal income tax represents the single largest element of revenue received by the States of Jersey, equating to over £400 million in revenue in 2017. This represents over half of the total general revenue received by the government.

The amount of personal income tax payable by a household in Jersey is the lower of two distinct calculations, the first being the 20% or “standard” rate of tax and the second being the 26% or “marginal” rate of tax. The marginal rate allows for a number of exemptions which results in those households with the lowest income paying no tax, and a progressive rate of tax applying as levels of income increase. The standard rate of tax has much fewer allowances (this was reduced significantly as a result of the “20 means 20” policy) and therefore generally is applied to those households receiving a higher income.

In addition to the personal income tax system, Jersey also has a Long Term Care (LTC) scheme which is collected via the same system as income tax. The contribution for this scheme is based on the household’s total income, but takes into account the allowances and reliefs that are available under the income tax system. There is also a cap on the maximum amount payable under this contribution scheme. For the purposes of this report the calculation of the LTC amounts has been incorporated into the calculations for personal income tax but the resulting receipts are shown separately in the outputs.

The figure below illustrates the effective rate of personal income tax for an example (single person) household.

Figure 1 Effective personal income tax rate (including LTC)



As illustrated above, the nature of the Jersey personal tax system is that a household will generally pay no personal income tax up to the level of their overall allowance, and then a progressively higher rate of tax until it transfers from the marginal to the standard rate.

In respect of modelling estimated tax receipts from individual households, the nature of the system means that provided household characteristics and income is known, estimated tax receipts can be calculated directly from this information. Levels of personal income tax (including LTC) have therefore been calculated based on information supplied by the income tax policy department and are based on the 2018 allowances.

Assumptions

For the purposes of this report the following assumptions have been used in order to provide estimates of expected income tax receipts from example households:

- expenses allowance (ignoring pensions, see below) are assumed to be zero
- all couples are assumed to be married
- all children are assumed to fall within the “lower” children group in respect of allowances
- single parents are assumed to claim Additional Personal Allowance (APA)
- Child Care Tax Relief (CCTR) is assumed to be £590 per child (this is the average amount claimed per child obtained from tax data)
- where the household structure includes a couple, different assumptions can be made on the split of income and these are detailed in the individual scenarios (for reference purposes, the average split of income as recorded by the tax office is approximately 70%/30% overall or alternatively 60%/40% if only looking at married couples where both parties are working)

It is important to note that changes to these assumptions can have a substantial impact on the estimates of personal income tax revenue. In particular the Jersey income tax system treats unmarried couples very differently to married ones, with unmarried couples assessed separately for tax purposes, while married couples are generally treated as a single tax entity. In addition individual household circumstances can have a significant impact on reliefs such as CCTR.

Private pension tax relief

Under the Jersey tax system there is a relief available in respect of payments into an approved private pension fund. A large number of Jersey taxpayers receive this relief (just over 15,000 in 2016, equating to around £11 million of relief), often via payments through an employer organised pension scheme. This relief is an available deductible for both standard and marginal rate tax payers.

In order to provide an input across all households, pension payments has been estimated from analysis of HES data using a mixed model⁴ approach, with the resultant final model being as follows:

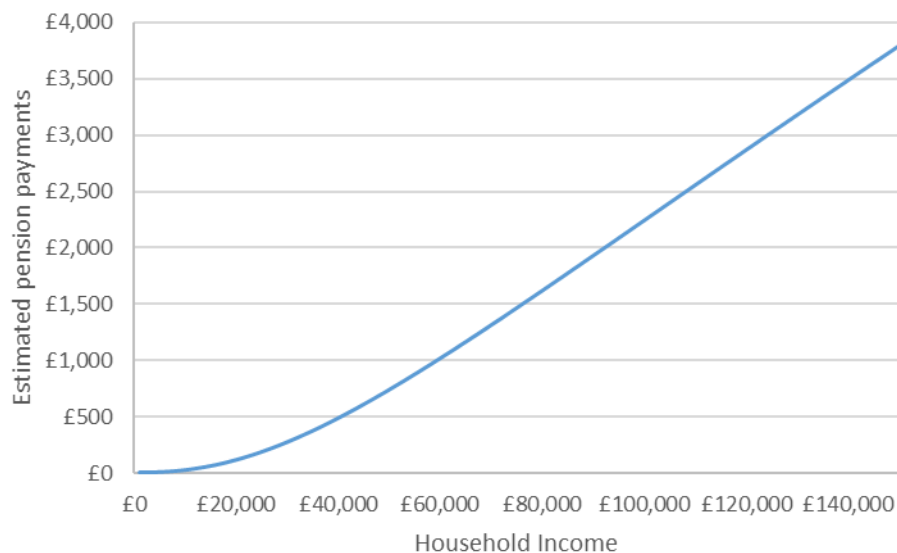
$$Pension = \exp(-1.950 + 0.875\text{Log}_e(\text{Income})) * \frac{\exp(-17.398 + 1.571\text{Log}_e(\text{Income}))}{1 + \exp(-17.398 + 1.571\text{Log}_e(\text{Income}))}$$

These estimates are illustrated in the figures below, with the first figure showing the probability of a household making payments into a private pension and the second, the overall resultant estimate.

Figure 2 Probability of paying into pension scheme



Figure 3 Estimated pension payments



Interest tax relief

An additional relief available under the Jersey tax system is for loan interest payments payable for the:

- purchase / extension of a main residence
- purchase / extension of a commercially let property
- purchase of machinery and plant
- acquisition of a trade, partnership share or trading company

For the majority of households, this relief is typically claimed on the mortgage interest for their main residence. This relief is gradually being phased out and will be completely abolished by 2026. At present it still however represents a substantive factor in estimating tax receipts from households (in 2016 some 9,000 tax payers claimed this relief, equating to around £11 million of total relief). The

relief works as a deduction against income for those households subject to the marginal rate, and is capped at a maximum limit.

In order to provide an input across all households, mortgage interest has been estimated from analysis of HES data using a mixed model approach, with the resultant final model being as follows:

$$Interest = (4,436 + 0.03702(Income)) * \frac{\exp(-19.697 + 1.717(Income))}{1 + \exp(-19.697 + 1.717(Income))}$$

These estimates are illustrated in the figures below, with the first figure showing the probability of a household making mortgage interest payments and the second the overall resultant estimate.

Figure 4 Probability of making mortgage interest payments



Figure 5 Estimated mortgage interest payments



As expected, lower income levels households have a very low probability of being owner occupiers and thus generally do not benefit materially from the presence of this relief. At higher incomes, where

both the probability and expectant payments increase, this becomes a more substantive relief (where the household is still subject to the marginal rate of tax).

It is important to note that this approach does not reflect the reality experienced by individual households, but rather that experienced as aggregated across the population. In reality, a household will either be paying a mortgage and subject to this relief, or not. An alternative approach would be to include a factor such as tenure, or explicit mortgage payments within the inputs, which would provide a more granular breakdown and reflect those specific household's circumstances better.

Allowances and rates

The table below details the allowances and rates used for the purposes of the estimates produced in this report, which are based on the values used in 2018:

Table 1: Personal income tax allowances and rates

Standard rate

Lower child allowance	0
Higher child allowance	£6,000
Additional personal allowance	0

Tax rate	20%
LTC rate	1%

Marginal rate

Single threshold	£14,900
Married threshold	£23,950
Second earner	£5,850

Marginal lower child allowance	£3,000
Marginal higher child allowance	£9,000

Marginal additional personal allowance	£4,500
Marginal child care tax relief	£16,000
Maximum interest paid	£12,000

Marginal tax rate	26%
Marginal LTC Rate	1.3%

LTC threshold	£170,256
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Goods and services tax

Jersey introduced a Goods and Services Tax (GST) in 2008, initially at a rate of 3% and subsequently increased to 5%. GST is an indirect consumption tax placed on goods and services and based on the value of the product sold. In 2017 total GST receipts totalled around £88 million (although not all of this will have been collected from Jersey households).

In order to analyse this tax, and to provide a mechanism of modelling expected GST receipts from households, we have conducted an analysis on data from the 2014/15 HES.

Assumptions

In order to model the amount of GST collected from households we have made assumptions about the proportion of household expenditure that would be subject to GST. These assumptions are based around the classification system used in the HES⁸.

For the purposes of estimating GST expenditure, each category of expenditure (to a 3-digit level) was further classified into expenditure that would be expected to be subject to GST and those that would not. Full details of this breakdown are shown in the table below:

Table 2: Classification of expenditure for GST purposes

HES classification group	Subject to GST	Not subject to GST
1. Food & non-alcoholic drinks	X	
2. Alcoholic drinks & tobacco	X	
3. Clothing & footwear	X	
4.1 Net rent paid		X
4.2 - 4.6 Household fuel & power	X	
4.7 House purchase costs		X
4.8 Rates		X
4. Mortgage endowment payments		X
5. Household goods & services	X	
6.1 Pharmacy & other medical products	X	
6.2 – 6.4 Doctors, dentists & opticians		X
6.5 Other medical related services	X	
7.1 – 7.2 Transport	X	

⁸ This broadly follows the Classification of Individual Consumption by Purpose (COICOP) used internationally, and expanded to include some additional household-related expenditure items. See Appendix A of the HES report for full details of this classification system.

7.3.1 – 7.3.2 Bus, coach and taxi fares	X	
7.3.3 Travel by air		X
7.3.4 – 7.3.5 Travel by sea & other travel & transport	X	
8.1 Postal services		X
8.2 – 8.3 Communication	X	
9.1 - 9.5 Recreation & culture	X	
9.6 Package holidays (including cruises)		X
10.1 – 10.2 School and higher education fees		X
10.3 Other education costs	X	
11. Restaurants & hotels	X	
12.1 – 12.2 Personal care & personal effects	X	
12.3 Home care		X
12.4 Nursery, crèche & childcare		X
12.5 Insurance		X
12.6.1 Bank, building society, post office & credit card charges		X
12.6.2 Other services & professional fees	X	
13.1 Capital improvements, main dwelling	X	
13.2 Licenses fine and other non-consumption expenditure		X
13.3 Charitable donations and subscriptions		X

Based on this breakdown, for an average Jersey household it is estimated that expenditure on GST will comprise 3.2% of their total expenditure (£25.48 of £806.20) or 2.4% of their gross cash income (£25.48 of £1,053).

GST model

Following some exploratory analysis, for the purposes of estimating household payments of GST, a linear modelling approach utilising natural logarithmic transforms has been preferred. This has been fitted using data from the 2014/15 HES with the final model being:

$$\text{Log}_e(\text{GST Expenditure}) = 0.28346 + 0.61828\text{Log}_e(\text{Gross Cash Income})$$

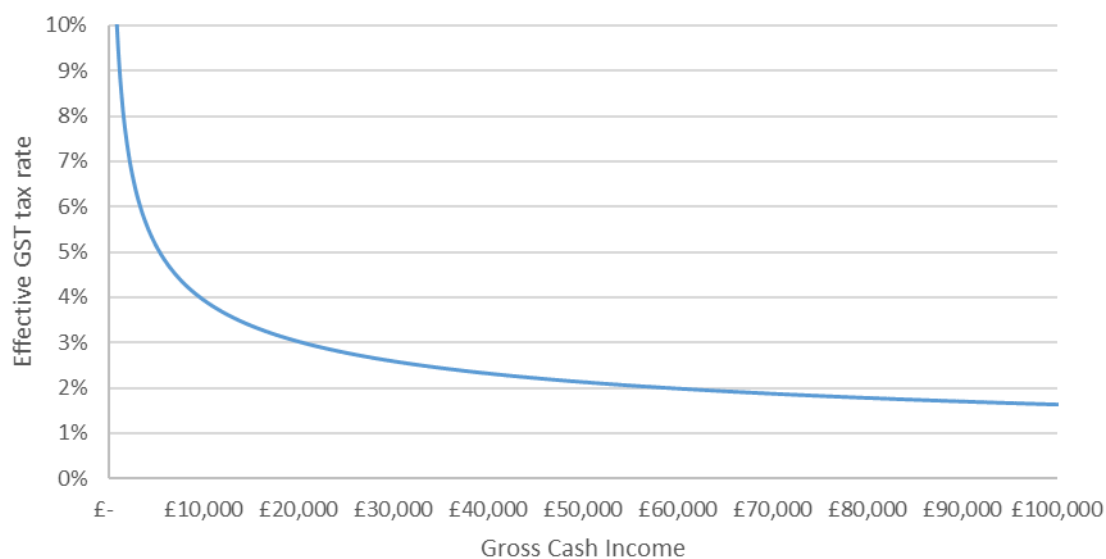
This model uses gross cash income⁵ as the input rather than earned income.

The figures below illustrate this model, plotting both GST expenditure by income, and the effective GST rate (GST paid / gross cash income).

Figure 6: Estimated GST paid against household income



Figure 7: Estimated effective tax rate of GST



It is worthy of comment that at relatively low income levels, the effective GST rate exceeds 5% (the actual current GST rate). As observed in the HES, within these low-income households groups are a number where household expenditure exceeds household income. It is assumed that these households will be utilising funds derived not from current income (i.e. savings) in order to fund this expenditure. The focus of this report is, however, on households that contain at least one full time worker, and therefore this lower part of the distribution is not considered.

Impôts (excise) duty

The States of Jersey receive almost £60 million a year in Impôts (or excise duty). Impôts consists of indirect taxation on the following specified goods:

- alcoholic beverages
- tobacco
- hydrocarbon oil (principally road fuel)

In each case, the charge is applied based on specified volumes, rather than price, which creates some additional complications when attempting to estimate tax receipts from these items.

In respect of duty collected from tobacco and hydrocarbon oils we have conducted an analysis on data from the 2014/15 HES combined with data collected as part of the production of the Jersey Retail Price Index in order to provide estimates of household expenditure on these taxes based on household income.

In respect of alcohol a different approach has been preferred.

Alcohol

Alcohol provides a challenge in estimating excise duty receipts from expenditure related data. This is largely due to excise duty being charged based on volumes rather than being related to price. A £5 bottle of wine would attract the same duty charge as a £50 bottle of wine, and there are substantial variations in price between products compared to the amount of excise duty they would attract.

There is quite a substantial volume of literature concerning the potential relationship between household income and volume of alcohol consumed, and the conclusions on this subject are far from definitive. What is clear is that if such a relationship does exist, the impact on average household consumption from changes in income will be comparatively small. Other factors will have a much greater impact than household income, and therefore for the purposes of this study it will be assumed that the volume of alcohol consumed will be solely dependent on the number of adults in the household (i.e. fixed alcohol consumption per adult population).

On a per-unit of alcohol basis, the charging of Impôts in Jersey is independent of where that alcohol is served (whether sold from off-licence shops or on licenced premises). In addition whilst there is some variation between the types of alcohol that are consumed by differing income groups, this can largely be ignored when considered on an overall basis. This is primarily due to only minor differences occurring between the amount charged per unit of alcohol on beer and wine (where consumption does vary between income groups). Whilst the amount charged per unit of spirits is substantially higher than other types of alcohol, this particular item of expenditure has the smallest variation between different income groups.

Based on the above assumptions and data from Customs concerning the levels of different alcohol duty collected (wines, spirits and beer etc.) it is assumed that receipts in respect of alcohol will be estimated at a fixed amount of £230 per adult in the household.

Tobacco and road fuel

Tobacco and road fuel do not have the same challenges as alcohol in respect of estimating consumption based on expenditure data. This is because the differentials in price between items is substantially smaller than is the case with alcohol. As a result, in order to estimate Impôts receipts from these items an analysis of spending data from the 2014/15 HES survey has been conducted. Due to the specific nature of these items and the way Impôts are charged this does however require certain specific treatments / adjustments.

Under-reporting and Impôts changes adjustments

It is acknowledged within the HES survey that spending on tobacco (and certain other items) is typically under-reported and therefore the raw HES data understates the level of expenditure on these items. This is a known issue and this is already adjusted for in respect of certain other Statistics Jersey publications (such as the weights used in the Jersey RPI). To accomplish this, the level of expenditure for households is adjusted upwards based on the known quantity of tobacco actually sold in the Island (from Impôts data).

In addition, the actual rates of Impôts have increased since the time of the 2014/2015 and a further adjustment is required in order to account for that change. These adjustments have been made to the original dataset prior to any analysis being conducted.

Tobacco model

In respect of tobacco products a mixed model approach has been preferred and the resultant fitted coefficients are detailed in the table below:

Table 3 Coefficients for regression models

	Logistical regression model		Linear regression model	
	Intercept	Slope	Intercept	Slope
Cigarettes	0.17391	-0.06161	10.4093	-0.3364
Cigars and other tobacco products	-0.947	-0.2096	7.9766	-0.1952

In a similar way to the model for GST, these models uses gross cash income rather than household earned income. These models are illustrated in the charts shown below.

Figure 8 Impôts receipts from cigarettes

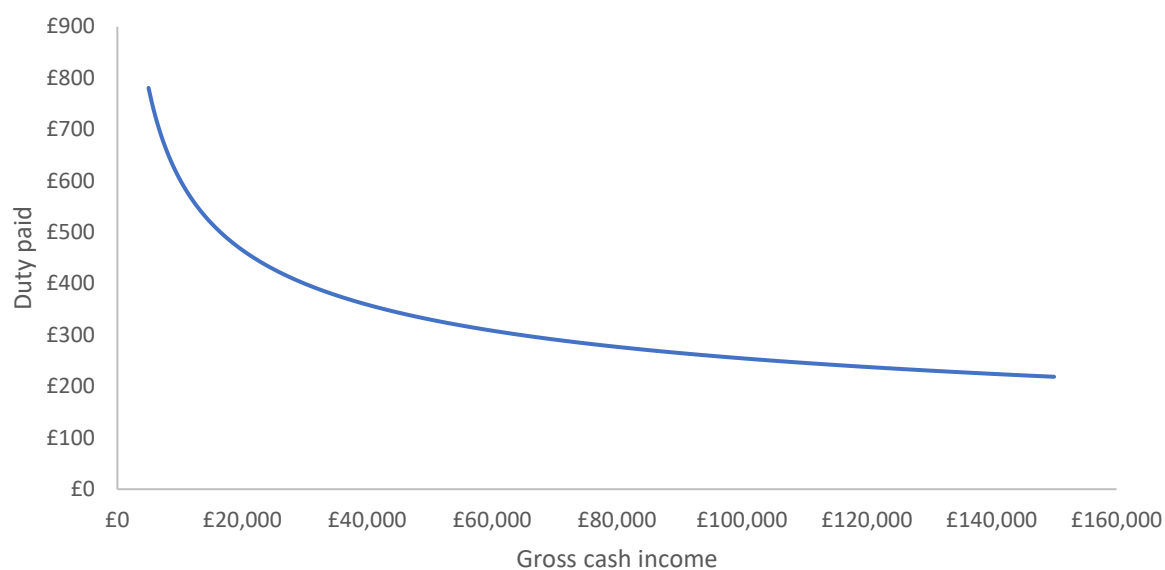
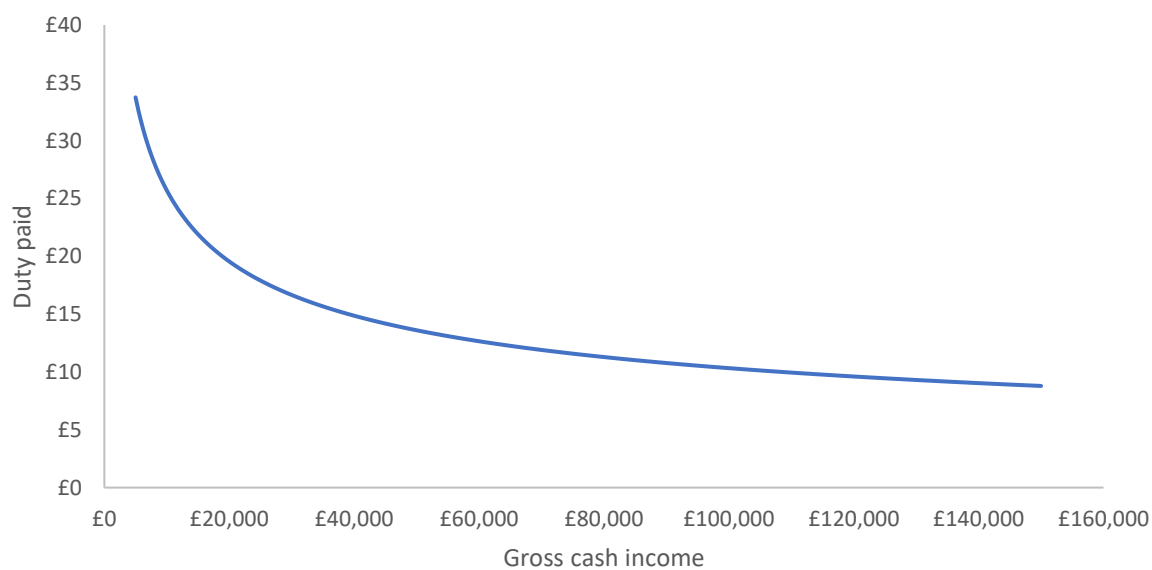


Figure 9 Impôts receipts from cigars and other tobacco products



As reported in the HES, lower income households, on average, spend more on tobacco products than those on higher incomes and this is reflected in the estimates of receipts from those households shown above.

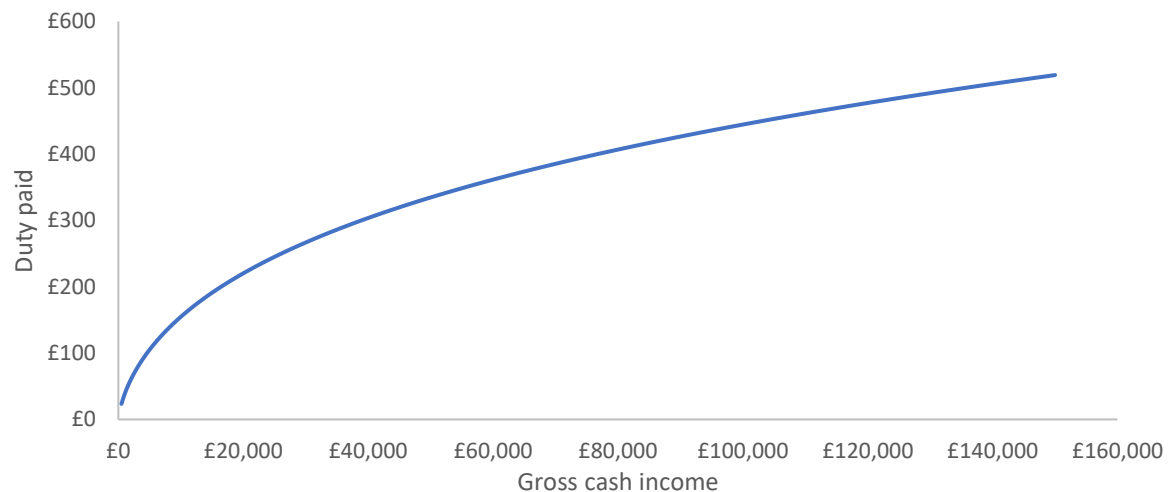
Road fuel model

The road fuel model again uses a mixed model approach based on gross cash income. The resultant coefficients and a chart illustrating the results are shown below:

Table 4 Coefficients for regression models

	Logistical regression model		Linear regression model	
	Intercept	Slope	Intercept	Slope
Road Fuel	-4.824	0.528	3.18444	0.27478

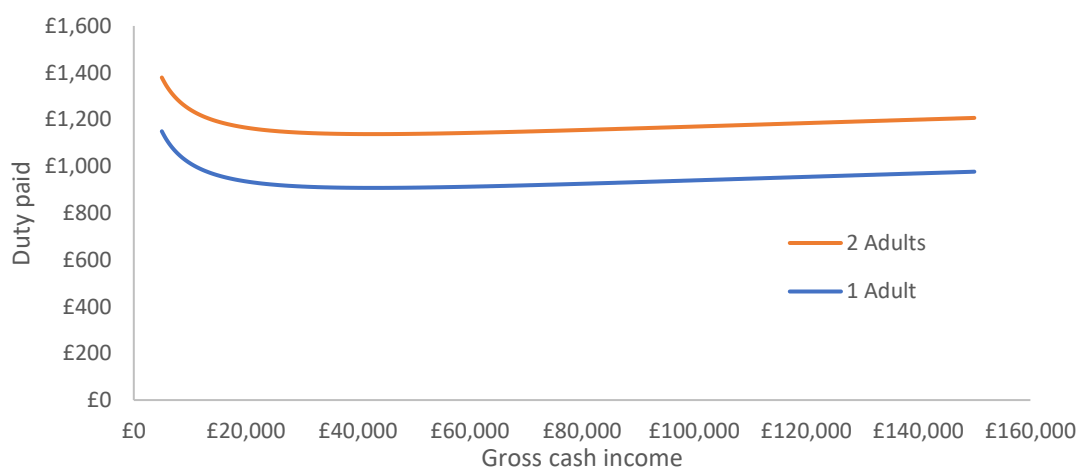
Figure 10 Impôts receipts from road fuels



Combined Impôts model

Combining the above models results in an estimate for total receipts from Impôts based on a combination of household income and number of adults in the household. These estimates are illustrated below:

Table 5 Estimated Impôts receipts



The final model is broadly independent of income, due to the combination of tobacco (higher receipts from low-income households) and road fuel (higher receipts from high-income households).

Social security / health insurance contributions and supplementation

Jersey operates a social security contribution system, which provides a range of social benefits to Islanders. These primarily include the provision of old age pensions, incapacity allowances and contributions to primary costs, but also includes a number of other benefits. These are primarily administered by way of two ring-fenced funds, the Social Security Fund and the Health Insurance Fund.

These funds derive the majority of their income via the social security contribution system, with the majority of working adults paying class 1 social security contributions. Class 1 social security contributions consists of two distinct elements:

- employee contributions – which are paid by the employee and based on and paid out of their gross earnings
- employer contributions – which are paid by the employer and based on the employee's gross earnings

There is a further class 2 contribution mechanism, which is payable if the individual is:

- self-employed
- unemployed
- earning below the lower earnings limit
- working less than eight hours per week
- studying
- bringing up a family

Many such individuals are however able to access low-income contribution relief, which excuses that individual from paying class 2 contributions (at the expense of some future benefit provisions). There are also a number of contribution credit options available for those in particular circumstances (such as being unable to work due to sickness or injury, students in full time education and stay at home parents). As a result, the majority of class 2 contributions comes from self-employed individuals. Approximately 9% of all social security contributions comes from class 2 contributions.

As well as social security contributions, the Social Security Fund (but not the Health Insurance Fund) receives income from general tax revenue through an annual grant ("supplementation").

For the purposes of this report, the primary interest is in respect of households that will be contributing class 1 contributions and also any supplementation that may apply.

Employee contributions

Employee contributions are calculated based on a percentage (the employee contribution rate, currently 6%) of gross earnings. The total amount of gross earnings that this applies to is capped with reference to the standard earnings limit. Any earnings that exceed this limit are ignored in this calculation (effectively capping the total contributions at 6% of this limit).

Employer contributions

Employer contributions are calculated based on two different rates:

- For gross earnings up to a maximum of the standard earnings limit the employer standard contribution rate applies (6.5%).
- For gross earnings above the standard earnings limit and below the upper earnings limit the employer upper contribution rate applies (2%).

Any earnings that exceed the upper earnings limit are ignored in respect of this calculation, effectively providing an upper cap to the employer contributions.

Supplementation

Class 1 and class 2 contributors with earnings below the standard earnings limit in a given month, but above the lower earnings limit receive a full contribution record for that month. For this group, the Social Security Fund receives a monthly contribution from employee and employer that is below the maximum amount. To maintain income into the Fund at an agreed level, historically the States has provided a “top-up” supplement to bring the total income received to the maximum as set by the Standard earnings limit. This process is often referred to as “supplementation” and it protects the total income paid into the Fund each year. This process applies only to the Social Security Fund, which receives a contribution of 10.5%. The remaining 2% is paid into the Health Insurance Fund which does not receive any direct States funding.

Historically the value of the States grant was based on the exact cost of supplementation for the year in question. The introduction of an additional 2% upper contribution rate from 2012 reduced the size of the grant needed from the States as extra income is now paid into the Fund from the employers of higher-earning workers. Since 2012, the value of the grant has been reduced in line with these extra contributions received.

Since 2015 the actual grant provided by the States has been fixed over the course of the most recent Medium Term Financial Plan (MTFP). This has resulted in a reduction in overall income to the Social Security Fund when measured against the theoretical income that would be derived from the principle of collecting a standard contribution from each insured person.

For the purposes of this report, we treat supplementation as follows:

- For an individual whose combined social security employer and employee contributions (excluding contributions to the health insurance fund) fall below the 10.5% level of the standard earnings limit, supplementation is assumed to address the shortfall of this balance. This results in a debit showing for the balance of tax income, and a corresponding credit would be noted for the total Social Security Fund income.
- For an individual who earns above the standard earnings limit, a credit is shown at the upper contribution rate for tax income, and a corresponding debit for the Social Security Fund. This reflects the fact that while the money is collected via the social security contribution scheme, this does not increase the overall value of the social security fund but rather reduces the amount of money the States needs to contribute to it by way of the grant.

The above approach reflects the historical principle within the Social Security Fund that the Fund receives a standard amount per contributing worker. This approach overstates the actual current monetary flows between tax revenue and the Social Security Fund, and should be viewed as modelling the flows sufficient to maintain social security income at the level commensurate with the standard earnings limit.

Limits and rates

Social security contributions and supplementation are calculated based on the 2018 Social Security rates and limits:

Table 6 Social Security rates and limits

Standard earnings limit (monthly)	£4,290
Upper earnings limit (monthly)	£14,188
Lower earnings limit (monthly)	£908
Maximum rate class 2 contribution (monthly)	£734.21
Total employee contribution rate	6%
Total employer standard contribution rate	6.5%
Employer upper contribution rate	2%

In respect of the split between the social security and health insurance funds the following breakdown has been used:

Table 7 Split between Social Security and Health Insurance funds

	Social Security Fund	Health Insurance Fund
Employee rate	5.2%	0.8%
Employer rate	5.3%	1.2%

It is assumed that for working adults they fall within the class 1 contributions regime, and as with income tax, different scenarios for the split of income between adults occupying the same household are considered.

It is assumed that if an individual earns less than the lower earnings limit, then they will not be subject to social security contributions or supplementation.

States of Jersey expenditure

Government expenditure in Jersey includes a number of services provided directly to Islanders, together with other items of expenditure. The items specifically considered here represent the largest groups of expenditure and also those which can be well determined as services provided directly to households / individuals.

Health

The largest single broad area of government expenditure in Jersey is the provision of health. This accounts for around £220 million of expenditure a year, or approximately £2,100 per capita. Average costs per person do however vary quite substantially by age group, with older members of the population typically requiring more care than the younger groups.

For the purposes of this report therefore, estimates of per capita consumption by broad age group have been obtained using data from the Patient Level Information and Costing System (PLICS) for 2017 and then inflation adjusted to 2018⁹. The broad groups are shown below:

Table 8 Health costs per capita

Age group	Cost per capita (2017 values)	Cost per capita (Inflation adjusted to 2018)
Child (0-17)	£1,462	£1,519
Working age adult (18-65)	£1,649	£1,713
Over 65	£3,578	£3,718
Over 85	£4,521	£4,697

It is important to note that the above figures represent broad population averages and will not be reflective of the costs associated with any particular household. For the majority households the costs associated will be significantly lower than the above with the bulk of the costs associated with those individuals / households that may be suffering from a particular health-related issue at that point in time.

These costs do not include the provision of primary care (primarily GP and prescription costs) which are administrated via the Health Insurance Fund.

⁹ It is noted that, at present, the age attribute is missing on a part of the PLICS model so these costs may be slightly understated.

Education

The second largest broad area of government expenditure in Jersey is the provision of education. This accounts for around £100 million of expenditure a year.

Unlike health, which broadly speaking provides services for the entire of the population, the Education Department budget is largely directed towards funding education for children and young adults. With the provision of primary and secondary education representing the bulk of the costs incurred. As a result, for the purposes of this report we will consider that this cost is effectively a cost per child, rather than a cost per capita expense.

Fee-paying and non-fee-paying schools

Due to the nature of Jersey's education system, a relatively high proportion of children in Jersey attend a fee-paying school, which is also funded partially by government expenditure. There is a significant difference in the cost to the States if a child attends a non-fee-paying school than a fee-paying one. This is as a result of a difference in the funding provided via the Age Weighted Pupil Unit (AWPU), which is currently set at 50% of the full rate for the majority of fee-payable schools.

Based on the above, the assumption used is that the cost per pupil is based upon if they attend a non-fee-paying or fee-paying school, with the following values used:

Table 9 Assumed costs fee and non-fee paying

School type	Cost per pupil
Non-fee-paying	£6,100
Fee-paying	£3,400

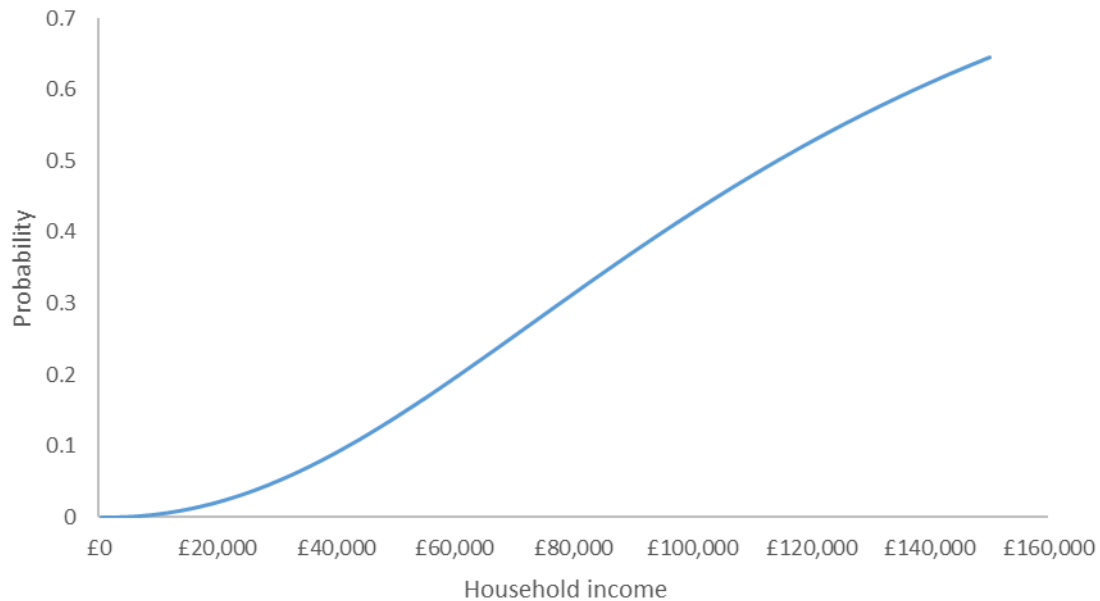
Note, that within these figures is a fixed per pupil allowance for additional shared costs of education that are not part of the AWPU (and therefore the fee paying amount is not simply 50% of the non-fee paying value).

Analysis of the 2014/15 HES data has allowed us to estimate the probability of a household sending their children to a fee-paying school by income. This was done using a logistic regression model, looking at households with children, and whether that household had expenditure in the school fees category of spending. Further breakdowns were then conducted to estimate the number of children within that household that were in fee-paying education. The final model is as follows:

$$P(\text{Fee paying educ}|\text{Children in HH}) = \frac{\exp(-25.539 + 2.193\text{Log}_e(\text{Household Income}))}{1 + \exp(-25.539 + 2.193\text{Log}_e(\text{Household Income}))}$$

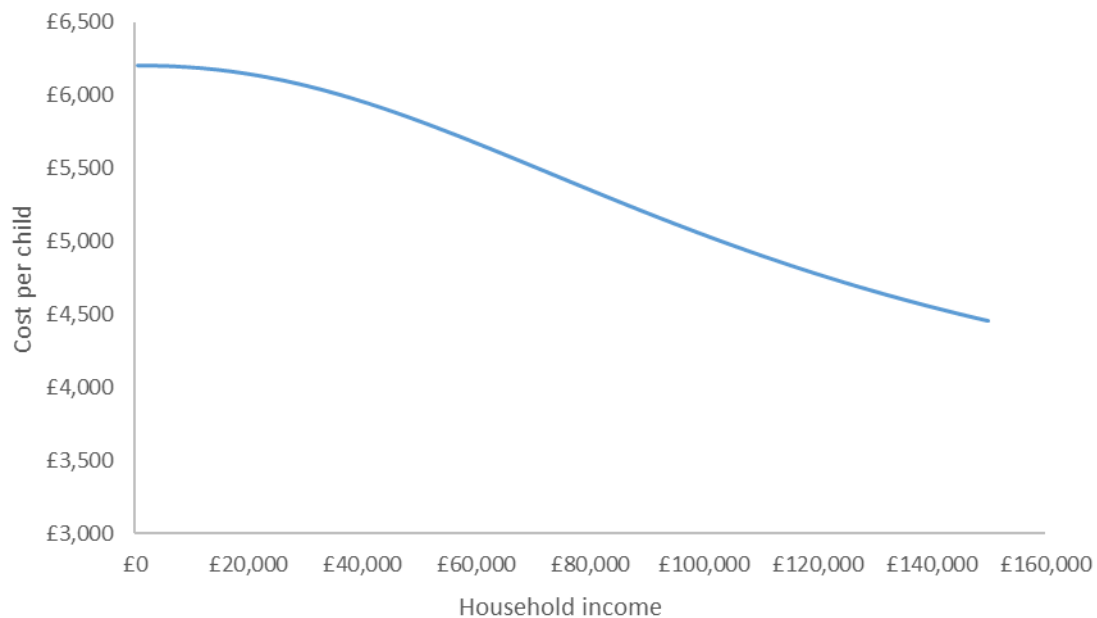
This probability model is illustrated below:

Figure 11 Probability in fee-paying education



As expected the probability of a child attending a fee-based school increases with household income. Based on this probability model and the assumptions on States expenditure per child, this can then be combined into an overall cost per child model which is illustrated below:

Figure 12 Cost per child



Jersey Premium

In addition to the general education spending discussed above, Jersey operates a targeted funding program for schools that directs additional funding based on set eligibility criteria. Whilst the overall expenditure on this program is relatively small (approximately £2.5 million in 2018), it results in an

average level of funding per eligible child of around £900. This therefore does have a substantive impact in respect of the overall expenditure on these families and therefore this has been included in the estimates of education spending on households.

The eligibility criteria for the Jersey Premium are:

- all pupils who have ever been “Looked After Children” (LAC)
- children from households which have recently claimed income support
- children from households with “registered” status that would qualify to claim income support if they had lived in Jersey for five years

The majority of payments are made in respect of the latter two criteria and for the purposes of this report we have not attempted to model whether a household is likely to contain any LACs. Instead, a fixed amount of £900 per child has been included in education expenditure if the household would be subject to a positive rate on income support (ignoring any residency restrictions).

Income support

Income support is the largest tax-funded benefit provided by the States of Jersey, totalling just under £69 million in 2017. Income support provides support primarily by way of a weekly benefit payable to eligible households. It is therefore particularly relevant when assessing net receipts to and from households as it is one of the main mechanisms where money is transferred directly from tax revenue back to households, rather than through a provision of a service.

Income support is a household benefit, with the amount payable depending on the number of people in the household, where they live, their specific needs and the income and capital assets they have available. Income support is subject to a residency test, where at least one adult in the household must have been resident in Jersey for at least 5 years. There are also requirements for working age adults to be in employment, actively seeking work or subject to a specific work exemption.

Components

The amount payable under income support consists of a number of different components which are designed to provide support to specific family circumstances. These cover basic living costs, accommodation, childcare and other costs. Generally speaking each household will be in receipt of a fixed household component, an accommodation component based on the type of accommodation they require and individual components for each individual that makes up the household.

The intention of income support is to “top up” other household income. Therefore as household income from other sources increases the income support benefit decreases, until the household reaches a level of income where they are deemed to be self-sufficient. In order to provide a monetary incentive to increased employment income there is also an earnings disregard, which allows a percentage of other income to be disregarded from the income support calculation.

Calculations have been based on the “income support calculator” supplied by the Social Security Department and using the 2018 components.

Accommodation component

For the accommodation component, this has been calculated based on the following assumptions:

- the household occupies a private rental property
- the full accommodation component is paid
- the household is occupying a property that is deemed to be suitable for their needs, based on the household structure and the income support guidelines
- for a single adult (who can occupy either a bedsit or flat depending on their historic circumstances) this has been estimated based on the average split between the two possible components

It is important to note that a large number of households in receipt of income support will in fact be accommodated in social housing, with around half of all income support households residing in accommodation provided by Andium Homes. If an income support household rents a property from a social housing landlord then the accommodation component will represent the actual full cost of the rent charged (provided the household is occupying a suitably-sized property). This rent can vary

considerably depending on the historic circumstances of the household in question, with some households subject to the current 90% of market rents policy, and others still subject to older rental agreements.

The private rental component is therefore used as a reasonable proxy to estimate government expenditure on that particular household. The actual cost of income support is subject to variation depending on the choice of social sector rent policy, with Andium currently making a significant return to the States each year in line with the agreed rent policy.

Other components not included

As well as the core living costs and accommodation components, there are a number of other components potentially available to households. These include specific health components, carer's and child care components. These have not been included in this analysis as they reflect very specific household and individual circumstances. These components represent around 9% of total income support spending (or approximately £1,000 per income support household).

Components used

The table below lists the 2018 income support components that are used in the estimates.

Table 10 Income support components

Individual components	Weekly component	Annual equivalent
Adult	£ 94.85	£ 4,932.20
Single parent	£ 40.39	£ 2,100.28
Child	£ 65.87	£ 3,425.24
Household component	£ 52.85	£ 2,748.20
Accommodation components		
Hostel	£ 103.04	£ 5,358.08
Bedsit / lodgings (private rental)	£ 135.73	£ 7,057.96
One bedroom flat (private rental)	£ 200.13	£ 10,406.76
Two bedroom flat (private rental)	£ 256.27	£ 13,326.04
Three (or more) bedroom flat (private rental)	£ 275.03	£ 14,301.56
One bedroom house (private rental)	£ 229.39	£ 11,928.28
Two bedroom house (private rental)	£ 291.27	£ 15,146.04
Three bedroom house (private rental)	£ 340.13	£ 17,686.76
Four bedroom house (private rental)	£ 370.79	£ 19,281.08
Five (or more) bedroom house (private rental)	£ 410.48	£ 21,344.96
Income disregard	25%	

Other States of Jersey expenditure

The above three expenditure groups, combined with the tax-funded elements of social security supplementation represents over three-fifths of tax-funded government expenditure (ignoring expenditure funded by way of ring-fenced funds). This leaves approximately £250 million of departmental expenditure and £40 million of capital expenditure, which are not included in the expenditure assumptions so far detailed.

These remaining costs are generally not directly dependent on individual household activity but largely consist of services provided to the Island as a whole. These include things such as the provision of law enforcement, maintenance and supply of Island infrastructure and the general machinery of government. How these costs are apportioned to households is somewhat subjective as whilst it is assumed the majority of these costs will increase in line with the Island's population, there are other "fixed" costs which will largely remain constant regardless of how the Island's population changes.

In addition, there are elements of tax receipts that are not represented in the modelling of households, and which are also used to fund expenditure. These include items such as corporate income tax, stamp duty and elements covered under "other income" sources. This equates to approximately £180 million of revenue not considered as part of the household modelling.

Based on a rough 1/3 to 2/3 split of fixed to non-fixed costs for the purposes of this initial report, the following assumptions have been made:

Total "other costs"	£290 million
Less expenditure funded from non-household sources	(-£180 million)
<hr/>	
Remaining "other costs"	£110 million
Assumed "fixed costs"	£40 million
Assumed linked to population	£70 million

This equates to a cost to proportion to households of £660 per capita. However, these assumptions can be varied to look at different methods of proportioning these costs and this report should be considered a starting point for further work in this area.

Estimates for illustrative households

The following pages detail the resultant estimates for a number of illustrative households for a range of different income levels. These illustrative households are as follows:

Table 11 Illustrative household types

Label	Description	Number of Adults	Number of Children	5 Year resident?	Income split
HH1	Single Adult, 5 year resident	1	0	Yes	N/A
HH2	Single Adult, recent arrival	1	0	No	N/A
HH3	Single Parent, 1 child, 5 year resident	1	1	Yes	N/A
HH4	Single Parent, 1 child, recent arrival	1	1	No	N/A
HH5	Couple, both working, 5 year resident	2	0	Yes	50%
HH6	Couple, both working, recent arrival	2	0	No	50%
HH7	Couple, one working, 5 year resident	2	0	Yes	100%
HH8	Couple, one working, recent arrival	2	0	No	100%
HH9	Couple, one child	2	1	Yes	50%
HH10	Couple, two children	2	2	Yes	50%
HH11	Couple, three children	2	3	Yes	50%

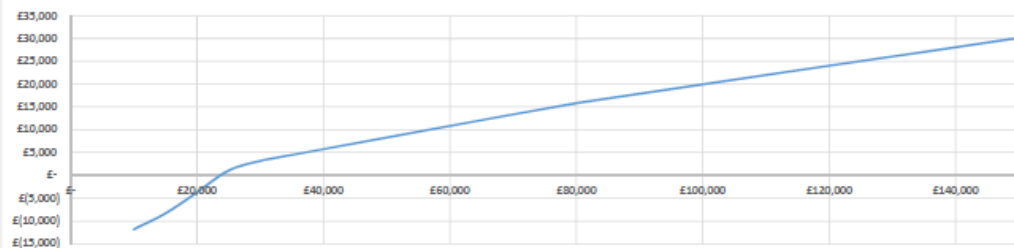
Adults 1 (Working age)
Children -
Income Split 100%
Exc. Inc. Support? No If HH less than 5 years residency

<- Adults (1 or 2)
<- Children (any number - capped at 20!)
<- How much of household income is assigned to "primary" adult (0-100%)
<- Excludes income support (less than 5 year residency)

Single Adult, 5 year resident

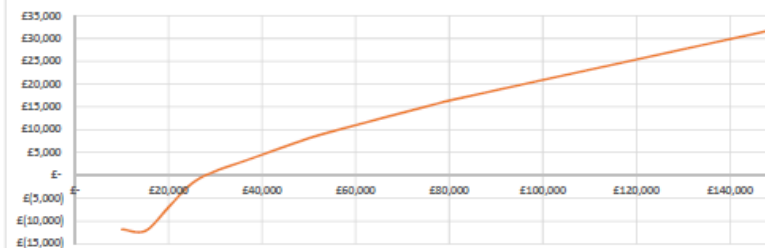
Estimated receipts from Household										Estimated tax funded expenditure on Household					Tax Balances		
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund	Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation	
£ 10,000.00	£ -	£ -	520	£ 627.81	£ 931.06	£ 1,558.87	£ 520.00	£ 80.00	£ -	£ -	£ 1,519.00	£ 11,187.16	£ 660.00	-£ 11,807.29	£ -	-£ 11,807.29	
£ 15,000.00	£ -	£ -	780	£ 655.83	£ 926.47	£ 1,582.30	£ 780.00	£ 120.00	£ -	£ -	£ 1,519.00	£ 7,737.16	£ 660.00	-£ 8,333.86	£ 3,830.40	-£ 12,164.26	
£ 20,000.00	£ 1,211.30	£ 60.57	1040	£ 683.12	£ 922.65	£ 2,617.07	£ 1,040.00	£ 160.00	£ 60.57	£ -	£ 1,519.00	£ 4,287.16	£ 660.00	-£ 3,649.09	£ 3,305.40	-£ 6,954.49	
£ 25,000.00	£ 2,452.15	£ 122.61	1300	£ 709.75	£ 919.46	£ 4,081.37	£ 1,300.00	£ 200.00	£ 122.61	£ -	£ 1,519.00	£ 837.16	£ 660.00	£ 1,065.21	£ 2,780.40	-£ 1,715.19	
£ 30,000.00	£ 3,683.02	£ 184.15	1560	£ 778.43	£ 913.34	£ 5,374.79	£ 1,560.00	£ 240.00	£ 184.15	£ -	£ 1,519.00	£ -	£ 660.00	£ 3,195.79	£ 2,255.40	£ 940.39	
£ 35,000.00	£ 4,905.21	£ 245.26	1820	£ 856.27	£ 909.30	£ 6,670.79	£ 1,820.00	£ 280.00	£ 245.26	£ -	£ 1,519.00	£ -	£ 660.00	£ 4,491.79	£ 1,730.40	£ 2,761.39	
£ 40,000.00	£ 6,120.00	£ 306.00	2080	£ 929.97	£ 907.64	£ 7,957.60	£ 2,080.00	£ 320.00	£ 306.00	£ -	£ 1,519.00	£ -	£ 660.00	£ 5,778.60	£ 1,205.40	£ 4,573.20	
£ 45,000.00	£ 7,328.59	£ 366.43	2340	£ 1,000.21	£ 907.56	£ 9,236.36	£ 2,340.00	£ 360.00	£ 366.43	£ -	£ 1,519.00	£ -	£ 660.00	£ 7,057.36	£ 680.40	£ 6,376.96	
£ 50,000.00	£ 8,532.10	£ 426.60	2600	£ 1,067.54	£ 908.56	£ 10,508.20	£ 2,600.00	£ 400.00	£ 426.60	£ -	£ 1,519.00	£ -	£ 660.00	£ 8,329.20	£ 155.40	£ 8,173.80	
£ 55,000.00	£ 9,731.49	£ 486.57	2676	£ 1,132.34	£ 910.33	£ 11,774.16	£ 2,676.96	£ 411.84	£ 486.57	£ -	£ 1,519.00	£ -	£ 660.00	£ 9,595.16	-£ 70.40	£ 9,665.56	
£ 60,000.00	£ 10,927.64	£ 546.38	2676	£ 1,194.92	£ 912.66	£ 13,035.22	£ 2,676.96	£ 411.84	£ 546.38	£ -	£ 1,519.00	£ -	£ 660.00	£ 10,856.22	-£ 170.40	£ 11,026.62	
£ 65,000.00	£ 12,121.27	£ 606.06	2676	£ 1,255.55	£ 915.39	£ 14,292.20	£ 2,676.96	£ 411.84	£ 606.06	£ -	£ 1,519.00	£ -	£ 660.00	£ 12,113.20	-£ 270.40	£ 12,383.60	
£ 70,000.00	£ 13,313.01	£ 665.65	2676	£ 1,314.41	£ 918.41	£ 15,545.84	£ 2,676.96	£ 411.84	£ 665.65	£ -	£ 1,519.00	£ -	£ 660.00	£ 13,366.84	-£ 370.40	£ 13,737.24	
£ 75,000.00	£ 14,503.39	£ 725.17	2676	£ 1,371.70	£ 921.66	£ 16,796.75	£ 2,676.96	£ 411.84	£ 725.17	£ -	£ 1,519.00	£ -	£ 660.00	£ 14,617.75	-£ 470.40	£ 15,088.15	
£ 80,000.00	£ 15,676.55	£ 783.83	2676	£ 1,427.54	£ 925.07	£ 18,029.16	£ 2,676.96	£ 411.84	£ 783.83	£ -	£ 1,519.00	£ -	£ 660.00	£ 15,850.16	-£ 570.40	£ 16,420.56	
£ 85,000.00	£ 16,645.53	£ 832.28	2676	£ 1,482.06	£ 928.60	£ 19,056.19	£ 2,676.96	£ 411.84	£ 832.28	£ -	£ 1,519.00	£ -	£ 660.00	£ 16,877.19	-£ 670.40	£ 17,547.59	
£ 90,000.00	£ 17,614.32	£ 880.72	2676	£ 1,535.37	£ 932.21	£ 20,081.91	£ 2,676.96	£ 411.84	£ 880.72	£ -	£ 1,519.00	£ -	£ 660.00	£ 17,902.91	-£ 770.40	£ 18,673.31	
£ 95,000.00	£ 18,583.01	£ 929.15	2676	£ 1,587.57	£ 935.89	£ 21,106.46	£ 2,676.96	£ 411.84	£ 929.15	£ -	£ 1,519.00	£ -	£ 660.00	£ 18,927.46	-£ 870.40	£ 19,797.86	
£ 100,000.00	£ 19,551.63	£ 977.58	2676	£ 1,638.72	£ 939.60	£ 22,129.96	£ 2,676.96	£ 411.84	£ 977.58	£ -	£ 1,519.00	£ -	£ 660.00	£ 19,950.96	-£ 970.40	£ 20,921.36	
£ 105,000.00	£ 20,520.25	£ 1,026.01	2676	£ 1,688.91	£ 943.34	£ 23,152.49	£ 2,676.96	£ 411.84	£ 1,026.01	£ -	£ 1,519.00	£ -	£ 660.00	£ 20,973.49	-£ 1,070.40	£ 22,043.89	
£ 110,000.00	£ 21,488.88	£ 1,074.44	2676	£ 1,738.19	£ 947.09	£ 24,174.16	£ 2,676.96	£ 411.84	£ 1,074.44	£ -	£ 1,519.00	£ -	£ 660.00	£ 21,995.16	-£ 1,170.40	£ 23,165.56	
£ 115,000.00	£ 22,457.57	£ 1,122.88	2676	£ 1,786.62	£ 950.84	£ 25,195.04	£ 2,676.96	£ 411.84	£ 1,122.88	£ -	£ 1,519.00	£ -	£ 660.00	£ 23,016.04	-£ 1,270.40	£ 24,286.44	
£ 120,000.00	£ 23,426.33	£ 1,171.32	2676	£ 1,834.26	£ 954.59	£ 26,215.18	£ 2,676.96	£ 411.84	£ 1,171.32	£ -	£ 1,519.00	£ -	£ 660.00	£ 24,036.18	-£ 1,370.40	£ 25,406.58	
£ 125,000.00	£ 24,395.19	£ 1,219.76	2676	£ 1,881.15	£ 958.32	£ 27,234.66	£ 2,676.96	£ 411.84	£ 1,219.76	£ -	£ 1,519.00	£ -	£ 660.00	£ 25,055.66	-£ 1,470.40	£ 26,526.06	
£ 130,000.00	£ 25,364.15	£ 1,268.21	2676	£ 1,927.32	£ 962.04	£ 28,253.51	£ 2,676.96	£ 411.84	£ 1,268.21	£ -	£ 1,519.00	£ -	£ 660.00	£ 26,074.51	-£ 1,570.40	£ 27,644.91	
£ 135,000.00	£ 26,333.23	£ 1,316.66	2676	£ 1,972.82	£ 965.74	£ 29,271.79	£ 2,676.96	£ 411.84	£ 1,316.66	£ -	£ 1,519.00	£ -	£ 660.00	£ 27,092.79	-£ 1,670.40	£ 28,763.19	
£ 140,000.00	£ 27,302.43	£ 1,365.12	2676	£ 2,017.68	£ 969.41	£ 30,289.53	£ 2,676.96	£ 411.84	£ 1,365.12	£ -	£ 1,519.00	£ -	£ 660.00	£ 28,110.53	-£ 1,770.40	£ 29,880.93	
£ 145,000.00	£ 28,271.76	£ 1,413.59	2676	£ 2,061.94	£ 973.07	£ 31,306.76	£ 2,676.96	£ 411.84	£ 1,413.59	£ -	£ 1,519.00	£ -	£ 660.00	£ 29,127.76	-£ 1,870.40	£ 30,998.16	
£ 150,000.00	£ 29,241.22	£ 1,462.06	2676	£ 2,105.61	£ 976.69	£ 32,323.53	£ 2,676.96	£ 411.84	£ 1,462.06	£ -	£ 1,519.00	£ -	£ 660.00	£ 30,144.53	-£ 1,970.40	£ 32,114.93	

Tax balance pre-supplementation



Break even point: £24,000

Tax balance post-supplementation



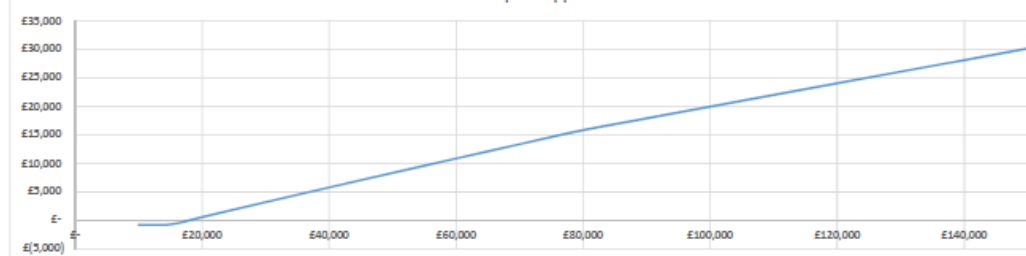
Break even point: £27,000

Adults	1	(Working age)	<- Adults (1 or 2)
Children	-		<- Children (any number - capped at 20!)
Income Split	100%		<- How much of household income is assigned to "primary" adult (0-100%)
Exc. Inc. Support?	Yes	If HH less than 5 years residency	<- Excludes income support (less than 5 year residency)

Single Adult, recent arrival

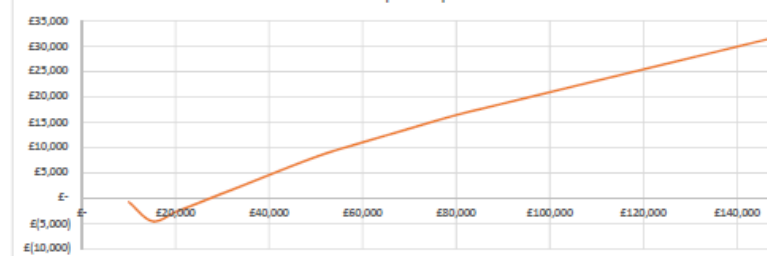
Estimated receipts from Household										Estimated tax funded expenditure on Household				Tax Balances		
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund	Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation
£ 10,000.00	£ -	£ -	520	£ 394.66	£ 1,013.32	£ 1,407.98	£ 520.00	£ 80.00	£ -	£ -	£ 1,519.00	£ -	£ 660.00	-£ 771.02	£ -	-£ 771.02
£ 15,000.00	£ -	£ -	780	£ 507.11	£ 961.09	£ 1,468.20	£ 780.00	£ 120.00	£ -	£ -	£ 1,519.00	£ -	£ 660.00	-£ 710.80	£ 3,830.40	-£ 4,541.20
£ 20,000.00	£ 1,211.30	£ 60.57	1040	£ 605.82	£ 935.19	£ 2,752.32	£ 1,040.00	£ 160.00	£ 60.57	£ -	£ 1,519.00	£ -	£ 660.00	£ 573.32	£ 3,305.40	-£ 2,732.08
£ 25,000.00	£ 2,452.15	£ 122.61	1300	£ 695.45	£ 921.11	£ 4,068.71	£ 1,300.00	£ 200.00	£ 122.61	£ -	£ 1,519.00	£ -	£ 660.00	£ 1,889.71	£ 2,780.40	-£ 890.69
£ 30,000.00	£ 3,683.02	£ 184.15	1560	£ 778.43	£ 913.34	£ 5,374.79	£ 1,560.00	£ 240.00	£ 184.15	£ -	£ 1,519.00	£ -	£ 660.00	£ 3,195.79	£ 2,255.40	£ 940.39
£ 35,000.00	£ 4,905.21	£ 245.26	1820	£ 856.27	£ 909.30	£ 6,670.79	£ 1,820.00	£ 280.00	£ 245.26	£ -	£ 1,519.00	£ -	£ 660.00	£ 4,491.79	£ 1,730.40	£ 2,761.39
£ 40,000.00	£ 6,120.00	£ 306.00	2080	£ 929.97	£ 907.64	£ 7,957.60	£ 2,080.00	£ 320.00	£ 306.00	£ -	£ 1,519.00	£ -	£ 660.00	£ 5,778.60	£ 1,205.40	£ 4,573.20
£ 45,000.00	£ 7,328.59	£ 366.43	2340	£ 1,000.21	£ 907.56	£ 9,236.36	£ 2,340.00	£ 360.00	£ 366.43	£ -	£ 1,519.00	£ -	£ 660.00	£ 7,057.36	£ 680.40	£ 6,376.96
£ 50,000.00	£ 8,532.10	£ 426.60	2600	£ 1,067.54	£ 908.56	£ 10,508.20	£ 2,600.00	£ 400.00	£ 426.60	£ -	£ 1,519.00	£ -	£ 660.00	£ 8,329.20	£ 155.40	£ 8,173.80
£ 55,000.00	£ 9,731.49	£ 486.57	2676.96	£ 1,132.34	£ 910.33	£ 11,774.16	£ 2,676.96	£ 411.84	£ 486.57	£ -	£ 1,519.00	£ -	£ 660.00	£ 9,595.16	-£ 70.40	£ 9,665.56
£ 60,000.00	£ 10,927.64	£ 546.38	2676.96	£ 1,194.92	£ 912.66	£ 13,035.22	£ 2,676.96	£ 411.84	£ 546.38	£ -	£ 1,519.00	£ -	£ 660.00	£ 10,856.22	-£ 170.40	£ 11,026.62
£ 65,000.00	£ 12,121.27	£ 606.06	2676.96	£ 1,255.55	£ 915.39	£ 14,292.20	£ 2,676.96	£ 411.84	£ 606.06	£ -	£ 1,519.00	£ -	£ 660.00	£ 12,113.20	-£ 270.40	£ 12,383.60
£ 70,000.00	£ 13,313.01	£ 665.65	2676.96	£ 1,314.41	£ 918.41	£ 15,545.84	£ 2,676.96	£ 411.84	£ 665.65	£ -	£ 1,519.00	£ -	£ 660.00	£ 13,366.84	-£ 370.40	£ 13,737.24
£ 75,000.00	£ 14,503.39	£ 725.17	2676.96	£ 1,371.70	£ 921.66	£ 16,796.75	£ 2,676.96	£ 411.84	£ 725.17	£ -	£ 1,519.00	£ -	£ 660.00	£ 14,617.75	-£ 470.40	£ 15,088.15
£ 80,000.00	£ 15,676.55	£ 783.83	2676.96	£ 1,427.54	£ 925.07	£ 18,029.16	£ 2,676.96	£ 411.84	£ 783.83	£ -	£ 1,519.00	£ -	£ 660.00	£ 15,850.16	-£ 570.40	£ 16,420.56
£ 85,000.00	£ 16,845.53	£ 832.28	2676.96	£ 1,482.06	£ 928.60	£ 19,056.19	£ 2,676.96	£ 411.84	£ 832.28	£ -	£ 1,519.00	£ -	£ 660.00	£ 16,877.19	-£ 670.40	£ 17,547.59
£ 90,000.00	£ 17,614.32	£ 880.72	2676.96	£ 1,535.37	£ 932.21	£ 20,081.91	£ 2,676.96	£ 411.84	£ 880.72	£ -	£ 1,519.00	£ -	£ 660.00	£ 17,902.91	-£ 770.40	£ 18,673.31
£ 95,000.00	£ 18,583.01	£ 929.15	2676.96	£ 1,587.57	£ 935.89	£ 21,106.46	£ 2,676.96	£ 411.84	£ 929.15	£ -	£ 1,519.00	£ -	£ 660.00	£ 18,927.46	-£ 870.40	£ 19,797.86
£ 100,000.00	£ 19,551.63	£ 977.58	2676.96	£ 1,638.72	£ 939.60	£ 22,129.96	£ 2,676.96	£ 411.84	£ 977.58	£ -	£ 1,519.00	£ -	£ 660.00	£ 19,950.96	-£ 970.40	£ 20,921.36
£ 105,000.00	£ 20,520.25	£ 1,026.01	2676.96	£ 1,688.91	£ 943.34	£ 23,152.49	£ 2,676.96	£ 411.84	£ 1,026.01	£ -	£ 1,519.00	£ -	£ 660.00	£ 20,973.49	-£ 1,070.40	£ 22,043.89
£ 110,000.00	£ 21,488.88	£ 1,074.44	2676.96	£ 1,738.19	£ 947.09	£ 24,174.16	£ 2,676.96	£ 411.84	£ 1,074.44	£ -	£ 1,519.00	£ -	£ 660.00	£ 21,995.16	-£ 1,170.40	£ 23,165.56
£ 115,000.00	£ 22,457.57	£ 1,122.88	2676.96	£ 1,786.62	£ 950.84	£ 25,195.04	£ 2,676.96	£ 411.84	£ 1,122.88	£ -	£ 1,519.00	£ -	£ 660.00	£ 23,016.04	-£ 1,270.40	£ 24,286.44
£ 120,000.00	£ 23,426.33	£ 1,171.32	2676.96	£ 1,834.26	£ 954.59	£ 26,215.18	£ 2,676.96	£ 411.84	£ 1,171.32	£ -	£ 1,519.00	£ -	£ 660.00	£ 24,036.18	-£ 1,370.40	£ 25,406.58
£ 125,000.00	£ 24,395.19	£ 1,219.76	2676.96	£ 1,881.15	£ 958.32	£ 27,234.66	£ 2,676.96	£ 411.84	£ 1,219.76	£ -	£ 1,519.00	£ -	£ 660.00	£ 25,055.66	-£ 1,470.40	£ 26,526.06
£ 130,000.00	£ 25,364.15	£ 1,268.21	2676.96	£ 1,927.32	£ 962.04	£ 28,253.51	£ 2,676.96	£ 411.84	£ 1,268.21	£ -	£ 1,519.00	£ -	£ 660.00	£ 26,074.51	-£ 1,570.40	£ 27,644.91
£ 135,000.00	£ 26,333.23	£ 1,316.66	2676.96	£ 1,972.82	£ 965.74	£ 29,271.79	£ 2,676.96	£ 411.84	£ 1,316.66	£ -	£ 1,519.00	£ -	£ 660.00	£ 27,092.79	-£ 1,670.40	£ 28,763.19
£ 140,000.00	£ 27,302.43	£ 1,365.12	2676.96	£ 2,017.68	£ 969.41	£ 30,289.53	£ 2,676.96	£ 411.84	£ 1,365.12	£ -	£ 1,519.00	£ -	£ 660.00	£ 28,110.53	-£ 1,770.40	£ 29,880.93
£ 145,000.00	£ 28,271.76	£ 1,413.59	2676.96	£ 2,061.94	£ 973.07	£ 31,306.76	£ 2,676.96	£ 411.84	£ 1,413.59	£ -	£ 1,519.00	£ -	£ 660.00	£ 29,127.76	-£ 1,870.40	£ 30,998.16
£ 150,000.00	£ 29,241.22	£ 1,462.06	2676.96	£ 2,105.61	£ 976.69	£ 32,323.53	£ 2,676.96	£ 411.84	£ 1,462.06	£ -	£ 1,519.00	£ -	£ 660.00	£ 30,144.53	-£ 1,970.40	£ 32,114.93

Tax balance pre-supplementation



Break even point: £18,000

Tax balance post-supplementation



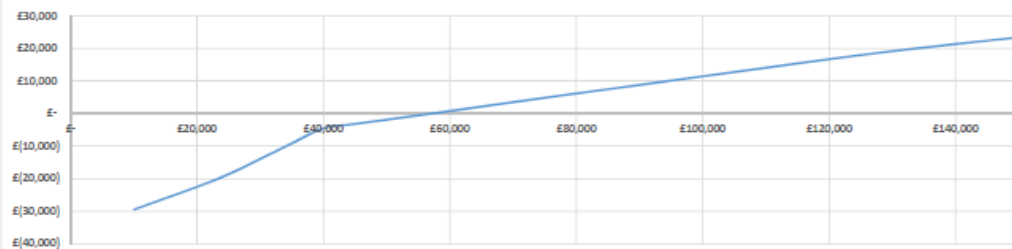
Break even point: £27,000

Adults 1 (Working age)
Children 1
Income Split 100%
Exc. Inc. Support? No If HH less than 5 years residency
-<- Adults (1 or 2)
-<- Children (any number - capped at 20!)
-<- How much of household income is assigned to "primary" adult (0-100%)
-<- Excludes income support (less than 5 year residency)

Single Adult, 1 child, 5 year resident

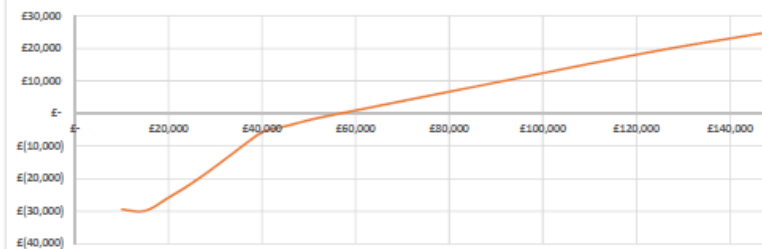
Estimated receipts from Household										Estimated tax funded expenditure on Household				Tax Balances		
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund	Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation
£ 10,000.00	£ -	£ -	520	£ 772.51	£ 913.76	£ 1,686.27	£ 520.00	£ 80.00	£ -	£ 6,987.12	£ 3,232.00	£ 19,631.96	£ 1,320.00	-£ 29,484.81	£ -	-£ 29,484.81
£ 15,000.00	£ -	£ -	780	£ 797.25	£ 912.11	£ 1,709.36	£ 780.00	£ 120.00	£ -	£ 6,968.88	£ 3,232.00	£ 16,181.96	£ 1,320.00	-£ 25,993.47	£ 3,830.40	-£ 29,823.87
£ 20,000.00	£ -	£ -	1040	£ 821.53	£ 910.78	£ 1,732.30	£ 1,040.00	£ 160.00	£ -	£ 6,942.10	£ 3,232.00	£ 12,731.96	£ 1,320.00	-£ 22,493.76	£ 3,305.40	-£ 25,799.16
£ 25,000.00	£ 348.75	£ 17.44	1300	£ 845.37	£ 909.71	£ 2,103.83	£ 1,300.00	£ 200.00	£ 17.44	£ 6,906.82	£ 3,232.00	£ 9,281.96	£ 1,320.00	-£ 18,636.94	£ 2,780.40	-£ 21,417.34
£ 30,000.00	£ 1,579.62	£ 78.98	1560	£ 868.80	£ 908.89	£ 3,357.31	£ 1,560.00	£ 240.00	£ 78.98	£ 6,863.33	£ 3,232.00	£ 5,831.96	£ 1,320.00	-£ 13,889.98	£ 2,255.40	-£ 16,145.38
£ 35,000.00	£ 2,801.81	£ 140.09	1820	£ 891.85	£ 908.27	£ 4,601.93	£ 1,820.00	£ 280.00	£ 140.09	£ 6,812.18	£ 3,232.00	£ 2,381.96	£ 1,320.00	-£ 9,144.21	£ 1,730.40	-£ 10,874.61
£ 40,000.00	£ 4,016.80	£ 200.83	2080	£ 929.97	£ 907.64	£ 5,854.20	£ 2,080.00	£ 320.00	£ 200.83	£ 5,854.10	£ 3,232.00	£ -	£ 1,320.00	-£ 4,551.89	£ 1,205.40	-£ 5,757.29
£ 45,000.00	£ 5,225.19	£ 261.26	2340	£ 1,000.21	£ 907.56	£ 7,132.96	£ 2,340.00	£ 360.00	£ 261.26	£ 5,789.95	£ 3,232.00	£ -	£ 1,320.00	-£ 3,208.98	£ 680.40	-£ 3,889.38
£ 50,000.00	£ 6,428.70	£ 321.43	2600	£ 1,067.54	£ 908.56	£ 8,404.80	£ 2,600.00	£ 400.00	£ 321.43	£ 5,720.68	£ 3,232.00	£ -	£ 1,320.00	-£ 1,867.88	£ 155.40	-£ 2,023.28
£ 55,000.00	£ 7,628.09	£ 381.40	2676.96	£ 1,132.34	£ 910.33	£ 9,670.76	£ 2,676.96	£ 411.84	£ 381.40	£ 5,647.28	£ 3,232.00	£ -	£ 1,320.00	-£ 528.52	£ 70.40	-£ 458.12
£ 60,000.00	£ 8,824.24	£ 441.21	2676.96	£ 1,194.92	£ 912.66	£ 10,931.82	£ 2,676.96	£ 411.84	£ 441.21	£ 5,570.76	£ 3,232.00	£ -	£ 1,320.00	£ 809.05	£ 170.40	£ 979.45
£ 65,000.00	£ 10,017.87	£ 500.89	2676.96	£ 1,255.55	£ 915.39	£ 12,188.80	£ 2,676.96	£ 411.84	£ 500.89	£ 5,492.08	£ 3,232.00	£ -	£ 1,320.00	£ 2,144.72	£ 270.40	£ 2,415.12
£ 70,000.00	£ 11,209.61	£ 560.48	2676.96	£ 1,314.41	£ 918.41	£ 13,442.44	£ 2,676.96	£ 411.84	£ 560.48	£ 5,412.13	£ 3,232.00	£ -	£ 1,320.00	£ 3,478.31	£ 370.40	£ 3,848.71
£ 75,000.00	£ 12,399.99	£ 620.00	2676.96	£ 1,371.70	£ 921.66	£ 14,693.35	£ 2,676.96	£ 411.84	£ 620.00	£ 5,331.74	£ 3,232.00	£ -	£ 1,320.00	£ 4,809.61	£ 470.40	£ 5,280.01
£ 80,000.00	£ 13,589.45	£ 679.47	2676.96	£ 1,427.54	£ 925.07	£ 15,942.06	£ 2,676.96	£ 411.84	£ 679.47	£ 5,251.63	£ 3,232.00	£ -	£ 1,320.00	£ 6,138.43	£ 570.40	£ 6,708.83
£ 85,000.00	£ 14,778.35	£ 738.92	2676.96	£ 1,482.06	£ 928.60	£ 17,189.02	£ 2,676.96	£ 411.84	£ 738.92	£ 5,172.44	£ 3,232.00	£ -	£ 1,320.00	£ 7,464.57	£ 670.40	£ 8,134.97
£ 90,000.00	£ 15,967.00	£ 798.35	2676.96	£ 1,535.37	£ 932.21	£ 18,434.58	£ 2,676.96	£ 411.84	£ 798.35	£ 5,094.69	£ 3,232.00	£ -	£ 1,320.00	£ 8,787.89	£ 770.40	£ 9,558.29
£ 95,000.00	£ 17,155.61	£ 857.78	2676.96	£ 1,587.57	£ 935.89	£ 19,679.07	£ 2,676.96	£ 411.84	£ 857.78	£ 5,018.82	£ 3,232.00	£ -	£ 1,320.00	£ 10,108.25	£ 870.40	£ 10,978.65
£ 100,000.00	£ 18,344.40	£ 917.22	2676.96	£ 1,638.72	£ 939.60	£ 20,922.73	£ 2,676.96	£ 411.84	£ 917.22	£ 4,945.15	£ 3,232.00	£ -	£ 1,320.00	£ 11,425.57	£ 970.40	£ 12,395.97
£ 105,000.00	£ 19,533.52	£ 976.68	2676.96	£ 1,688.91	£ 943.34	£ 22,165.76	£ 2,676.96	£ 411.84	£ 976.68	£ 4,873.96	£ 3,232.00	£ -	£ 1,320.00	£ 12,739.81	£ 1,070.40	£ 13,810.21
£ 110,000.00	£ 20,723.08	£ 1,036.15	2676.96	£ 1,738.19	£ 947.09	£ 23,408.35	£ 2,676.96	£ 411.84	£ 1,036.15	£ 4,805.41	£ 3,232.00	£ -	£ 1,320.00	£ 14,050.94	£ 1,170.40	£ 15,221.34
£ 115,000.00	£ 21,913.17	£ 1,095.66	2676.96	£ 1,786.62	£ 950.84	£ 24,650.63	£ 2,676.96	£ 411.84	£ 1,095.66	£ 4,739.64	£ 3,232.00	£ -	£ 1,320.00	£ 15,358.99	£ 1,270.40	£ 16,629.39
£ 120,000.00	£ 23,103.87	£ 1,155.19	2676.96	£ 1,834.26	£ 954.59	£ 25,892.71	£ 2,676.96	£ 411.84	£ 1,155.19	£ 4,676.72	£ 3,232.00	£ -	£ 1,320.00	£ 16,664.00	£ 1,370.40	£ 18,034.40
£ 125,000.00	£ 24,295.22	£ 1,214.76	2676.96	£ 1,881.15	£ 958.32	£ 27,134.69	£ 2,676.96	£ 411.84	£ 1,214.76	£ 4,616.65	£ 3,232.00	£ -	£ 1,320.00	£ 17,966.04	£ 1,470.40	£ 19,436.44
£ 130,000.00	£ 25,364.15	£ 1,268.21	2676.96	£ 1,927.32	£ 962.04	£ 28,253.51	£ 2,676.96	£ 411.84	£ 1,268.21	£ 4,559.44	£ 3,232.00	£ -	£ 1,320.00	£ 19,142.07	£ 1,570.40	£ 20,712.47
£ 135,000.00	£ 26,333.23	£ 1,316.66	2676.96	£ 1,972.82	£ 965.74	£ 29,271.79	£ 2,676.96	£ 411.84	£ 1,316.66	£ 4,505.03	£ 3,232.00	£ -	£ 1,320.00	£ 20,214.75	£ 1,670.40	£ 21,885.15
£ 140,000.00	£ 27,302.43	£ 1,365.12	2676.96	£ 2,017.68	£ 969.41	£ 30,289.53	£ 2,676.96	£ 411.84	£ 1,365.12	£ 4,453.37	£ 3,232.00	£ -	£ 1,320.00	£ 21,284.15	£ 1,770.40	£ 23,054.55
£ 145,000.00	£ 28,271.76	£ 1,413.59	2676.96	£ 2,061.94	£ 973.07	£ 31,306.76	£ 2,676.96	£ 411.84	£ 1,413.59	£ 4,404.38	£ 3,232.00	£ -	£ 1,320.00	£ 22,350.39	£ 1,870.40	£ 24,220.79
£ 150,000.00	£ 29,241.22	£ 1,462.06	2676.96	£ 2,105.61	£ 976.69	£ 32,323.53	£ 2,676.96	£ 411.84	£ 1,462.06	£ 4,357.94	£ 3,232.00	£ -	£ 1,320.00	£ 23,413.58	£ 1,970.40	£ 25,383.98

Tax balance pre-supplementation



Break even point: £57,000

Tax balance post-supplementation



Break even point: £57,000

Adults	1	(Working age)	<- Adults (1 or 2)
Children	1		<- Children (any number - capped at 20!)
Income Split	100%		<- How much of household income is assigned to "primary" adult (0-100%)
Exc. Inc. Support?	Yes	If HH less than 5 years residency	<- Excludes income support (less than 5 year residency)

Single Adult, 1 child, recent arrival

Estimated receipts from Household										Estimated tax funded expenditure on Household				Tax Balances		
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund	Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation
£ 10,000.00	£ -	£ -	520	£ 394.66	£ 1,013.32	£ 1,407.98	£ 520.00	£ 80.00	£ -	£ 6,987.12	£ 3,232.00	£ -	£ 1,320.00	-£ 10,131.14	£ -	-£ 10,131.14
£ 15,000.00	£ -	£ -	780	£ 507.11	£ 961.09	£ 1,468.20	£ 780.00	£ 120.00	£ -	£ 6,968.88	£ 3,232.00	£ -	£ 1,320.00	-£ 10,052.68	£ 3,830.40	-£ 13,883.08
£ 20,000.00	£ -	£ -	1040	£ 605.82	£ 935.19	£ 1,541.02	£ 1,040.00	£ 160.00	£ -	£ 6,942.10	£ 3,232.00	£ -	£ 1,320.00	-£ 9,953.08	£ 3,305.40	-£ 13,258.48
£ 25,000.00	£ 348.75	£ 17.44	1300	£ 695.45	£ 921.11	£ 1,965.31	£ 1,300.00	£ 200.00	£ 17.44	£ 6,906.82	£ 3,232.00	£ -	£ 1,320.00	-£ 9,493.50	£ 2,780.40	-£ 12,273.90
£ 30,000.00	£ 1,579.62	£ 78.98	1560	£ 778.43	£ 913.34	£ 3,271.39	£ 1,560.00	£ 240.00	£ 78.98	£ 6,863.33	£ 3,232.00	£ -	£ 1,320.00	-£ 8,143.94	£ 2,255.40	-£ 10,399.34
£ 35,000.00	£ 2,801.81	£ 140.09	1820	£ 856.27	£ 909.30	£ 4,567.39	£ 1,820.00	£ 280.00	£ 140.09	£ 6,812.18	£ 3,232.00	£ -	£ 1,320.00	-£ 6,796.79	£ 1,730.40	-£ 8,527.19
£ 40,000.00	£ 4,016.80	£ 200.83	2080	£ 929.97	£ 907.64	£ 5,854.20	£ 2,080.00	£ 320.00	£ 200.83	£ 5,854.10	£ 3,232.00	£ -	£ 1,320.00	-£ 4,551.89	£ 1,205.40	-£ 5,757.29
£ 45,000.00	£ 5,225.19	£ 261.26	2340	£ 1,000.21	£ 907.56	£ 7,132.96	£ 2,340.00	£ 360.00	£ 261.26	£ 5,789.95	£ 3,232.00	£ -	£ 1,320.00	-£ 3,208.98	£ 680.40	-£ 3,889.38
£ 50,000.00	£ 6,428.70	£ 321.43	2600	£ 1,067.54	£ 908.56	£ 8,404.80	£ 2,600.00	£ 400.00	£ 321.43	£ 5,720.68	£ 3,232.00	£ -	£ 1,320.00	-£ 1,867.88	£ 155.40	-£ 2,023.28
£ 55,000.00	£ 7,628.09	£ 381.40	2676.96	£ 1,132.34	£ 910.33	£ 9,670.76	£ 2,676.96	£ 411.84	£ 381.40	£ 5,647.28	£ 3,232.00	£ -	£ 1,320.00	-£ 528.52	-£ 70.40	-£ 458.12
£ 60,000.00	£ 8,824.24	£ 441.21	2676.96	£ 1,194.92	£ 912.66	£ 10,931.82	£ 2,676.96	£ 411.84	£ 441.21	£ 5,570.76	£ 3,232.00	£ -	£ 1,320.00	£ 809.05	-£ 170.40	£ 979.45
£ 65,000.00	£ 10,017.87	£ 500.89	2676.96	£ 1,255.55	£ 915.39	£ 12,188.80	£ 2,676.96	£ 411.84	£ 500.89	£ 5,492.08	£ 3,232.00	£ -	£ 1,320.00	£ 2,144.72	-£ 270.40	£ 2,415.12
£ 70,000.00	£ 11,209.61	£ 560.48	2676.96	£ 1,314.41	£ 918.41	£ 13,442.44	£ 2,676.96	£ 411.84	£ 560.48	£ 5,412.13	£ 3,232.00	£ -	£ 1,320.00	£ 3,478.31	-£ 370.40	£ 3,848.71
£ 75,000.00	£ 12,399.99	£ 620.00	2676.96	£ 1,371.70	£ 921.66	£ 14,693.35	£ 2,676.96	£ 411.84	£ 620.00	£ 5,331.74	£ 3,232.00	£ -	£ 1,320.00	£ 4,809.61	-£ 470.40	£ 5,280.01
£ 80,000.00	£ 13,589.45	£ 679.47	2676.96	£ 1,427.54	£ 925.07	£ 15,942.06	£ 2,676.96	£ 411.84	£ 679.47	£ 5,251.63	£ 3,232.00	£ -	£ 1,320.00	£ 6,138.43	-£ 570.40	£ 6,708.83
£ 85,000.00	£ 14,778.35	£ 738.92	2676.96	£ 1,482.06	£ 928.60	£ 17,189.02	£ 2,676.96	£ 411.84	£ 738.92	£ 5,172.44	£ 3,232.00	£ -	£ 1,320.00	£ 7,464.57	-£ 670.40	£ 8,134.97
£ 90,000.00	£ 15,967.00	£ 798.35	2676.96	£ 1,535.37	£ 932.21	£ 18,434.58	£ 2,676.96	£ 411.84	£ 798.35	£ 5,094.69	£ 3,232.00	£ -	£ 1,320.00	£ 8,787.89	-£ 770.40	£ 9,558.29
£ 95,000.00	£ 17,155.61	£ 857.78	2676.96	£ 1,587.57	£ 935.89	£ 19,679.07	£ 2,676.96	£ 411.84	£ 857.78	£ 5,018.82	£ 3,232.00	£ -	£ 1,320.00	£ 10,108.25	-£ 870.40	£ 10,978.65
£ 100,000.00	£ 18,344.40	£ 917.22	2676.96	£ 1,638.72	£ 939.60	£ 20,922.73	£ 2,676.96	£ 411.84	£ 917.22	£ 4,945.15	£ 3,232.00	£ -	£ 1,320.00	£ 11,425.57	-£ 970.40	£ 12,395.97
£ 105,000.00	£ 19,533.52	£ 976.68	2676.96	£ 1,688.91	£ 943.34	£ 22,165.76	£ 2,676.96	£ 411.84	£ 976.68	£ 4,873.96	£ 3,232.00	£ -	£ 1,320.00	£ 12,739.81	-£ 1,070.40	£ 13,810.21
£ 110,000.00	£ 20,723.08	£ 1,036.15	2676.96	£ 1,738.19	£ 947.09	£ 23,408.35	£ 2,676.96	£ 411.84	£ 1,036.15	£ 4,805.41	£ 3,232.00	£ -	£ 1,320.00	£ 14,050.94	-£ 1,170.40	£ 15,221.34
£ 115,000.00	£ 21,913.17	£ 1,095.66	2676.96	£ 1,786.62	£ 950.84	£ 24,650.63	£ 2,676.96	£ 411.84	£ 1,095.66	£ 4,739.64	£ 3,232.00	£ -	£ 1,320.00	£ 15,358.99	-£ 1,270.40	£ 16,629.39
£ 120,000.00	£ 23,103.87	£ 1,155.19	2676.96	£ 1,834.26	£ 954.59	£ 25,892.71	£ 2,676.96	£ 411.84	£ 1,155.19	£ 4,676.72	£ 3,232.00	£ -	£ 1,320.00	£ 16,664.00	-£ 1,370.40	£ 18,034.40
£ 125,000.00	£ 24,295.22	£ 1,214.76	2676.96	£ 1,881.15	£ 958.32	£ 27,134.69	£ 2,676.96	£ 411.84	£ 1,214.76	£ 4,616.65	£ 3,232.00	£ -	£ 1,320.00	£ 17,966.04	-£ 1,470.40	£ 19,436.44
£ 130,000.00	£ 25,364.15	£ 1,268.21	2676.96	£ 1,927.32	£ 962.04	£ 28,253.51	£ 2,676.96	£ 411.84	£ 1,268.21	£ 4,559.44	£ 3,232.00	£ -	£ 1,320.00	£ 19,142.07	-£ 1,570.40	£ 20,712.47
£ 135,000.00	£ 26,333.23	£ 1,316.66	2676.96	£ 1,972.82	£ 965.74	£ 29,271.79	£ 2,676.96	£ 411.84	£ 1,316.66	£ 4,505.03	£ 3,232.00	£ -	£ 1,320.00	£ 20,214.75	-£ 1,670.40	£ 21,885.15
£ 140,000.00	£ 27,302.43	£ 1,365.12	2676.96	£ 2,017.68	£ 969.41	£ 30,289.53	£ 2,676.96	£ 411.84	£ 1,365.12	£ 4,453.37	£ 3,232.00	£ -	£ 1,320.00	£ 21,284.15	-£ 1,770.40	£ 23,054.55
£ 145,000.00	£ 28,271.76	£ 1,413.59	2676.96	£ 2,061.94	£ 973.07	£ 31,306.76	£ 2,676.96	£ 411.84	£ 1,413.59	£ 4,404.38	£ 3,232.00	£ -	£ 1,320.00	£ 22,350.39	-£ 1,870.40	£ 24,220.79
£ 150,000.00	£ 29,241.22	£ 1,462.06	2676.96	£ 2,105.61	£ 976.69	£ 32,323.53	£ 2,676.96	£ 411.84	£ 1,462.06	£ 4,357.94	£ 3,232.00	£ -	£ 1,320.00	£ 23,413.58	-£ 1,970.40	£ 25,383.98

Tax balance pre-supplementation



Break even point: £57,000

Tax balance post-supplementation



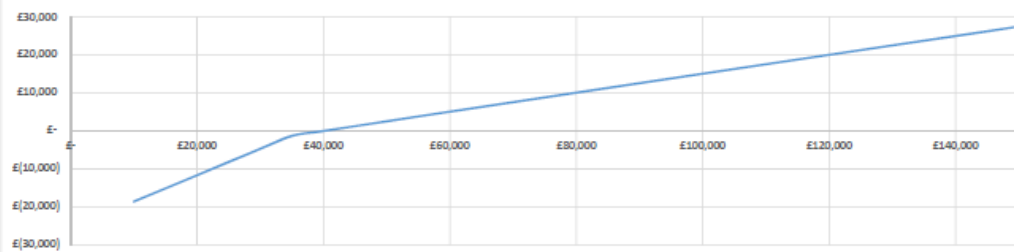
Break even point: £57,000

Adults	2	(Working age)	<- Adults (1 or 2)
Children	-		<- Children (any number - capped at 20!)
Income Split	50%		<- How much of household income is assigned to "primary" adult (0-100%)
Exc. Inc. Support?	No	If HH less than 5 years residency	<- Excludes income support (less than 5 year residency)

Couple both working, 5 year resident

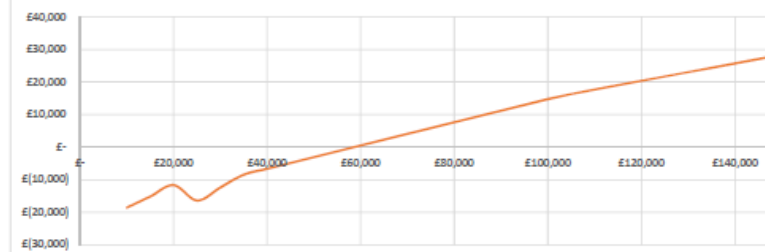
Estimated receipts from Household																	Estimated tax funded expenditure on Household					Tax Balances		
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund	Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation								
£ 10,000.00	£ -	£ -	520	£ 714.54	£ 1,148.94	£ 1,863.48	£ 520.00	£ 80.00	£ -	£ -	£ 3,038.00	£ 16,119.36	£ 1,320.00	-£ 18,613.88	£ -	-£ 18,613.88								
£ 15,000.00	£ -	£ -	780	£ 740.46	£ 1,146.38	£ 1,886.85	£ 780.00	£ 120.00	£ -	£ -	£ 3,038.00	£ 12,669.36	£ 1,320.00	-£ 15,140.51	£ -	-£ 15,140.51								
£ 20,000.00	£ -	£ -	1040	£ 765.84	£ 1,144.26	£ 1,910.10	£ 1,040.00	£ 160.00	£ -	£ -	£ 3,038.00	£ 9,219.36	£ 1,320.00	-£ 11,667.26	£ -	-£ 11,667.26								
£ 25,000.00	£ -	£ -	1300	£ 790.71	£ 1,142.52	£ 1,933.23	£ 1,300.00	£ 200.00	£ -	£ -	£ 3,038.00	£ 5,769.36	£ 1,320.00	-£ 8,194.13	£ 8,185.80	-£ 16,379.93								
£ 30,000.00	£ -	£ -	1560	£ 815.11	£ 1,141.10	£ 1,956.21	£ 1,560.00	£ 240.00	£ -	£ -	£ 3,038.00	£ 2,319.36	£ 1,320.00	-£ 4,721.15	£ 7,660.80	-£ 12,381.95								
£ 35,000.00	£ 1,031.21	£ 51.56	1820	£ 856.27	£ 1,139.30	£ 3,026.79	£ 1,820.00	£ 280.00	£ 51.56	£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 1,331.21	£ 7,135.80	-£ 8,467.01								
£ 40,000.00	£ 2,246.00	£ 112.30	2080	£ 929.97	£ 1,137.64	£ 4,313.60	£ 2,080.00	£ 320.00	£ 112.30	£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 44.40	£ 6,610.80	-£ 6,655.20								
£ 45,000.00	£ 3,454.59	£ 172.73	2340	£ 1,000.21	£ 1,137.56	£ 5,592.36	£ 2,340.00	£ 360.00	£ 172.73	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 1,234.36	£ 6,085.80	-£ 4,851.44								
£ 50,000.00	£ 4,658.10	£ 232.90	2600	£ 1,067.54	£ 1,138.56	£ 6,864.20	£ 2,600.00	£ 400.00	£ 232.90	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 2,506.20	£ 5,560.80	-£ 3,054.60								
£ 55,000.00	£ 5,857.49	£ 292.87	2860	£ 1,132.34	£ 1,140.33	£ 8,130.16	£ 2,860.00	£ 440.00	£ 292.87	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 3,772.16	£ 5,035.80	-£ 1,263.64								
£ 60,000.00	£ 7,053.64	£ 352.68	3120	£ 1,194.92	£ 1,142.66	£ 9,391.22	£ 3,120.00	£ 480.00	£ 352.68	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 5,033.22	£ 4,510.80	£ 522.42								
£ 65,000.00	£ 8,247.27	£ 412.36	3380	£ 1,255.55	£ 1,145.39	£ 10,648.20	£ 3,380.00	£ 520.00	£ 412.36	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 6,290.20	£ 3,985.80	£ 2,304.40								
£ 70,000.00	£ 9,439.01	£ 471.95	3640	£ 1,314.41	£ 1,148.41	£ 11,901.84	£ 3,640.00	£ 560.00	£ 471.95	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 7,543.84	£ 3,460.80	£ 4,083.04								
£ 75,000.00	£ 10,629.39	£ 531.47	3900	£ 1,371.70	£ 1,151.66	£ 13,152.75	£ 3,900.00	£ 600.00	£ 531.47	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 8,794.75	£ 2,935.80	£ 5,858.95								
£ 80,000.00	£ 11,818.85	£ 590.94	4160	£ 1,427.54	£ 1,155.07	£ 14,401.46	£ 4,160.00	£ 640.00	£ 590.94	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 10,043.46	£ 2,410.80	£ 7,632.66								
£ 85,000.00	£ 13,007.75	£ 650.39	4420	£ 1,482.06	£ 1,158.60	£ 15,648.42	£ 4,420.00	£ 680.00	£ 650.39	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 11,290.42	£ 1,885.80	£ 9,404.62								
£ 90,000.00	£ 14,196.40	£ 709.82	4680	£ 1,535.37	£ 1,162.21	£ 16,893.98	£ 4,680.00	£ 720.00	£ 709.82	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 12,535.98	£ 1,360.80	£ 11,175.18								
£ 95,000.00	£ 15,385.01	£ 769.25	4940	£ 1,587.57	£ 1,165.89	£ 18,138.47	£ 4,940.00	£ 760.00	£ 769.25	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 13,780.47	£ 835.80	£ 12,944.67								
£ 100,000.00	£ 16,573.80	£ 828.69	5200	£ 1,638.72	£ 1,169.60	£ 19,382.13	£ 5,200.00	£ 800.00	£ 828.69	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 15,024.13	£ 310.80	£ 14,713.33								
£ 105,000.00	£ 17,762.92	£ 888.15	5353.92	£ 1,688.91	£ 1,173.34	£ 20,625.16	£ 5,353.92	£ 823.68	£ 888.15	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 16,267.16	-£ 40.80	£ 16,307.96								
£ 110,000.00	£ 18,952.48	£ 947.62	5353.92	£ 1,738.19	£ 1,177.09	£ 21,867.75	£ 5,353.92	£ 823.68	£ 947.62	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 17,509.75	-£ 140.80	£ 17,650.55								
£ 115,000.00	£ 20,142.57	£ 1,007.13	5353.92	£ 1,786.62	£ 1,180.84	£ 23,110.03	£ 5,353.92	£ 823.68	£ 1,007.13	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 18,752.03	-£ 240.80	£ 18,992.83								
£ 120,000.00	£ 21,333.27	£ 1,066.66	5353.92	£ 1,834.26	£ 1,184.59	£ 24,352.11	£ 5,353.92	£ 823.68	£ 1,066.66	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 19,994.11	-£ 340.80	£ 20,334.91								
£ 125,000.00	£ 22,524.62	£ 1,126.23	5353.92	£ 1,881.15	£ 1,188.32	£ 25,594.09	£ 5,353.92	£ 823.68	£ 1,126.23	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 21,236.09	-£ 440.80	£ 21,676.89								
£ 130,000.00	£ 23,716.67	£ 1,185.83	5353.92	£ 1,927.32	£ 1,192.04	£ 26,836.03	£ 5,353.92	£ 823.68	£ 1,185.83	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 22,478.03	-£ 540.80	£ 23,018.83								
£ 135,000.00	£ 24,909.44	£ 1,245.47	5353.92	£ 1,972.82	£ 1,195.74	£ 28,078.00	£ 5,353.92	£ 823.68	£ 1,245.47	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 23,720.00	-£ 640.80	£ 24,360.80								
£ 140,000.00	£ 26,102.94	£ 1,305.15	5353.92	£ 2,017.68	£ 1,199.41	£ 29,320.04	£ 5,353.92	£ 823.68	£ 1,305.15	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 24,962.04	-£ 740.80	£ 25,702.84								
£ 145,000.00	£ 27,297.18	£ 1,364.86	5353.92	£ 2,061.94	£ 1,203.07	£ 30,562.18	£ 5,353.92	£ 823.68	£ 1,364.86	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 26,204.18	-£ 840.80	£ 27,044.98								
£ 150,000.00	£ 28,492.15	£ 1,424.61	5353.92	£ 2,105.61	£ 1,206.69	£ 31,804.45	£ 5,353.92	£ 823.68	£ 1,424.61	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 27,446.45	-£ 940.80	£ 28,387.25								

Tax balance pre-supplementation



Break even point: £40,000

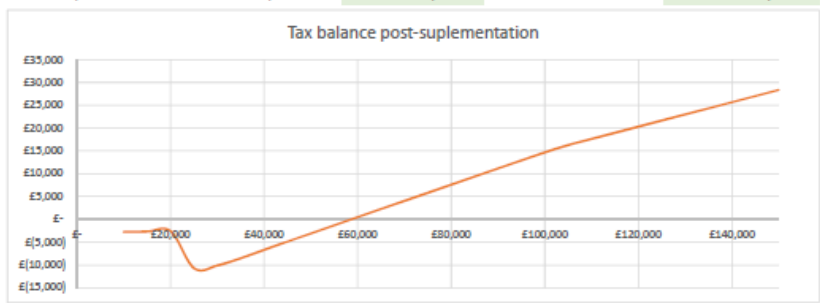
Tax balance post-supplementation



Break even point: £59,000

Couple both working, recent arrival

<u>Estimated tax funded expenditure on Household</u>					<u>Tax Balances</u>		
Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation	
£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,720.02	£ -	-£ 2,720.02	
£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,659.80	£ -	-£ 2,659.80	
£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,586.98	£ -	-£ 2,586.98	
£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,511.44	£ 8,185.80	-£ 10,697.72	
£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,436.23	£ 7,660.80	-£ 10,097.03	
£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 1,331.21	£ 7,135.80	-£ 8,467.01	
£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 44.40	£ 6,610.80	-£ 6,655.20	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 1,234.36	£ 6,085.80	-£ 4,851.44	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 2,506.20	£ 5,560.80	-£ 3,054.60	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 3,772.16	£ 5,035.80	-£ 1,263.64	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 5,033.22	£ 4,510.80	£ 522.42	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 6,290.20	£ 3,985.80	£ 2,304.40	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 7,543.84	£ 3,460.80	£ 4,083.04	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 8,794.75	£ 2,935.80	£ 5,858.95	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 10,043.46	£ 2,410.80	£ 7,632.66	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 11,290.42	£ 1,885.80	£ 9,404.62	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 12,535.98	£ 1,360.80	£ 11,175.18	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 13,780.47	£ 835.80	£ 12,944.67	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 15,024.13	£ 310.80	£ 14,713.33	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 16,267.16	-£ 40.80	£ 16,307.96	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 17,509.75	-£ 140.80	£ 17,650.55	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 18,752.03	-£ 240.80	£ 18,992.83	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 19,994.11	-£ 340.80	£ 20,334.91	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 21,236.09	-£ 440.80	£ 21,676.89	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 22,478.03	-£ 540.80	£ 23,018.83	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 23,720.00	-£ 640.80	£ 24,360.80	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 24,962.04	-£ 740.80	£ 25,702.84	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 26,204.18	-£ 840.80	£ 27,044.98	
£ -	£ 3,038.00	£ -	£ 1,320.00	£ 27,446.45	-£ 940.80	£ 28,387.25	



Break even point: £59,000

Adults 2 (Working age)
Children -
Income Split 100%
Exc. Inc. Support? No If HH less than 5 years residency

<- Adults (1 or 2)
<- Children (any number - capped at 20!)
<- How much of household income is assigned to "primary" adult (0-100%)
<- Excludes income support (less than 5 year residency)

Couple single worker, 5 year resident

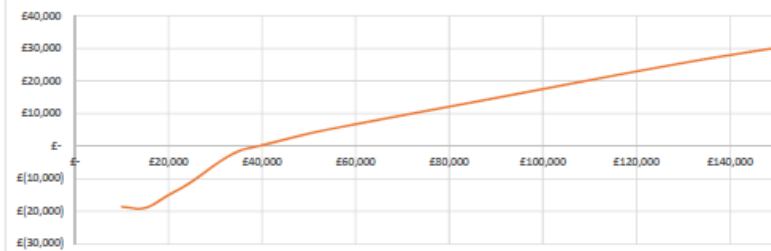
Estimated receipts from Household										Estimated tax funded expenditure on Household				Tax Balances		
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund	Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation
£ 10,000.00	£ -	£ -	520	£ 714.54	£ 1,148.94	£ 1,863.48	£ 520.00	£ 80.00	£ -	£ -	£ 3,038.00	£ 16,119.36	£ 1,320.00	-£ 18,613.88	£ -	-£ 18,613.88
£ 15,000.00	£ -	£ -	780	£ 740.46	£ 1,146.38	£ 1,886.85	£ 780.00	£ 120.00	£ -	£ -	£ 3,038.00	£ 12,669.36	£ 1,320.00	-£ 15,140.51	£ 3,830.40	-£ 18,970.91
£ 20,000.00	£ -	£ -	1040	£ 765.84	£ 1,144.26	£ 1,910.10	£ 1,040.00	£ 160.00	£ -	£ -	£ 3,038.00	£ 9,219.36	£ 1,320.00	-£ 11,667.26	£ 3,305.40	-£ 14,972.66
£ 25,000.00	£ 99.15	£ 4.96	1300	£ 790.71	£ 1,142.52	£ 2,032.39	£ 1,300.00	£ 200.00	£ 4.96	£ -	£ 3,038.00	£ 5,769.36	£ 1,320.00	-£ 8,094.97	£ 2,780.40	-£ 10,875.37
£ 30,000.00	£ 1,330.02	£ 66.50	1560	£ 815.11	£ 1,141.10	£ 3,286.24	£ 1,560.00	£ 240.00	£ 66.50	£ -	£ 3,038.00	£ 2,319.36	£ 1,320.00	-£ 3,391.12	£ 2,255.40	-£ 5,646.52
£ 35,000.00	£ 2,552.21	£ 127.61	1820	£ 856.27	£ 1,139.30	£ 4,547.79	£ 1,820.00	£ 280.00	£ 127.61	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 189.79	£ 1,730.40	-£ 1,540.61
£ 40,000.00	£ 3,767.00	£ 188.35	2080	£ 929.97	£ 1,137.64	£ 5,834.60	£ 2,080.00	£ 320.00	£ 188.35	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 1,476.60	£ 1,205.40	£ 271.20
£ 45,000.00	£ 4,975.59	£ 248.78	2340	£ 1,000.21	£ 1,137.56	£ 7,113.36	£ 2,340.00	£ 360.00	£ 248.78	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 2,755.36	£ 680.40	£ 2,074.96
£ 50,000.00	£ 6,179.10	£ 308.95	2600	£ 1,067.54	£ 1,138.56	£ 8,385.20	£ 2,600.00	£ 400.00	£ 308.95	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 4,027.20	£ 155.40	£ 3,871.80
£ 55,000.00	£ 7,378.49	£ 368.92	2876	£ 1,132.34	£ 1,140.33	£ 9,651.16	£ 2,876.96	£ 411.84	£ 368.92	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 5,293.16	-£ 70.40	£ 5,363.56
£ 60,000.00	£ 8,574.64	£ 428.73	3152	£ 1,194.92	£ 1,142.66	£ 10,912.22	£ 3,152.96	£ 411.84	£ 428.73	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 6,554.22	-£ 170.40	£ 6,724.62
£ 65,000.00	£ 9,768.27	£ 488.41	3428	£ 1,255.55	£ 1,145.39	£ 12,169.20	£ 3,428.96	£ 411.84	£ 488.41	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 7,811.20	-£ 270.40	£ 8,081.60
£ 70,000.00	£ 10,960.01	£ 548.00	3704	£ 1,314.41	£ 1,148.41	£ 13,422.84	£ 3,704.96	£ 411.84	£ 548.00	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 9,064.84	-£ 370.40	£ 9,435.24
£ 75,000.00	£ 12,150.39	£ 607.52	3980	£ 1,371.70	£ 1,151.66	£ 14,673.75	£ 3,980.96	£ 411.84	£ 607.52	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 10,315.75	-£ 470.40	£ 10,786.15
£ 80,000.00	£ 13,339.85	£ 666.99	4256	£ 1,427.54	£ 1,155.07	£ 15,922.46	£ 4,256.96	£ 411.84	£ 666.99	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 11,564.46	-£ 570.40	£ 12,134.86
£ 85,000.00	£ 14,528.75	£ 726.44	4532	£ 1,482.06	£ 1,158.60	£ 17,169.42	£ 4,532.96	£ 411.84	£ 726.44	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 12,811.42	-£ 670.40	£ 13,481.82
£ 90,000.00	£ 15,717.40	£ 785.87	4808	£ 1,535.37	£ 1,162.21	£ 18,414.98	£ 4,808.96	£ 411.84	£ 785.87	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 14,056.98	-£ 770.40	£ 14,827.38
£ 95,000.00	£ 16,906.01	£ 845.30	5084	£ 1,587.57	£ 1,165.89	£ 19,659.47	£ 5,084.96	£ 411.84	£ 845.30	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 15,301.47	-£ 870.40	£ 16,171.87
£ 100,000.00	£ 18,094.80	£ 904.74	5360	£ 1,638.72	£ 1,169.60	£ 20,903.13	£ 5,360.96	£ 411.84	£ 904.74	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 16,545.13	-£ 970.40	£ 17,515.53
£ 105,000.00	£ 19,283.92	£ 964.20	5636	£ 1,688.91	£ 1,173.34	£ 22,146.16	£ 5,636.96	£ 411.84	£ 964.20	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 17,788.16	-£ 1,070.40	£ 18,858.56
£ 110,000.00	£ 20,473.48	£ 1,023.67	5912	£ 1,738.19	£ 1,177.09	£ 23,388.75	£ 5,912.96	£ 411.84	£ 1,023.67	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 19,030.75	-£ 1,170.40	£ 20,201.15
£ 115,000.00	£ 21,663.57	£ 1,083.18	6188	£ 1,786.62	£ 1,180.84	£ 24,631.03	£ 6,188.96	£ 411.84	£ 1,083.18	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 20,273.03	-£ 1,270.40	£ 21,543.43
£ 120,000.00	£ 22,854.27	£ 1,142.71	6464	£ 1,834.26	£ 1,184.59	£ 25,873.11	£ 6,464.96	£ 411.84	£ 1,142.71	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 21,515.11	-£ 1,370.40	£ 22,885.51
£ 125,000.00	£ 24,045.62	£ 1,202.28	6740	£ 1,881.15	£ 1,188.32	£ 27,115.09	£ 6,740.96	£ 411.84	£ 1,202.28	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 22,757.09	-£ 1,470.40	£ 24,227.49
£ 130,000.00	£ 25,237.67	£ 1,261.88	7016	£ 1,927.32	£ 1,192.04	£ 28,357.03	£ 7,016.96	£ 411.84	£ 1,261.88	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 23,999.03	-£ 1,570.40	£ 25,569.43
£ 135,000.00	£ 26,433.23	£ 1,316.66	7292	£ 1,972.82	£ 1,195.74	£ 29,591.79	£ 7,292.96	£ 411.84	£ 1,316.66	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 25,243.79	-£ 1,670.40	£ 26,914.19
£ 140,000.00	£ 27,630.43	£ 1,365.12	7568	£ 2,017.68	£ 1,199.41	£ 30,819.53	£ 7,568.96	£ 411.84	£ 1,365.12	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 26,486.53	-£ 1,770.40	£ 27,931.93
£ 145,000.00	£ 28,827.16	£ 1,413.59	7844	£ 2,061.94	£ 1,203.07	£ 31,536.76	£ 7,844.96	£ 411.84	£ 1,413.59	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 27,728.76	-£ 1,870.40	£ 29,049.16
£ 150,000.00	£ 29,241.22	£ 1,462.06	8120	£ 2,105.61	£ 1,206.69	£ 32,553.53	£ 8,120.96	£ 411.84	£ 1,462.06	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 28,970.53	-£ 1,970.40	£ 30,165.93

Tax balance pre-supplementation



Break even point: £34,000

Tax balance post-supplementation

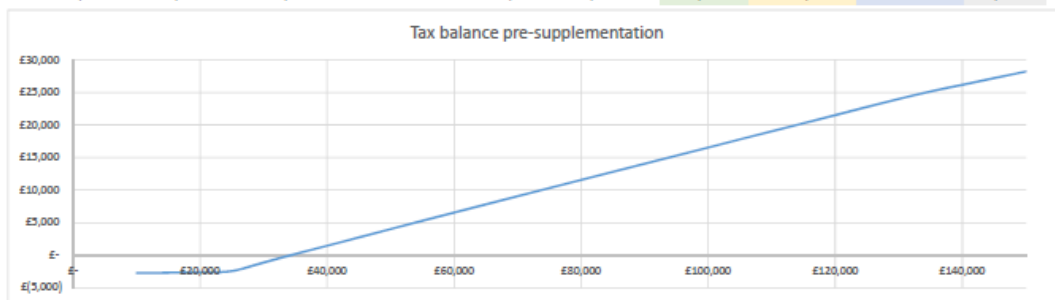


Break even point: £39,000

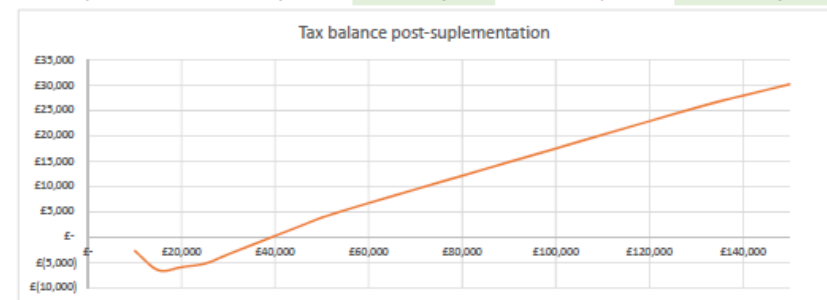
Adults	2	(Working age)	<- Adults (1 or 2)
Children	-		<- Children (any number - capped at 20!)
Income Split	100%		<- How much of household income is assigned to "primary" adult (0-100%)
Exc. Inc. Support?	Yes	If HH less than 5 years residency	<- Excludes income support (less than 5 year residency)

Couple single worker, recent arrival

Estimated receipts from Household										Estimated tax funded expenditure on Household				Tax Balances		
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund	Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation
£ 10,000.00	£ -	£ -	520	£ 394.66	£ 1,243.32	£ 1,637.98	£ 520.00	£ 80.00	£ -	£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,720.02	£ -	-£ 2,720.02
£ 15,000.00	£ -	£ -	780	£ 507.11	£ 1,191.09	£ 1,698.20	£ 780.00	£ 120.00	£ -	£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,659.80	£ 3,830.40	-£ 6,490.20
£ 20,000.00	£ -	£ -	1040	£ 605.82	£ 1,165.19	£ 1,771.02	£ 1,040.00	£ 160.00	£ -	£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,586.98	£ 3,305.40	-£ 5,892.38
£ 25,000.00	£ 99.15	£ 4.96	1300	£ 695.45	£ 1,151.11	£ 1,945.71	£ 1,300.00	£ 200.00	£ 4.96	£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 2,412.29	£ 2,780.40	-£ 5,192.69
£ 30,000.00	£ 1,330.02	£ 66.50	1560	£ 778.43	£ 1,143.34	£ 3,251.79	£ 1,560.00	£ 240.00	£ 66.50	£ -	£ 3,038.00	£ -	£ 1,320.00	-£ 1,106.21	£ 2,255.40	-£ 3,361.61
£ 35,000.00	£ 2,552.21	£ 127.61	1820	£ 856.27	£ 1,139.30	£ 4,547.79	£ 1,820.00	£ 280.00	£ 127.61	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 189.79	£ 1,730.40	-£ 1,540.61
£ 40,000.00	£ 3,767.00	£ 188.35	2080	£ 929.97	£ 1,137.64	£ 5,834.60	£ 2,080.00	£ 320.00	£ 188.35	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 1,476.60	£ 1,205.40	£ 271.20
£ 45,000.00	£ 4,975.59	£ 248.78	2340	£ 1,000.21	£ 1,137.56	£ 7,113.36	£ 2,340.00	£ 360.00	£ 248.78	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 2,755.36	£ 680.40	£ 2,074.96
£ 50,000.00	£ 6,179.10	£ 308.95	2600	£ 1,067.54	£ 1,138.56	£ 8,385.20	£ 2,600.00	£ 400.00	£ 308.95	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 4,027.20	£ 155.40	£ 3,871.80
£ 55,000.00	£ 7,378.49	£ 368.92	2676.96	£ 1,132.34	£ 1,140.33	£ 9,651.16	£ 2,676.96	£ 411.84	£ 368.92	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 5,293.16	-£ 70.40	£ 5,363.56
£ 60,000.00	£ 8,574.64	£ 428.73	2676.96	£ 1,194.92	£ 1,142.66	£ 10,912.22	£ 2,676.96	£ 411.84	£ 428.73	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 6,554.22	-£ 170.40	£ 6,724.62
£ 65,000.00	£ 9,768.27	£ 488.41	2676.96	£ 1,255.55	£ 1,145.39	£ 12,169.20	£ 2,676.96	£ 411.84	£ 488.41	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 7,811.20	-£ 270.40	£ 8,081.60
£ 70,000.00	£ 10,960.01	£ 548.00	2676.96	£ 1,314.41	£ 1,148.41	£ 13,422.84	£ 2,676.96	£ 411.84	£ 548.00	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 9,064.84	-£ 370.40	£ 9,435.24
£ 75,000.00	£ 12,150.39	£ 607.52	2676.96	£ 1,371.70	£ 1,151.66	£ 14,673.75	£ 2,676.96	£ 411.84	£ 607.52	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 10,315.75	-£ 470.40	£ 10,786.15
£ 80,000.00	£ 13,339.85	£ 666.99	2676.96	£ 1,427.54	£ 1,155.07	£ 15,922.46	£ 2,676.96	£ 411.84	£ 666.99	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 11,564.46	-£ 570.40	£ 12,134.86
£ 85,000.00	£ 14,528.75	£ 726.44	2676.96	£ 1,482.06	£ 1,158.60	£ 17,169.42	£ 2,676.96	£ 411.84	£ 726.44	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 12,811.42	-£ 670.40	£ 13,481.82
£ 90,000.00	£ 15,717.40	£ 785.87	2676.96	£ 1,535.37	£ 1,162.21	£ 18,414.98	£ 2,676.96	£ 411.84	£ 785.87	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 14,056.98	-£ 770.40	£ 14,827.38
£ 95,000.00	£ 16,906.01	£ 845.30	2676.96	£ 1,587.57	£ 1,165.89	£ 19,659.47	£ 2,676.96	£ 411.84	£ 845.30	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 15,301.47	-£ 870.40	£ 16,171.87
£ 100,000.00	£ 18,094.80	£ 904.74	2676.96	£ 1,638.72	£ 1,169.60	£ 20,903.13	£ 2,676.96	£ 411.84	£ 904.74	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 16,545.13	-£ 970.40	£ 17,515.53
£ 105,000.00	£ 19,283.92	£ 964.20	2676.96	£ 1,688.91	£ 1,173.34	£ 22,146.16	£ 2,676.96	£ 411.84	£ 964.20	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 17,788.16	-£ 1,070.40	£ 18,858.56
£ 110,000.00	£ 20,473.48	£ 1,023.67	2676.96	£ 1,738.19	£ 1,177.09	£ 23,388.75	£ 2,676.96	£ 411.84	£ 1,023.67	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 19,030.75	-£ 1,170.40	£ 20,201.15
£ 115,000.00	£ 21,663.57	£ 1,083.18	2676.96	£ 1,786.62	£ 1,180.84	£ 24,631.03	£ 2,676.96	£ 411.84	£ 1,083.18	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 20,273.03	-£ 1,270.40	£ 21,543.43
£ 120,000.00	£ 22,854.27	£ 1,142.71	2676.96	£ 1,834.26	£ 1,184.59	£ 25,873.11	£ 2,676.96	£ 411.84	£ 1,142.71	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 21,515.11	-£ 1,370.40	£ 22,885.51
£ 125,000.00	£ 24,045.62	£ 1,202.28	2676.96	£ 1,881.15	£ 1,188.32	£ 27,115.09	£ 2,676.96	£ 411.84	£ 1,202.28	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 22,757.09	-£ 1,470.40	£ 24,227.49
£ 130,000.00	£ 25,237.67	£ 1,261.88	2676.96	£ 1,927.32	£ 1,192.04	£ 28,357.03	£ 2,676.96	£ 411.84	£ 1,261.88	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 23,999.03	-£ 1,570.40	£ 25,569.43
£ 135,000.00	£ 26,333.23	£ 1,316.66	2676.96	£ 1,972.82	£ 1,195.74	£ 29,501.79	£ 2,676.96	£ 411.84	£ 1,316.66	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 25,143.79	-£ 1,670.40	£ 26,814.19
£ 140,000.00	£ 27,302.43	£ 1,365.12	2676.96	£ 2,017.68	£ 1,199.41	£ 30,519.53	£ 2,676.96	£ 411.84	£ 1,365.12	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 26,161.53	-£ 1,770.40	£ 27,931.93
£ 145,000.00	£ 28,271.76	£ 1,413.59	2676.96	£ 2,061.94	£ 1,203.07	£ 31,536.76	£ 2,676.96	£ 411.84	£ 1,413.59	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 27,178.76	-£ 1,870.40	£ 29,049.16
£ 150,000.00	£ 29,241.22	£ 1,462.06	2676.96	£ 2,105.61	£ 1,206.69	£ 32,553.53	£ 2,676.96	£ 411.84	£ 1,462.06	£ -	£ 3,038.00	£ -	£ 1,320.00	£ 28,195.53	-£ 1,970.40	£ 30,165.93



Break even point: £34,000



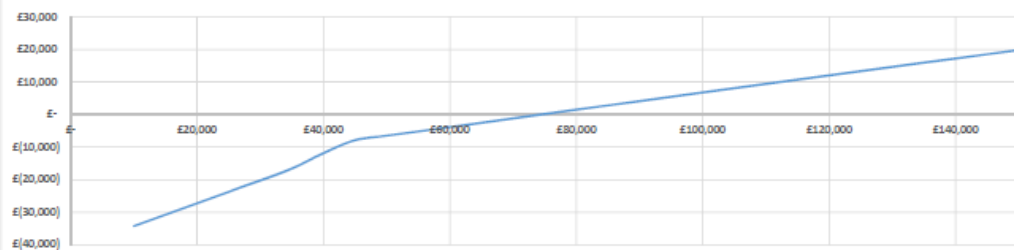
Break even point: £39,000

Adults	2	(Working age)	<- Adults (1 or 2)
Children	1		<- Children (any number - capped at 20!)
Income Split	50%		<- How much of household income is assigned to "primary" adult (0-100%)
Exc. Inc. Support?	No	If HH less than 5 years residency	<- Excludes income support (less than 5 year residency)

Couple both working, 1 child, 5 year resident

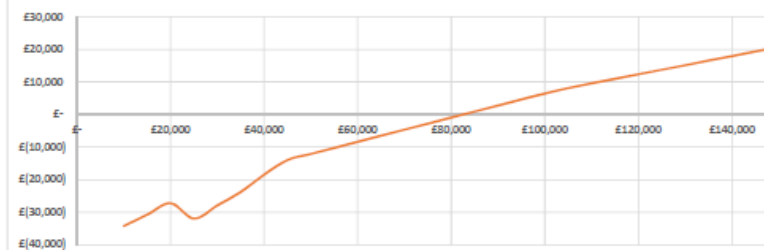
Estimated receipts from Household										Estimated tax funded expenditure on Household				Tax Balances		
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund	Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation
£ 10,000.00	£ -	£ -	520	£ 817.36	£ 1,140.99	£ 1,958.35	£ 520.00	£ 80.00	£ -	£ 6,987.12	£ 4,751.00	£ 22,463.88	£ 1,980.00	-£ 34,223.65	£ -	-£ 34,223.65
£ 15,000.00	£ -	£ -	780	£ 841.27	£ 1,139.88	£ 1,981.15	£ 780.00	£ 120.00	£ -	£ 6,968.88	£ 4,751.00	£ 19,013.88	£ 1,980.00	-£ 30,732.60	£ -	-£ 30,732.60
£ 20,000.00	£ -	£ -	1040	£ 864.77	£ 1,139.02	£ 2,003.79	£ 1,040.00	£ 160.00	£ -	£ 6,942.10	£ 4,751.00	£ 15,563.88	£ 1,980.00	-£ 27,233.19	£ -	-£ 27,233.19
£ 25,000.00	£ -	£ -	1300	£ 887.89	£ 1,138.37	£ 2,026.25	£ 1,300.00	£ 200.00	£ -	£ 6,906.82	£ 4,751.00	£ 12,113.88	£ 1,980.00	-£ 23,725.44	£ 8,185.80	-£ 31,911.24
£ 30,000.00	£ -	£ -	1560	£ 910.63	£ 1,137.91	£ 2,048.54	£ 1,560.00	£ 240.00	£ -	£ 6,863.33	£ 4,751.00	£ 8,663.88	£ 1,980.00	-£ 20,209.67	£ 7,660.80	-£ 27,870.47
£ 35,000.00	£ 97.81	£ 4.89	1820	£ 933.04	£ 1,137.61	£ 2,168.46	£ 1,820.00	£ 280.00	£ 4.89	£ 6,812.18	£ 4,751.00	£ 5,213.88	£ 1,980.00	-£ 16,588.60	£ 7,135.80	-£ 23,724.40
£ 40,000.00	£ 1,312.60	£ 65.63	2080	£ 955.11	£ 1,137.46	£ 3,405.17	£ 2,080.00	£ 320.00	£ 65.63	£ 6,754.10	£ 4,751.00	£ 1,763.88	£ 1,980.00	-£ 11,843.81	£ 6,610.80	-£ 18,454.61
£ 45,000.00	£ 2,521.19	£ 126.06	2340	£ 1,000.21	£ 1,137.56	£ 4,658.96	£ 2,340.00	£ 360.00	£ 126.06	£ 5,789.95	£ 4,751.00	£ -	£ 1,980.00	-£ 7,861.98	£ 6,085.80	-£ 13,947.78
£ 50,000.00	£ 3,724.70	£ 186.23	2600	£ 1,067.54	£ 1,138.56	£ 5,930.80	£ 2,600.00	£ 400.00	£ 186.23	£ 5,720.68	£ 4,751.00	£ -	£ 1,980.00	-£ 6,520.88	£ 5,560.80	-£ 12,081.68
£ 55,000.00	£ 4,924.09	£ 246.20	2860	£ 1,132.34	£ 1,140.33	£ 7,196.76	£ 2,860.00	£ 440.00	£ 246.20	£ 5,647.28	£ 4,751.00	£ -	£ 1,980.00	-£ 5,181.52	£ 5,035.80	-£ 10,217.32
£ 60,000.00	£ 6,120.24	£ 306.01	3120	£ 1,194.92	£ 1,142.66	£ 8,457.82	£ 3,120.00	£ 480.00	£ 306.01	£ 5,570.76	£ 4,751.00	£ -	£ 1,980.00	-£ 3,843.95	£ 4,510.80	-£ 8,354.75
£ 65,000.00	£ 7,313.87	£ 365.69	3380	£ 1,255.55	£ 1,145.39	£ 9,714.80	£ 3,380.00	£ 520.00	£ 365.69	£ 5,492.08	£ 4,751.00	£ -	£ 1,980.00	-£ 2,508.28	£ 3,985.80	-£ 6,494.08
£ 70,000.00	£ 8,505.61	£ 425.28	3640	£ 1,314.41	£ 1,148.41	£ 10,968.44	£ 3,640.00	£ 560.00	£ 425.28	£ 5,412.13	£ 4,751.00	£ -	£ 1,980.00	-£ 1,174.69	£ 3,460.80	-£ 4,635.49
£ 75,000.00	£ 9,695.99	£ 484.80	3900	£ 1,371.70	£ 1,151.66	£ 12,219.35	£ 3,900.00	£ 600.00	£ 484.80	£ 5,331.74	£ 4,751.00	£ -	£ 1,980.00	£ 156.61	£ 2,935.80	-£ 2,779.19
£ 80,000.00	£ 10,885.45	£ 544.27	4160	£ 1,427.54	£ 1,155.07	£ 13,468.06	£ 4,160.00	£ 640.00	£ 544.27	£ 5,251.63	£ 4,751.00	£ -	£ 1,980.00	£ 1,485.43	£ 2,410.80	-£ 925.37
£ 85,000.00	£ 12,074.35	£ 603.72	4420	£ 1,482.06	£ 1,158.60	£ 14,715.02	£ 4,420.00	£ 680.00	£ 603.72	£ 5,172.44	£ 4,751.00	£ -	£ 1,980.00	£ 2,811.57	£ 1,885.80	£ 925.77
£ 90,000.00	£ 13,263.00	£ 663.15	4680	£ 1,535.37	£ 1,162.21	£ 15,960.58	£ 4,680.00	£ 720.00	£ 663.15	£ 5,094.69	£ 4,751.00	£ -	£ 1,980.00	£ 4,134.89	£ 1,360.80	£ 2,774.09
£ 95,000.00	£ 14,451.61	£ 722.58	4940	£ 1,587.57	£ 1,165.89	£ 17,205.07	£ 4,940.00	£ 760.00	£ 722.58	£ 5,018.82	£ 4,751.00	£ -	£ 1,980.00	£ 5,455.25	£ 835.80	£ 4,619.45
£ 100,000.00	£ 15,640.40	£ 782.02	5200	£ 1,638.72	£ 1,169.60	£ 18,448.73	£ 5,200.00	£ 800.00	£ 782.02	£ 4,945.15	£ 4,751.00	£ -	£ 1,980.00	£ 6,772.57	£ 310.80	£ 6,461.77
£ 105,000.00	£ 16,829.52	£ 841.48	5353.92	£ 1,688.91	£ 1,173.34	£ 19,691.76	£ 5,353.92	£ 823.68	£ 841.48	£ 4,873.96	£ 4,751.00	£ -	£ 1,980.00	£ 8,086.81	-£ 40.80	£ 8,127.61
£ 110,000.00	£ 18,019.08	£ 900.95	5353.92	£ 1,738.19	£ 1,177.09	£ 20,934.35	£ 5,353.92	£ 823.68	£ 900.95	£ 4,805.41	£ 4,751.00	£ -	£ 1,980.00	£ 9,397.94	-£ 140.80	£ 9,538.74
£ 115,000.00	£ 19,209.17	£ 960.46	5353.92	£ 1,786.62	£ 1,180.84	£ 22,176.63	£ 5,353.92	£ 823.68	£ 960.46	£ 4,739.64	£ 4,751.00	£ -	£ 1,980.00	£ 10,705.99	-£ 240.80	£ 10,946.79
£ 120,000.00	£ 20,399.87	£ 1,019.99	5353.92	£ 1,834.26	£ 1,184.59	£ 23,418.71	£ 5,353.92	£ 823.68	£ 1,019.99	£ 4,676.72	£ 4,751.00	£ -	£ 1,980.00	£ 12,011.00	-£ 340.80	£ 12,351.80
£ 125,000.00	£ 21,591.22	£ 1,079.56	5353.92	£ 1,881.15	£ 1,188.32	£ 24,660.69	£ 5,353.92	£ 823.68	£ 1,079.56	£ 4,616.65	£ 4,751.00	£ -	£ 1,980.00	£ 13,313.04	-£ 440.80	£ 13,753.84
£ 130,000.00	£ 22,783.27	£ 1,139.16	5353.92	£ 1,927.32	£ 1,192.04	£ 25,902.63	£ 5,353.92	£ 823.68	£ 1,139.16	£ 4,559.44	£ 4,751.00	£ -	£ 1,980.00	£ 14,612.19	-£ 540.80	£ 15,152.99
£ 135,000.00	£ 23,976.04	£ 1,198.80	5353.92	£ 1,972.82	£ 1,195.74	£ 27,144.60	£ 5,353.92	£ 823.68	£ 1,198.80	£ 4,505.03	£ 4,751.00	£ -	£ 1,980.00	£ 15,908.57	-£ 640.80	£ 16,549.37
£ 140,000.00	£ 25,169.54	£ 1,258.48	5353.92	£ 2,017.68	£ 1,199.41	£ 28,386.64	£ 5,353.92	£ 823.68	£ 1,258.48	£ 4,453.37	£ 4,751.00	£ -	£ 1,980.00	£ 17,202.26	-£ 740.80	£ 17,943.06
£ 145,000.00	£ 26,363.78	£ 1,318.19	5353.92	£ 2,061.94	£ 1,203.07	£ 29,628.78	£ 5,353.92	£ 823.68	£ 1,318.19	£ 4,404.38	£ 4,751.00	£ -	£ 1,980.00	£ 18,493.40	-£ 840.80	£ 19,334.20
£ 150,000.00	£ 27,558.75	£ 1,377.94	5353.92	£ 2,105.61	£ 1,206.69	£ 30,871.05	£ 5,353.92	£ 823.68	£ 1,377.94	£ 4,357.94	£ 4,751.00	£ -	£ 1,980.00	£ 19,782.11	-£ 940.80	£ 20,722.91

Tax balance pre-supplementation



Break even point: £74,000

Tax balance post-supplementation



Break even point: £82,000

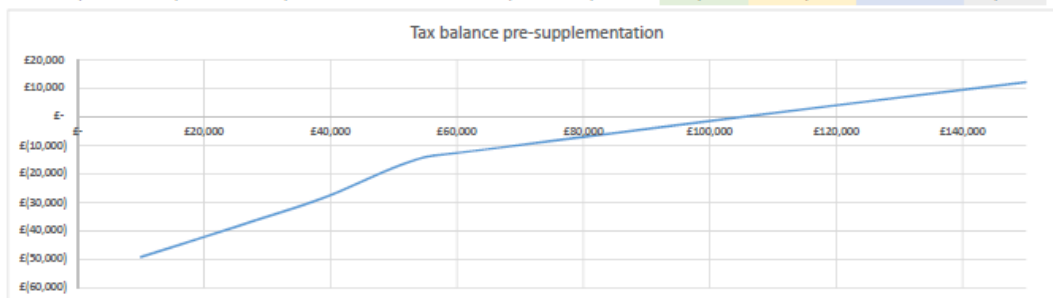
Adults 2 (Working age)
 Children 2
 Income Split 50%
 Exc. Inc. Support? No If HH less than 5 years residency

<- Adults (1 or 2)
 <- Children (any number - capped at 20!)
 <- How much of household income is assigned to "primary" adult (0-100%)
 <- Excludes income support (less than 5 year residency)

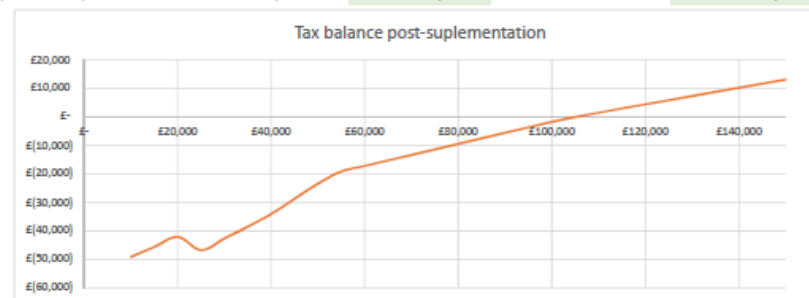
Couple both working, 2 children, 5 year resident

Estimated receipts from Household									
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund
£ 10,000.00	£ -	£ -	520	£ 902.59	£ 1,138.05	£ 2,040.64	£ 520.00	£ 80.00	£ -
£ 15,000.00	£ -	£ -	780	£ 925.11	£ 1,137.70	£ 2,062.81	£ 780.00	£ 120.00	£ -
£ 20,000.00	£ -	£ -	1040	£ 947.30	£ 1,137.50	£ 2,084.80	£ 1,040.00	£ 160.00	£ -
£ 25,000.00	£ -	£ -	1300	£ 969.18	£ 1,137.43	£ 2,106.61	£ 1,300.00	£ 200.00	£ -
£ 30,000.00	£ -	£ -	1560	£ 990.75	£ 1,137.49	£ 2,128.24	£ 1,560.00	£ 240.00	£ -
£ 35,000.00	£ -	£ -	1820	£ 1,012.03	£ 1,137.66	£ 2,149.69	£ 1,820.00	£ 280.00	£ -
£ 40,000.00	£ 379.20	£ 18.96	2080	£ 1,033.05	£ 1,137.93	£ 2,550.17	£ 2,080.00	£ 320.00	£ 18.96
£ 45,000.00	£ 1,587.79	£ 79.39	2340	£ 1,053.80	£ 1,138.28	£ 3,779.87	£ 2,340.00	£ 360.00	£ 79.39
£ 50,000.00	£ 2,791.30	£ 139.56	2600	£ 1,074.30	£ 1,138.71	£ 5,004.31	£ 2,600.00	£ 400.00	£ 139.56
£ 55,000.00	£ 3,990.69	£ 199.53	2860	£ 1,132.34	£ 1,140.33	£ 6,263.36	£ 2,860.00	£ 440.00	£ 199.53
£ 60,000.00	£ 5,186.84	£ 259.34	3120	£ 1,194.92	£ 1,142.66	£ 7,524.42	£ 3,120.00	£ 480.00	£ 259.34
£ 65,000.00	£ 6,380.47	£ 319.02	3380	£ 1,255.55	£ 1,145.39	£ 8,781.40	£ 3,380.00	£ 520.00	£ 319.02
£ 70,000.00	£ 7,572.21	£ 378.61	3640	£ 1,314.41	£ 1,148.41	£ 10,035.04	£ 3,640.00	£ 560.00	£ 378.61
£ 75,000.00	£ 8,762.59	£ 438.13	3900	£ 1,371.70	£ 1,151.66	£ 11,285.95	£ 3,900.00	£ 600.00	£ 438.13
£ 80,000.00	£ 9,952.05	£ 497.60	4160	£ 1,427.54	£ 1,155.07	£ 12,534.66	£ 4,160.00	£ 640.00	£ 497.60
£ 85,000.00	£ 11,140.95	£ 557.05	4420	£ 1,482.06	£ 1,158.60	£ 13,781.62	£ 4,420.00	£ 680.00	£ 557.05
£ 90,000.00	£ 12,329.60	£ 616.48	4680	£ 1,535.37	£ 1,162.21	£ 15,027.18	£ 4,680.00	£ 720.00	£ 616.48
£ 95,000.00	£ 13,518.21	£ 675.91	4940	£ 1,587.57	£ 1,165.89	£ 16,271.67	£ 4,940.00	£ 760.00	£ 675.91
£ 100,000.00	£ 14,707.00	£ 735.35	5200	£ 1,638.72	£ 1,169.60	£ 17,515.33	£ 5,200.00	£ 800.00	£ 735.35
£ 105,000.00	£ 15,896.12	£ 794.81	5353.92	£ 1,688.91	£ 1,173.34	£ 18,758.36	£ 5,353.92	£ 823.68	£ 794.81
£ 110,000.00	£ 17,085.68	£ 854.28	5353.92	£ 1,738.19	£ 1,177.09	£ 20,000.95	£ 5,353.92	£ 823.68	£ 854.28
£ 115,000.00	£ 18,275.77	£ 913.79	5353.92	£ 1,786.62	£ 1,180.84	£ 21,243.23	£ 5,353.92	£ 823.68	£ 913.79
£ 120,000.00	£ 19,466.47	£ 973.32	5353.92	£ 1,834.26	£ 1,184.59	£ 22,485.31	£ 5,353.92	£ 823.68	£ 973.32
£ 125,000.00	£ 20,657.82	£ 1,032.89	5353.92	£ 1,881.15	£ 1,188.32	£ 23,727.29	£ 5,353.92	£ 823.68	£ 1,032.89
£ 130,000.00	£ 21,849.87	£ 1,092.49	5353.92	£ 1,927.32	£ 1,192.04	£ 24,969.23	£ 5,353.92	£ 823.68	£ 1,092.49
£ 135,000.00	£ 23,042.64	£ 1,152.13	5353.92	£ 1,972.82	£ 1,195.74	£ 26,211.20	£ 5,353.92	£ 823.68	£ 1,152.13
£ 140,000.00	£ 24,236.14	£ 1,211.81	5353.92	£ 2,017.68	£ 1,199.41	£ 27,453.24	£ 5,353.92	£ 823.68	£ 1,211.81
£ 145,000.00	£ 25,430.38	£ 1,271.52	5353.92	£ 2,061.94	£ 1,203.07	£ 28,695.38	£ 5,353.92	£ 823.68	£ 1,271.52
£ 150,000.00	£ 26,625.35	£ 1,331.27	5353.92	£ 2,105.61	£ 1,206.69	£ 29,937.65	£ 5,353.92	£ 823.68	£ 1,331.27

Estimated tax funded expenditure on Household				Tax Balances		
Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation
£ 13,974.24	£ 6,464.00	£ 28,113.09	£ 2,640.00	-£ 49,150.69	£ -	-£ 49,150.69
£ 13,937.76	£ 6,464.00	£ 24,663.09	£ 2,640.00	-£ 45,642.03	£ -	-£ 45,642.03
£ 13,884.20	£ 6,464.00	£ 21,213.09	£ 2,640.00	-£ 42,116.49	£ -	-£ 42,116.49
£ 13,813.63	£ 6,464.00	£ 17,763.09	£ 2,640.00	-£ 38,574.11	£ 8,185.80	-£ 46,759.91
£ 13,726.65	£ 6,464.00	£ 14,313.09	£ 2,640.00	-£ 35,015.50	£ 7,660.80	-£ 42,676.30
£ 13,624.36	£ 6,464.00	£ 10,863.09	£ 2,640.00	-£ 31,441.75	£ 7,135.80	-£ 38,577.55
£ 13,508.20	£ 6,464.00	£ 7,413.09	£ 2,640.00	-£ 27,475.11	£ 6,610.80	-£ 34,085.91
£ 13,379.89	£ 6,464.00	£ 3,963.09	£ 2,640.00	-£ 22,667.11	£ 6,085.80	-£ 28,752.91
£ 13,241.35	£ 6,464.00	£ 513.09	£ 2,640.00	-£ 17,854.13	£ 5,560.80	-£ 23,414.93
£ 11,294.57	£ 6,464.00	-	£ 2,640.00	-£ 14,135.21	£ 5,035.80	-£ 19,171.01
£ 11,141.52	£ 6,464.00	-	£ 2,640.00	-£ 12,721.11	£ 4,510.80	-£ 17,231.91
£ 10,984.15	£ 6,464.00	-	£ 2,640.00	-£ 11,306.75	£ 3,985.80	-£ 15,292.55
£ 10,824.25	£ 6,464.00	-	£ 2,640.00	-£ 9,893.22	£ 3,460.80	-£ 13,354.02
£ 10,663.47	£ 6,464.00	-	£ 2,640.00	-£ 8,481.52	£ 2,935.80	-£ 11,417.32
£ 10,503.26	£ 6,464.00	-	£ 2,640.00	-£ 7,072.60	£ 2,410.80	-£ 9,483.40
£ 10,344.88	£ 6,464.00	-	£ 2,640.00	-£ 5,667.27	£ 1,885.80	-£ 7,553.07
£ 10,189.39	£ 6,464.00	-	£ 2,640.00	-£ 4,266.20	£ 1,360.80	-£ 5,627.00
£ 10,037.64	£ 6,464.00	-	£ 2,640.00	-£ 2,869.97	£ 835.80	-£ 3,705.77
£ 9,890.31	£ 6,464.00	-	£ 2,640.00	-£ 1,478.98	£ 310.80	-£ 1,789.78
£ 9,747.91	£ 6,464.00	-	£ 2,640.00	-£ 93.55	£ 40.80	-£ 52.75
£ 9,610.83	£ 6,464.00	-	£ 2,640.00	£ 1,286.13	£ 140.80	£ 1,426.93
£ 9,479.29	£ 6,464.00	-	£ 2,640.00	£ 2,659.95	£ 240.80	£ 2,900.75
£ 9,353.43	£ 6,464.00	-	£ 2,640.00	£ 4,027.88	£ 340.80	£ 4,368.68
£ 9,233.30	£ 6,464.00	-	£ 2,640.00	£ 5,389.99	£ 440.80	£ 5,830.79
£ 9,118.88	£ 6,464.00	-	£ 2,640.00	£ 6,746.36	£ 540.80	£ 7,287.16
£ 9,010.07	£ 6,464.00	-	£ 2,640.00	£ 8,097.13	£ 640.80	£ 8,737.93
£ 8,906.75	£ 6,464.00	-	£ 2,640.00	£ 9,442.49	£ 740.80	£ 10,183.29
£ 8,808.75	£ 6,464.00	-	£ 2,640.00	£ 10,782.63	£ 840.80	£ 11,623.43
£ 8,715.89	£ 6,464.00	-	£ 2,640.00	£ 12,117.76	£ 940.80	£ 13,058.56



Break even point: £105,000



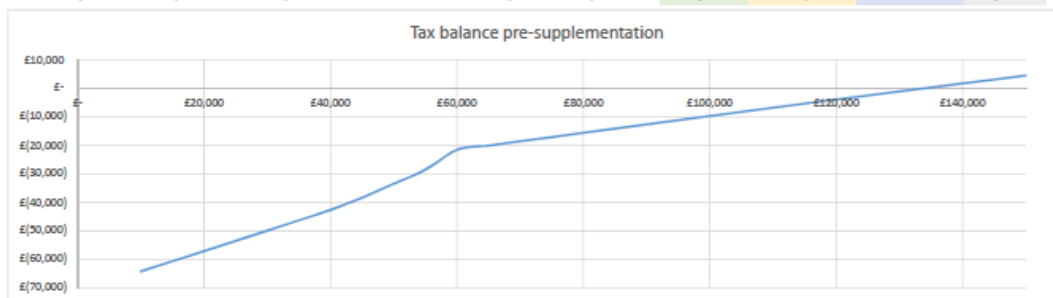
Break even point: £105,000

Adults	2	(Working age)	<- Adults (1 or 2)
Children	3		<- Children (any number - capped at 20!)
Income Split	50%		<- How much of household income is assigned to "primary" adult (0-100%)
Exc. Inc. Support?	No	If HH less than 5 years residency	<- Excludes income support (less than 5 year residency)

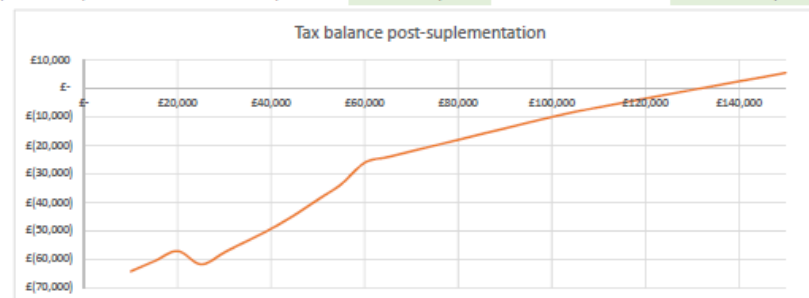
Couple both working, 3 children, 5 year resident

Estimated receipts from Household									
Earned Income	Income Tax	LTC	Soc Sec Employee	GST	Impôts	Tax Receipts	Soc Sec Fund	Health Fund	LTC Fund
£ 10,000.00	£ -	£ -	520	£ 984.60	£ 1,137.47	£ 2,122.07	£ 520.00	£ 80.00	£ -
£ 15,000.00	£ -	£ -	780	£ 1,005.97	£ 1,137.60	£ 2,143.57	£ 780.00	£ 120.00	£ -
£ 20,000.00	£ -	£ -	1040	£ 1,027.06	£ 1,137.84	£ 2,164.90	£ 1,040.00	£ 160.00	£ -
£ 25,000.00	£ -	£ -	1300	£ 1,047.89	£ 1,138.17	£ 2,186.05	£ 1,300.00	£ 200.00	£ -
£ 30,000.00	£ -	£ -	1560	£ 1,068.46	£ 1,138.58	£ 2,207.04	£ 1,560.00	£ 240.00	£ -
£ 35,000.00	£ -	£ -	1820	£ 1,088.79	£ 1,139.06	£ 2,227.85	£ 1,820.00	£ 280.00	£ -
£ 40,000.00	£ -	£ -	2080	£ 1,108.89	£ 1,139.61	£ 2,248.50	£ 2,080.00	£ 320.00	£ -
£ 45,000.00	£ 654.39	£ 32.72	2340	£ 1,128.77	£ 1,140.21	£ 2,923.37	£ 2,340.00	£ 360.00	£ 32.72
£ 50,000.00	£ 1,857.90	£ 92.89	2600	£ 1,148.43	£ 1,140.87	£ 4,147.20	£ 2,600.00	£ 400.00	£ 92.89
£ 55,000.00	£ 3,057.29	£ 152.86	2860	£ 1,167.89	£ 1,141.58	£ 5,366.76	£ 2,860.00	£ 440.00	£ 152.86
£ 60,000.00	£ 4,253.44	£ 212.67	3120	£ 1,194.92	£ 1,142.66	£ 6,591.02	£ 3,120.00	£ 480.00	£ 212.67
£ 65,000.00	£ 5,447.07	£ 272.35	3380	£ 1,255.55	£ 1,145.39	£ 7,848.00	£ 3,380.00	£ 520.00	£ 272.35
£ 70,000.00	£ 6,638.81	£ 331.94	3640	£ 1,314.41	£ 1,148.41	£ 9,101.64	£ 3,640.00	£ 560.00	£ 331.94
£ 75,000.00	£ 7,829.19	£ 391.46	3900	£ 1,371.70	£ 1,151.66	£ 10,352.55	£ 3,900.00	£ 600.00	£ 391.46
£ 80,000.00	£ 9,018.65	£ 450.93	4160	£ 1,427.54	£ 1,155.07	£ 11,601.26	£ 4,160.00	£ 640.00	£ 450.93
£ 85,000.00	£ 10,207.55	£ 510.38	4420	£ 1,482.06	£ 1,158.60	£ 12,848.22	£ 4,420.00	£ 680.00	£ 510.38
£ 90,000.00	£ 11,396.20	£ 569.81	4680	£ 1,535.37	£ 1,162.21	£ 14,093.78	£ 4,680.00	£ 720.00	£ 569.81
£ 95,000.00	£ 12,584.81	£ 629.24	4940	£ 1,587.57	£ 1,165.89	£ 15,338.27	£ 4,940.00	£ 760.00	£ 629.24
£ 100,000.00	£ 13,773.60	£ 688.68	5200	£ 1,638.72	£ 1,169.60	£ 16,581.93	£ 5,200.00	£ 800.00	£ 688.68
£ 105,000.00	£ 14,962.72	£ 748.14	5353.92	£ 1,688.91	£ 1,173.34	£ 17,824.96	£ 5,353.92	£ 823.68	£ 748.14
£ 110,000.00	£ 16,152.28	£ 807.61	5353.92	£ 1,738.19	£ 1,177.09	£ 19,067.55	£ 5,353.92	£ 823.68	£ 807.61
£ 115,000.00	£ 17,342.37	£ 867.12	5353.92	£ 1,786.62	£ 1,180.84	£ 20,309.83	£ 5,353.92	£ 823.68	£ 867.12
£ 120,000.00	£ 18,533.07	£ 926.65	5353.92	£ 1,834.26	£ 1,184.59	£ 21,551.91	£ 5,353.92	£ 823.68	£ 926.65
£ 125,000.00	£ 19,724.42	£ 986.22	5353.92	£ 1,881.15	£ 1,188.32	£ 22,793.89	£ 5,353.92	£ 823.68	£ 986.22
£ 130,000.00	£ 20,916.47	£ 1,045.82	5353.92	£ 1,927.32	£ 1,192.04	£ 24,035.83	£ 5,353.92	£ 823.68	£ 1,045.82
£ 135,000.00	£ 22,109.24	£ 1,105.46	5353.92	£ 1,972.82	£ 1,195.74	£ 25,277.80	£ 5,353.92	£ 823.68	£ 1,105.46
£ 140,000.00	£ 23,302.74	£ 1,165.14	5353.92	£ 2,017.68	£ 1,199.41	£ 26,519.84	£ 5,353.92	£ 823.68	£ 1,165.14
£ 145,000.00	£ 24,496.98	£ 1,224.85	5353.92	£ 2,061.94	£ 1,203.07	£ 27,761.98	£ 5,353.92	£ 823.68	£ 1,224.85
£ 150,000.00	£ 25,691.95	£ 1,284.60	5353.92	£ 2,105.61	£ 1,206.69	£ 29,004.25	£ 5,353.92	£ 823.68	£ 1,284.60

Estimated tax funded expenditure on Household				Tax Balances		
Education	Health	Income Support	Other Costs	Pre-supplementation	Supplementation	Post-supplementation
£ 20,961.37	£ 8,177.00	£ 33,869.59	£ 3,300.00	-£ 64,185.88	£ -	-£ 64,185.88
£ 20,906.64	£ 8,177.00	£ 30,419.59	£ 3,300.00	-£ 60,659.65	£ -	-£ 60,659.65
£ 20,826.31	£ 8,177.00	£ 26,969.59	£ 3,300.00	-£ 57,107.99	£ -	-£ 57,107.99
£ 20,720.45	£ 8,177.00	£ 23,519.59	£ 3,300.00	-£ 53,530.98	£ 8,185.80	-£ 61,716.78
£ 20,589.98	£ 8,177.00	£ 20,069.59	£ 3,300.00	-£ 49,929.53	£ 7,660.80	-£ 57,590.33
£ 20,436.54	£ 8,177.00	£ 16,619.59	£ 3,300.00	-£ 46,305.27	£ 7,135.80	-£ 53,441.07
£ 20,262.29	£ 8,177.00	£ 13,169.59	£ 3,300.00	-£ 42,660.38	£ 6,610.80	-£ 49,271.18
£ 20,069.84	£ 8,177.00	£ 9,719.59	£ 3,300.00	-£ 38,343.05	£ 6,085.80	-£ 44,428.85
£ 19,862.03	£ 8,177.00	£ 6,269.59	£ 3,300.00	-£ 33,461.42	£ 5,560.80	-£ 39,022.22
£ 19,641.85	£ 8,177.00	£ 2,819.59	£ 3,300.00	-£ 28,571.67	£ 5,035.80	-£ 33,607.47
£ 16,712.29	£ 8,177.00	£ -	£ 3,300.00	-£ 21,598.27	£ 4,510.80	-£ 26,109.07
£ 16,476.23	£ 8,177.00	£ -	£ 3,300.00	-£ 20,105.23	£ 3,985.80	-£ 24,091.03
£ 16,236.38	£ 8,177.00	£ -	£ 3,300.00	-£ 18,611.74	£ 3,460.80	-£ 22,072.54
£ 15,995.21	£ 8,177.00	£ -	£ 3,300.00	-£ 17,119.66	£ 2,935.80	-£ 20,055.46
£ 15,754.90	£ 8,177.00	£ -	£ 3,300.00	-£ 15,630.64	£ 2,410.80	-£ 18,041.44
£ 15,517.33	£ 8,177.00	£ -	£ 3,300.00	-£ 14,146.11	£ 1,885.80	-£ 16,031.91
£ 15,284.08	£ 8,177.00	£ -	£ 3,300.00	-£ 12,667.30	£ 1,360.80	-£ 14,028.10
£ 15,056.45	£ 8,177.00	£ -	£ 3,300.00	-£ 11,195.18	£ 835.80	-£ 12,030.98
£ 14,835.46	£ 8,177.00	£ -	£ 3,300.00	-£ 9,730.53	£ 310.80	-£ 10,041.33
£ 14,621.87	£ 8,177.00	£ -	£ 3,300.00	-£ 8,273.90	-£ 40.80	-£ 8,233.10
£ 14,416.24	£ 8,177.00	£ -	£ 3,300.00	-£ 6,825.69	-£ 140.80	-£ 6,684.89
£ 14,218.93	£ 8,177.00	£ -	£ 3,300.00	-£ 5,386.10	-£ 240.80	-£ 5,145.30
£ 14,030.15	£ 8,177.00	£ -	£ 3,300.00	-£ 3,955.23	-£ 340.80	-£ 3,614.43
£ 13,849.96	£ 8,177.00	£ -	£ 3,300.00	-£ 2,533.06	-£ 440.80	-£ 2,092.26
£ 13,678.32	£ 8,177.00	£ -	£ 3,300.00	-£ 1,119.48	-£ 540.80	-£ 578.68
£ 13,515.10	£ 8,177.00	£ -	£ 3,300.00	£ 285.70	-£ 640.80	£ 926.50
£ 13,360.12	£ 8,177.00	£ -	£ 3,300.00	£ 1,682.71	-£ 740.80	£ 2,423.51
£ 13,213.13	£ 8,177.00	£ -	£ 3,300.00	£ 3,071.85	-£ 840.80	£ 3,912.65
£ 13,073.83	£ 8,177.00	£ -	£ 3,300.00	£ 4,453.42	-£ 940.80	£ 5,394.22



Break even point: £134,000



Break even point: £132,000

Potential applications / future development

Whilst the primary purpose of this initial report has been the estimation of receipts and expenditure from the above illustrative households, these estimates should be considered as a starting point for further analysis and discussion. Presented below are some illustrations of additional analysis that could be conducted / potential uses of these estimates, which could assist in policy discussion and formulation.

These examples are in no way intended to be exhaustive, but simply represent some avenues of exploration that were evident from the production of this report.

Estimates from model income distributions

The basis of this report is looking at estimates for households of specific types and income; however this can of course be extended to groups of households. One such extension of this is to look at specific household structures and applying the estimates to a defined income distribution. This income distribution can either be drawn from empirical data, or alternatively a model distribution can be used in order to provide estimates for specific scenarios.

Full time worker models

One policy matter that has been subject to recent discussion is the potential introduction of a work permit system into Jersey. Such a system could be developed in a number of ways; however one potential system under discussion is based around the concept of a mechanism that permits adult workers to migrate to the Island for a fixed period of time with restrictions that ensure they leave after that set period has expired. It is anticipated that this could result in a proportion of total migration that is restricted to single adult workers, with limited (or no) associated dependents.

There are a number of potential model distributions available, however for the purposes of this example the Pareto distribution has been preferred. The Pareto distribution provides a suitable way of modelling an income distribution for full-time workers where there is a known minimum value of income (as a result of the application of a minimum wage). Applying such a distribution to the single adult household type provides a way of estimating government receipts and expenditure from this theoretical group.

It should be stressed, that this is looking at a hypothetical scenario, and the estimates are dependent on both the choice of distribution selected and that this group conforms to the various assumptions. The intention of this modelling is to provide a tool for policy exploration, with the various parameters and assumptions modified in order to model different possible scenarios and their potential outcomes.

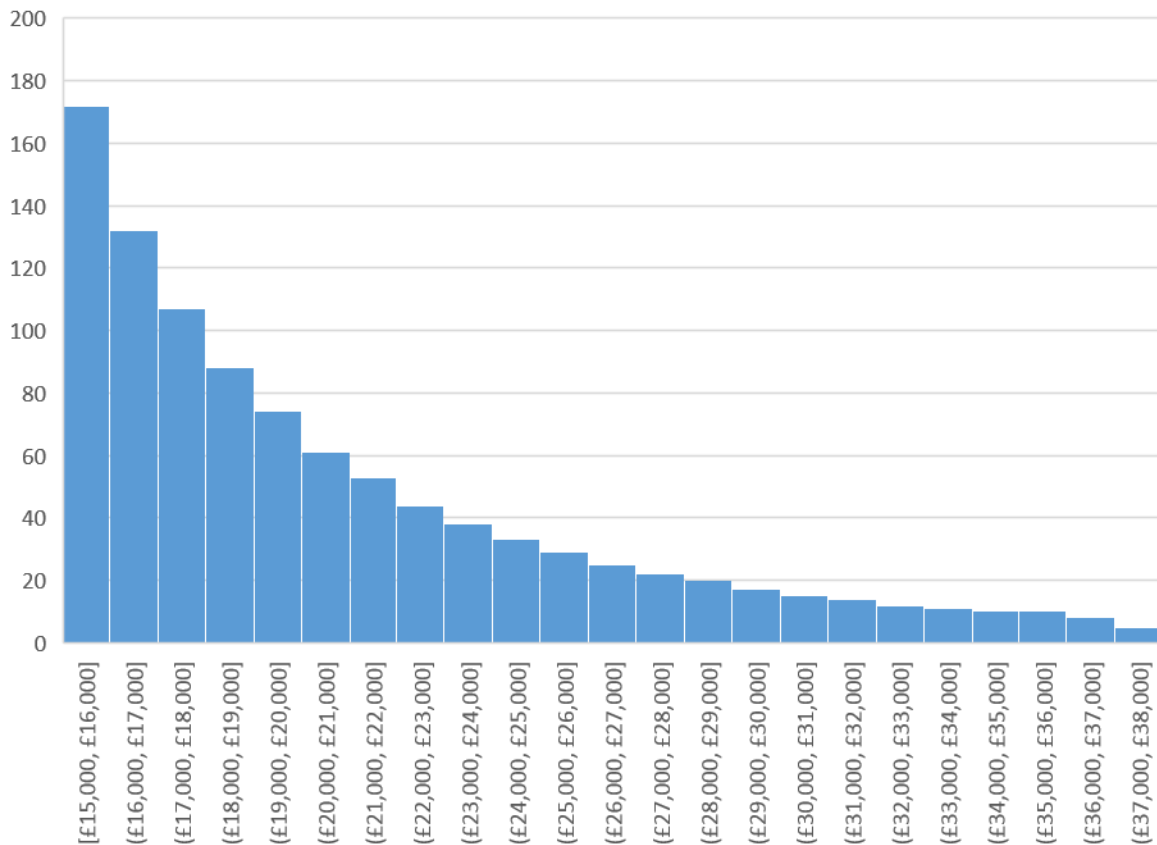
The Pareto Cumulative Distribution Function (CDF) is defined as:

$$F_x(x) = \begin{cases} 1 - \left(\frac{x_m}{x}\right)^\alpha & x \geq x_m \\ 0 & x < x_m \end{cases}$$

And therefore is defined by two parameters, x_m being the minimum possible value of X (the expected minimum level of income in this scenario) and α which is a shape parameter (essentially indicating how “stretched” the resultant distribution is).

To give examples of how this can be used in practice, a Pareto distribution with the parameters $x_m = 15,000$ (representing the approximate level of income anticipated for a full time worker receiving the Jersey minimum wage) and $\alpha = 2.5$, has the form illustrated in the figure below. As an additional control, the “tail” of the distribution has been deliberately truncated at the 90th percentile in order to avoid the undue influence of a few higher earners that would not be expected in this scenario.

Figure 13 Example Pareto Distribution for 1,000 single adult households



The above distribution has an overall mean income of approximately £21,000 (or roughly £10.00 an hour based on a full time worker).

Based on the above theoretical distribution applied to 1,000 households (all with less than 5 year residency) this produces aggregate estimates as follows:

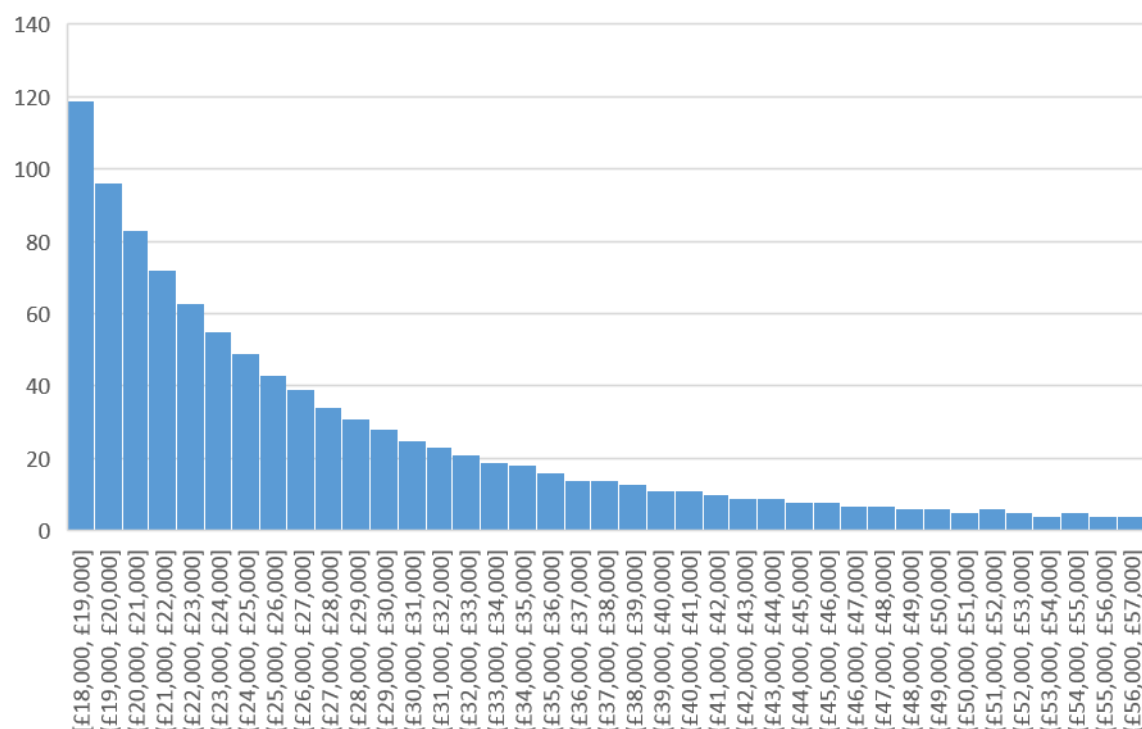
Table 12 Aggregate results from example Pareto model

Income tax receipts	£1,408,000
GST	£616,000
Impôts	£937,000
Total tax receipts	£2,962,000
Education expenditure	Zero
Health expenditure *	£1,215,000
“Other” expenditure	£660,000
Total expenditure	£1,875,000
Net tax balance pre supplementation	£1,087,000
Supplementation	£3,220,000
Net tax balance post supplementation	-(£2,133,000)

* For the estimate on health expenditure an additional factor of 0.8 has been applied to the overall spend (lowering the expenditure amount by a fifth) in order to reflect the fact that new arrivals are not immediately entitled to free health care in the Island.

To provide an alternative scenario, based on $x_m = 18,000$ (equating to a roughly £1 increase in the minimum wage) and $\alpha = 2$ (indicating a more positively “stretched” distribution), please see the illustration below:

Figure 14 Example Pareto Distribution for 1,000 single adult households



The above distribution has an overall mean income of approximately £27,000 (or roughly £13.00 an hour based on a full time worker).

Based on the above theoretical distribution applied to 1,000 households (all with less than 5 year residency) this produces aggregate estimates as follows:

Table 13 Aggregate results from example Pareto model

Income tax receipts	£3,023,000
GST	£727,000
Impôts	£923,000
Total tax receipts	£4,673,000
Education expenditure	Zero
Health expenditure *	£1,215,000
“Other” expenditure	£660,000
Total expenditure	£1,875,000
Net tax balance pre supplementation	£2,798,000

Supplementation

£2,537,000

Net tax balance post supplementation £261,000

* See note above

The above two scenarios are purely illustrative, but demonstrate the impact that different income distributions have on the estimates of receipts and expenditure and as an illustration of how this type of modelling can be used to explore such scenarios.

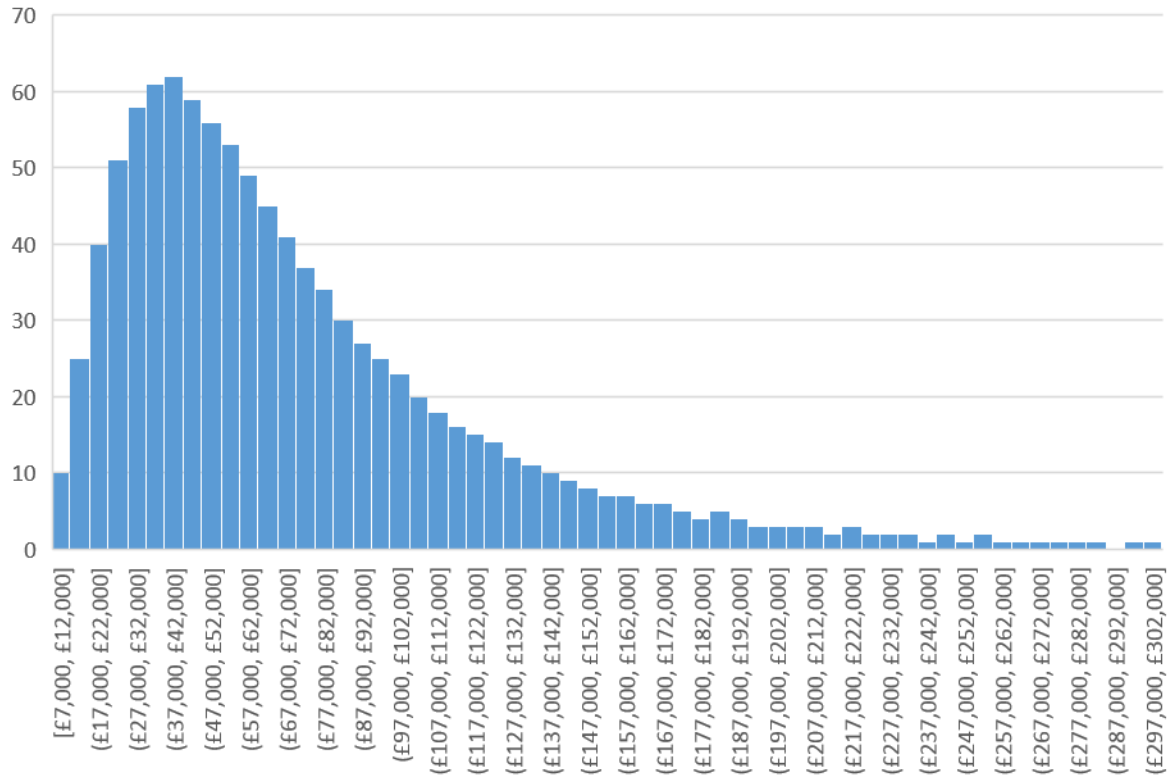
General population models

Whilst the Pareto distribution is suitable for modelling the income distribution for full time workers, it is not the best choice to serve as a proxy for the more general population, where there is not a defined lower limit of income (due to some households not containing a full time worker). For these type of households we have preferred a log-normal distribution.

The log-normal distribution is defined based on two parameters μ and σ , with μ broadly equating to the resultant median of the distribution and σ operating as a shape parameter defining the level of skew in the distribution (values close to 1 approximate to a normal distribution, while increased values result in greater levels of positive skew).

A log-normal distribution with the parameters of $\mu = 60,000$ and $\sigma = 2$ (which is an approximation of the shape parameter found in the overall Jersey population obtained from the most recent income distribution survey) has a shape illustrated in the figure below (based on 1,000 households). As an additional control, the “tail” of the distribution has been deliberately truncated at the 99th percentile in order to avoid the undue influence of a few higher earners.

Figure 15 Example log-normal distribution based on 1,000 households



The above distribution has a median income of £60,000 and a mean of £73,000 (note that these are combined household incomes).

Taking the above distribution, we can combine this with our model household scenarios. For illustrative purposes we have used below a scenario based around a couple with a single child. The assumptions are therefore:

- Two married adults, both working (70% / 30% income split)
- Assumed to be 5 year resident

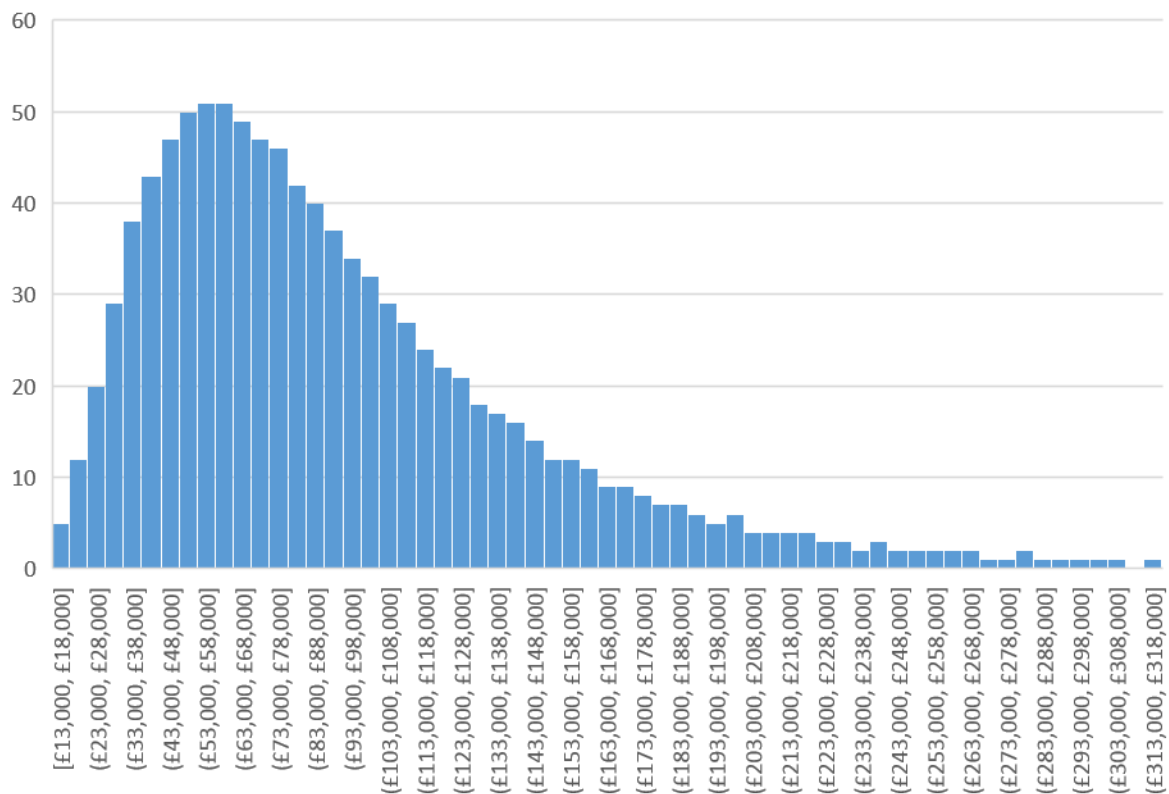
Using the above distribution for this household type results in aggregate (based on 1,000 such households) estimates as follows:

Table 14 Aggregate results from example log-normal model

Income tax receipts	£9,702,000
GST	£1,286,000
Impôts	£1,162,000
Total tax receipts	£12,150,000
Education expenditure	£5,675,000
Health expenditure	£4,751,000
Income support	£2,949,000
“Other” expenditure	£1,980,000
Total expenditure	£15,354,000
Net tax balance pre supplementation	-(£3,161,000)
Supplementation	£3,090,000
Net tax balance post supplementation	-(£6,251,000)

Once again our assumptions can be adjusted and a change to the median household income, making $\mu = 80,000$, and an adjustment to our shape parameter of $\sigma = 1.8$, results in the following revised distribution:

Figure 16 Example log-normal distribution based on 1,000 households



The above distribution has a median income of £80,000 and a mean of £92,000 (note that these are combined household incomes).

Using the same example household type above, with the same assumptions results in revised aggregate (1,000 such households) estimates as follows:

Table 15 Aggregate results from example log-normal model

Income tax receipts	£13,807,000
GST	£1,519,000
Impôts	£1,167,000
Total tax receipts	£16,493,000
Education expenditure	£5,281,000
Health expenditure	£4,751,000
Income support	£983,000
“Other” expenditure	£1,980,000
Total expenditure	£12,995,000

Net tax balance pre supplementation	£3,498,000
--	-------------------

Supplementation	£2,540,000
-----------------	------------

Net tax balance post supplementation	£958,000
---	-----------------

The above two scenarios are purely illustrative, but demonstrate the impact that different levels of income have on the estimates of receipts and expenditure. Income distributions can either be modelled based on set forecasting assumptions, or derived from empirical data if available and the focus is on a more current scenario. Multiple models could also be combined to provide a more complete picture of an anticipated scenario.

Overall tax / contribution rates

Whilst not the primary purpose of this exercise there are a number of areas where the estimates of government receipts in particular can be used to provide some useful measures to aid in policy decisions. One such area is the concept of a total effective tax / contribution rate experienced by an example household. This is broadly defined as the average rate at which the household's earned income is subject to either a tax or some other form of government charge. We present here some examples of this type of measure.

For the purpose of these examples we are looking specifically at the following government receipts:

- Personal income tax
- Goods and Services Tax (GST)
- Impôts
- Social security and health insurance employee contributions
- Long Term Care (LTC) contributions

Depending on the purpose of the exercise, some of the elements above could be chosen to be excluded (such as contributions to the funds if this was not to be considered), and likewise additional elements could also be included (such as employer total contributions if considering payroll related contributions rather than pure household earned income).

The assumptions associated with the above receipts can of course be varied, and it is envisaged that these measures could be used to explore the impact of changes to these revenue measures on different households (such as a change to a tax rate, and allowance, or other criteria changes).

These estimates for overall contribution rates (total contributions / income) are illustrated below. Please note that each of these examples are assumed to have 5-year residency, and therefore at lower incomes the household may be in receipt of income support (which impacts their Gross Cash Income and therefore contributions in respect of GST and Impôts):

Figure 17 Overall contribution rate - single adult

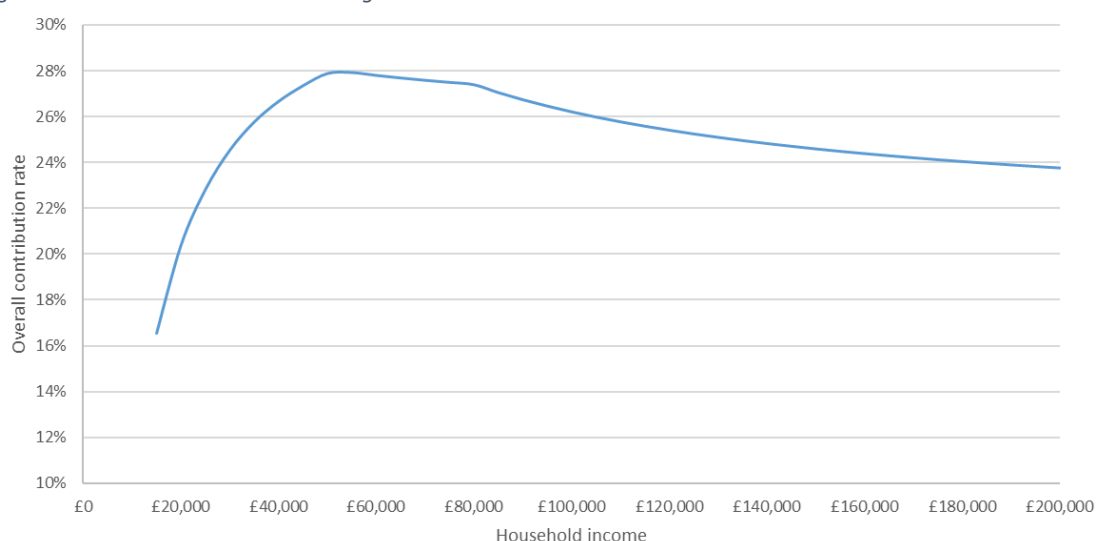


Figure 18 Overall contribution rate - single parent, one child

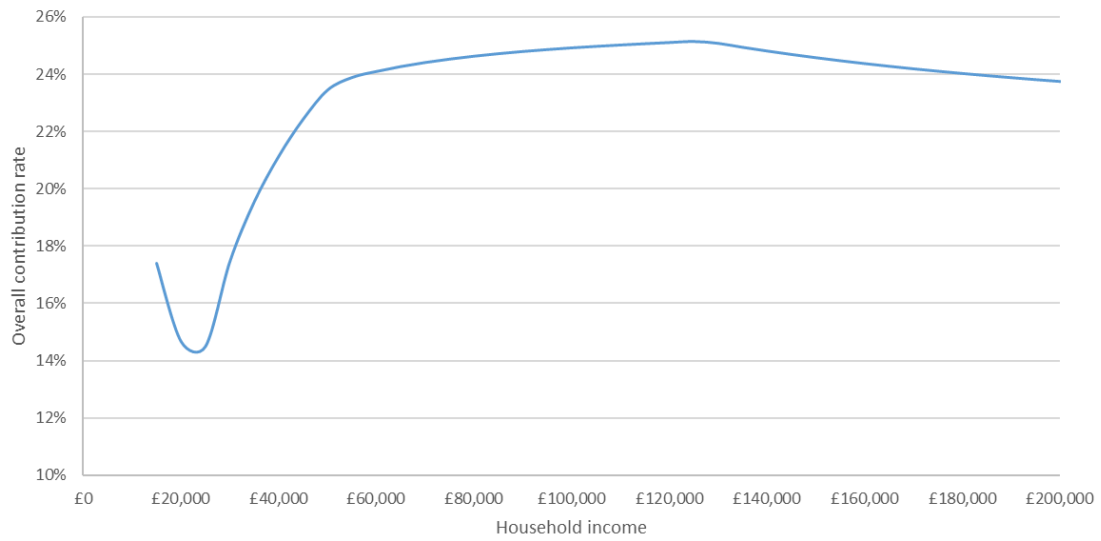


Figure 19 Overall contribution rate – married couple, one working, no children

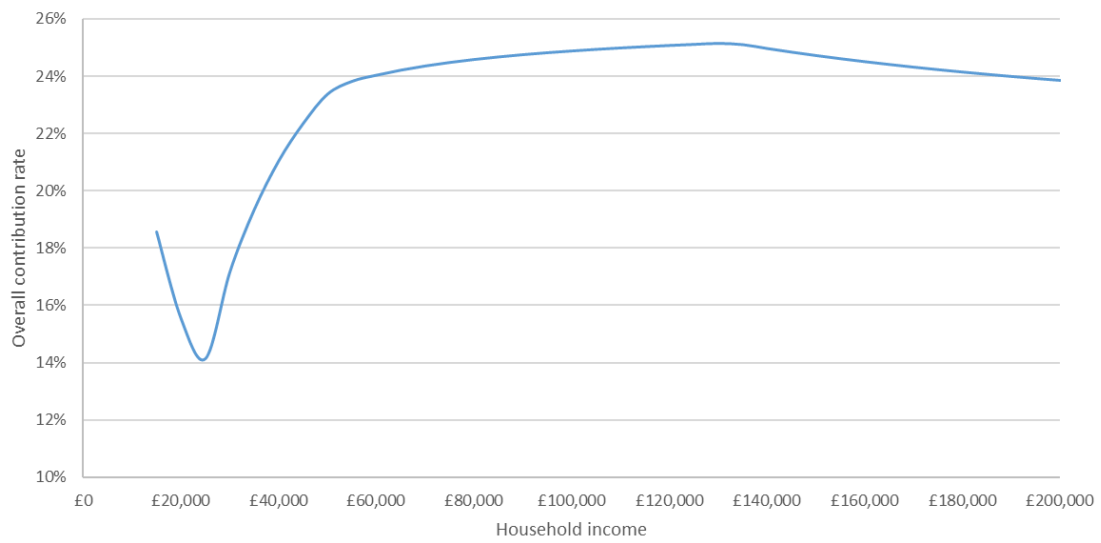


Figure 20 Overall contribution rate – married couple, both working (50/50 income split), two children



Each of these example rates all follow the same general pattern as a result of the differing influences each of the individual components have at different income levels. Broadly speaking this consists of:

- At low incomes the effective contributions initially decrease in line with increased income – these households will be paying a fixed rate (6%) of social security contributions, whilst the overall effective rate of GST and Impôts reduces as their level of income rises.
- Once the household exceeds their overall income tax allowance they begin paying personal income tax at a progressively higher effective rate, resulting in the overall rate increasing.
- When the individual workers within the household reach a level of earnings in excess of the Social Security standard earnings limit, then their effective contribution rate for this element begins to reduce – where this occurs is dependent on the number of workers and their individual income levels.
- When the household changes from the marginal to the standard rate of personal income tax then the effective contribution rate for this element becomes essentially fixed at the 20% rate – for many households this represents the point where they would be subject to the highest effective overall rate.
- Finally, the upper threshold in respect of the LTC charge means that the effective rate for this element, and the effective contribution rate for this element declines once households exceed that level of income.

Estimates of “take home” pay

To give a final illustrative example of potential future policy discussion / exploration, the estimates produced in this report can be used to explore the interaction between the different elements of government receipts and expenditure. One such example is looking at the overall effects of the interaction between the overall tax / contribution system and the main direct benefit system of income support and how this equates to the concept of “take-home” pay.

For the purposes of these examples we are defining take home pay as the sum of earned income and income support, less direct taxes / charges incurred (income tax, social security employee contributions and long term care charge). This is broadly similar to the concept of the “Before Housing Costs” (BHC) measure used in the report on income distribution by Statistics Jersey (2015) and reflects a household’s income received after the application of the tax and benefit system, but before any living costs (including housing) are taken into account.

The assumptions associated with the above elements can of course be varied, and it is envisaged that these measures could be used to explore the impact of changes to these elements on different households (such as a change to a tax rate, or income support criteria / components).

These estimates for “take-home” pay (BHC) for example households are illustrated below:

Figure 21 “Take-home” pay (BHC) - single adult

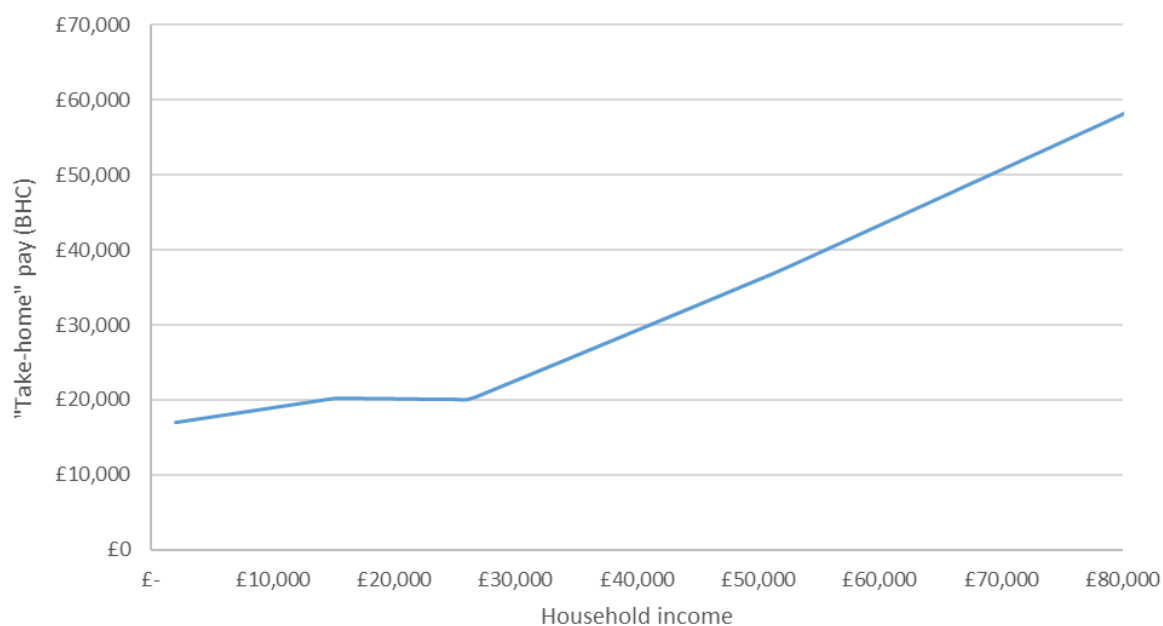


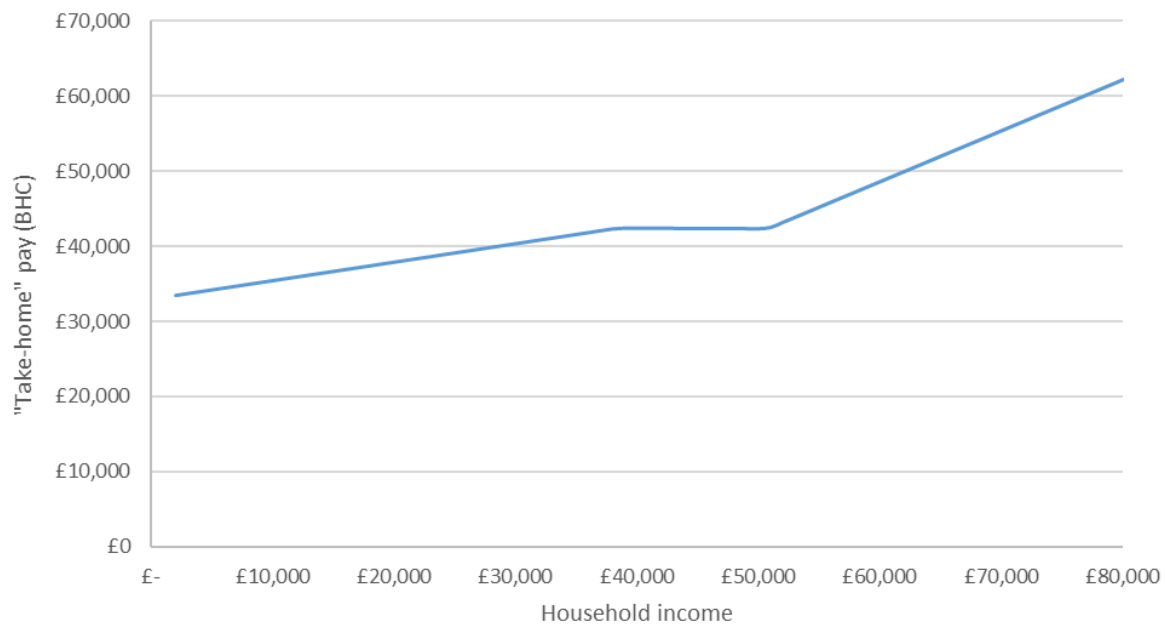
Figure 22 "Take home" pay (BHC) - single parent, one child



Figure 23 "Take home" pay (BHC) – married couple, both working (50/50 income split), no children



Figure 24 “Take home” pay (BHC) – married couple, both working (50/50 income split), two children



In each of the examples above there are three distinct areas of behaviour:

- At lower incomes, “take-home” pay increases from a base level of the sum of all the Income Support components that household is able to receive, at a rate of around 25p in every £1 (reflective of the application of the income support disregard)
- At a certain level (dependent on household circumstances) the household will become subject to income tax at the marginal rate, and above this point the level of “take-home” pay is essentially flat irrespective of increases in earned income
- Finally, once the household is no longer eligible for income support, “take-home” pay increases at a rate of around 70p in every pound (although this can vary depending on the household’s specific circumstances) as the income disregard no longer applies and the household is no longer in receipt of any income support payments.

Where these different elements occur is largely a function of the individual household circumstances and at what stage in the income distribution they become subject to income tax charges, and when they are no longer eligible for income support.

Notes

¹ **Household Income:** For the purposes of this report household income refers specifically to earned income before the effect of taxes or benefits. This is the total earned income received by the household, regardless of the number of workers.

¹ **2014/2015 Household Expenditure Survey:** For full details on this survey please see:

<https://www.gov.je/Government/Pages/StatesReports.aspx?ReportID=2084>

¹ **Regression analysis:** Is a set of techniques / processes used for estimating the relationships between variables. This allows for the estimation of a dependent variable, based on one or more independent variables. The analysis of the HES data was largely conducted using a combination of linear and logistical regression modelling and performed using the software package R.

¹ **Mixed model:** This procedure involves the creation of two datasets from the overall HES data. The first was one which indicated (by way of a binary response variable) if that household has made a payment in respect of that item or items of expenditure or not. The other containing the log-transformed total expenditure amounts on these items, for those households that had incurred some such expenditure (so excluding all zero values).

The first dataset is modelled using logistic regression and the result transformed to produce an estimate of probabilities, i.e.:

$$\Pr(Z = 1) = \frac{\exp(x' \hat{\beta}_1)}{1 + \exp(x' \hat{\beta}_1)}$$

The second dataset is modelled using ordinary linear regression in order to produce an estimate of expenditure, given that the household had incurred some expenditure on Impôts:

$$E(Y|Z = 1) = \exp(x' \hat{\beta}_2)$$

These two models can then be combined in order to produce an estimate for Impôt expenditure for all households via:

$$E(Y) = \Pr(Z = 1) E(Y|Z = 1) + \Pr(Z = 0) E(Y|Z = 0)$$

Which given $E(Y|Z = 0) = 0$ simplifies to:

$$E(Y) = \Pr(Z = 1) E(Y|Z = 1)$$

Producing a final model of the form:

$$\text{Estimated Expenditure} = \frac{\exp(x'\hat{\beta}_1)}{1 + \exp(x'\hat{\beta}_1)} \cdot \exp(x'\hat{\beta}_2)$$

¹ **Gross Cash Income:** This is the sum of all gross household earned income plus any direct benefits received (for the purpose of this report this solely includes income support).

Migration Policy Development Board



Appendix 8:

Presentation – Long-term expenditure & revenue model

Chief Economist

Long-Term Expenditure and Revenue Model

Presentation to Migration Policy Development Board

Thursday, 18 April 2019

Overview of the model



- **Combines demographic, fiscal and economic data out to 2050**
 - Population projections
 - Health and education expenditure projections
 - Taxes Office data by sector
 - **Based on policy and commitments staying the same as 2018**
 - And before savings from implementing Target Operating Model
 - **Revenue: Income Tax, GST, Impôts, stamp duty, island-wide rate, 'other income' (dividends, return from Andium etc.)**
 - **Expenditure: Departmental expenditure, including States Grant to Social Security and capital expenditure (excluding SSF, HIF, LTC)**
-

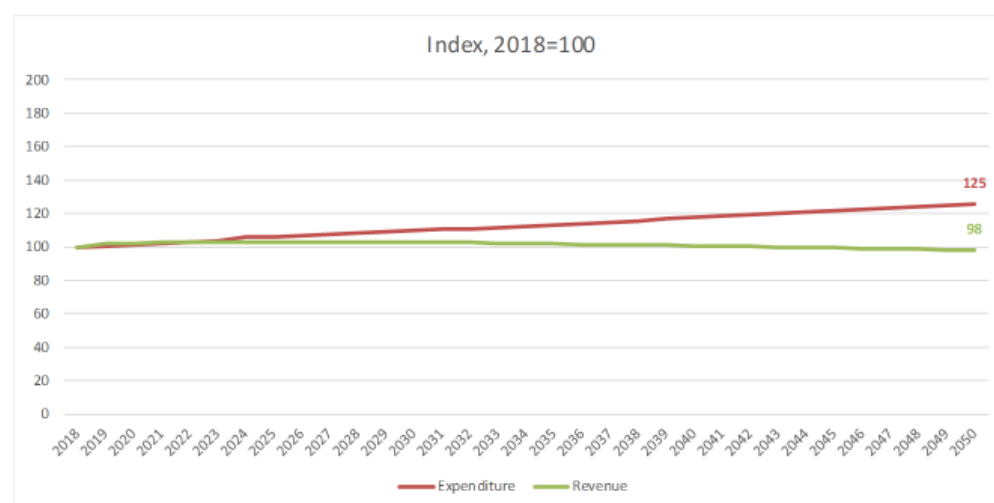
Key variables/assumptions



- Main variables:
 - Productivity (FS and NF)
 - Net migration
 - Sectoral composition
- Key assumptions:
 - Education and health spending grow in line with departments' models
 - 0.7% HSSD annual productivity improvement (can be varied)
 - Health expenditure grow by 2%/year in real terms (can be varied)
 - No change to tax rates
 - States Grant, capital spend and income support grow in line with overall population (2017 base)
 - Other spending flat in real terms

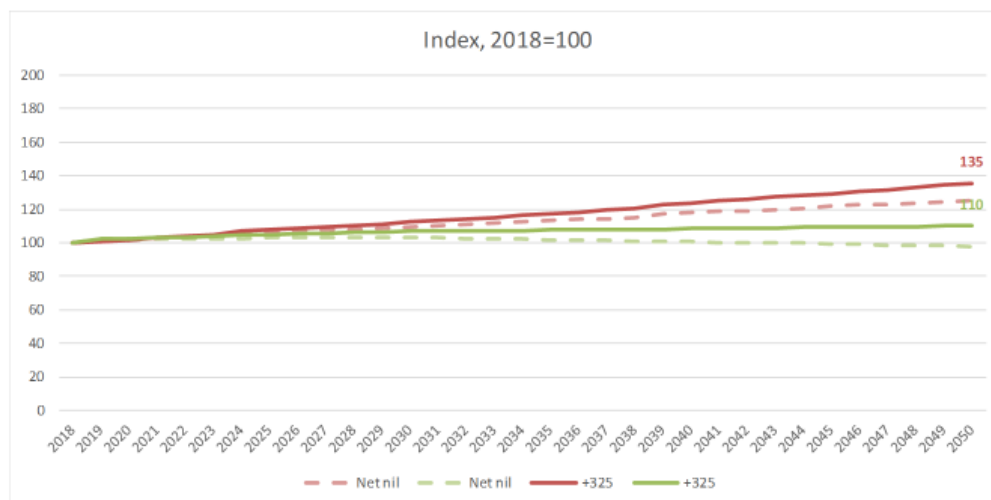
Impact of ageing on public finances

Revenue and expenditure: net-nil migration, no productivity growth



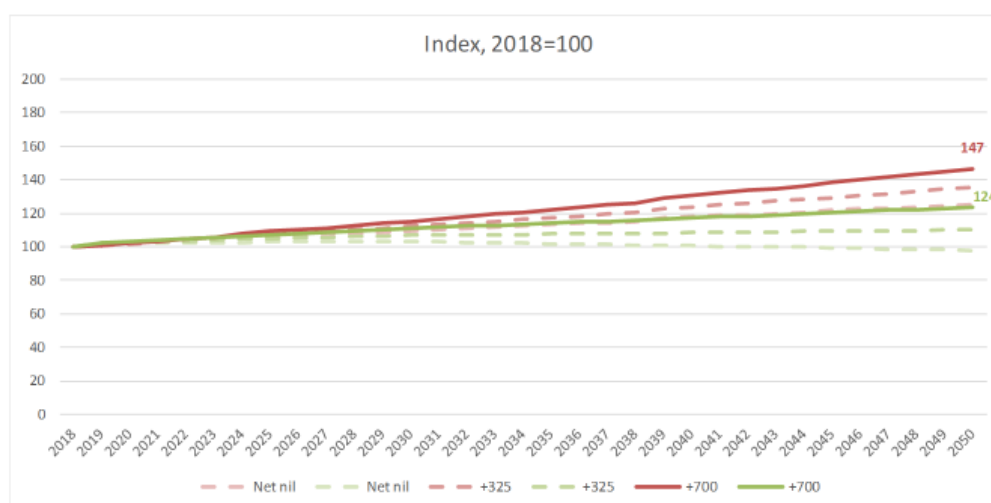
Migration scenarios

Revenue and expenditure: **+325 net migration**



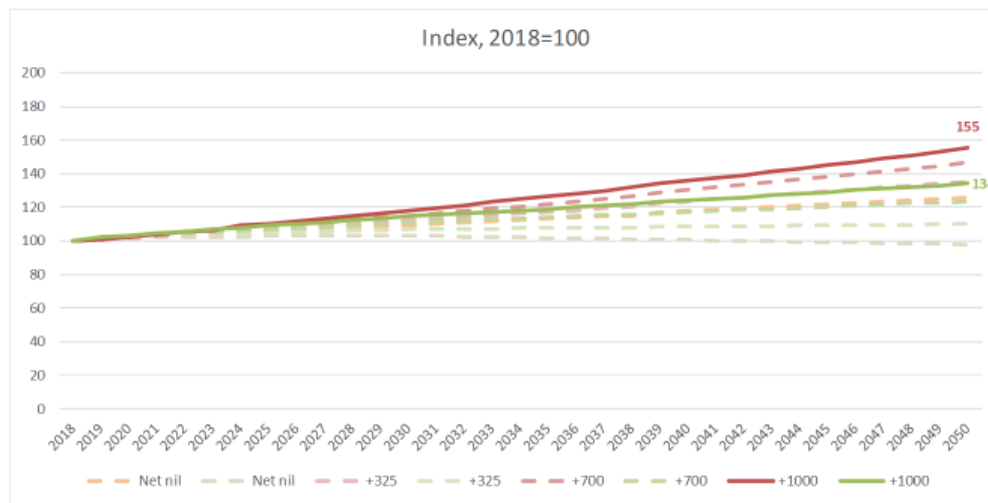
Migration scenarios

Revenue and expenditure: **+700 net migration**



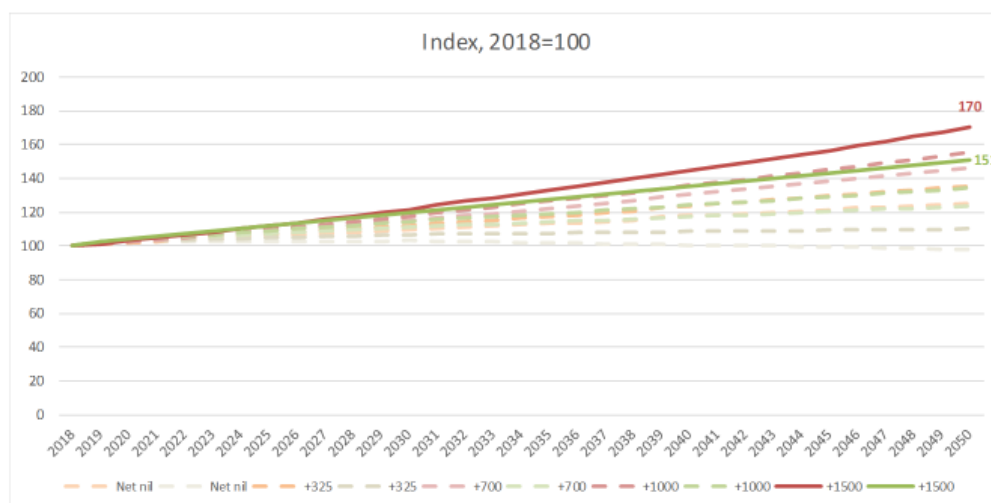
Migration scenarios

Revenue and expenditure: **+1,000 net migration**



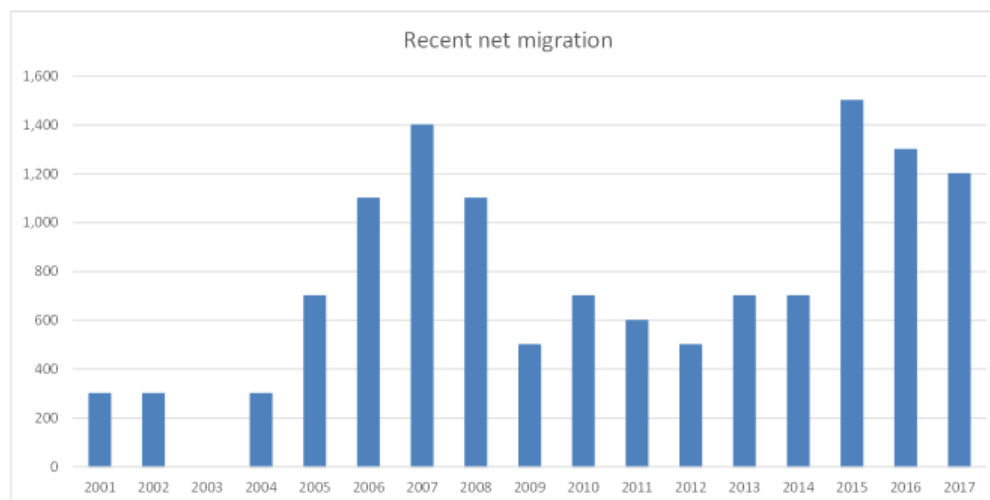
Migration scenarios

Revenue and expenditure: **+1,500 net migration**



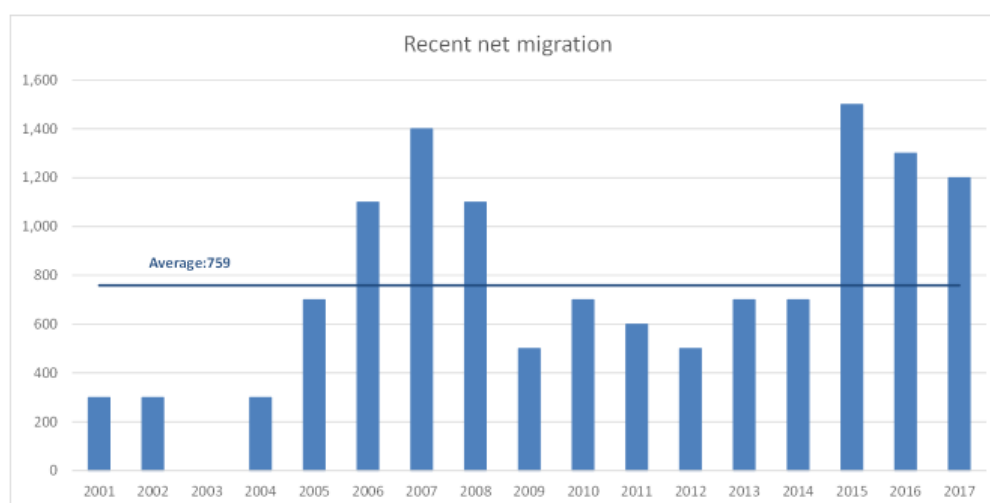
Recent trends in migration

Net migration per year



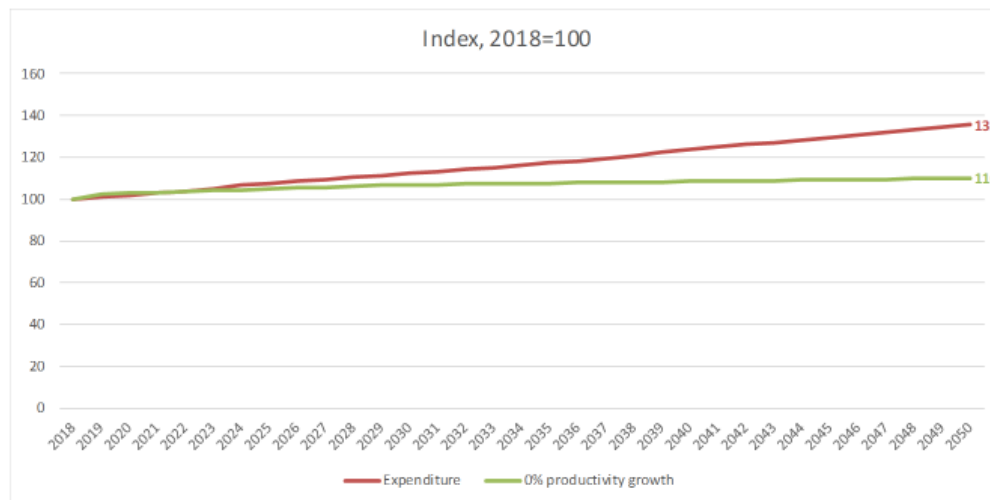
Recent trends in migration

Net migration per year



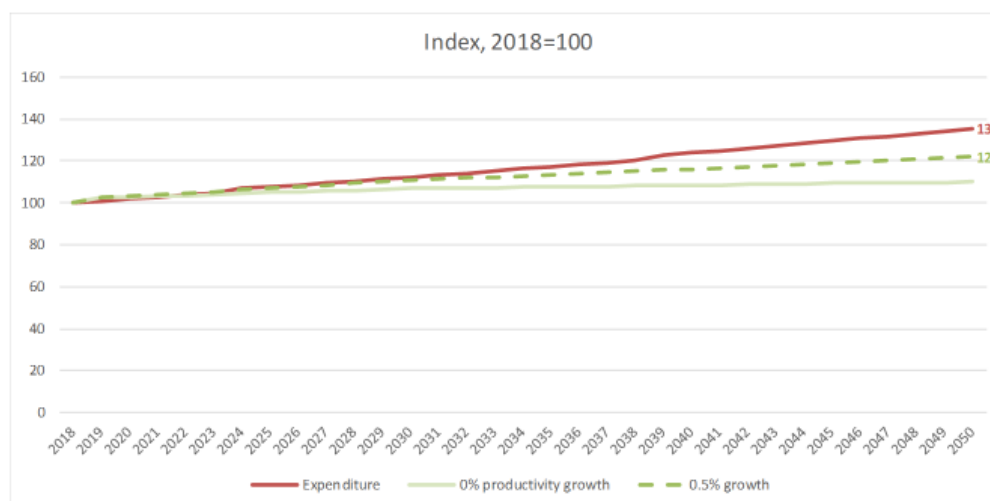
Productivity scenarios

Revenue and expenditure: +325 migration, no sectoral change



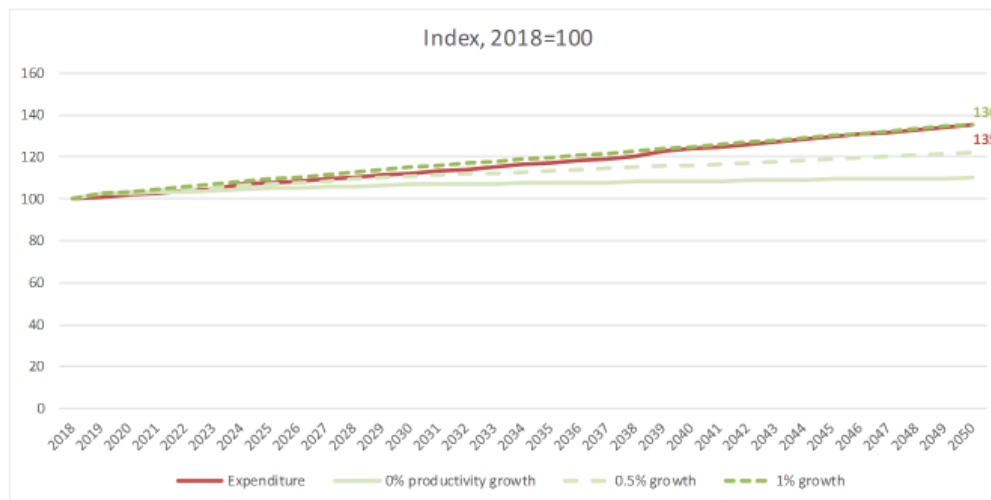
Productivity scenarios

Revenue and expenditure: +325 migration, no sectoral change



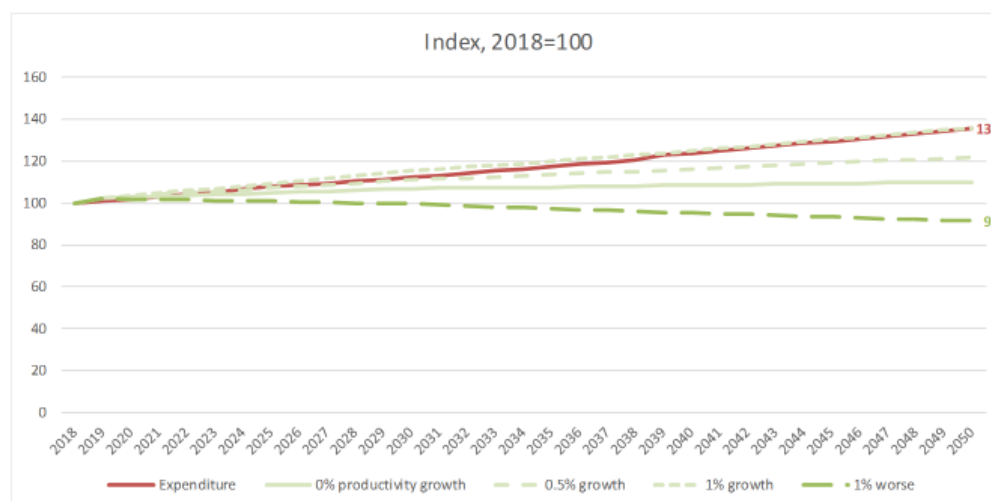
Productivity scenarios

Revenue and expenditure: +325 migration, no sectoral change



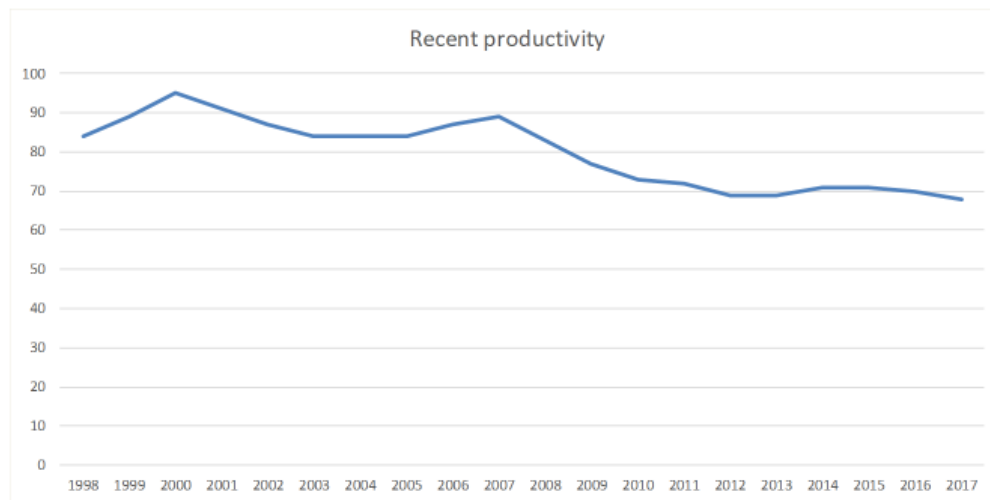
Productivity scenarios

Revenue and expenditure: +325 migration, no sectoral change



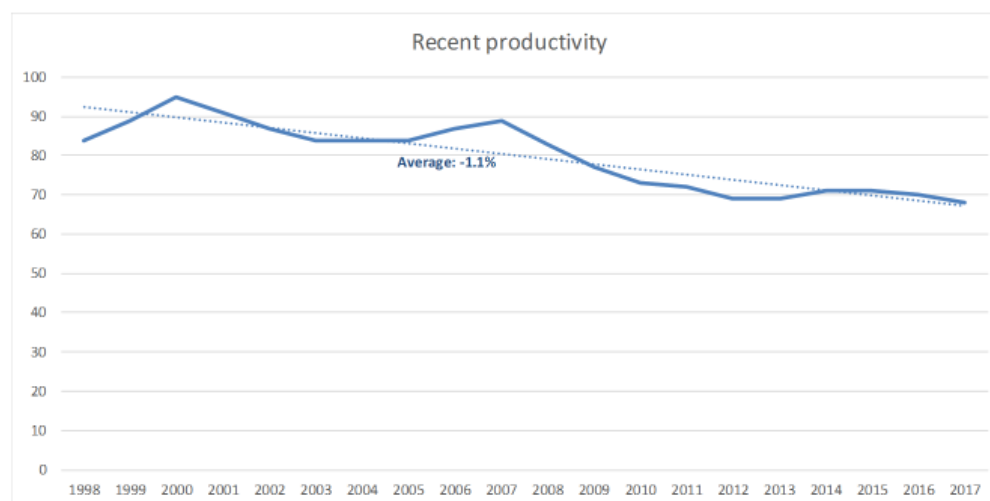
Recent productivity performance

GVA per FTE (£k, 2017 prices, excluding rental)



Recent productivity performance

GVA per FTE (£k, 2017 prices, excluding rental)



Sectoral shift scenarios productivity performance

Approach used



Sector	Average salary/range
Low income	<£35k
Medium income	£35k-£50k
Other high income	£50k+
Financial services	£72k
Utility and property	£35k-£71k

Sectoral shift scenarios productivity performance

Approach used



Sector	Proportion of employment (2015)
Low income	23%
Medium income	27%
Other high income	24%
Financial services	16%
Utility and property	8%

Sectoral shift scenarios productivity performance

Approach used



- Scenarios assume that 10% of workforce shifts by 2050
 - Utility and property constant, each other sector falls equally
 - Small fall in actual numbers due to growth in workforce in +325 scenario
 - Equivalent to shift of 6,000 people by 2050 in +325 scenario
 - c 1,500 from each other sector
 - Plus 1,500 new workers
 - <200 people per year
-

Sectoral shift scenarios productivity performance

Approach used

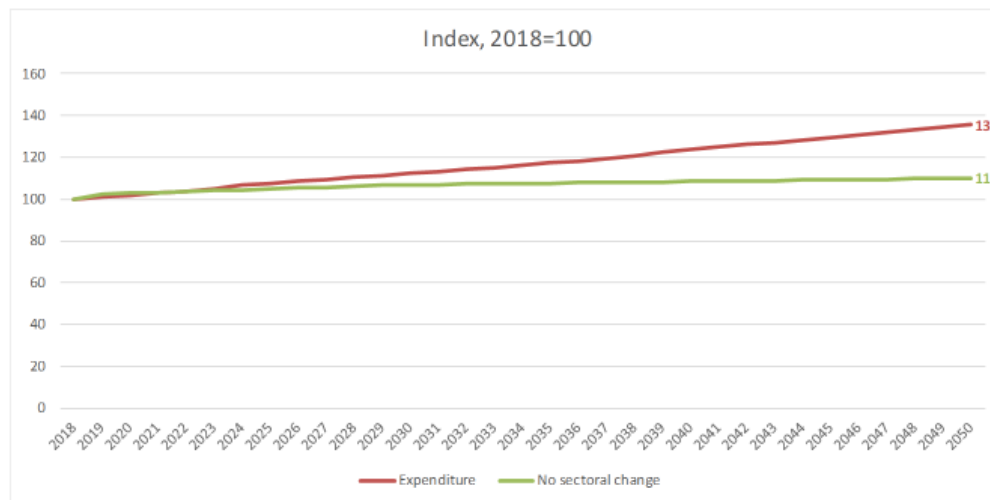


Example = shift to other high income (+325 migration scenario)

Sector	2015 employment	2050 employment
Low income	14,000 (23%)	12,400 (20%)
Medium income	16,300 (27%)	14,800 (24%)
Utility and property	4,800 (8%)	5,000 (8%)
Financial services	10,000 (16%)	8,200 (13%)
Other high income	14,900 (24%)	21,500 (34%)

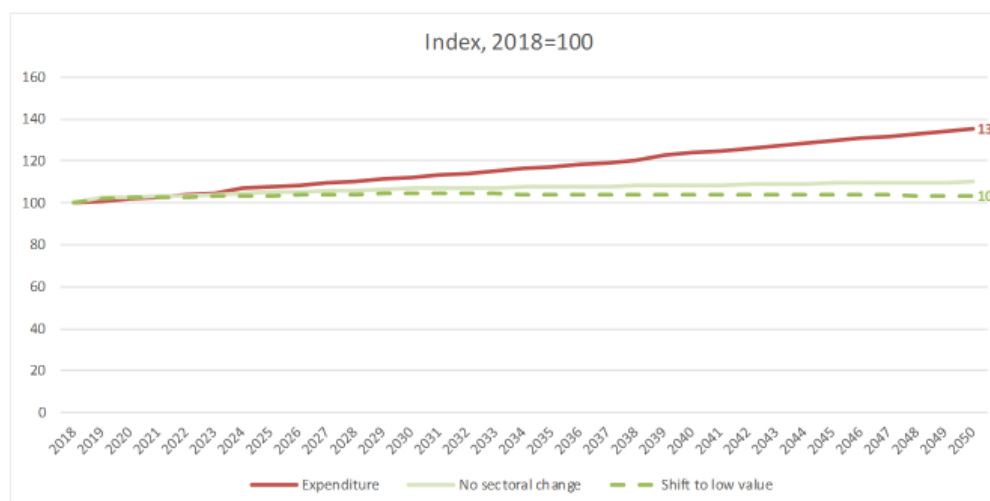
Sectoral shift scenarios

Revenue and expenditure: +325 migration, 0% productivity growth



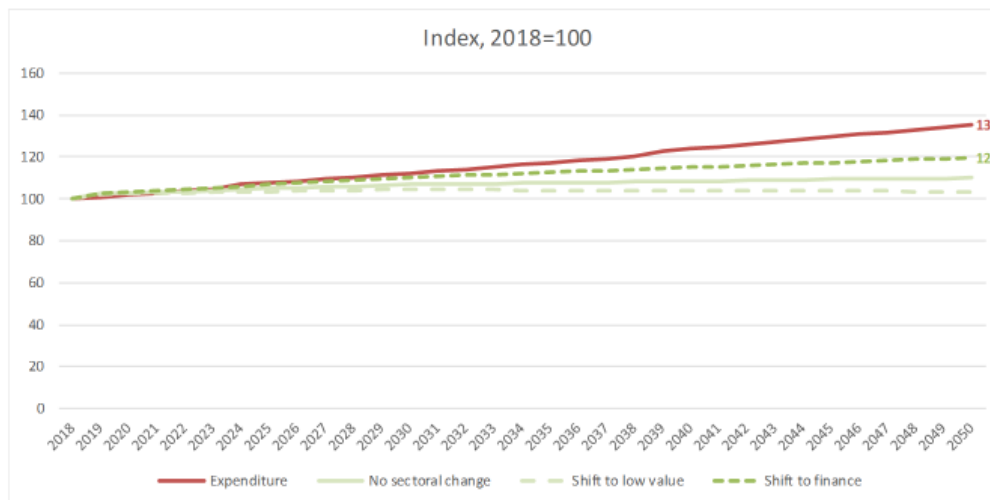
Sectoral shift scenarios

Revenue and expenditure: +325 migration, 0% productivity growth



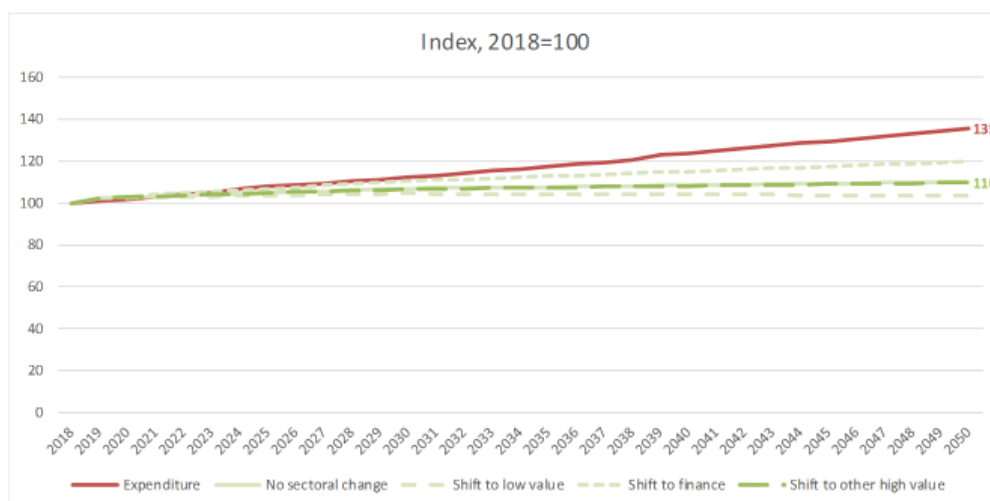
Sectoral shift scenarios

Revenue and expenditure: +325 migration, 0% productivity growth

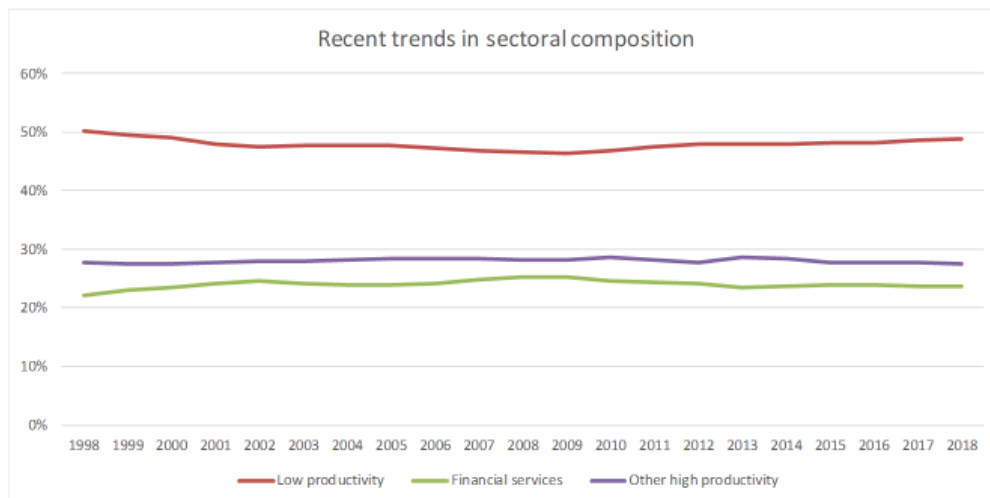


Sectoral shift scenarios

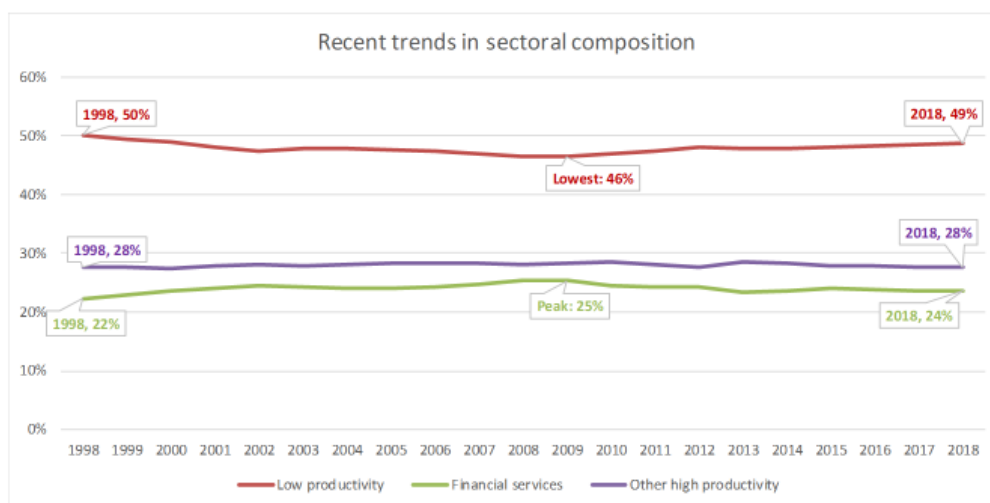
Revenue and expenditure: +325 migration, 0% productivity growth



Recent trend in sectoral mix Sectoral proportion of FTEs



Recent trend in sectoral mix Sectoral proportion of FTEs

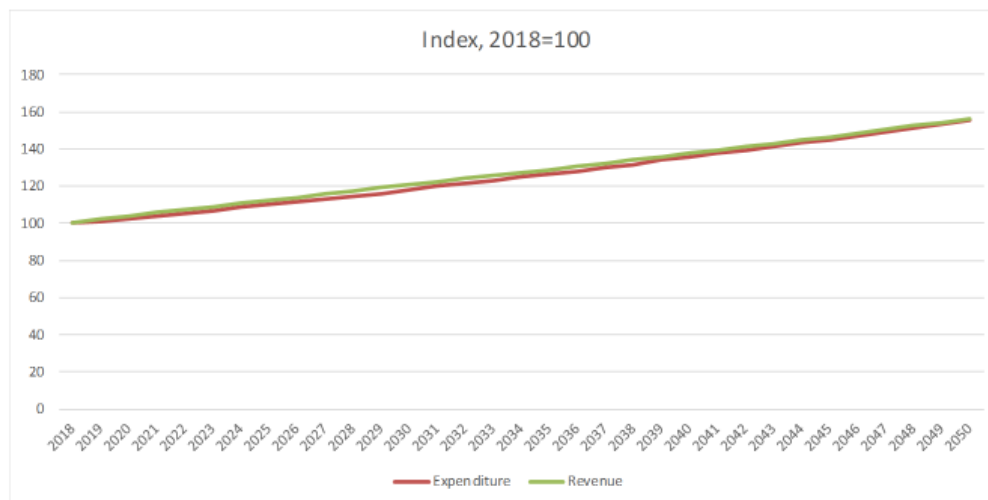


What if we move all three levers?



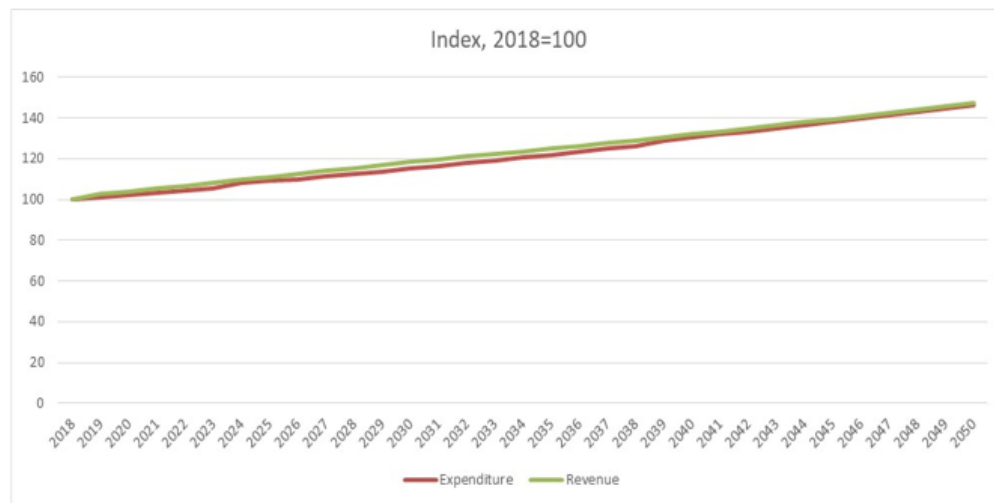
Break-even point

+1,000 migration, 0.5% productivity growth, 5% shift to FS



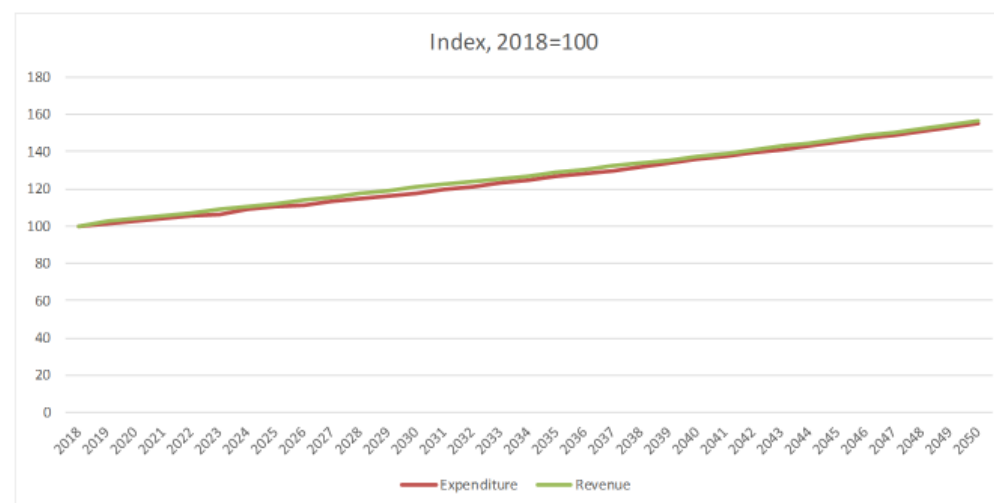
Alternative break-even point

+1,000 migration, 0.5% productivity growth, 10% shift low to other high



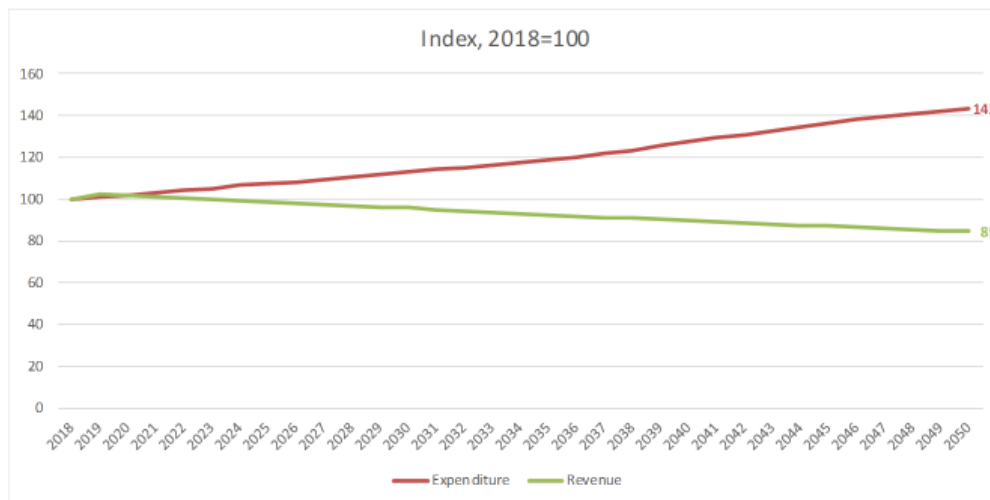
Alternative break-even point

+700 migration, 0.5% productivity growth, 8% shift to FS



If the levers move the other way...

net nil, repeat recent productivity growth, 5% shift to low income



Conclusions



- Long-term structural pressures on public finances
- Will need a number of levers
- Productivity important but may not be sufficient
- Likely need some combination of some or all of:
 - Productivity improvements within sectors
 - Focus on high-productivity sectors
 - Targeted inward migration
 - Savings and efficiencies
 - New/increased sources of revenue

Questions?

Migration Policy Development Board



Appendix 9:

Presentation – Jersey resident population 2017 estimate & Jersey resident population projections 2016

Statistics Jersey

Jersey resident population 2017 estimate

www.gov.je/statistics

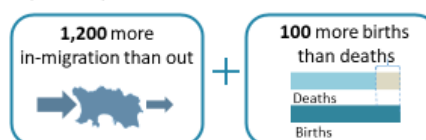
[@jsystats](https://twitter.com/jsystats)

Jersey resident population estimate - 2017 Summary

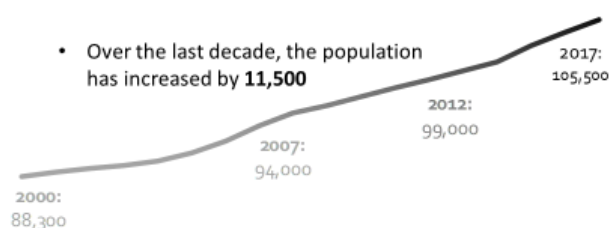
- At the end of 2017, the population was estimated at:



- Over the last year, the population has increased by **1,300** persons



- Over the last decade, the population has increased by **11,500**



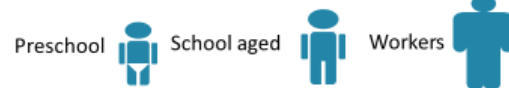
Population estimate - 2017

Method

1. The census on 27 March 2011 provides a **baseline** count at a point in time



2. Add on **net migration** - administrative sources used to estimate net migration using: **annual change** in



3. The Census also provides us with an **estimate of the proportion of inward migrants who stay, and estimates of non-economically active dependents** to feed into the estimation calculations

4. Add on **natural change** - births and deaths data from Superintendent Registrar

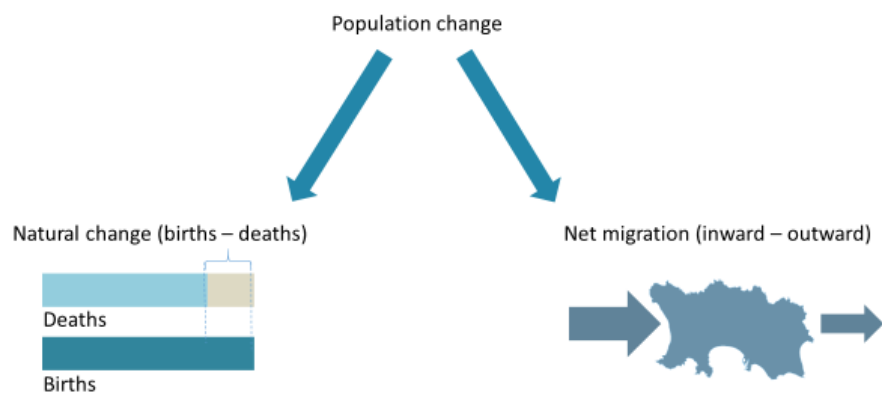


The accuracy of the estimates relies on migrant behaviour being similar to that at the time of the 2011 Census.

Statistics Jersey

Jersey resident population estimate - 2017

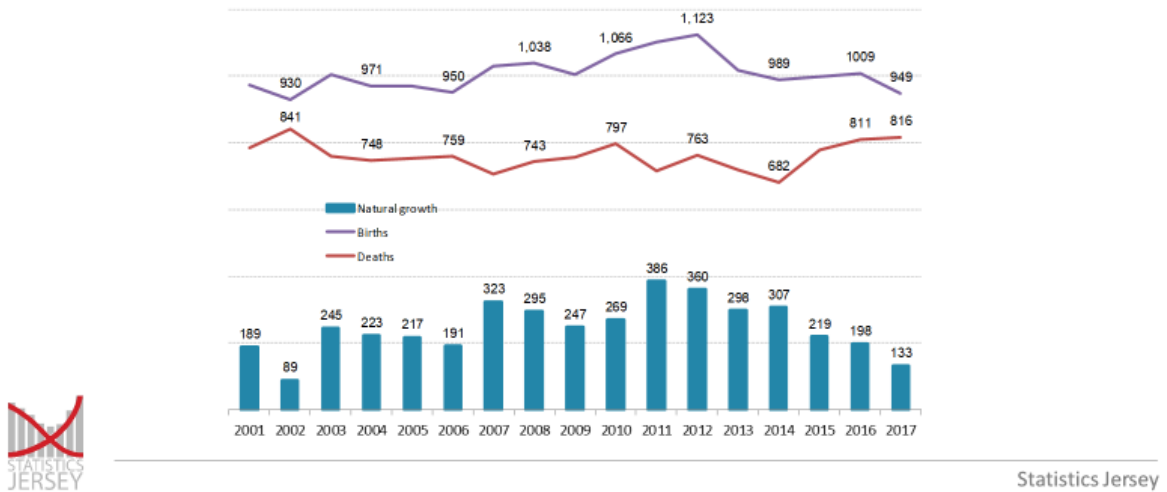
Components of change



Statistics Jersey

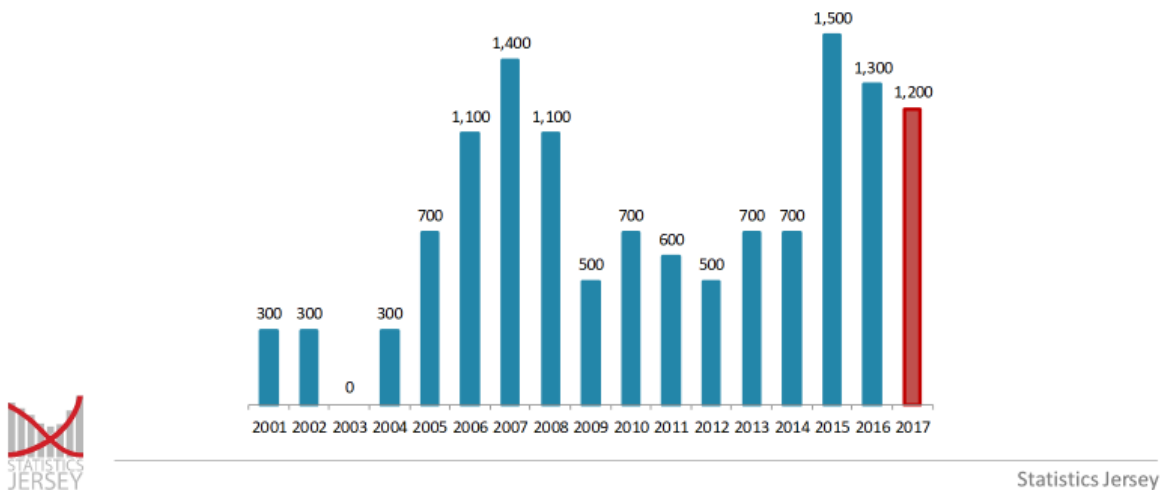
Jersey resident population estimate - 2017

Natural change



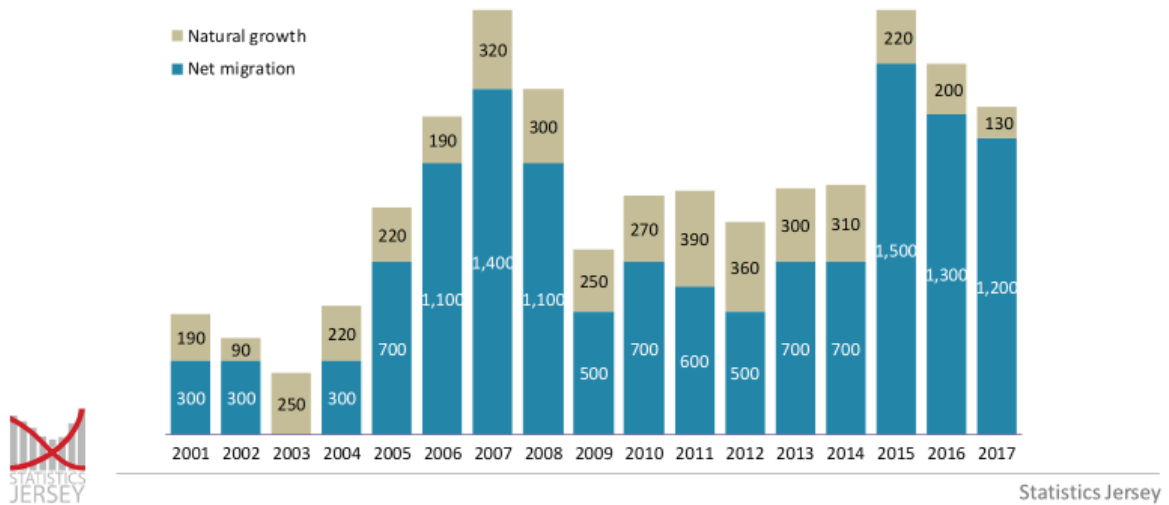
Jersey resident population estimate - 2017

Net migration



Jersey resident population estimate - 2017

Total change



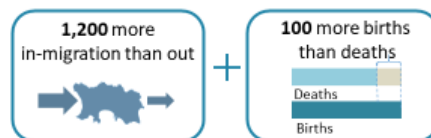
Jersey resident population estimate - 2017

Summary

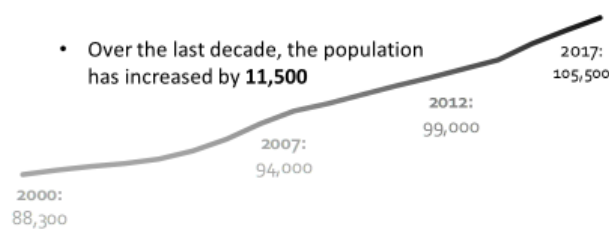
- At the end of 2017, the population was estimated at:



- Over the last year, the population has increased by **1,300** persons



- Over the last decade, the population has increased by **11,500**



Statistics Jersey

Jersey resident population projections

2016 release

@JsyStats
Statistics Jersey

Jersey Resident Population projections

How many
school aged
children will
there be?

What will the size of
Jersey's resident
population be in
2035?

How many
pensioners will
there be?

How many
babies will be
being born each
year?

How many
households
(and homes)
will be needed?

How many working age
people will there be, and
how many non-economically
active people will there be?

What about the
size of hospitals,
schools and other
public services?

Jersey Resident Population projections

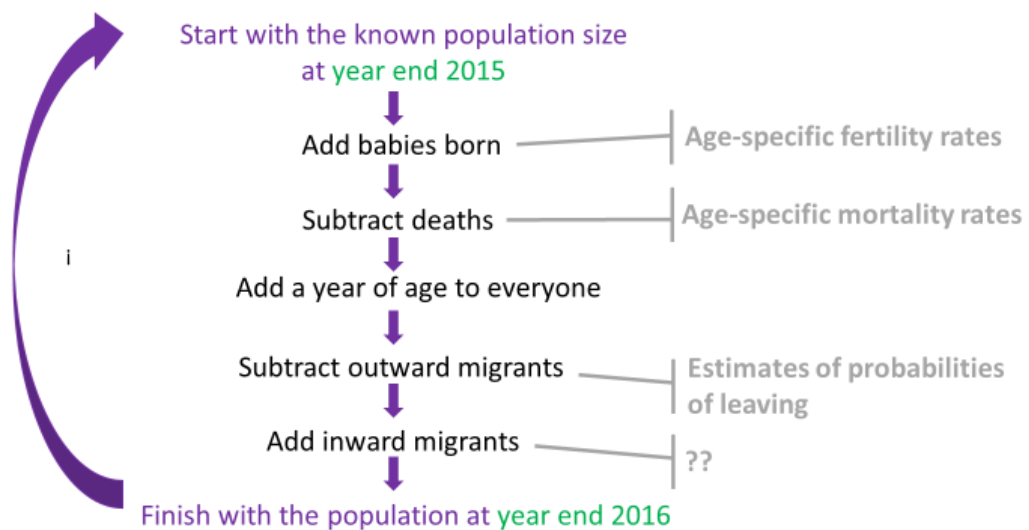
What we currently know...

- Total population estimate – 105,500 at year-end 2017
- Net migration was 1,200 in 2017
- Net migration has averaged 1,300 per year over the last 3 years
- Net migration has averaged 900 per year over the last 10 years

How do we predict the future population of Jersey?

We can't.

How we *model* Jersey's future population



How we *model* Jersey's migration

1. We can estimate the number leaving in each year...



2. We can then model the number arriving in each year at different levels so that...

- a) the number arriving equals the number leaving ('net nil')



- b) the number arriving is higher than the number leaving by a certain amount – a 'net migration level'



How we *model* Jersey's migration – the levels

1. **Zero** migration
2. **Net nil** (inward = outward)
3. **+325** (325 **more** persons coming in than leaving)
4. **+700** (700 **more** persons coming in than leaving)
5. **+1,000** (1,000 **more** persons coming in than leaving)
6. **+1,500** (1,500 **more** persons coming in than leaving)
7. **+2,000** (2,000 **more** persons coming in than leaving)

Interpreting the results

Dependency ratio $\text{non-working age} / \text{working age}$

- as a population 'ages' the dependency ratio increases
- high dependency ratio = high numbers of non-workers relative to workers

Working age population size

- a measure of potential workforce size
- productivity and economic activity of this group also key

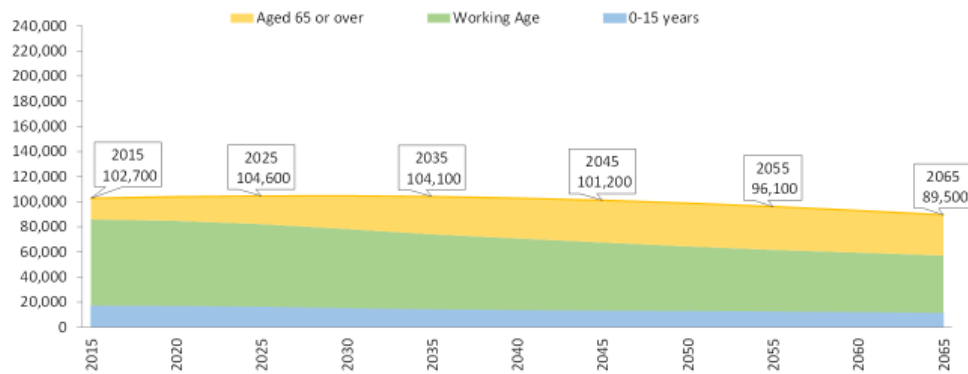
Overall population size

- implications for the Island's resources, quality of life

The results

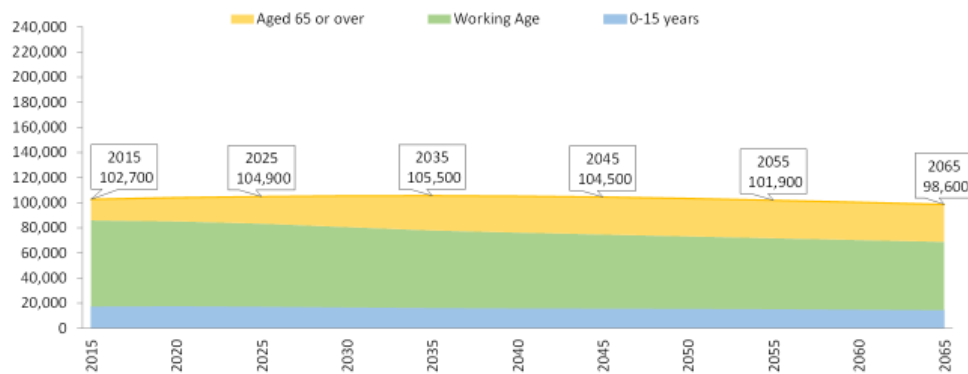
If Jersey had no inward or outward migration...

Births and deaths and ageing will still affect population size and structure



If inward equalled outward migration ('net nil')...

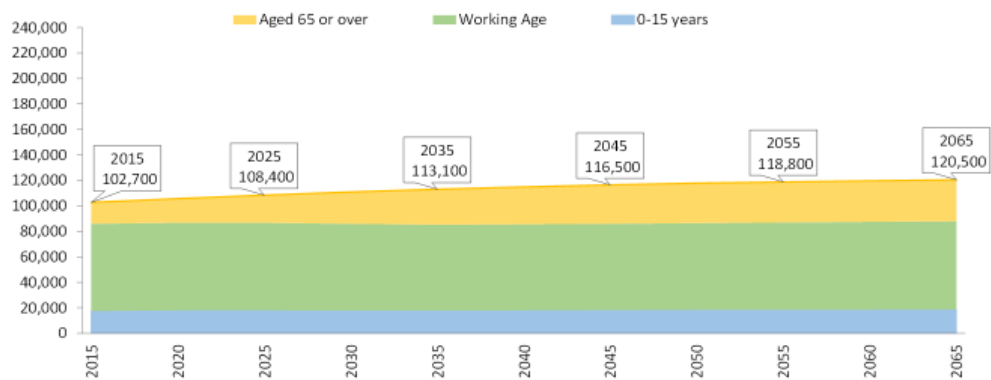
Inward migrants tend to be younger than outward migrants, affecting the size and age structure of the population, in addition to those changes from births, deaths and ageing



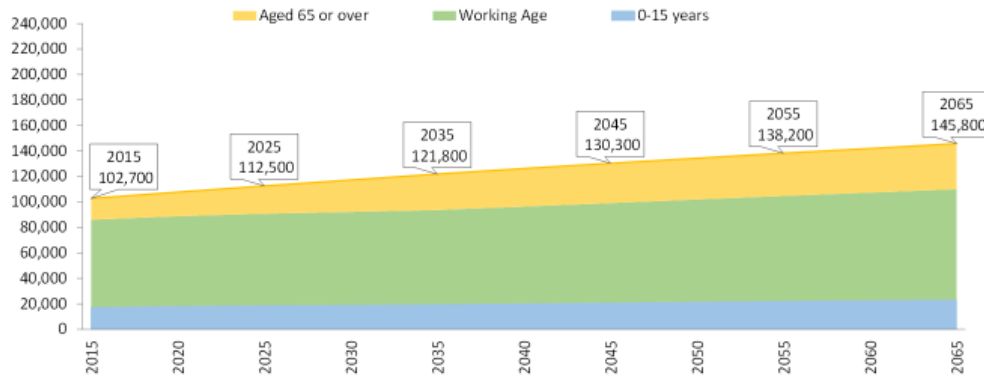
If inward migration equalled outward migration *plus*:

+325
+700
+1,000
+1,500
+2,000 persons...

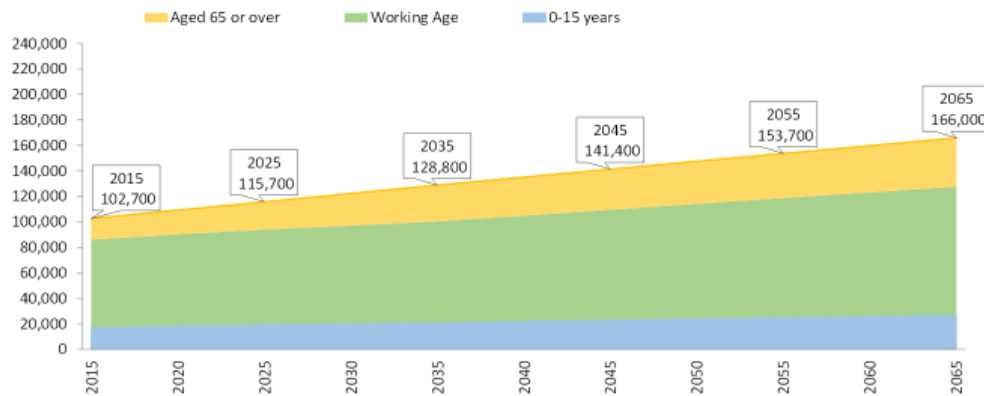
Total population size - net migration at +325



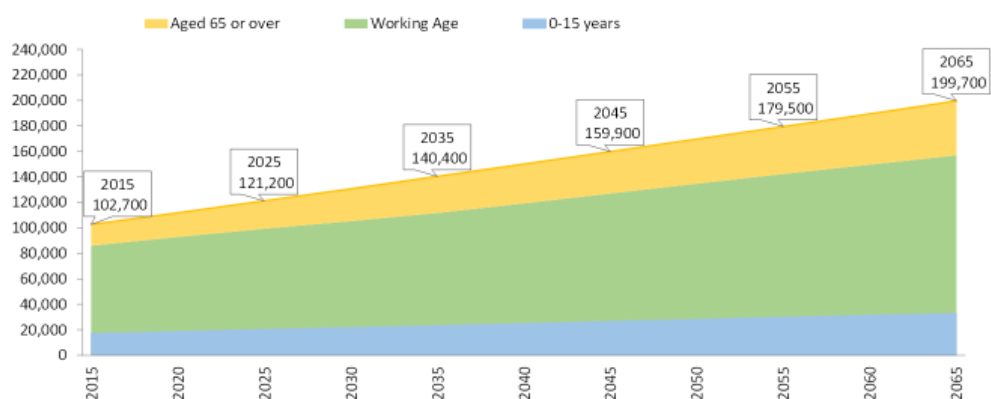
Total population size - net migration at +700



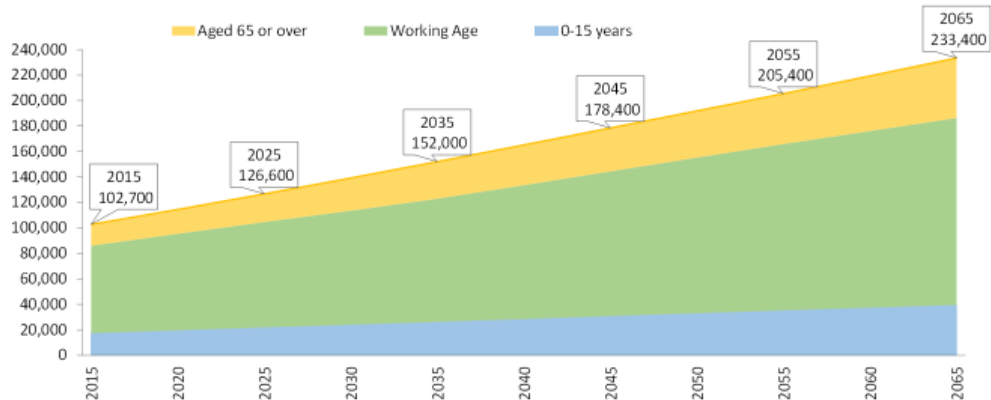
Total population size - net migration at +1,000



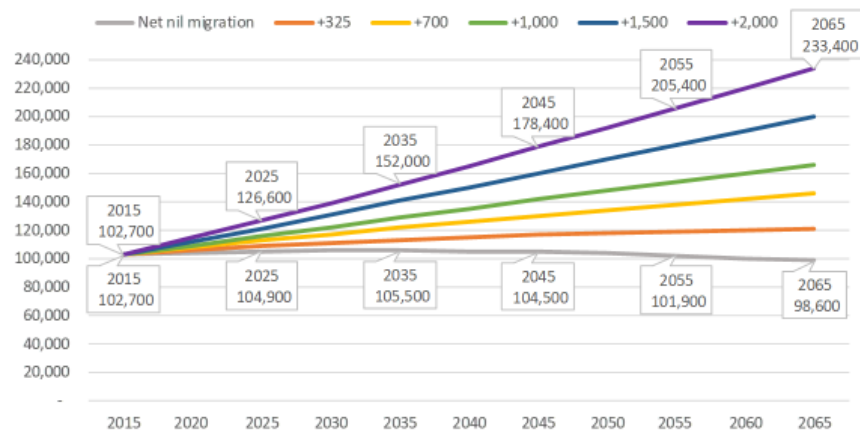
Total population size - net migration at +1,500



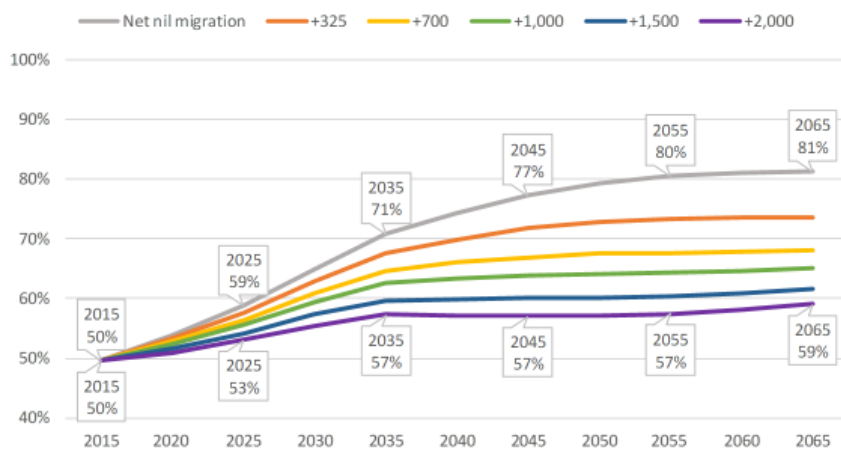
Total population size - net migration at +2,000



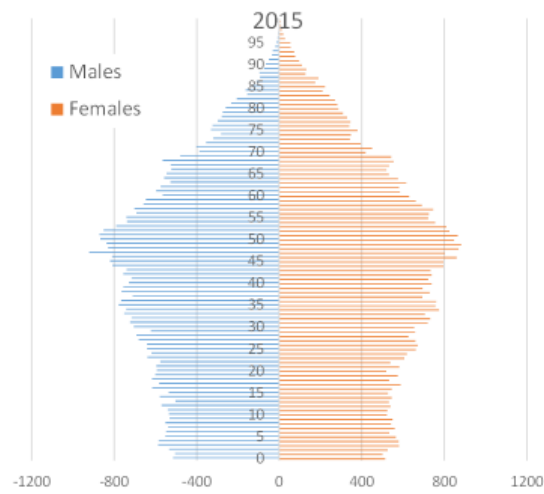
Total Population at different levels of migration



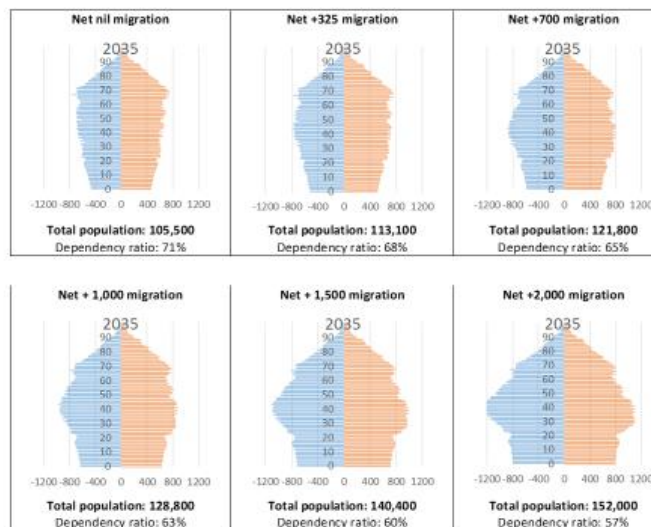
Dependency ratio at different levels of migration

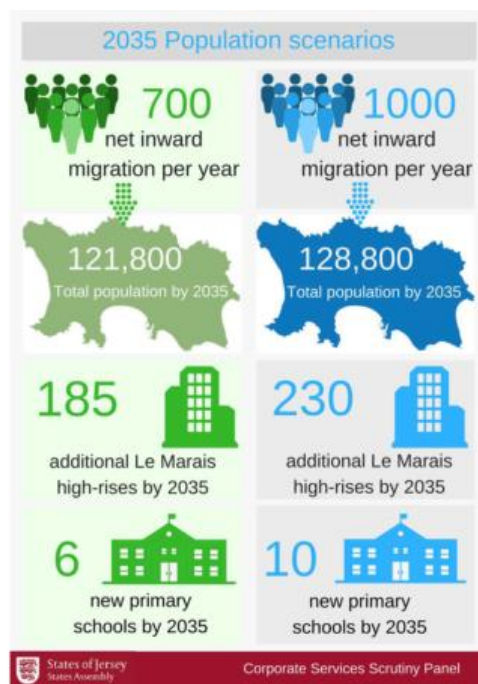
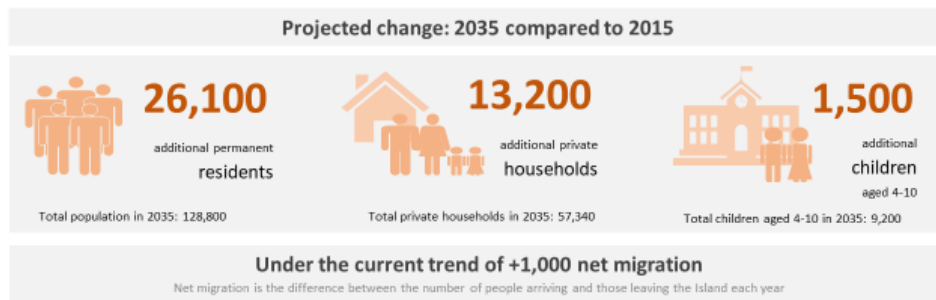


Population pyramids



Population pyramids – year 2035





What's next?

Planning:

- Departments use the figures to plan and provision for the future size and structure of the population of Jersey – e.g. schools, hospital, transport, state pension, Island Plan

Policy:

- The projections results can feed into discussions and decisions on population policy for Jersey

Statistics:

- Continue to develop methods of accurate, timely population measurement (e-census?)
- Particularly important to find a means of tracking of inward and outward migration, not just net

Migration Policy Development Board



Appendix 10:

Jersey resident population 2018 estimate

Statistics Jersey

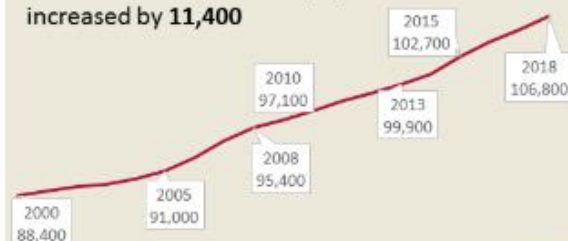
Jersey population estimate, 2018



At the end of 2018, the population was estimated at:



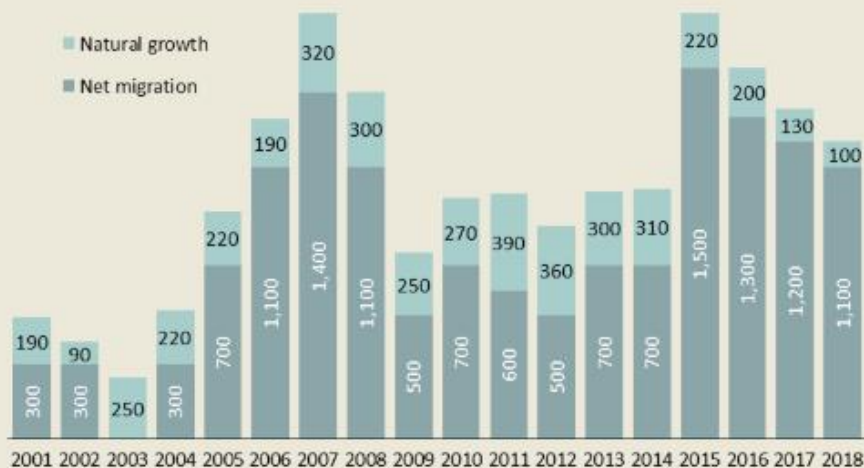
Over the last decade, the population has increased by **11,400**



Over the last year, the population has increased by **1,200** persons



Net inward migration has accounted for **78%** of the total population increase over the last 10 years



www.gov.je/statistics

@JsStats

Jersey Resident Population 2018 Estimate

Statistics Jersey: www.gov.je/statistics



Introduction

This report presents an estimate of the total resident population of Jersey at the end of 2018.

The 2011 census provided a baseline count of the resident population in 2011¹. The **change** in the resident population in each subsequent year is estimated using data on numbers of births and deaths in Jersey, information on school and pre-school populations, and employment information (see Notes).

Estimates of the population size by age and gender are also provided in this report (see Table 4). These have been produced by applying the age-gender distributions of population projections² to the estimate of the total population.

Due to the methodology which uses the change in sub-populations to estimate the change in the size of the total population from the baseline of the 2011 Census, the estimates become less robust the further from the census year. Therefore, these figures should be considered 'moderately robust'. Sensitivity analyses have indicated that the uncertainties around the estimate in net migration (and therefore in the total population size) are approximately +/-400.

Following the passing of the Statistics and Census (Jersey) Law, 2018, Statistics Jersey is conducting ongoing work to develop a methodology using administrative data sources to measure the size and structure of the resident population more accurately.

Summary

- the resident population of Jersey at year-end 2018 is estimated as **106,800**
- during 2018 the resident population increased by 1,200 persons:
 - **net inward migration** accounted for 1,100 of the annual increase
 - **natural change** (births minus deaths) accounted for 100 of the annual increase
- **natural change** in 2018 was the lowest since 2002
- the total net inward migration in 2018 was comprised of approximately:
 - 400 net inward 'licensed' (formerly j-category) employees³ and their dependents
 - 700 net inward 'registered' (formerly non-qualified) employees³ and their dependents
- the resident population has increased by 11,400 over the last 10 years (see Figure 1)
- net inward migration has accounted for more than three-quarters (78%) of the increase in the resident population over the last 10 years

¹ Report on the 2011 Jersey Census, States of Jersey Statistics Unit

² Population Projections, 2016 report, net +1,000 migration scenario

³ As defined by the Control of Housing and Work (Jersey) Law, 2012

Total population size

Jersey's resident population increased by 11,400 over the 10-year period to 2018, see Figure 1 and Table 1.

Figure 1: Total resident population at year-end, 2000 to 2018

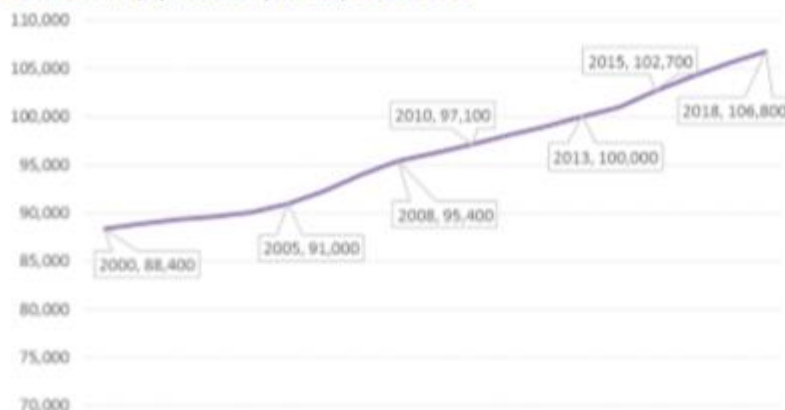


Table 1: Jersey's resident population, 2000 - 2018⁴

Year end	Resident population
2000	88,400
2001	88,900
2002	89,300
2003	89,600
2004	90,100
2005	91,000
2006	92,300
2007	94,000
2008	95,400
2009	96,200
2010	97,100
2011	98,100
2012	99,000
2013	100,000 ⁵
2014	101,000
2015	102,700
2016	104,200
2017	105,600 ^r
2018	106,800

^r: revised

⁴ Numbers presented in Table 1 have been rounded to the nearest 100.

⁵ There was a delay in the availability of one of the main sources of data necessary for the population estimation methodology in 2013. Consequently, analysis for the two years 2013 and 2014 was combined into one period and the two-year change was published in June 2015. The population estimate for 2013 given here is a rounded average of the unrounded year-end 2012 and 2014.

Change in resident population

The change in Jersey's resident population is due to:

- **Natural growth:** the number of births minus the number of deaths
- **Net migration:** the difference between large numbers of people moving both into and out of the Island, i.e. the number of people arriving minus those people leaving

Table 2 shows the annual change in the Island's resident population from 2001 to 2018 and the contributions from natural growth and from net migration.

The average increase in the resident population during the latest four-year period (2015 to 2018 inclusive), at 1,500 per year, is nearly four times that at the start of the previous decade (2001 to 2004: 400 per year) and similar to that seen during the middle of that decade (2005 to 2008: 1,300 per year).

Net inward migration has been greater than natural growth in each year throughout the period from 2001 to 2018, except for calendar year 2003.

Table 2: Change in Jersey's resident population, 2001 to 2018

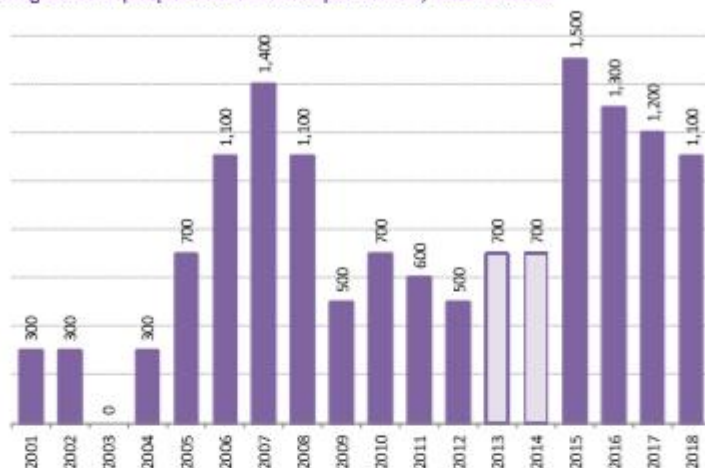
Calendar year	Natural growth	Net inward migration	Total annual change
2001	190	300	500
2002	90	300	400
2003	250	0	300
2004	220	300	500
2005	220	700	900
2006	190	1,100	1,300
2007	320	1,400	1,700
2008	300	1,100	1,400
2009	250	500	800
2010	270	700	900
2011	390	600	1,000
2012	360	500	900
2013 ⁵	300	700	1,000
2014 ⁵	310	700	1,000
2015	220	1,500	1,700
2016	200	1,300	1,500
2017	130	1,200	1,400
2018	100	1,100	1,200

Net inward migration and total annual change numbers have been independently rounded to the nearest 100; natural growth numbers have been independently rounded to the nearest 10; numbers may not sum due to rounding.

Net Migration

Net migration in 2018 is estimated at 1,100 persons into the Island⁶ (see Figure 2).

Figure 2: Net migration of people into the Island per annum, 2001 to 2018



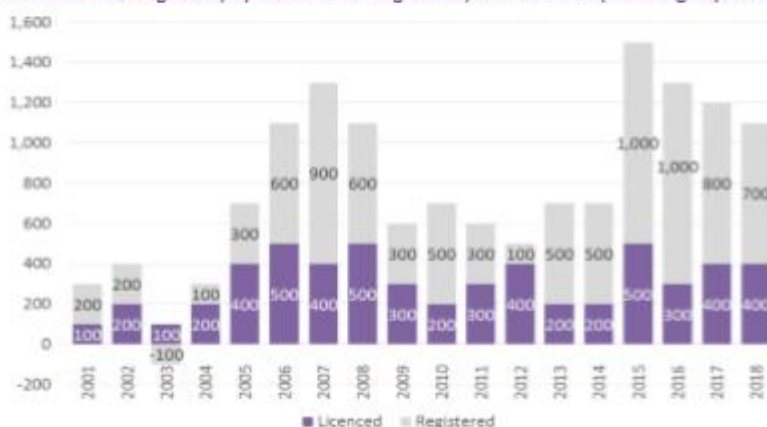
As Figure 2 shows:

- net migration was inward for each year of the period from 2001 to 2018, with the exception of 2003 which saw essentially nil net migration
- net inward migration in 2018 (1,100 people) was at a similar level to each of the two previous years
- over the 10-year period from year-end 2008 to year-end 2018, net inward migration accounted for 8,900 (78%) of the total increase in the resident population of 11,400.

The net inward migration in 2018 was comprised of approximately:

- 400 net inward 'licensed' (formerly 'j' category) employees⁷ and their dependents
- 700 net inward 'registered' (formerly non-qualified)⁷ employees and their dependents (see Figure 3)

Figure 3: Estimated net migration, by licensed and registered, 2001 to 2018 (including dependents)



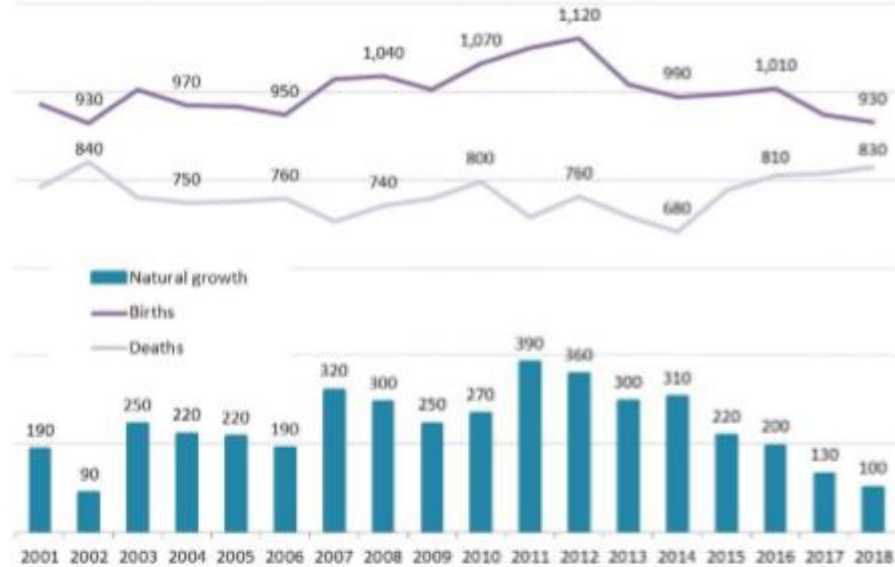
⁶ Sensitivity analyses indicate that the estimate of net migration for 2018, and total population size, has an uncertainty of approximately +/- 400

⁷ As defined by the Control of Housing and Work (Jersey) Law, 2012

Natural growth

Figure 4 shows the numbers of births and deaths in the Island and the natural growth for each year from 2001 to 2018.

Figure 4: Births, deaths and natural growth, 2001 to 2018



Natural growth has declined since its peak of almost 400 in 2011 to a low of around 100 in 2018.

The crude birth rate (CBR) and crude death rate (CDR) are calculated as the number of live births and the number of deaths per 1,000 residents per annum. As Table 3 shows, the crude birth rate in 2018 was lower than in any of the preceding 17 years.

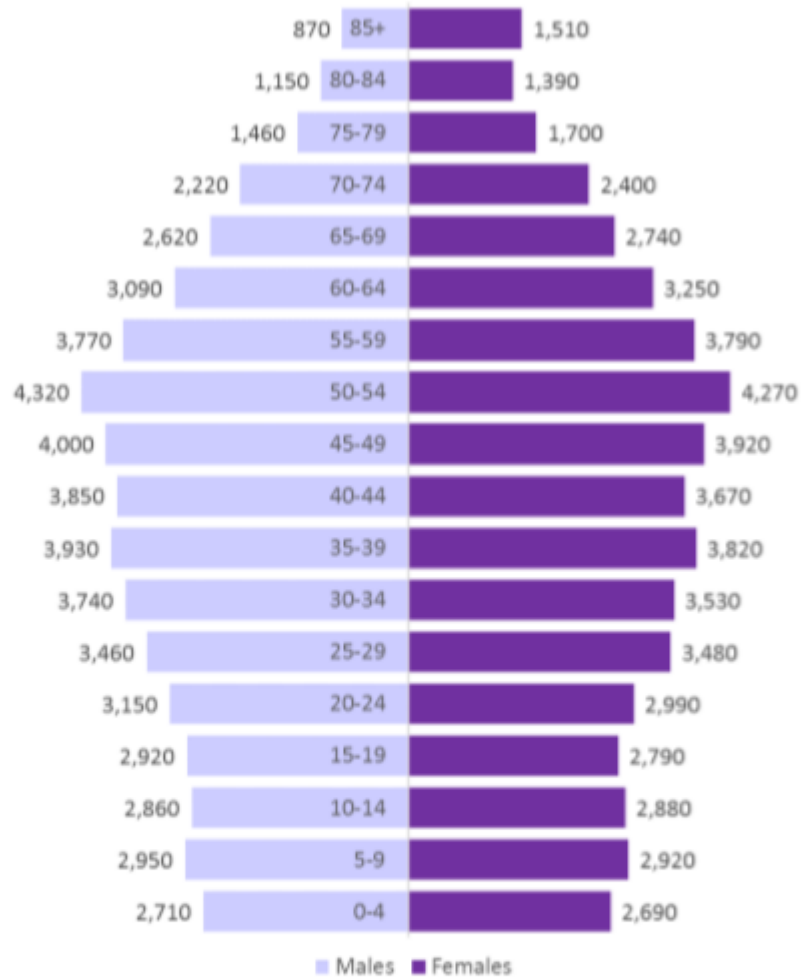
It is worth highlighting that the *actual number of births* in a particular year (shown in Figure 2) depends on both the crude birth rate and the size of the population.

Table 3: Crude birth rate (CBR) and crude death rate (CDR), 2001 to 2018 (per 1,000 residents per annum)

Year	CBR	CDR	Year	CBR	CDR
2001	10.9	8.8	2010	11.0	8.2
2002	10.4	9.4	2011	11.2	7.3
2003	11.2	8.5	2012	11.3	7.7
2004	10.8	8.3	2013	10.2	7.2
2005	10.6	8.3	2014	9.8	6.8
2006	10.3	8.2	2015	9.7	7.6
2007	11.0	7.5	2016	9.7	7.8
2008	10.9	7.8	2017	9.0	7.7
2009	10.5	7.9	2018	8.7	7.8

Figure 5: Population by age and gender, year-end 2018

Estimates of the number of people in each age and gender group have been produced by applying the age-gender distributions of the population projections⁸ to the estimate of the total population.



⁸ Population Projections, 2016 report, net +1,000 migration scenario

Notes

Methodology

The net annual change (represented by the symbol Δ) in the resident population between any two points in time is defined as:

$$\Delta \text{ population} = \text{Natural growth (live births – deaths)} + \text{Net migration}$$

where Net migration is *estimated* by:

- Δ 'Licensed' (formerly 'J' category) employees + estimate of associated non-economically active adults
- + Δ 'Registered' (formerly non-qualified) employees + estimate of associated non-economically active adults
- + net migration of pre-school children
- + net migration of school-age children

The impact of the change in the 'Registered' (formerly non-qualified) workforce on the change in overall population in the methodology takes into account:

- the net migration of employees having less than five years continuous residency, as defined under the *Control of Housing and Work (2012) Law (CHWL)*
- the reclassification to 'Entitled to work' (under CHWL) of employees who had attained five years of continuous residency
- the outward migration of 'Entitled to work' workers who had not yet attained 'Entitled' status under CHWL

Data sources

The principal sources of data for estimating changes in Jersey's resident population are:

- Census 2011: constitutes the baseline for the total resident population and is the source of information for identifying migrant characteristics, particularly distributions of length of stay and the household structure and economic activity rates of inward migrants
- Births, Marriages and Deaths; Office of the Superintendent Registrar
- Labour Market in December of each calendar year: data collected by the Population Office under the *Control of Housing and Work (2012) Law*; and statistics compiled by Statistics Jersey
- data on the migration of pre-school and school-age children from the Departments of Health and Community Services and of Children, Young People, Education and Skills, respectively
- population projections, published by Statistics Jersey in 2016

Annex

Sensitivity analyses

The methodology used since 2001 for estimating annual net migration and population levels makes use of several administrative data sources covering the size, and change, in the workforce and in school, and pre-school populations.

The methodology has historically also made use of three estimation factors:

- the number of non-economically active adults associated with economically active migrants
- the proportion of migrants who leave prior to staying in the Island for five years
- the proportion of migrants who leave after five years but before gaining full residential qualifications

The numerical values of these estimation factors have been derived from census information. Over time these values could potentially change given varying economic and socio-economic conditions. To quantify the effect of potential changes in the values of the estimation factors, sensitivity analyses have been conducted in order to examine the impact on the resulting population and migration estimates.

An additional factor unique to the methodology for 2013 and 2014 has been required to compensate for the introduction of the Control of Housing and Work (Jersey) Law (CHWL). CHWL introduced additional reporting requirements for businesses and affected the equivalence between the manpower data sets obtained from the Manpower surveys from December 2012 to December 2014. Further analyses were performed to identify and quantify the likely extent of this issue, based on inspecting the results of adjusting an additional empirical factor.

The combined sensitivity testing of the original and additional estimation factors has been used to derive an appropriate range to apply to the population level and migration estimates. The sensitivity analyses indicate that the estimates of total population and annual net migration have an uncertainty of approximately +/- 400. The estimates should therefore be considered to be 'moderately robust'.

Statistics Jersey

21 June 2019

Migration Policy Development Board



Appendix 11:

Executive summary & conclusions of Government's actuary report on the financial condition of the Social Security Fund as at 31 December 2017

Full report:

<https://statesassembly.gov.je/assemblyreports/2019/r.31-2019.pdf>



1 Executive summary and conclusions

- 1.1 The Social Security Fund (SSF) of the States of Jersey is primarily designed to provide benefits in old age, and on death and incapacity to those who have paid the required contributions. The SSF is financed by a combination of social security contributions from individuals and employers and a States grant.
- 1.2 Article 32 of the Social Security (Jersey) Law 1974 ("the Law") requires the Minister to appoint an actuary to carry out a review of the SSF two years in advance of the commencement of each medium term financial plan, or more frequently as the Minister shall direct. As requested, this review has been carried out as at 31 December 2017, and it includes projections over the period from 2017 to 2077. The previous review was made as at 31 December 2015.
- 1.3 This review:
 - > considers the financial position of the SSF taking into account changes in legislation and experience since the previous review
 - > projects possible future levels of expenditure from the SSF and the contribution rates required to finance this expenditure
 - > projects the combined balance in the Social Security Fund and the Social Security (Reserve) Fund, which is available to meet social security benefit payments and help smooth any increase in the required rate of social security contributions
- 1.4 Two main sets of results are presented in this report:
 - > the projected "break-even" contribution rates; this is the rate that would be required in order for contribution income to equal expenditure on benefits and administration costs, ignoring any balance built up in the two funds and the investment return earned thereon;
 - > the combined balances in the Social Security and Social Security (Reserve) Funds (together "the Fund"), as a multiple of annual expenditure, assuming that the current rates of contribution remain unchanged
- 1.5 Although this report presents projections of the break-even contribution rates, these are not necessarily the rates that need to be paid to the Fund. In practice, the required rate of contributions will depend on the financing strategy that is adopted, and in particular how any assets (and the investment return they generate) should be used to finance Fund expenditure. As mentioned in paragraph 1.26, we recommend that the financing strategy should be considered as part of the States' ongoing social security review – "Living Longer Thinking Ahead".
- 1.6 Details of the data and assumptions underlying the results are included in the Appendices to this report. The assumptions include that:
 - > the size of the population will follow the projections prepared by the Jersey Statistics Unit assuming net immigration of 325, 700 or 1,000 people each year



- > the future rate of return on investments, net of associated expenses, will be 2% a year in excess of earnings increases
- > earnings limits for contributions and benefit rates will increase in line with general earnings growth, except that allowance has been made for the impact of the indexation of the old age pension now being subject to a minimum of the increase in the RPI (pensioner) index
- > in line with current legislation, the States' Grant will revert to the formula described in paragraph B.26 (in Appendix B) from 2020

1.7 A summary of the results of the review based on the "central assumptions" is shown in the following table and charts.



Table 1.1: Estimates of the break-even contribution rates¹, expenditure from the Social Security Fund and the balance in the Fund based on the central assumptions and expressed in constant 2017 earnings terms

Year	Break-even rate (% of earnings)	Expenditure (£m)	Fund balance at year end (£m)	Average balance over year expressed as a multiple of annual expenditure
<i>Net immigration of 325 people a year</i>				
2017	9.9%	230	1,852	7.6
2022	10.4%	249	2,069	8.2
2027	11.4%	275	2,221	8.0
2037	14.2%	344	2,069	6.1
2047	14.5%	354	1,449	4.2
2057	13.8%	340	766	2.3
2067	13.2%	328	129	0.5
2077	13.1%	331	-	-
<i>Net immigration of 700 people a year</i>				
2017	9.9%	230	1,852	7.6
2022	10.2%	250	2,089	8.3
2027	11.0%	277	2,291	8.2
2037	13.0%	348	2,344	6.8
2047	12.9%	363	2,088	5.8
2057	12.0%	357	1,936	5.4
2067	11.5%	358	1,969	5.5
2077	11.5%	377	2,082	5.5
<i>Net immigration of 1,000 people a year</i>				
2017	9.9%	230	1,852	7.6
2022	10.0%	251	2,105	8.3
2027	10.6%	278	2,346	8.4
2037	12.2%	351	2,564	7.3
2047	11.8%	369	2,600	7.0
2057	10.9%	370	2,872	7.7
2067	10.5%	382	3,440	8.9
2077	10.6%	414	4,191	10.0

¹ In comparison with the current total contribution rate of 10.5% applied to earnings up to the Standard Earnings Limit (SEL).

Figure 1.1: Projected break-even contribution rates based on the central assumptions

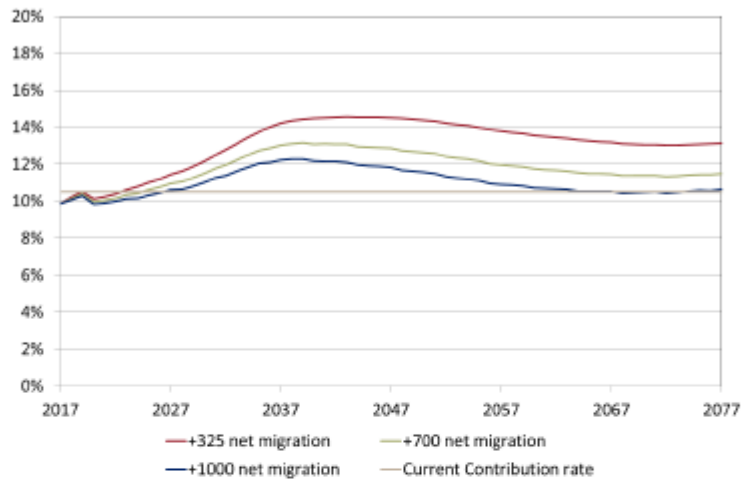
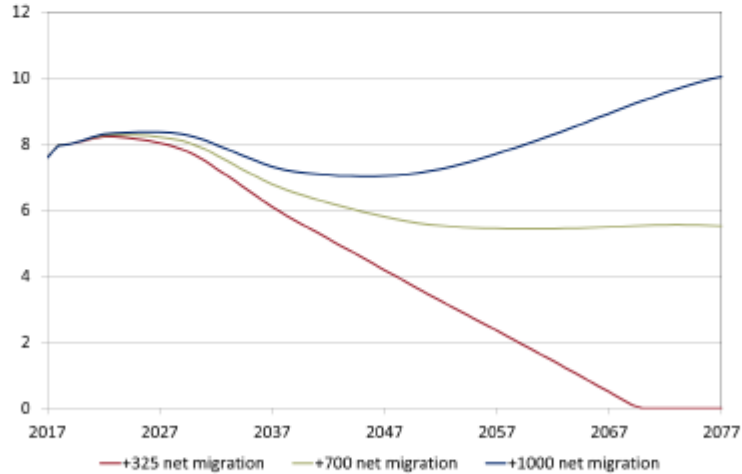


Figure 1.2: Projected Fund balance expressed as a multiple of annual expenditure based on the central assumptions assuming the current contribution rates are maintained





Break-even contribution rate

- 1.8 For each migration scenario, the break-even contribution rate is projected to start off below the current rate of 10.5% but then to rise quickly above this, reaching a peak by around 2040. This peak ranges from 12.3% under the assumption of 1,000 a year net inward migration to 14.5% assuming 325 a year net inward migration.
- 1.9 Thereafter, the projected contribution rate declines gradually before rising slightly in the final years of the projection.
- 1.10 The main driver of the projected increase in the break-even contribution rates over time is the ageing of the population, resulting in a decrease in the number of contributors relative to those of pensionable age. For example, the number of people of working age for each person over pension age (excluding overseas pensioners) is projected to reduce from just under 4 in 2017 to about 2.8 around halfway through the projection period on the net inward migration assumption of 700 people each year. The extent of this ageing of the profile, and its impact on the break-even contribution rate, are very dependent on the assumed level of migration.

Fund balance

- 1.11 The progress of the combined Fund balance, assuming current rates of contribution are maintained, is also highly dependent on the assumed level of migration, as shown in Figure 1.2.
- 1.12 On the assumption of 325 a year net immigration, the balance is projected to be extinguished during 2070 and at that point the contribution rate would need to rise to the break-even rate, or additional funding would be required, in order to meet expenditure. In practice, to the extent that part of the Fund balance is not readily convertible into cash (for example, some property investments) and to maintain a working cash balance, it would be necessary to increase the contribution rate or take alternative action before the balance is fully extinguished.
- 1.13 In contrast, under the assumption of higher net inward migration, the Fund balance is not projected to be extinguished during the projection period up to 2077.

Comparison with 2015 review

- 1.14 Overall, the break-even contribution rates indicated by the review are similar to those shown by the 2015 review, although the rates at the 2017 review are slightly lower in the early years and final years of the projection period, and slightly higher in the intervening years. This is primarily due to changes in expected expenditure on old age pension.



- 1.15 There is a more marked difference in the projected Fund balances, with the 2017 review indicating significantly higher balances than the 2015 review. For example, under the net +700 a year migration scenario, the Fund balance is projected to stand at about 5.5 times annual expenditure in 2077, compared with just over once annual expenditure at the 2015 review. This difference largely arises because the actual Fund balance at the end of 2017 was higher than projected at the 2015 review. This, in turn, reflects that investment returns achieved by the Fund over 2016 and 2017 were higher than assumed, and also that net inward migration in 2016 and 2017 exceeded the assumption of 700 a year.

- 1.16 A more detailed comparison of the results of the two reviews is given in Section 6.

Variant assumptions

- 1.17 As there is considerable uncertainty about the future progress of the Fund, it is important for readers of this report not to place undue emphasis on a single set of projection results. It is therefore appropriate to consider how the results of the review would change if alternative, but still plausible assumptions were adopted.
- 1.18 Therefore, in addition to the three migration scenarios illustrated above, we have also made projections on other "variant assumptions" to show how this would affect the projected financial development of the Fund. For example, we have considered the effect of assuming future investment returns are 3% a year higher or lower than our central assumptions. These scenarios are discussed in Section 5 and indicate that, as well as being particularly sensitive to the migration assumption, the projection of the Fund balance is also significantly influenced by the level of investment return achieved.
- 1.19 As well as being sensitive to the assumptions about the future, the results will also reflect the Fund's actual past experience. For example, as noted in paragraph 1.14, the projection of the Fund balance will depend on the initial balance, which will in turn reflect the investment returns that have been achieved in the past.

Conclusions

- 1.20 The financial outlook for the Fund remains healthy in the short to medium term and the review indicates a significantly higher projected Fund balance than at the 2015 review.
- 1.21 Based on the central assumptions, the ageing of the population means the break-even contribution rate will rise above the current contribution rate over the next 5 to 10 years under all migration scenarios. This puts pressure on the Fund, which (based on the current benefit and contribution structure) is expected to decline during the following 20 years and not recover unless net immigration is maintained at or around 700 people a year (or investment returns are substantially greater than assumed in the central assumptions).

- 1.22 Indeed, under the lowest assumption for future inward migration (325 a year) the Fund is expected to be extinguished before the end of the projection period. Once the Fund is extinguished, the contribution rate would need to be raised to at least the break-even rates described above.
- 1.23 The projected financial development of the Fund is sensitive to the assumptions adopted. The review has therefore considered how the projections would change if different assumptions were adopted, but it should be recognised that these do not represent the full range of possible future outcomes.
- 1.24 For example, the central assumptions include an allowance for investment returns averaging 2% a year more than earnings growth. If it was instead assumed that investment returns are 3% a year higher or lower than under the central assumptions, this would, respectively, increase or reduce the build-up of the Fund balance. In particular, with assumed investment returns 5% a year more than earnings growth, the Fund is not projected to be exhausted before the end of the projection period in 2077 under any of the migration scenarios. Whereas, in the lower return scenario, only the highest assumption of net inward migration maintains a positive fund balance throughout the projection period.
- 1.25 In practice the returns on the invested assets will be volatile from year to year. Therefore the Fund balance in any particular year could be materially different from our projections. Furthermore, any projection of the Fund balance made at future actuarial reviews will depend on the starting asset value at the review date.
- 1.26 Given the long-term nature of the commitments built up in social security schemes, it is important to take early action to stabilise the future financial position of the Fund. However, the Fund balance is projected to remain well above zero in the short to medium term, and therefore it is not essential to take immediate action over the finances of the Fund.
- 1.27 Nevertheless, we understand that these issues may be considered as part of the States' ongoing social security review – "Living Longer Thinking Ahead". As part of that review, it would be appropriate to start developing a strategy for how the significant Fund balance that is being built up should be used and the related question of how changes in the contribution rate should be managed. This strategy should take into account the States' objectives for social security financing and benefit provision, and any wider issues around public finances.
- 1.28 The financial position of the Fund should in any case be reconsidered at the next actuarial review of the Fund. The current review has been made two years before the next medium term financial plan commences in 2020. The subsequent actuarial review is therefore expected to be carried out two years before the following financial plan, which is due to start in 2024.

Migration Policy Development Board



Appendix 12:

Migration systems in other parts of the world

Migration Policy Development Board

Migration Policy Development Board



Migration systems in other areas of the World

Introduction

This report considers migration systems in place in a number of jurisdictions around the world:

- Australia, New Zealand and Canada, as widely accepted exemplars of how to operate effective and economically efficient migration systems;
- Bermuda and the Bahamas, as other island jurisdictions with limited land resources;
- Guernsey and the Isle of Man, as fellow Crown Dependencies and members of the Common Travel Area.

The migration controls in place in Jersey were considered at meeting 2 of the Migration Policy Development Board (MPDB)¹⁰.

The controls discussed below relate specifically to discretionary work migration, which is the migration of individuals for work over which policy has direct and immediate oversight, and do not cover other categories of migration, for example family or refugees.

The controls in place within these jurisdictions all seek to meet gaps within the labour market which cannot be satisfied from the domestic labour supply within reasonable timescales without disadvantaging the resident labour force.

Some of the controls also include policy decisions which seek to protect the finite resources available within that jurisdiction e.g. infrastructure and housing.

Migration systems can be crudely categorised into two areas. 'Demand driven', where employers choose the migrants they need to fill existing vacancies, and the government then checks them to ensure they are eligible to enter e.g. at risk countries & criminal records, and 'merit-based' in which governments take the lead, selecting from prospective immigrants based on labour and human capital considerations, giving 'points' based upon, for instance, professional experience, education, holding a job offer, and the destination-country language proficiency.

In practice 'most employer-led and points-based systems are now somewhere nearer the mid-point along the continuum between labour-market and human-capital considerations.'¹¹

¹⁰ JCIS Immigration Controls & Work Permits

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20JCIS%20Presentation%20Immigration%20Controls%20and%20Work%20Permits%20NS.pdf>

CLS Control of Housing & Work (Jersey) Law

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/ID%20Control%20of%20Housing%20and%20Work%20Law%20Briefing%20session%20for%20MPDB.pdf>

¹¹ Papademetriou, Demetrios G. and Kate Hooper (2019) *Competing Approaches to Selecting Economic Immigrants: Points-Based vs. Demand-Driven Systems*. Washington, DC: Migration Policy Institute

<https://www.migrationpolicy.org/research/selecting-economic-immigrants-points-based-demand-driven-systems>

Canada, New Zealand & Australia

Australia, New Zealand and Canada are often quoted as exemplars of immigration selection systems.

The 3 countries operate very similar immigration systems. In all these countries migration makes an important economic, demographic and labour market contribution as migrants bring skills in occupations and sectors which face shortages, as well as in regions where skilled labour supply is more scarce. They have complex but well-functioning and efficient systems that focus their labour migration policies primarily upon attracting and selecting highly skilled migrants, while protecting their resident workforce.

All countries operate a 'points-based system' that allocates points to attributes such as applying for a role on a shortage occupation list, qualifications, age, employment experience, previous in country residency/study, and language proficiency in English (and in the case of Canada French).

All invest in identifying shortage occupations and skills gaps within their labour market to identify the areas where migration should be focused.

Performance monitoring is embedded into the design of the migration systems and policies are evaluated on the basis of surveys and rich administrative data. These evaluations help adjust migration policies or fully reform them with the objective to make them more attuned to the needs of the labour market and the economy, while addressing any associated challenges.

Following criticisms of lengthy processing times all have introduced online systems to allow prospective migrants to register their interest in working or settling in the respective country ('SkillsSelect' in Australia, 'Expression of Interest' in New Zealand, and 'Express Entry Pool' in Canada). Prospective migrants undertake an online points based assessment to be placed into a pool of those eligible to be considered. Countries then rank those candidates by their score and will invite applications from those with the highest scores who meet the requirements for vacancies upon their shortage skills/occupation list.

Bermuda

All organisations in Bermuda are able to employ foreign nationals, provided that they can demonstrate that a Bermudian, Spouse of a Bermudian or Permanent Residents' Certificate (PRC) holder was not suitably qualified or available to be hired.

Employers may apply for Standard Work Permits valid for a period of up to five years, or a short-term work permit, valid for a period of up to 6 months.

Hotels and restaurants can recruit seasonal workers for up to eight months during the period between 1 April and 30 November in any given year, but must demonstrate that no resident Bermudian was suitably qualified or available to be hired.

Unless married to a Bermudian national, work permit holders are unable to gain the status of a permanent resident.

Bermuda also operates a number of 'job categories' which affects whether a role is eligible to be considered for a work permit¹²:

- Open – all jobs not categorised as closed, restricted or special.
- Closed - employers must hire Bermudians, Spouses of Bermudians or PRC holders. Jobs include: Airline Ground Agent; Retail Floor Supervisor; General Labourer; Office Receptionist; Painter;

¹² Government of Bermuda *Job categories for work permits* <https://www.gov.bm/job-categories-work-permits>

Salesperson; Tourist Retail Salesperson; Taxi Driver; Wallpaper Technician; Grocery Packer; Cashier; and Courier.

- Restricted - employers must demonstrate that any locally resident candidates screened and recommended by the Department of Workforce Development have been properly considered. Jobs include: Bank Teller; General Bartender (customer facing); Carpet Installer; Commercial Cleaner; Entertainer/Musician; Fisherman; Photographer; Technical Salesperson; Travel Agent/Consultant; General Carpenter; Administrative Assistant; Room Attendant; Kitchen Porter; Dish/Pot Washer/Kitchen Assistants or roles similar thereto; Landscape Gardener (Entry Level); General Mason.
- Special - the application process for Special Category Jobs is the same as that for the Open category, except the employer must ensure that they meet additional role dependent requirements as specified. Jobs include: Child-Care Giver; Beauty Salon, Spa and Hairdressing Staff; Family Support; Fine Artist; Graduate Trainees; Hospital Nurse and Physician; Hospitality: Seasonal Work Permit; Interns; Live-In Domestic Employees (Private Home); Locum Pharmacist and Shared Pharmacists; Model and Casual or Part-Time Employment; Musician or Entertainer; Music School Teacher; Photographer; Restaurant Staff; Self-Employed Persons and Part Owners of a Bermuda Business; Categories of Jobs Identified by the Minister where there are large numbers of work permits.

National Training Plan

The National Training Plan calls for employers to play a key role in ensuring that Bermudians and Spouses of Bermudians are developed and employed in specific occupations which have a high number of work permit holders.

The following occupations have been identified as having a large number of work permit holders:

- Registered Nurse
- Qualified Accountant
- Waiter/ Waitress
- Mason
- Landscape Gardener
- Chef

Employers who employ more than ten work permit holders in the occupations listed above may be invited by the Department of Workforce Development and/or the Department of Immigration to participate in initiatives led by the National Training Board to boost the number of Bermudians and Spouses of Bermudians employed in these job categories.

Housing

In order to protect the pricing and stock of housing available to native Bermudians, Bermuda operates a two-tier housing system (based upon Government ascertained 'Annual Rental Values'). The majority of property¹³ (approximately 75% of all property) is available to purchase by Bermudians, and a much more limited number of eligible properties is available (the top 5% of property by value) to non-Bermudians, and PRC holders (who can access approximately 25% of the available property).

Properties available to non-Bermudians tend to be especially categorised condominiums (typically £500,000 – £5 million purchase price) and freehold properties (typically in the range of £2 million – £35 million).

¹³ <http://www.bermuda-online.org/homes.htm>

Work permit holders working for the Government are given assistance with housing, including placement in staff accommodation, and hotel workers on short term work permits are housed in staff accommodation.

Barbados

In limited instances, individuals who have special skills which are in short supply in Barbados may be granted a work permit for a specific post on the basis that there is no qualified Barbadian available for the post. Applications for work permits in these cases are processed by the employer and not the prospective employee.

Work-permits are issued as either short-term, valid for a period up to 11 months, or long-term, valid for up to 3 years.

Non-national participation in the retail sector is not encouraged, and similarly in the tourism sector every effort is made to restrict the operation of tourism ancillary services (restaurants, bars, ground transportation water sports, etc.) to Barbadian nationals, except in cases where the operation is unique and the expertise unavailable locally, or where the operation is likely to make a significant contribution to the local tourist product.

Workers can be granted the status of permanent resident after 5 years' residence.

Housing

No restrictions on buying or renting property.

Crown Dependencies

The UK, Channel Islands, Isle of Man and the Republic of Ireland collectively form the Common Travel area (CTA). The CTA is established as a matter of law to facilitate the principles of free movement of British and Irish citizens between the UK, Republic of Ireland and the Islands. There are no formal immigration border controls in the CTA.

Whilst there are local differences (mainly in the areas of work permits for non – EEA citizens) the immigration rules of the Crown Dependencies are heavily reliant upon, and largely based on, the UK's immigration legislation.

Currently EEA nationals and their family members enjoy free movement and, are able to enter, live and work in the Crown Dependencies through Protocol 3 to the UK's Act of Accession.

This free movement causes some challenges to the Crown Dependencies in protecting the resident workforce, controlling population and the access to finite resources such as land, housing and infrastructure.

Each of the Crown Dependencies have tackled these challenges in slightly different ways, but all allow those with free movement to enter but then control access to employment and/or housing through local legislation.

Isle of Man

The purpose of the Isle of Man legislation is to protect the employment opportunities of Isle of Man workers as far as it is reasonable while enabling employers to obtain the workers they need.

Anyone who is not an Isle of Man worker¹⁴ requires a work permit to take up employment (including self-employment), except in the case of a number of occupations and certain employments of a temporary nature which are exempt.

Ordinarily applications are made by the employer and consideration is given to whether there are any suitable Isle of Man workers available, the importance of the position to the applicant's undertaking, the level of unemployment in that occupation, and any likely economic or social consequences of granting or declining the application.

Non-EEA nationals who already hold an Immigration permission that allows them to work are not required to apply for a further work permit.

One year automatic permits, which can be reviewed annually, are issued to the spouse, civil partner or cohabiting partner of a work permit holder or Isle of Man worker.

Housing

No restrictions on buying or renting property.

Guernsey

Guernsey's Population Management Law came into force on 3 April 2017. It seeks to manage who can live and work in Guernsey, for what reasons, and for how long, and to influence the size and make-up of the population, to meet the Island's long-term needs.

The Law is supported by a range of policies setting out the types of people, often by looking at their employment skills and experience, who are able to live and work in Guernsey. The policies can be regularly reviewed and adjusted to match strategic aims as they change over time.

In general terms, the Law works by requiring everybody who lives and/or works in Guernsey (and who is aged 16 or over) to hold either a 'Certificate' or 'Permit' to show that they are allowed to live and/or work there. Certificates and Permits are issued for a number of reasons, including because of a person's strong connections to a person who is living in Guernsey, or because a person has been invited to work in Guernsey because of their essential skills, or because Guernsey doesn't have enough people to undertake all the jobs that need filling.

The Population Objective – the high level policy position of the States with regard to the size and make-up of the Island's population – is set by the States following political debate.

More detailed policies (e.g. what types of employment attract what length of Employment Permit) relating to the management of the Island's population are set by the Committee for Home Affairs.

A Population Employment Advisory Panel (PEAP) gives up to date information to the Committee about the Island's employment market, and the current and future needs of the Island's employers

There are six PEAP members, and an independent Chairperson, who represent the interests of all sectors of employment in Guernsey. The PEAP is a channel for information to flow to and from the Committee to the Island's business sectors, about the different levels of skills and manpower shortages in Guernsey and Employment Permit policies.

¹⁴ Isle of Man worker qualification <https://www.gov.im/categories/working-in-the-isle-of-man/work-permits/definitions/isle-of-man-worker/>

A 'Certificate' is issued to a person who is entitled to live in Guernsey, and who is able to undertake any employment in the Island.

A 'Permit' is issued to a person whose ability to live and/or work in Guernsey, is conditional. The Permit will explain what the conditions of residence are, but these can include things like working in a specific job, or living with a specific person. If the conditions of a Permit are broken, it becomes invalid.

There are 3 main types of permit¹⁵:

Short Term Employment Permit - up to 12 months, renewable annually up to 5 years, local market shared accommodation (can't have family join them). No further permits issued after 5 years.

Medium Term Employment Permit – up to 5 years, not renewable, Local market (can have family join them).

Long Term Employment Permit – up to 8 years, renewable, established resident status after 8 years. Access to Local Market.

Housing

Guernsey has a two-tier housing system and all accommodation in Guernsey is classified as Local Market or Open Market. The majority of Guernsey's housing (about 27,000 properties) is classified as Local Market, and is primarily reserved for people with an automatic right to live in Guernsey.

People who live and work in Guernsey because of their essential skills or to fill manpower shortages are normally permitted to live in Local Market accommodation. Depending on the type of employment and the skills the person brings, some people moving to Guernsey are given a Permit that invites them and their immediate family to stay in Guernsey long enough to become 'Permanent Residents'.

In general terms, adults who live in Open Market housing are not building up any right to live in Local Market housing.

Conclusion

Australia, New Zealand and Canada are often quoted as exemplars of immigration selection systems. In the main this is because they invest heavily in their immigration systems, continually evaluate their economic and skills shortages, assess how well migrants integrate and frequently adjust their systems and policies accordingly.

These systems control the immigration of foreign migrants who make up the majority of migrants into their countries. Little account needs to be given to the free movement of citizens from outside of their own countries.

In Jersey the free movement of EEA nationals, the continued (regardless of Brexit outcomes) free movement of British and Irish citizens within the CTA, and the reliance upon the UK's immigration system would make the implementation of an Australia/New Zealand/Canada-type Points Based system problematic in the Crown Dependencies.

The systems in place in Bermuda, Barbados, Isle of Man and Jersey tend towards the 'demand-driven' end of the continuum. They allow employers to decide which roles require filling and who they would

¹⁵ States of Guernsey Population Management *Quick Guide to permits and certificates*
<https://www.gov.gg/CHttpHandler.ashx?id=102679&p=0>

like to fill those vacancies. These applications are then judged against set criteria by the relevant government departments.

The systems in Barbados and the Isle of Man protect the local workforce and help fill local skill shortages but do little to control population, however in these jurisdictions this is not their intent.

By having a two-tier housing system and a restricted and expensive supply of housing stock for migrants Bermuda does control population to some extent.

Historical statistics indicate that whilst the systems in place in Jersey control access to housing and work they have not been able to control population to the levels desired by Government.

Guernsey has now moved closer towards a 'merit-based' system, in so much as the Government highlights the skills gaps and specific roles it wishes to fill in advance and only considers applicants with the relevant employment skills and experience to fill those gaps. By regularly reviewing the employment skills, labour resource shortages and any changes in Government strategy it is able to have a greater control of the size and make-up of its population.

Some useful lessons that can be taken from the systems considered are to:

- Ensure that systems are flexible and responsive: predicting future skills gaps and labour needs is a difficult and imprecise task. Systems need to be able to respond quickly to changes in these shortages.
- Protect the local workforce: Inward migration cannot be used as a shortcut for business/Government to import skills at the expense of the local workforce. Investment in education, training, and re-training is vital to ensure that the local workforce remains relevant to the changing business need and is competitive in the global market.
- Monitor and review how well the system works: setting success criteria, gathering data and regular review of the system is required to ensure that it remains relevant, effective and efficient.
- Install integration policies for migrants: Gathering data on the integration outcomes for migrants allows integration policies to be produced and amended, such as examining migrants' barriers to labour market integration and connect new migrants with the relevant services they require as early as possible.

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Migration Policy Development Board



Appendix 13:

Migrants' access to services

Migration Policy Development Board

Migration Policy Development Board



Discussion paper – Migrants' access to services

1. Introduction

Migrants form a valued part of the Island. New residents and businesses help to drive our economy, diversify our community and provide a range of opportunities for all of those living in Jersey. The Government recognises that any failure to support the integration of new migrants into our society exacerbates income equality and hinders economic growth, as it hinders individuals achieving their full economic potential.

The Government of Jersey's Common Strategic Policy 2018-22 (CSP) commits to creating a sustainable vibrant economy and skilled workforce for the future, whilst reducing inequality, and protecting our environment.

The following sections of the CSP are specific to migration policy:

'CSP 3.5.9.1 Develop and implement a migration policy which enables migration to be targeted and deliver the greatest economic and social gain'.

CSP 4.2.2, to 'Provide clear rights to new residents as part of an agreed migration policy'.

Many migrants, especially those with shortage skills such as nursing, care workers, and doctors are operating in a global market where multiple jurisdictions are competing for their services. Migrants often look to compare the packages available to them in each potential destination.

Therefore, the services that a migrant can access need to be clear, fair, logical, and well communicated. It is right that a migrant considering moving to work in Jersey is fully aware of the services that they can, or cannot access, prior to their arrival. This also goes some way to ensuring that migrants are an integral part, and feel a valued member, of the community in which they will be working.

Migrants are brought to Jersey by a vacuum of required skills and/or labour shortages which are not met by the domestic workforce.

The contribution a migrant makes to the Jersey economy, society and the local community will be determined by their personal skills, circumstances and preferences, as well as their contribution to the public finances.

This paper discusses the access that migrants currently have to services and some of the considerations that can be given to the access of each service.

This paper considers three of the four main areas of public services where barriers to access may exist: health, education, and benefits. (Access to housing is a matter being considered by the Housing Policy Development Board).

This paper relates specifically to discretionary work migration, which is the migration of individuals for work over which policy has direct and immediate oversight. Considerations are also given for the

potential access of services for their immediate family (partner and dependent children). It does not cover other categories of migration, for example extended non-dependent family members or refugees.

2. International Background

Migrants for the purposes of this report are classified as those individuals, not born in Jersey, who come to Jersey to live and work. Therefore, this category includes all British, Irish, EEA and 3rd country nationals¹⁶, and their immediate family, who leave their country of birth and come to work in Jersey.

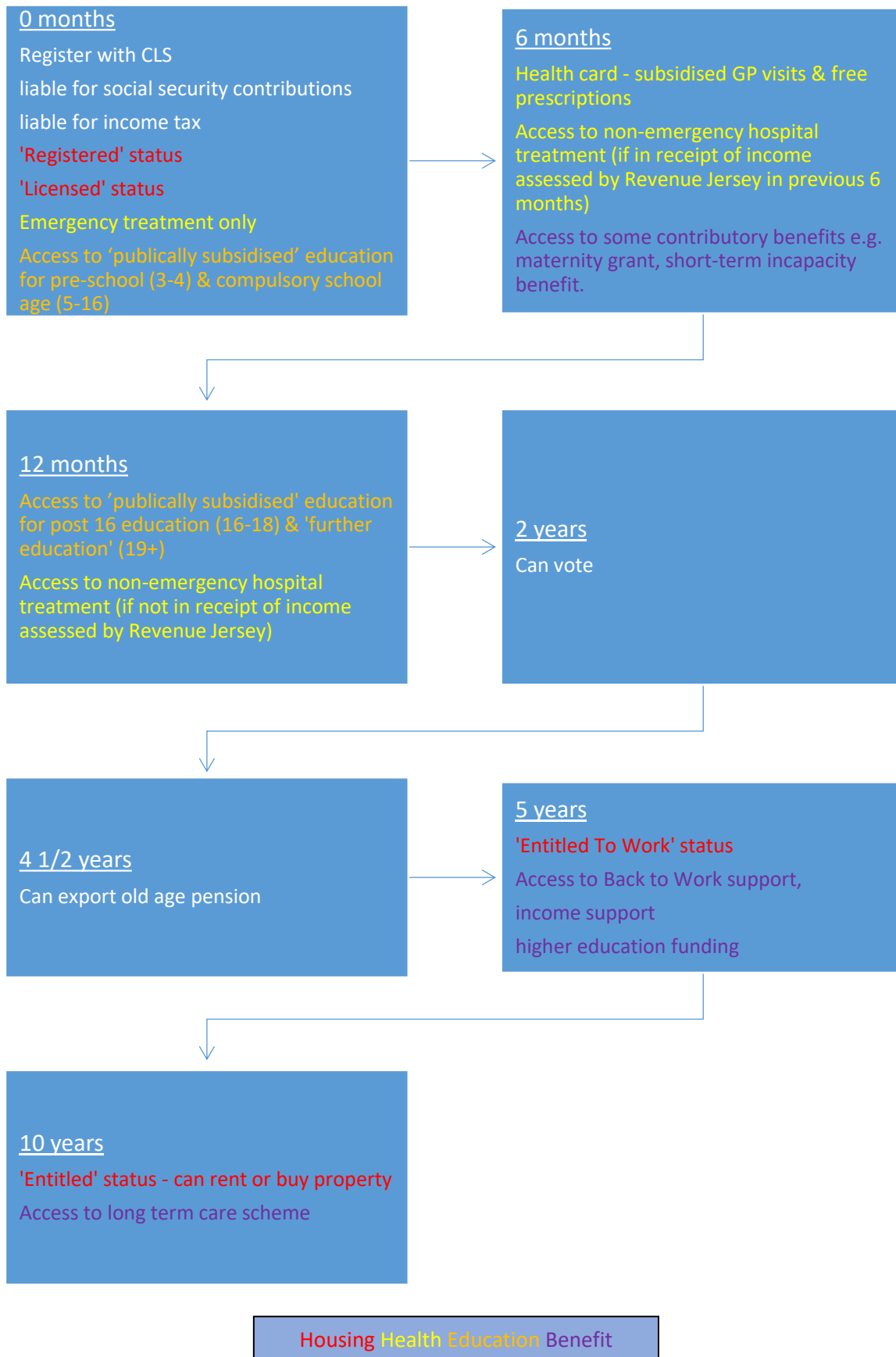
The UK, Channel Islands, Isle of Man and the Republic of Ireland collectively form the Common Travel Area (CTA). The CTA is established as a matter of law to facilitate the principles of free movement of British and Irish citizens between the UK, Republic of Ireland and the Islands. There are no formal immigration border controls in the CTA.

Currently EEA nationals and their family members enjoy free movement and are able to enter, live and work in the Crown Dependencies through Protocol 3 to the UK's Act of Accession.

British and Irish nationals currently have free movement within the CTA, EEA nationals have free right of movement within the EEA and Jersey, whilst 3rd country nationals are controlled by the Immigration Rules.

¹⁶ Nationalities that are not an EEA country.

Time required to access services



3. Health¹⁷

3.1 Current situation

Jersey is not part of the NHS and has different rules to the UK, other Channel Islands and other countries. When first moving to Jersey migrants have to pay for most healthcare, including visits to the doctor, non-emergency treatment at the hospital, and other related costs, including travel costs.

After six months a migrant can apply for a Health Insurance Fund (HIF) health card. The health card gives discounted GP visits and GP prescriptions. It does not give access to free or discounted health care at the hospital or elsewhere. These rights are set out in Health Insurance Jersey) Law 1967¹⁸.

The Government of Jersey has a 'Residents & non-residents charging policy'¹⁹ whose primary purpose is to deter people travelling to Jersey with the intent of accessing free health care and treatment and to ensure that free access to health services is an appropriate, fair and reasonable use of Government funds. This policy is a non-statutory scheme which governs access to free hospital services.

It takes account of external agreements – including Reciprocal Health Agreements in place between Jersey and other countries – and provides for appropriate exemptions to charges.

This policy was developed by the Health department with a view to ensuring the best interests of Jersey residents and taxpayers are taken into account, placing significant emphasis on the expectation that those receiving free care and treatment are making an ongoing social and/or economic contribution to the Island.

This policy is based upon a person's CHWL status, with some exceptions, and is complicated.

Many workers in the hospitality and agricultural industries come to Jersey over many years but only work for periods of 6-9 months. Each time they return to the island their 6 month 'qualification period' for hospital services starts again. These migrants may therefore have paid more than 6 months of income tax payments on previous trips, but are only able to access emergency hospital treatment for the first 6 months of each return stay. Those migrants that have completed a 6 month qualifying period previously and have a Health Insurance Fund health card are able to access discounted GP visits and GP prescriptions.

Principle for discussion: everyone living in Jersey should have access to appropriate and timely healthcare. All Jersey residents make co-payments to cover some aspects of their health care but all major costs should be covered by a service that is free at the point of use or included in a compulsory insurance scheme.

Under the current rules, migrants could face significant healthcare costs during their first year in Jersey. Others may avoid necessary treatment on the grounds of cost.

3.2 Options for migrant access to healthcare

3.2.1 Compulsory private health insurance

¹⁷ Health costs when moving or returning to live in Jersey

<https://www.gov.je/health/travelling/pages/movingreturning.aspx>

¹⁸ Health Insurance Jersey) Law 1967 <https://www.jerseylaw.je/laws/revised/Pages/26.500.aspx>

¹⁹ Residents and Non-residents Charging Policy

<https://www.gov.je/SiteCollectionDocuments/Health%20and%20wellbeing/P%20Resident%20and%20Non%20Resident%20Charging%20Policy%2020140829%20MM.pdf>

Migrants could be required to have approved health insurance before they are allowed to register under the Control of Housing & Work (Jersey) Law 2012.

Whilst migrants only have access to emergency treatment for the first 6 months it is possible that any emergency treatment during that period could lead to significant expenditure.

Any emergency treatment is also likely to lead to non-emergency costs that will be the requirement of the migrant to pay.

Private health insurance to cover the first 6 months would ensure that all migrants had access to necessary healthcare and would allow the Government of Jersey to recoup costs for an individual during that period.

The requirements to have insurance can be placed on the individual or on their employer.

In higher risk industries, such as agriculture, the issuance of a short term work permit could be tied to the requirement for the employer to have private health insurance to cover the treatment and repatriation of their workers should access to health services be required.

The employer may see requiring the employer to pay for insurance as an employment tax, and a disincentive to employ staff. It could also be seen as an incentive to increase productivity or to invest in automation to complete the same tasks with less staff.

Passing the cost of insurance to the employer or workers could mean that those migrants who do not work (e.g. immediate family members) are able to access services without paying.

Private health insurance could be expensive to purchase in the open market, particularly for lower paid workers. A requirement to purchase private health insurance would likely have more impact on lower earning migrants. Some higher paid workers may already have health insurance cover included in their overall contract of employment.

Partners (with or without a legal relationship) and dependent children could also be required to have compulsory private health insurance. The definition of dependent children would also need to be agreed, to consider the treatment of young adults (for example aged under 25) who still form part of the worker's household.

To ensure that everybody contributes equitably other charges could be applied to all users of the health services, including non-working migrants.

3.2.2 Healthcare surcharge

A migrant could be required to pay a compulsory surcharge in advance to be able to access medical treatment on arrival. This could be levied on the individual or the employer.

The UK require non-EEA citizens applying for visas over 6 months to pay an upfront health surcharge in order to be issued with a visa for over 6 months. This fee is dependent upon the length of the visa given. Presently the fee is £400 per year, for example £2,000 for a 5 year visa. This charge applies separately to each family member, so for instance a family of 4 people applying for a 5 year visa would pay an £8,000 health surcharge.

This charge applies even if a migrant holds private health insurance.

This charge could be relatively easily applied to 3rd country nationals as a requirement of the issuance of a visa by the Jersey Customs and Immigration Service (applicants for visas to the Channel Islands are currently exempt as they do not belong to the NHS).

Alternatively, the surcharge could be applied to the employer as part of a work permit fee. This could be set at a level to cover costs, or to dissuade applications for permits in certain sectors.

As with the private insurance option, any surcharge option would need to consider the coverage of partners, dependent children and dependent young people.

A healthcare surcharge would probably be set at a level below the cost of private health insurance.

Higher earning employees with private insurance included in their employment package would still be required to pay the surcharge. As such this option places less pressure on lower earning employees and their employers.

3.2.3 Extended 'qualifying' period

The 6 month 'qualifying' period to apply for a health card and receive free hospital treatment could be extended to a longer period.

This option could be combined with options 3.2.1 or 3.2.2 so that new migrants were required to support their own costs of healthcare through private insurance or a government surcharge for an agreed period of time - for example 12 or 24 months.

3.2.4 Provide equal access to all health services

The existing hospital guidelines do provide immediate access to hospital services for licensed employees and their immediate family.

A new system could provide immediate access to some groups and require other groups to fund costs through insurance/surcharge.

A further option would be to provide immediate access to all groups on day one. This option would increase existing health costs.

3.3 Summary of options:

- **require private health cover from individual**
- **require private health cover paid for by employer, to cover individual and immediate family**
- **surcharge paid by individual**
- **surcharge paid for by employer, to cover individual and immediate family**
- **extend waiting time before access, to be covered by private insurance or surcharge.**
- **provide some access immediately, based on CHW status.**
- **Provide access to all from day one.**

4. Education

The table below shows the number of children starting at a Jersey Primary School over the last 10 years (all schools not just States' schools) compared to the number of children born in the corresponding academic year. (i.e. year of birth compared to those same cohort of children starting reception school in the school year when those children turn 5 years of age).

	Reception year school numbers	Birth numbers for corresponding academic year
2010	979	971
2011	1011	953
2012	1021	987
2013	1074	1008
2014	992	1004
2015	1036	1049
2016	1053	1047
2017	1163	1164
2018	1063	1031
2018 / 2019	1041	1032

The table suggests that there is very little or no pressure on the education system from migrant children at this age.

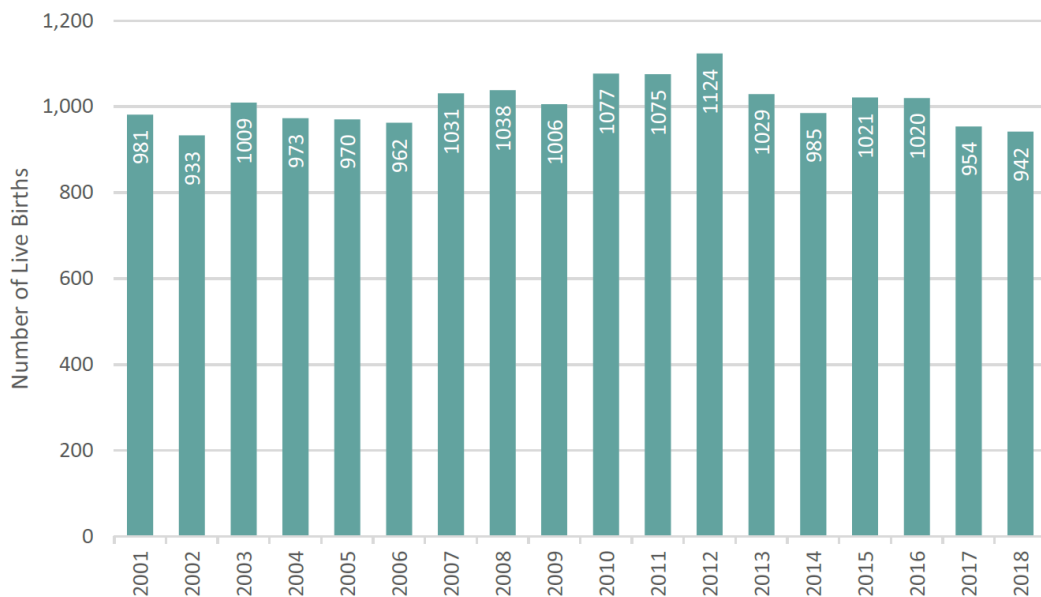
The net migration rate for children does not mirror the rate for adults and is almost net nil. Current trends suggest that the ratio of children to adults will reduce in the future.

There were 942 live births notified in Jersey during 2018; this was the lowest number of births recorded since 2002²⁰.

²⁰ Births, fertility & breast-feeding 2018

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Birthsfertilitybreastfeeding2018%2020190321%20SJ.pdf>

Figure 1: Number of annual births per 1,000 people, 2001-2018



(Source: Births, fertility & breast-feeding 2018 – Statistics Jersey)

Government of Jersey policy²¹ exists to limit access to education to those children who are legally resident in Jersey:

Pre-school Education (3-4 years)

Access to publicly subsidised pre-school education is available to:

- British & EEA children
- Third Country Nationals holding the appropriate visa

Compulsory School Age (5-16 years)

Under the Education (Jersey) Law 1999 free access to compulsory age education is currently a legal requirement²².

Access to publicly subsidised compulsory education is available to:

- British & EEA children
- Third Country Nationals holding the appropriate visa

Post 16 Education (16-18 years)

Access to publicly subsidised post 16 education is available to:

- British & EEA students living with their parents or a family member who has parental responsibility for them
- British & EEA students moving from compulsory education within a Jersey school to post 16

²¹ Policy - Access to publicly funded education

<https://www.gov.je/SiteCollectionDocuments/Education/P%20Access%20to%20Publicly%20Funded%20Education%2020160803%20KP.pdf>

²² Education (Jersey) Law 1999 <https://www.jerseylaw.je/laws/revised/pages/10.800.aspx#Toc128553375>

education

- British & EEA students who have been ordinarily resident in Jersey for a minimum of one year
- Third Country Nationals holding the appropriate visa

Further Education (19+ years)

Access to publicly subsidised further education is available to:

- British and EEA students who are 'Entitled', 'Licensed' or 'Entitled to Work Only'
- British and EEA students who are 'Registered' and have been ordinarily resident in Jersey for a minimum of one year
- Third Country Nationals holding the appropriate visa and have been ordinarily resident in Jersey for a minimum of one year

Higher education grants²³ are available to applicants who have lived in Jersey for long enough and meet the academic standard.

Dependent students: The student and parents must have been ordinarily resident in Jersey for five years up to 31 August before their first academic year.

Where a student has not been ordinarily resident for the required period solely because a parent is or was temporarily employed outside of Jersey, that period may be counted as ordinary residence. If a student has been resident for less than five years before the start of the course, they may also qualify if the student, or a parent they live with, has Entitled status. Parent and student also need to have been ordinarily resident for at least 12 months up to 31 August.

Independent students: The student must have been ordinarily resident in the island and have been so for five years immediately before 31 August as above. The one year rule also applies to students with Entitled status.

4.1 Options for migrant access to education

4.1.1 Remove access

A change in legislation could remove the requirement for free access to compulsory age education.

All children of compulsory school age should be able to access good education. However, options do exist as to how this is paid for, and by whom.

Free access to pre-school education could be removed until a certain qualifying time has been reached.

The integration of migrants into Jersey culture and society are improved by knowledge and use of the English language. There are also resource implications to having non-English speakers in compulsory age schools. Therefore non-English speaking children should not be discouraged from entering pre-school education.

Neither option in this section is recommended.

²³ Higher Education Funding

<https://www.gov.je/SiteCollectionDocuments/Working%20in%20Jersey/ID%20Student%20Finance%202019-20%2020190313.pdf>

4.1.2 Restrict migrants from bringing dependents

A number of countries place a restriction on certain immigrant categories to prevent dependent family members joining them. For instance, short term work permit holders in the agriculture and hospitality industries in Jersey are currently restricted from having family members join them.

4.1.3 Education Surcharge

A migrant could be required to pay a compulsory surcharge in advance, for any compulsory age children accompanying them, in order to access publicly subsidised education on arrival.

In all of the above points, this could restrict the ability for migrants to work, as they may need to provide childcare, and jars with the CSP commitment to put children first.

4.1.4 Free education

Access to education is free for all from day one, and the cost is accepted and borne by all.

4.1.5 Further considerations:

Whilst some concerns exist that migrant children are able to enter publicly subsidised education system immediately on arrival, it is currently a legal requirement in Jersey to educate children of compulsory age, and there is no evidence that the system is being abused by migrant children.

The education of a migrant's children is an important consideration before a migrant commits to moving to Jersey to work. Any restrictions on education may dissuade a migrant from coming to the Island.

In order to reduce the Island's reliance upon inward migration in the future it is important that all children living in Jersey receive a good standard of education.

4.2 Summary of options:

- **restrict certain categories from having family members join them**
- **surcharge paid by individual**
- **access to all education is free from day one.**

5. Benefits & Financial Support²⁴

- All workers are liable to pay income tax as soon as they arrive in Jersey . They are taxed at the maximum 20% ITIS rate until their income has been assessed.
- After 6 months of payments an individual can access some contributory benefits e.g. maternity grant, short-term incapacity benefit.
- After 2 years residency a person can vote.
- With a contribution record of at least 4 ½ years, a person can export their pension record anywhere in the world. With less than four and half years of contribution record, old age pensions can only be claimed in countries where there is a reciprocal agreement between Jersey and the other country.
- After 5 years residency a person becomes 'entitled to work' and can access further services such as back to work support and income support.

²⁴ Benefits & financial support

<https://www.gov.je/LifeEvents/MovingToJersey/LivingInJersey/Pages/Benefits.aspx>

- After 10 years a person becomes 'entitled' and can access social housing and the long term care scheme²⁵.

5.1 Options for migrant access to benefits and financial support

5.1.1 Employer arranges pension option

The Social Security system requires every adult working in Jersey to pay contributions. These create a contribution record which provides eligibility for an old age pension at state pension age. Once a worker has a contribution record of at least four and half years, the Jersey old age pension can be claimed from anywhere in the world. A contribution record of less than 4 ½ years can be used to claim a pension only if the migrant is living in the country that has a reciprocal agreement with Jersey.

Jersey currently has reciprocal agreements with:

Austria	Ireland	Portugal
Barbados	Isle of Man	Spain
Bermuda	Italy	Sweden
Canada	Jamaica	Switzerland
Cyprus	Netherlands	United Kingdom
France	New Zealand	USA
Guernsey	Northern Ireland	
Iceland	Norway	

Many migrants that work for less than 4 ½ years in Jersey in total , are making payments into the Jersey Social Security fund. Whereas they may qualify for some short-term benefits, the principal use of the fund is to provide old-age pensions. These make up 80% of the annual contributory benefit bill. In this situation the employer could be required to provide an option to make payments into a fund that would allow a pension to be accrued and transferred upon leaving the island.

5.1.2 Restrict access to benefits

Access to benefits could be restricted to migrants for a longer period (e.g. 4-7 years) or increased gradually over this period. This would increase the payments in to the system before claims can be made.

This might require migrants to make private arrangements to support themselves, or pay directly in lieu of accessing services.

5.1.3 Reduce the number of people making smallest contributions

Low skilled workers, who receive the lowest salaries, make the smallest contribution to tax and social security revenues. The number of low skilled migrants could be kept to a minimum, and where work permits are required should only be issued for the minimum amount of time required. Where the use of low skilled migrants is unavoidable and long-term, training to allow these individuals to access higher paid jobs or increases in the minimum wage could increase their contribution rate.

5.1.4 Migrants to be working or self-sufficient

²⁵ Subject to various conditions

Under current legislation the Free Movement Directive states that EU citizens (including their EU and non-EU family members) must be admitted to the UK and can reside for up to three months from the date of entry, provided they meet basic criteria, such as not being a risk to public policy, public security or public health.

After 3 months an EU national's right to remain in their host state becomes conditional. EU citizens wishing to stay beyond three months can generally only do so where they are exercising 'Treaty rights' – until they become entitled to permanent residence in the UK (usually after exercising Treaty rights in the UK for five years). Exercising Treaty rights in this context means they must be working, self-employed, a student, a self-sufficient person or the family member of an EU citizen who is exercising Treaty rights. The Directive is primarily implemented in UK law through the Immigration (European Economic Area) Regulations 2016.

'Not only can Member States seek to ensure that the above conditions are satisfied ... but the right to residency can be withdrawn if circumstances later change: due to unemployment if they are not permanent residents, lack 'sufficient resources', or have become an unreasonable burden on the social assistance system. The UK Government does not enforce controls over self-sufficiency as a matter of routine but they are enforced in some other Member States.'²⁶

The same holds true in Jersey. Therefore, EU citizens who do not meet the above criteria could be removed from the Island if they are considered to be an excessive burden. This option is not utilised by Jersey.

5.2 Summary of options:

- **allow all pensions to be exported**
- **exempt short-term workers from the social security fund (income into the fund would then drop). This option would require a control mechanism to stop a worker returning to Jersey after a maximum time period**
- **accept the current situation - it's a population-based fund and not everyone will benefit from the payments they make in (e.g. people who die before pension age)**
- **lengthen period before migrants can access benefits**
- **restrict number of low skilled migrants to a minimum**
- **train long term low skilled migrants to be able to access higher paid roles**
- **require migrants to be self sufficient**

6. Housing²⁷

Housing is being considered by the Housing Development Board, and falls outside the remit of the Migration Policy Development Board.

However, the framework formed by the timings and categories of the Control of Housing & Work (Jersey) Law 2012²⁸ (CHWL) may provide an opportunity to rationalise the entry points to all services.

²⁶ P.16 para 4 Policy options for future migration from the European Economic area: Interim report House of Commons, Home Affairs Committee

<https://publications.parliament.uk/pa/cm201719/cmselect/cmhaff/857/857.pdf>

²⁷ Residential & employment statuses

<https://www.gov.je/Working/Contributions/RegistrationCards/Pages/ResidentialStatus.aspx>

²⁸ <https://www.jerseylaw.je/laws/revised/Pages/18.150.aspx>

The CHWL timings could be utilised as a framework to provide a clear system for accessing the other services discussed in this paper, whereby a certain permission gives access to a certain group of services. This rationalisation would give greater transparency for all migrants.

Residential and employment status	Definition	Housing
'Registered'	Someone who has lived in Jersey for less than 5 years, who is not essentially employed and who is not married to, or in a civil partnership with, someone who is 'Entitled', 'Licenced' or 'Entitled for Work'.	Can only lease 'Registered' (unqualified) property as a main place of residence.
'Licensed'	Someone who is an approved 'essential employee'.	Can buy, sell or lease any property, apart from first time buyer restricted or social rented housing, in their own name, for as long as they remain in full-time 'Licensed' employment. Can only have one property to occupy as a main place of residence. If 'Licensed' status is lost, they can no longer occupy Qualified property.
'Entitled for Work'	Someone who has lived in Jersey for the last five consecutive years, or is married to, or the civil partner of someone who is 'Entitled', 'Licensed' or 'Entitled for Work'.	Can buy any property jointly with an 'Entitled' or 'Licensed' spouse or civil partner. They can also rent 'Registered' (unqualified) property as a main place of residence in their own right.
'Entitled'	Someone who has lived in Jersey for 10 years.	Can buy, sell or lease any property.

6.1 Summary of options

- **Rationalise entry points to all services**

7. Conclusions

It is right to ensure that those accessing services have paid a fair amount of contributions in to the system that they are using.

'When considering the contribution of each individual migrant, it must be remembered that today's working adult, paying large amounts of tax, will become tomorrow's state pensioner, with above-average healthcare costs. Today's secondary-school pupil, educated at the expense of the taxpayer, will tomorrow contribute through the income taxes they pay once they enter the labour market. From the perspective of a policy-maker, therefore, what really matters is whether an additional migrant is likely to make a positive or negative net fiscal contribution over their entire time in the

UK, from the day of arrival to the day they leave or the end of their life' (*The Fiscal Impact of Immigration on the UK*, MAC, June 2018²⁹).

The Government recognises that the failure to support the integration of new migrants into our society exacerbates income equality and hinders economic growth, as it hinders individuals achieving their full economic potential. As such, it has committed, through CSP 4.2.2, to 'Provide clear rights to new residents as part of an agreed migration policy'.

Many migrants, especially those with shortage skills (such as nursing, care workers, and doctors) are operating in a global market where multiple jurisdictions are competing for their services. Migrants often look to compare the packages available to them in each potential destination.

Therefore, the services that a migrant can access need to be clear, fair, logical, and well communicated. It is right that a migrant considering moving to work in Jersey is fully aware of the services that they can, or cannot access, prior to their arrival. This also goes some way to ensuring that migrants are an integral part, and feel a valued member, of the community in which they will be working.

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/759376/The_Fiscal_Impact_of_Immigration_on_the_UK.pdf

Migration Policy Development Board



Appendix 14

Presentation – Migration: Impact of skills

Children, Young People, Education & Skills

Impact of Skills Agenda on Migration Policy

June 2019

Migration Policy Development Board Meeting† for
Children, Young People, Education & Skills

Food for thought



Why are we here?



- **Common Strategic Priority 1**
- We will put children first by protecting and supporting children, by improving their educational outcomes and by involving and engaging children in decisions that affect their everyday lives.
- **Common Strategic Priority 3**
- We will create a sustainable, vibrant economy and skilled local workforce for the future by delivering an economic framework to improve productivity, by nurturing and strengthening our financial services industry, by enhancing our international profile and promoting our island identity, by delivering the best outcomes from Brexit, and by improving skills in the local workforce to reduce Jersey's reliance on inward migration
- **Common Strategic Priority 4**
- We will reduce income inequality and improve the standard of living by improving the quality and affordability of housing, improving social inclusion, and by removing barriers to and at work



Terms of Reference:

- Have a skilled local workforce;
- Improve productivity;
- Reduce the island's reliance on inward migration.

Can we:

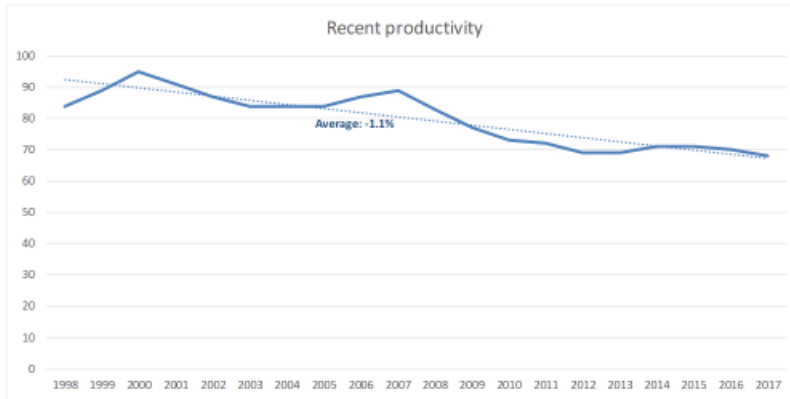
- Identify the skills and labour gaps that exist in Jersey;
- Educate & train the resident workforce to the skill levels required by local industries (now and in the future);
- Utilise migrants only where genuine gaps in skills or labour exist in the resident workforce.



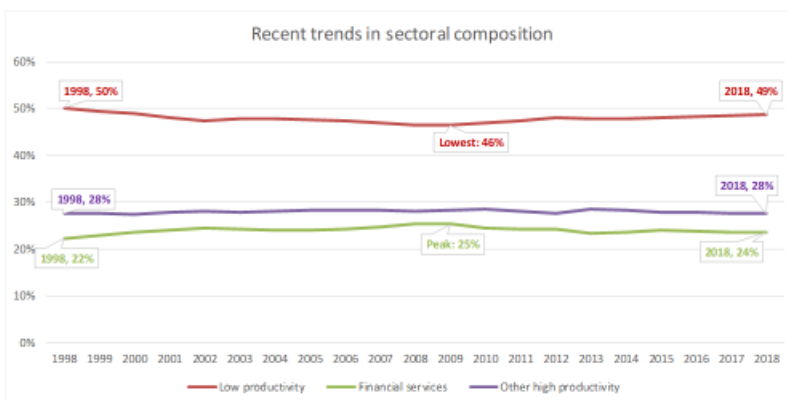
Current situation



Jersey Context: Recent productivity performance GVA per FTE (£k, 2017 prices, excluding rental)



Jersey Context - Recent trend in sectoral mix Sectoral proportion of FTEs



Comparison with UK



- 4 x more people in financial and legal services than in UK
 - Greater share of construction & quarrying, hospitality, agriculture and fishing.
 - All other sectors under-represented locally.
 - Especially, miscellaneous business activities, computer and related activities and manufacturing.
 - UK predicts ("Working Futures") that there will be an increase in employment for those with L4 and above & a reduction in lower skilled jobs.
 - In Jersey even more strongly due to the current industries forming the economy of the island.
-



Table 20 : Reasons for recruitment difficulties

Reason for difficulty	Number	%
Candidates had poor work attitude or motivation to work	57	53%
Candidates lacked relevant skills	70	65%
Candidates lacked relevant qualifications	40	37%
Candidates lacked relevant work experience	56	52%
Not enough people are interested in the kind of work involved	55	51%

Base = 108 respondents who stated they had difficulty recruiting in the last year.

102 employers provided details of 156 specific occupations that they had experienced difficulty recruiting for, along with details of the areas of skills that they thought were lacking in applicants.

**Table 8: Requirement for Labour by Qualification Level, Jersey, 2014-2024**

Qual Level	Base year (2014)	Net Requirement 2014 - 2024	Annual Requirement 2014 - 2024
L4+	16,200	13,700	1,370
L3	11,500	3,600	360
L2	15,500	4,800	480
L1	4,700	0	0
No Quals	10,500	-3,900	-390
Total	58,400	18,100	1,810

Source: Modelled estimates based on Jersey labour market reports, 2014 Annual Social Survey, and Working Futures.

Note on Qualification Levels

Working Futures uses qualification levels as defined by the Qualifications and Credit Framework (QCF). QCF levels are as follows:

Level 8 - Doctorate (PhD)

Level 7 - Masters Degree (MA / MSc / MPhil)

Level 4-6 - University Degree, (BA / BSc / Foundation Degree / HND / HNC)

Level 3 - A / AS Levels / Level 3 Diploma / National Diploma / National Certificate

Level 2 - GCSE grades A*-C / Level 2 Diploma

Level 1 - GCSE grades D-G / Level 1 (Foundation) Diploma

**Table 21: Skills lacking in applicants for vacancies**

Skill Area	Number	%
Computer skills	18	12%
Literacy skills	24	15%
Numeracy skills	16	10%
Language skills	26	17%
Technical or job-specific skills	111	71%
Management skills	25	16%
Sales or customer handling skills	46	29%
Team working	34	22%

Base = 102 respondents who provided details of 156 occupations that they had difficulty recruiting for.



Table 22: Skills Gaps of current workforce

Workers	Number	% of total workers
Total employed	6,451	-
are fully proficient in their job	4,913	76%
have skills and/or qualifications that are more advanced than required for their current job role	655	10%
are not fully proficient in their job	1,022	16%

Base: 269 employers with stated employee numbers



Table 2: Perceptions of Jersey's Economic Performance

Measure	Responses	Mean Score (max = 7)	Mean Score (General Population)
Jersey has a skilled workforce, aligned to the needs of businesses	208	3.7	4.3
Jersey is a digitally connected island	203	4.5	4.5
Jersey encourages new business, inward investment and competition	204	3.5	4.1
Jersey is a great place for businesses to innovate and be creative	203	3.7	4.0
Jersey has a fair, competitive and stable tax system	206	3.8	3.7
Jersey has a stable and low rate of inflation	205	4.0	3.9
Islanders can access rewarding jobs	205	4.1	4.0
Jersey businesses are successful and productive	204	4.5	4.4

Base: All



Table 6: Change in Employment by Occupation, Jersey 2013 - 2016 (% of employment)

Occupation	2013	2014	2015	2016	Change 2013 - 2016
Routine, Semi-routine, Manual or Service occupation e.g. HGV or van driver, cleaner, porter, packer, sewing machinist, messenger, labourer, waiter/waitress, bar staff, postal worker, machine operative, security guard, caretaker, farm worker, catering assistant, receptionist, sales assistant	19	19	18	16	-3
Technical or Craft occupation e.g. motor mechanic, fitter, inspector, plumber, printer, tool maker, electrician, gardener	11	9	7	9	-2
Clerical or intermediate occupation e.g. secretary, personal assistant, clerical worker, office clerk, call centre agent, nursing auxiliary, nursery nurse	18	17	16	16	-2
Professional occupation (normally requiring a professional qualification) e.g. accountant, solicitor, medical practitioner, scientist, civil / mechanical engineer, teacher, nurse, physiotherapist, social worker, welfare officer, artist, musician, police officer (sergeant or above), software designer, fund administrator	33	35	38	38	5
Middle or Junior Manager e.g. office manager, retail manager, bank manager, restaurant manager, warehouse manager, publican	10	11	11	13	3
Senior Manager (usually responsible for planning, organising and co-ordinating work) e.g. finance manager, chief executive	9	9	10	10	1
Total	100	100	100	100	-

Source: States of Jersey, Annual Social Survey, 2013 - 2016

What employers say?



- Skills shortages are limiting the expansion of local businesses.
- Hospitality, Retail, Agriculture – unable to find skilled people from the local labour force (390 vacancies in the hospitality sector, **1,300 people actively seeking work in Jersey;**
- Finance – future skills demand for technology, for developing Fintech and mainstream financial services;
- Lack of digital skills among the island's workforce – poor ICT provision at schools & post-16 courses locally.
- Criticism of 5 year residency rule and licencing system, affecting employers' ability to recruit the skilled staff they need, and perceived to be applied inconsistently
- Employability skills, literacy and numeracy are key issues for employers

Discussion Points :



- Jersey is a dynamic economy & employment rates are high, but many jobs have limited prospects and little attraction for local people Why? What can be done about this?
 - Some skills are in very short supply. Would we deal with skill shortages in low/medium/high skilled roles differently? How? Why?
 - The majority of people who will be in the workforce in the next 20 years are already in work. How will they be reskilled?
 - Entrepreneurship is reported as being weak Why? How can we improve this?
 - Poor return rate to Jersey of those going on to HE. Why? Do we want to tackle this? How?
-

How can the Island identify its skills shortages?



- Skills Jersey LMI research
- Monitoring business license requests for trends
- Skills Jersey Industry working groups
- What can the MPDB do to meet these shortages? Do we need/want to do it?
- What investment is required?
- Who would do it? Govt./Industry?
- What would we do with the information?

How can we move people from low productivity roles to higher productivity roles?



- Lifelong learning
- Learning in technology
- Funding to upskill staff
- Which industries will be targeted?
- Which skills get priority?

CUSTOMER FOCUS CONSTANTLY IMPROVING ALWAYS RESPECTFUL WE DELIVER BETTER TOGETHER

What timescales are required to fill the skills gaps from local residents?



- Short – promotion of roles to people in the workforce that have transferable skills which could be upskilled in the roles
- Medium – Promotion and raising awareness and understanding to secondary schools and identifying apprenticeship or vocational pathways
- Long – Embedding the skills gap roles/careers as viable options and overcoming any cultural changes. Identifying higher level qualifications to encourage ongoing development in the skills gap areas

How can the MPDB manage the different lead in times?

CUSTOMER FOCUS CONSTANTLY IMPROVING ALWAYS RESPECTFUL WE DELIVER BETTER TOGETHER

How do we deal with 'medium' skilled posts?



- These posts are in demand around the world
- Can the resident workforce be trained to fill these roles?
- What can the MPDB do to attract these people to Jersey?
- How do we retain these skills in Jersey?
- Would we do anything different for 'essential' employees (e.g. nurses, social workers)?

CUSTOMER FOCUS CONSTANTLY IMPROVING ALWAYS RESPECTFUL WE DELIVER BETTER TOGETHER

Higher Education level without sufficient local demand



- There are some industries that does not attract the pool of local people as a career option
- These industries may require specific Further and Higher Education levels
- As a result of lack of interest such industries are unable to flourish in Jersey
- This may become a limiting factor for such industries to establish themselves here in Jersey if they are unable to have the talent pool for their workforce

CUSTOMER FOCUS CONSTANTLY IMPROVING ALWAYS RESPECTFUL WE DELIVER BETTER TOGETHER

Skills of the future



- Critical thinking
 - Creative intelligence
 - Excellent interpersonal skills
 - Team working
 - Flexibility
 - Learning
 - Cultural awareness
 - Languages
 - Advanced IT and numeracy skills
 - Experience of working abroad
-

Raising business and individual investment in skills:



- The majority of people who will be in the workforce in the next 20 years are already in work. Learning new skills, upgrading existing ones and taking part in lifelong learning can all help workers to maintain their employability and can help enterprises to adapt and remain competitive.
 - Employers report they would like to train more frequently and that there need to be new ways of supporting this and new provision to meet their needs. Entrepreneurship is reported as being weak and there is a pressing need to support and encourage a new generation of entrepreneurs.
-

Responsive skills and employment system:



- Matching the provision of skills to labour market demand requires the development of labour market information to generate, analyse and disseminate reliable sectoral and occupational information with partners.
 - There is a need for a long-term perspective to help anticipate the skills that will be needed in the future, as Jersey seeks to fuel innovation, investment, technological change and competitiveness, and job growth.
-

Transitions to employment:



- Employability skills, literacy and numeracy are key issues for employers, with attitude and aptitudes such as communication skills central to their concerns. Driving up GCSE attainment in core subjects and addressing employability skills should therefore be a clear focus for schools, learning providers and employers alike. Innovative and effective work experience is also a priority.
-



SAVE THE DATE

10 JULY 2019

Radisson Blue Waterfront
Wednesday 10 July
11:45 to 17:00

Please join us to help change the future skills of Jersey.

An annual conference, organised by the Government of Jersey, is taking place at the Radisson Blu Waterfront, and has attracted high calibre headline speakers and expert panellists who will speak about critical issues such as:

- the shortage of a skilled workforce
- the growing digital skills gap
- social mobility and routes for in-work progression
- and life-long learning

Headline speakers: Tom Fletcher CMG, Professor Chris Birch, Jennifer Carnegie, Dr Wil Williams, Dr Lesley Dickie



Future Skills - Vibrant Economy - Happy Life



Children, Young people, Education and Skills
 for more information contact Saboochi Famili s.famili@gov.je



Context of Jersey and Skills



1. High level specialised skills (consultants, specialists)
2. Higher Education level with local demand (nursing, social work , etc)
3. Higher Education level without sufficient local demand
4. Specialist professional development certification at HE level

Migration Policy Development Board



Appendix 15:

Paper - Skills

1. Introduction

This paper is designed to give an overview of actions that governments can take when considering skills gaps and labour shortages. It does not seek to identify specific problems or solutions for Jersey, but provides a general overview from which Jersey specific policies can be developed. It draws heavily on a presentation given to the Migration Policy Development Board by the Director for Young People, Further Education, Higher Education and Skills.

Skills are vital in enabling individuals and countries to thrive in an increasingly complex, interconnected and rapidly changing world. Countries in which people develop strong skills, learn throughout their lives, and use their skills fully and effectively at work and in society are more productive and innovative, enjoy higher levels of trust, better health outcomes and a higher quality of life. Skills policies play a central role in paving countries' development path by, for example, easing the adoption of new technologies and moving up the value added chain; they also make countries more attractive to foreign direct investment and tend to help foster more tolerant and cohesive societies. (*OECD Skills Strategy 2019: Skills to Shape a Better Future*)³⁰

The Government of Jersey's Common Strategic Policy 2018-22 (CSP) commits to creating a sustainable vibrant economy and skilled workforce for the future, whilst reducing inequality, and protecting our environment.

2. International Background

Migrants for the purposes of this report are classified as those individuals, not born in Jersey, who come to Jersey to live and work. Therefore, this category includes all British, Irish, EEA and 3rd country nationals³¹, and their immediate family, who leave their country of birth and come to work in Jersey.

The UK, Channel Islands, Isle of Man and the Republic of Ireland collectively form the Common Travel Area (CTA). The CTA is established as a matter of law to facilitate the principles of free movement of British and Irish citizens between the UK, Republic of Ireland and the Islands. There are no formal immigration border controls in the CTA.

Currently EEA nationals and their family members enjoy free movement and are able to enter, live and work in the Crown Dependencies through Protocol 3 to the UK's Act of Accession.

British and Irish nationals currently have free movement within the CTA, EEA nationals have free right of movement within the EEA and Jersey, whilst 3rd country nationals are controlled by the Immigration Rules.

³⁰ OECD (2019), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, OECD Publishing, Paris
https://read.oecd-ilibrary.org/education/oecd-skills-strategy-2019_9789264313835-en#page5

³¹ Nationalities that are not an EEA country.

3. Domestic & resident workforce

The **domestic workforce** consists of those residents who do not require registered or licensed permissions to work on the Island.

The **resident workforce** are all persons who are living in Jersey and able to work, and include the domestic workforce and migrants living in the island.

Migration policies often include safeguards and restrictions to ensure that wherever possible employers fill vacancies from the domestic workforce rather than by importing a migrant.

Migration policies generally look to protect the domestic workforce by ensuring that they do not allow jobs to be given to migrants at a lower rate than that that would be required to attract a domestic worker with the relevant skills for that same role.

Skills shortages are where the demand for a specific skill exceeds the supply. Skills mismatches are where a worker's skills or qualifications are less or more than those required for the role.

In order for employers to fully utilise the domestic workforce this workforce needs to have the skills and have sufficient numbers within the labour market to meet demand. Where the skills within the domestic pool of workers those employers require does not exist then a skills gap is present. This skills gap can be filled (or reduced) by education, training, and re-skilling of the resident workforce.

It is important that any use of migration to fill skills shortages and mismatches complements the domestic skills supply.

Migrants are brought to Jersey by a vacuum of required skills and/or labour shortages that are not met by the domestic workforce.

It is the role of the Skills Strategy³² to provide a resident workforce matched to the needs of local employers now and in the years ahead. The successful implementation of this strategy will ensure that the island's reliance on inward migration to meet skills shortages is kept to a minimum.

In Jersey it is unlikely that the resident workforce will be able to fill all of the skills required by government and local businesses (see section 5 – Inward migration), and therefore responsive controls to allow an appropriate inward flow of migration are required.

3.1 Options for domestic & resident workforce

3.1.1 Safeguards for the domestic workforce

Most immigration and migration systems aim to protect the local workforce by ensuring that those within the domestic workforce who have the relevant skills are prioritised for consideration or employed over people with the same skills who are not domestic workers and who would immigrate to fill that same role.

This principle currently applies to EU free movement, where if a business within Jersey wishes to employ a person from outside the EU they must demonstrate that they have been unable to find a

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<https://www.gov.je/SiteCollectionDocuments/Education/R%20States%20of%20Jersey%20Skills%20Strategy%202017-2022.pdf>

person with the relevant skills required from within the pool of approximately 500 million people that live in the EU, before a permission to work is issued.

The Control of Housing & Work (Jersey) Law 2012 (CHWL) currently exists to protect the availability of work and housing in Jersey for people with strong connections or associations with Jersey, in the best interests of the community.

Restrictions, incentives and disincentives can be used as levers to protect the domestic workforce.

Restrictions could be placed, for instance, upon employers to demonstrate that they have advertised locally; that they are offering the market rate; that the terms and conditions of employment are the same as for a domestic worker; that they have a skills development plan in place to fill long term skills gaps; or that the vacancy is in a known area of skills shortage in the island.

Any increases in controls to protect the domestic workforce and associated increases in cost and bureaucracy for Government and business, would need to be weighed against the detrimental impacts upon productivity.

Fees for work permissions could be set at a level to the employer and migrant that incentivise the use of domestic workers, and the accommodation and benefits that a migrant can access could be restricted to dissuade migrants taking up positions in the island.

3.1.2 Improve skills of the domestic workforce

Investment and incentives to provide high quality outcomes from education, training and re-skilling of the domestic workforce at all ages, by government, business and voluntary organisations would allow the skills base of the domestic workforce to be maximised, and the island to make the most of everyone's potential. Provided these skills are aligned to the needs of local employers then migration should only be required to fulfil the remaining skill or labour gaps.

3.1.3 Identifying skills gaps and labour shortages

Knowing what skills the domestic workforce has and the skills that local government and businesses need now, and in the future, allows the skills gaps to be identified.

A labour shortage exists when the demand for labour is higher than the supply at existing terms and conditions. (The economics of labour shortages are discussed in annex A).

Where skills gaps and labour shortages are identified plans can be made to mitigate them.

These plans may include improving educational outcomes, targeted training, and re-skilling the domestic workforce, for which the Skills Strategy is responsible.

Skills gaps and labour shortages that cannot be avoided will almost certainly require the importation of migrants to fill those gaps either in the short, medium and long-term and must be taken into account when developing migration policy (see section 5 – Inward migration).

3.1.4 List of skills gaps and shortage occupations

The identification of skills gaps and labour shortages can be complicated by differing understandings of shortages in business by government, and different interpretations of where skills gaps lie amongst different sectors of business.

Several jurisdictions have set up arm's length organisations to advise government on the areas that should qualify as being in short supply.

For example, the United Kingdom has the Migration Advisory Committee (MAC), which is an advisory non-departmental public body, sponsored by the Home Office. They are responsible for providing transparent, independent and evidence-based advice to the government on migration issues, including making recommendations on skills shortages within occupations.

Guernsey has the Population Employment Advisory Panel (PEAP) whose role is to ensure that the Committee for Home Affairs has up to date information about the Island's dynamic employment market, this includes the different levels of skills and labour shortages in Guernsey. There are six PEAP members, and an independent Chairperson. Between them, the six members represent the interests of all sectors of employment in Guernsey.

Both assist in the development of a shortage occupation list that directs the governments on the areas where migration should be allowed to fulfil these gaps.

To determine whether a role should be on the shortage occupation list the role needs to be at a sufficiently skilled level (usually degree level or above), be in shortage, and for it to be sensible to fill this shortage with migrant workers. Generally, a number of indicators around vacancies, employment and wages along with information from stakeholders are utilised to help determine this.

The use of a shortage occupation list would need to be regularly monitored and updated to ensure that the Island imports the correct skills in the correct ratios. Investment would be required to set up an advisory body and to ensure that it could gather accurate data on which to base its recommendations.

3.1.5 Training the domestic workforce to fill skills gaps and labour shortages

Where it is calculated that skills gaps and labour shortages exist further consideration could be given as to whether the domestic workforce might be able to be trained or re-skilled to fill these roles.

Considerations might include:

- How they might be trained? On or off island? Through their employer or an educational institution? For example, labour shortages in agriculture are typically in low skilled roles where it is likely that, should the domestic workforce want to take up these roles, a person could be trained by the employer on island to have the relevant skills. Skills shortages in areas such as social work require specific qualifications that the domestic workforce could acquire following a course of study on island. Whilst the skills and qualifications required to be a consultant ophthalmologist would require off island training.
- How long it would take to fill the particular skill gap or labour shortage. For instance, in the examples above, a farmworker might take a few weeks, a social worker a 3 year degree course, a consultant ophthalmologist a 5 year degree in medicine and 5 years ophthalmology residency training.
- The time required to get from the current situation to a position where, skills gaps are identified and, skills strategies are in place to allow the domestic workforce opportunities to be trained to the extent that their abilities allow. These will require short, medium and long term strategies, which would require the identified skills gaps to be filled by migrants in the short, medium and longer term.
- Cost of and demand for training. The cost of training might be borne by the employer (e.g. farmworkers), and courses for skills that are in short supply and urgent demand could be provided by government (with or without incentives) through their educational establishments

where there are sufficient numbers to run a course (e.g. social workers). Whereas, unique skills requiring highly specialised training are unlikely to have sufficient demand to justify a course being provided by on-island establishments (e.g. consultant ophthalmologist).

- Whether migrants might be required to fill those skills gaps, or to give training, whilst the skill level of the domestic workforce is being developed to a sufficient level or in sufficient numbers.
- What level of potential exists within the domestic workforce for training or re-skilling? In times of high employment the potential number of individuals that can be trained is lower. It is also more likely that those who are not working are either unable to work or have reduced potential to fulfil the skills gaps identified.

3.1.6 Limited permissions for migrants

Taking into account the considerations of 3.1.5 it might be appropriate to seek to use migrants to fulfil demand in some areas.

To protect the domestic and resident workforce further consideration could be given to whether a migrant's permissions might be limited to allow the domestic workforce an opportunity to fill the skills gaps following skills training and development. These permissions might be limited by time, access to residency, access to services, a break in residency requirement, or cost.

Where skills are in short supply, urgently required, or of vital importance to the island it might be appropriate to ease restrictions on migrants to encourage them to live and work in the island.

It might therefore be appropriate to have different permissions dependent upon a migrant's skills and the needs of the Island from time to time.

Migrant permissions are discussed further in section 5 – Inward migration.

3.2 Options for the domestic and resident workforce

- **Safeguards for domestic workforce.**
- **Mechanisms to prevent wages to migrants being below the market rate.**
- **Investment in lifelong skills.**
- **Identify skills needed (now and in the future).**
- **Produce a list of skills gaps and shortage occupations.**
- **Publish a Shortage Occupation List.**
- **Identify how those skills gaps can be filled through the Skills Strategy, Migration policy and economic framework.**
- **Time limited permissions for migrants to fill skills gaps until domestic workforce trained.**
- **Accept that some skills cannot be taught or gathered on island and require migrants.**
- **Set up an arm's length migration advisory body to help determine skills and labour shortages.**
- **Limited permissions for migrants.**
- **Different permissions for migrants with different skill levels.**

4. Productivity

"Productivity is the fundamental driver of national prosperity, and hence of personal incomes and tax revenues." McKinsey & Company³³.

³³ Productivity: The route to Brexit success, McKinsey & Company <https://www.mckinsey.com/featured-insights/europe/productivity-the-route-to-brexite-success>

Labour productivity is one of the main drivers that influence national living standards, as greater labour productivity means a greater output of goods and services can be produced from a given set of labour inputs. (Statistics Jersey).

Labour productivity is defined in terms of Gross Value Added (economic output) divided by the number of full time employees (labour input).

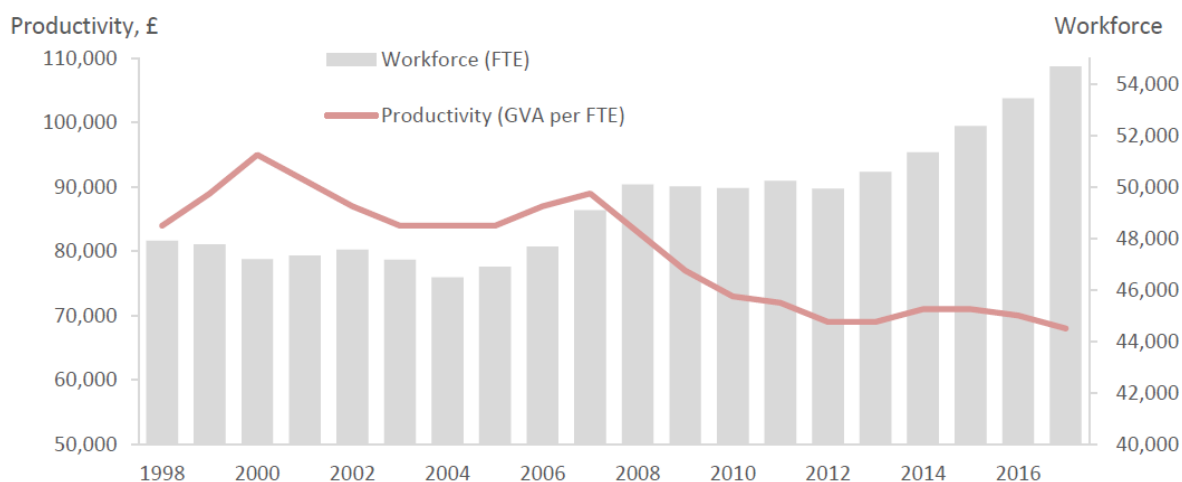
The most recent productivity figures for Jersey relate to 2017 and the overall productivity of Jersey's economy declined in real terms by 1.6% in 2017, meaning it has fallen in each of the last three years.

The ongoing decline in the productivity of the financial services sector continues to be a significant factor in this overall performance. Productivity in the sector is now 34% below its 2007 peak, having been affected in particular by the low interest rate environment. Profits in the finance sector, and therefore productivity, can be very volatile from year-to-year.

Nevertheless, productivity in the sector (£136,000 PER FTE) in 2017 remains almost three times that in the non-finance sectors overall (£48,000 per FTE). Productivity in these sectors has remained essentially unchanged for the last three years and has declined by 5% since 2007. One factor affecting this performance has been that a growing proportion of the Island's workforce is employed in lower productivity sectors³⁴.

The overall decline in productivity of the Jersey economy throughout most of the last two decades is shown below:

Productivity (GVA per FTE) of Jersey's economy in real terms and total employment, 1998-2017



4.1 Options for productivity

"Jersey's prosperity ultimately depends on two things: firstly, the number of people employed and secondly, the value of what those workers produce. Therefore, raising productivity – the average value that each worker produces – is critical to securing prosperity for current and future generations of islanders. There is a growing body of research demonstrating the link between investment in skills and positive outcomes for the economy – particularly through rising productivity – and benefits for individuals and organisations." Jersey Skills Strategy 2017-2022³⁵.

³⁴ Future Jersey: Improve productivity

<https://www.gov.je/government/planningperformance/futurejersey/examine/jobsgrowth/pages/productivity.aspx>

³⁵ <https://www.gov.je/Government/Pages/StatesReports.aspx?ReportID=3170>

The OECD Survey of Adults Skills³⁶ show that a poor skills supply severely limits people's access to high quality and rewarding jobs. Similarly, when workers lack basic skills (literacy, numeracy or problem solving skills), economies find it more difficult to introduce productivity-enhancing technologies and organise work in new and innovative ways in order to boost economic growth (Skills for Jobs, OECD, 2016)³⁷.

Productivity, however, cannot be viewed in isolation as there are, for example, a number of low productivity roles which are important to the quality of life in the island and which make up a part of the Jersey ecosystem supporting higher productivity roles.

4.1.1 Productivity of different sectors

The table below shows the labour productivity of Jersey's economy in 2017, overall and by sector, in current year values (£ thousand per FTE and percentages)³⁸.

Sector	Productivity per FTE (£ thousand)
Agriculture	36
Manufacturing	44
Electricity, gas and water	136
Construction	57
Wholesale and retail	45
Hotels, restaurants and bars	33
Transport, storage and communication	63
Financial services	136
Other business activities	41
Public administration	59
All sectors	68
Non-finance sectors	48

Overall productivity values are diluted by the low productivity sectors, whilst historically the most productive sector (financial services) has become less productive, due to a range of external and internal factors bringing down overall productivity.

Government could offer support to the low productivity sectors through training and skills to improve their productivity. Alternatively they could actively seek to reduce the amount of businesses operating in the low productivity sector.

³⁶ OECD (2013), The Survey of Adult Skills: Readers Companion, OECD Publishing
<http://dx.doi.org/10.1787/9789264204027-en>

³⁷ https://www.oecdskillsforjobsdatabase.org/data/Skills%20SfJ_PDF%20for%20WEBSITE%20final.pdf

³⁸ Measuring Jersey's economy – Statistics Jersey
<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20GVA%20and%20GDP%202017%2020181003%20SU.pdf>

Government could offer support to the high productivity sectors in order to increase the size of these sectors proportionately to the lower productivity sectors.

The Jersey business 'eco-system' requires some low productivity businesses – e.g. hotels, restaurants and bars – to support the high productivity sectors. Therefore, it is likely that support is required to lift up the less productive sectors and companies as well as support for the most productive sectors of the economy.

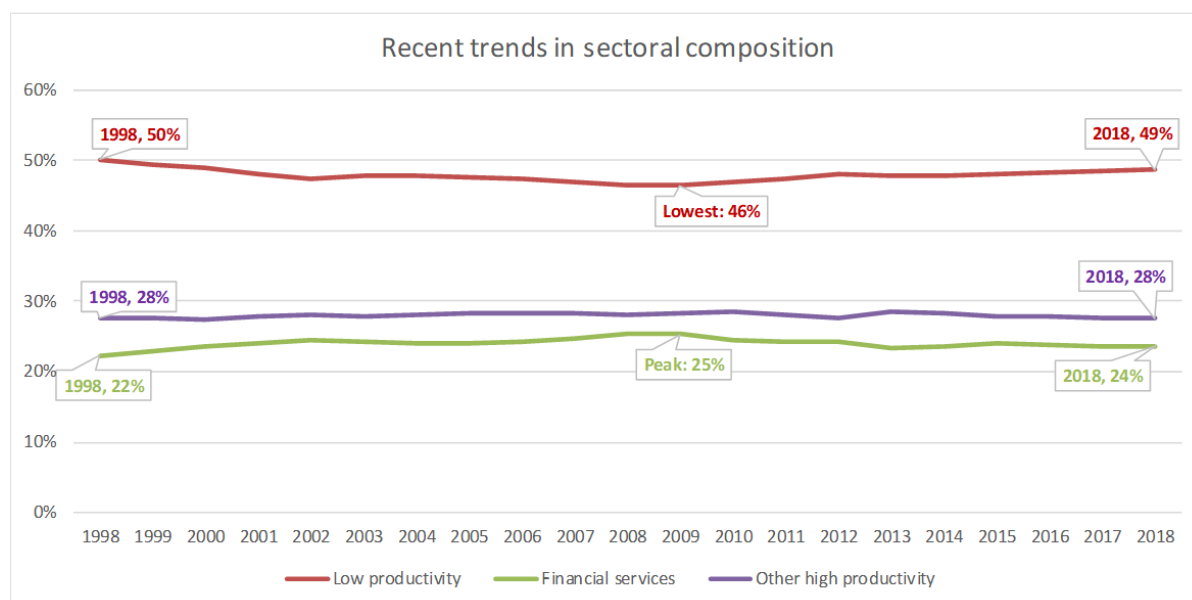
The number of low productivity businesses could be reduced to the minimum level required to support the high productivity businesses.

4.1.2 Sectoral shift

The sectoral composition has remained fairly constant within the high productivity sectors whilst the proportion of people working in the low productivity sectors has increased in recent years.

Recent trend in sectoral mix

Sectoral proportion of FTEs



Overall productivity would be improved by moving people from low productivity roles to higher productivity roles.

This could be achieved through funding to upskill the domestic and resident workforce, training to highlight learning in technology, or for a culture of lifelong learning to be established.

Upskilling the domestic and resident workforce into higher productivity roles would minimise the number of migrants required in these sectors. Where migrants might be required to fill gaps in the lower productivity roles these permissions could be restricted to short term permissions.

4.1.3 Ageing demographic

Increased longevity and better health at older ages imply that older workers can stay in employment longer provided they have sufficient incentives and support. These include opportunities to reskill and upskill. The growing needs of elderly people also lead to the growth of healthcare and social support that are difficult to automate, as they require social and interpersonal skills.

4.1.4 Lifelong learning

The majority of people who will be in the workforce in the next 20 years are already in work.

To ensure that people can thrive, adapt and make the most of available opportunities people need to be able to develop and maintain strong proficiency in a broad range of skills. This process is lifelong beginning in childhood and continuing throughout adulthood. It is also life-wide, occurring not only formally in schools and higher education, but also non-formally and informally in the home, community and workplaces.

4.1.5 Skills utilisation

To ensure that the island gains the full economic and social value from investments in developing skills, people need opportunities, encouragement and incentives to use their skills fully and effectively at work and in society. This might include, for instance:

- changes to legislation and policies to encourage flexible working practices and job sharing
- the opening up of employment opportunities to individuals for which current arrangements are unattractive
- government initiatives and incentives to assist employers in attracting workers who require training and investment to fully meet an employer's skills gap
- incentives to encourage local university graduates to return to the Island sooner
- encouragement to utilise the island's fibre optic network to increase the rate of, and opportunities for, remote working
- incentives to encourage more senior members of society to remain engaged in employment

To maximise the investment in skills and training those skills need to be aligned to the needs of the economy and society, and employers need to develop skills-intensive workplaces that fully utilise an employee's skills.

Consideration of the potential impact of policies upon inward migration would allow for the coordination of approaches to skill utilisation.

4.1.6 Support industries that can reskill

Government support could be given to certain sectors that can assist in reskilling the domestic and resident workforce, e.g. Digital Jersey. Artificial Intelligence and digitalisation of work could lead to significant numbers of administrative type roles becoming obsolete. This would assist in sectoral shift and would ensure that individuals released from posts can move into high productivity roles.

4.1.7 Supply of permissions to work

"It ... is apparent that many companies have taken on labour rather than committing to costly investment, given the highly uncertain economic and political outlook," - Howard Archer, the chief economic advisor to the EY Item Club³⁹

³⁹ UK's dire productivity growth – The Guardian - 05 July 2019

<https://www.theguardian.com/business/2019/jul/05/uks-dire-productivity-growth-costing-workers-5000-in-lost-earnings>

Ease of access and low cost barriers to permissions to work could reduce productivity and dissuade businesses to invest in technologies and new ways of working. However too short a supply of permissions could stifle expansion of businesses and limit government revenue.

Permissions to work, or their cost, could be linked to the productivity of a business. For instance, the price of a permission could increase as the number of permissions a business holds increases, or a business might have to demonstrate how extra permissions would increase the profitability of the business or sector.

4.1.8 Identify new high productivity sectors

The government could encourage new, as yet unspecified, high productivity sectors to the island. The domestic and resident workforce may require reskilling to fill these roles, otherwise migrants would be required to fill any new skill gaps produced.

4.2 Options for productivity

- **Support low productivity businesses to boost their productivity.**
- **Reduce the number of low productivity businesses.**
- **Support all sectors of Jersey 'eco-system' to ensure the right balance of businesses to support high productivity sectors.**
- **Have the minimum level of low productivity businesses to support the high productivity sector.**
- **Upskill the resident and domestic workforce to move workers from low to high productivity sector.**
- **Provide support for ageing population to remain in work.**
- **Develop and encourage lifelong learning.**
- **Maximise the use of the skills of the domestic and resident workforce.**
- **Align skills training to the needs of the economy and society.**
- **Link the issuance of permissions to work with the productivity of the business or sector.**
- **Identify new high productivity industries**
- **Support industries that can re-skill individuals in to new roles/industries**

5. Inward migration

Currently the labour market in Jersey is one of low unemployment and high vacancy rates. Even where all domestic and resident workers are trained to the top of their skill potentials Jersey is likely to have skills gaps and labour shortages which will be required to be filled by migrants.

This may be because there are insufficient numbers of people with the required skills in Jersey, because those skills cannot reasonably be gained on island, trained from the domestic workforce or because people in Jersey do not want to do those roles. Some roles are seasonal.

Whilst levers and controls can be put in place to minimise the number of migrants it is important that all migrants that choose to live and work in Jersey are made to feel welcome and valued.

A balance needs to be struck between importing the essential skills and labour that Jersey needs and controlling the number of migrants that can come to Jersey. Ultimately inward migration should complement the domestic skills supply.

Balances also need to be struck between the need that the island has for a specific skill, the urgency for that skill and the strategic importance of that role for Jersey, and the desire that the public has to see population controlled.

It is worth noting that the UK's MAC is sceptical about the effectiveness of immigration as a solution to generalised shortages of labour. It argues that immigration raises the supply of labour but as those new workers earn and spend money they raise the demand for labour in other parts of the labour market. In a specific occupation in shortage, this extra demand will almost all be outside of the sector in which they work so employing migrants will reduce the gap between demand and supply in that job. In the labour market as a whole, the increase in demand is roughly in line with the increase in supply.

5.1 Options for inward migration

5.1.1 Differing permissions for migrants

All migrants living and working in Jersey are required to be issued with 'permission' to work and live in Jersey under the Control of Housing and Work (Jersey) Law 2012 before they are able to access accommodation or employment. It might be appropriate for the terms of these permissions to vary according to the type of skills that a person brings to the island.

Therefore, in the examples already discussed, an ophthalmic consultant may be a rare skill that Jersey is unable to train its resident or domestic workforce to fill. This role may be in demand around the world. To encourage such an individual to come to work in Jersey it might be appropriate to issue a permission that allows that individual's direct dependents to join them, that all are given an extended period to remain in the Island (say 5 years) and that this permission could be renewed at the end of that period, and for the individual and their family to be encouraged to become permanent residents.

Demand for social workers might exist in the medium term whilst the domestic and resident workforce are trained up on island to have the required skills and qualifications. This training might take three years and in the meantime migrant social workers are required to be invited to the island to fulfil these roles. It might be the situation that once the domestic and resident workforce is trained that the migrant workers are no longer required. In this case it might be appropriate to limit the amount of time for these migrants to a period of three or four years. In effect migrants would fill the skills gap whilst it exists and leave once it has been filled by the domestic or resident workforce.

Farmworkers might be considered to be a low skilled role, but as the domestic and resident workforce do not want to carry out that role a labour shortage exists. These roles are likely to be low productivity roles and, in this instance, it might be appropriate to have a work permission that discouraged permanent residence. So a person might be given a 9 month permission that requires them to leave for a period of three months before they might be allowed to return. In this way they would be prevented from building up qualifying time for permanent residency or housing.

It might be that further time restricted permissions could be issued to migrants to allow them to carry out a specific project (e.g. build a new school) or to come to the island to carry out a particular 3 year course (e.g. train digital skills).

5.1.2 Global competition for migrants

Talented and skilled individuals have a key role to play in countries' future prosperity. They hold jobs that are key for innovation and technological progress and ultimately contribute to stronger economic growth with other employment opportunities and better living conditions for all. OECD countries increasingly compete to attract and retain talented workers notably by adopting more favourable migration policies for the best and the brightest.⁴⁰

Jersey operates in a global market where some skills are scarce and much in demand. A number of countries around the world (UK, Australia, Canada, New Zealand) have developed 'open arm' policies to attract highly skilled migrants and their direct dependents to their jurisdictions to work, live and to settle permanently.

For the most in demand migrants factors such as business environment, income and opportunities, and settlement prospects play an important role.

Locally Brexit, the falling rate of sterling against other currencies, and a lack of affordable accommodation are reducing the attractiveness of Jersey to migrants.

Undue restrictions on residency, time or dependents may dissuade skilled migrants from choosing to settle in Jersey.

Media headlines regarding over population, an island at breaking point or comments about too many migrants are unlikely to help in persuading migrants that they are a welcome part of our society where their skills are valued.

5.1.3 Challenge harmful biases

Government could look to tackle stereo types and false perceptions by disseminating fact-based evidence on migration issues.

This would assist with the integration of migrants within the local community, and encourage those migrants with skills that the island needs to come to Jersey.

5.1.4 Recognise foreign qualifications

Comparable qualifications earned abroad are often viewed by employers as having lower skills. This can prevent migrants being utilised to their full potential, and thus reduces productivity.

5.1.5 Integration

Integration is vital to ensure the ability of migrants to function as autonomous, productive and successful members of society. It is also critical for the acceptance of migration by the host country population at a time when immigration and integration are among the main issues of concern in public opinion surveys in many countries.

With the possible exception of migrants meeting short term labour shortages, it is likely to be in the interests of island productivity for migrants with permissions based on skills to be offered the same access to services as the domestic and resident workforce.

5.2 Options for inward migration

- **Migrants should be utilised to fill unavoidable skill gaps and labour shortages in Jersey.**

⁴⁰ <http://www.oecd.org/migration/talent-attractiveness/>

- Only utilise migrants' skills where vacancies cannot be filled to the required standard from the domestic or residential workforce.
- Migrants should require permissions to live and work in Jersey.
- Inward migration should complement the domestic skills supply.
- Permissions should be varied according to the skills a migrant has and the importance of those skills.
- Migrants need to be attracted to come to Jersey.
- Attractive packages are required for high value migrants in the global market.
- Challenge harmful bias.
- Recognise foreign qualifications.
- Integration of migrants is key to maximise their skills.

6. Conclusions

Ensuring that the domestic workforce has the right mix of skills, aligned to the current and future needs of business, government and society, is key to reducing the skills vacuum that draws migrants to the island today.

Where skills gaps and labour shortages cannot be avoided, plans can be made to attract migrants with the required skills to fill those spaces.

In an island with limited resources a balance must be struck between the number of migrants, and their dependents, that can come to live and work in Jersey and the benefit that those migrants bring in helping to drive our economy, diversify our community and provide a range of opportunities for all of those living in Jersey.

A system of varying 'permissions' for migrants to live and work in Jersey allows for a control to be placed upon inward migration, and these permissions could be based upon the importance of a person's skills to Jersey economically and socially.

Whilst looking to control net inward migration Jersey must be mindful that migrants' skills are in demand globally. For the most in demand migrants factors such as business environment, income and opportunities, and settlement prospects play an important role.

Migrants should be welcomed as valued members of the Jersey community. Any failure to support the integration of new migrants into our society exacerbates income equality and hinders economic growth, as it hinders individuals utilising their skills fully and achieving their full economic potential.

Globalisation, digitalisation and demographic change are transforming jobs and the way that societies function and people interact. To thrive in the world of tomorrow, it is expected that people will need higher levels and different types of skills, and a high degree of adaptability. This will require a local culture of, and system for, lifelong learning so that adults can continue to reskill and upskill to adapt to changes in the economy and society of Jersey.

ANNEX A: The Economics of Labour Market Shortages

Migration Advisory Committee - *Full review of the shortage occupation list* – May 2019

Box 2.1: What is a labour market shortage?

Put simply, an occupation is in shortage if the demand for labour exceeds the supply at the offered terms and conditions. Consider Figure 2.1 below where LD represents the demand for labour at different wages and LS the supply of labour. At wage W1 the demand for labour is greater than the supply of labour. The gap, S1, is the labour shortage. Employment will be at E1 so employers will report a shortage of labour.

Figure 2.1: Supply and demand curve showing labour shortage.

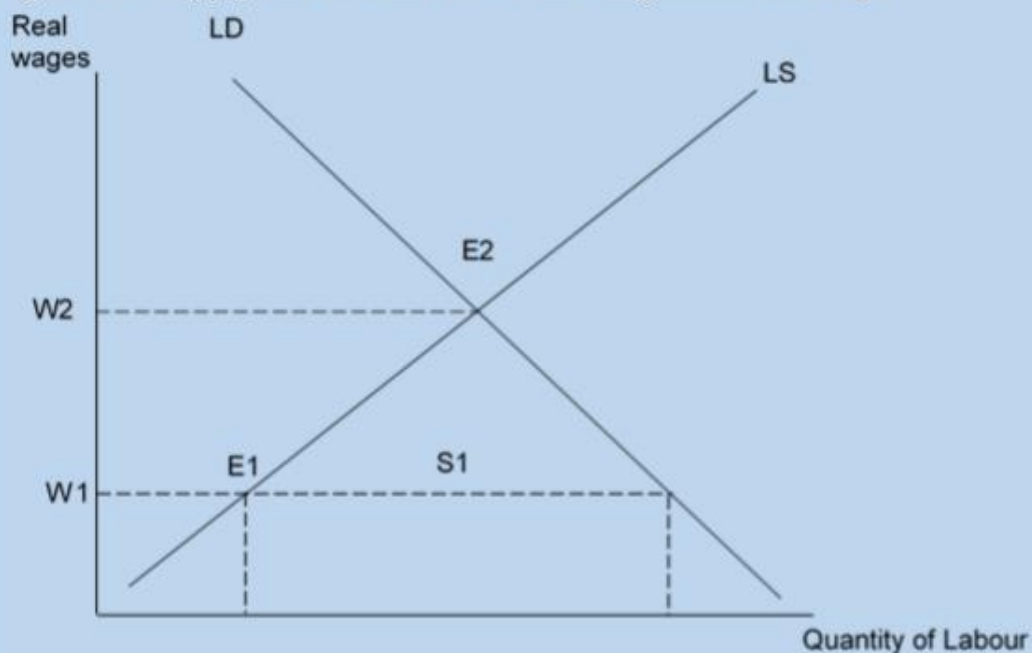


Figure 2.1 also shows that shortages can be caused by wages being lower than the market-clearing level, W2. In a well-functioning labour market, wages adjust to bring demand and supply into line but this process takes time and there may be institutional impediments to this adjustment process.

Box 2.2: The consequences of shortage

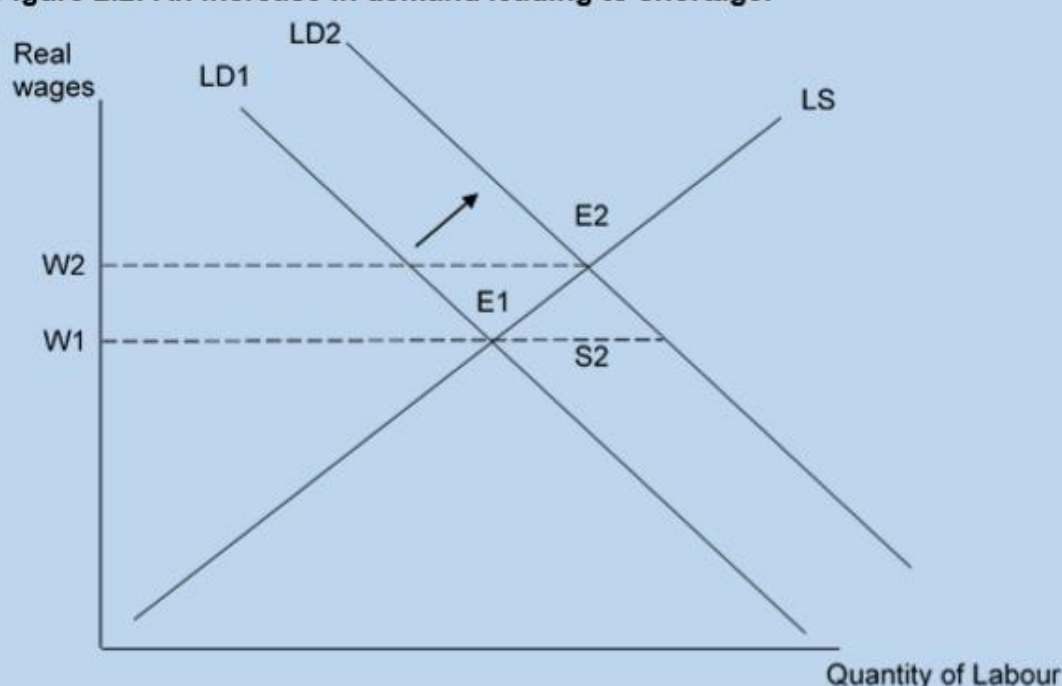
The consequence of shortage is that there is less employment than if the market cleared: in terms of Figure 2.1 E1 is less than E2. This would mean a lower provision of goods and services and/or they are more expensive than they might otherwise be because they are scarce. There may also be undesirable spillovers to other labour markets; the low level of employment in some occupations may constrain output and reduce the demand for other occupations. These bottlenecks may cause widespread problems. For example, demand for labourers in construction may fall if there is a shortage of the more skilled trades.

Box 2.3 The causes of shortage

There are 3 main reasons why a shortage (demand for labour ahead of supply) may exist (a) if the demand for labour is increasing faster than supply (and wages fail to adjust to the growing imbalance between demand and supply) (b) if the supply of labour falls but demand remains high (c) if there are longer-term structural factors that prevent wage adjustment. In this case a shortage may persist even if demand and supply are stable.

(a) The case of demand running ahead of supply is illustrated in Figure 2.2. Labour demand is initially at LD1 and wages are initially at market-clearing levels at W1. Labour demand rises from LD1 to LD2, leads to an increase in the market-clearing wage to W2. If wages remain at W1 a shortage of S2 will emerge. If wages rise but not to the new market-clearing level, there will be a shortage at a lower level than S2.

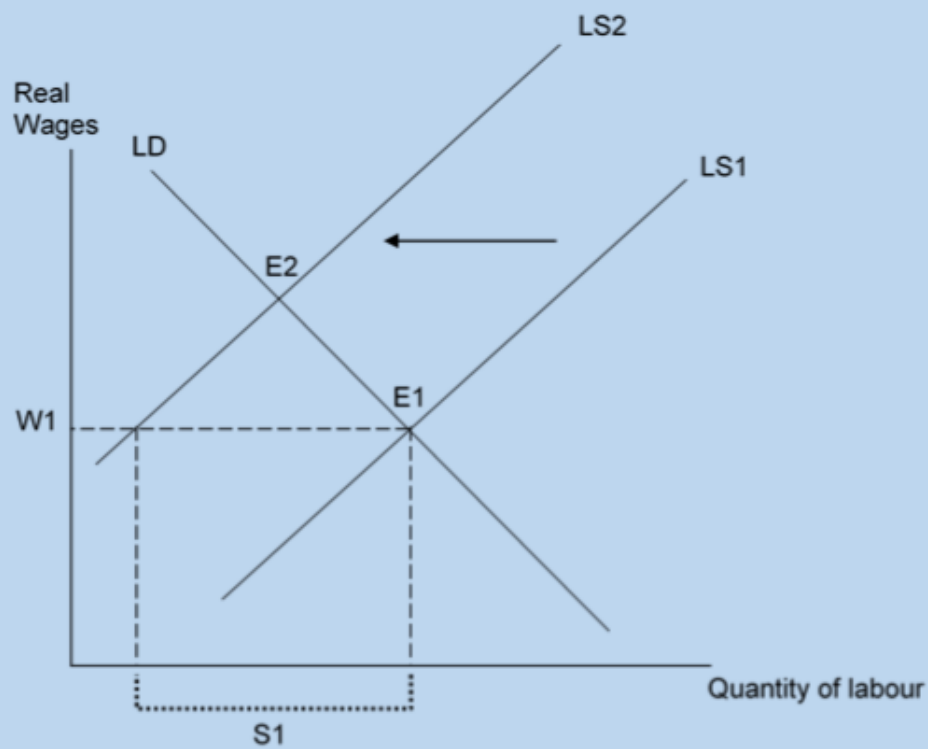
Figure 2.2: An increase in demand leading to shortage.



(b) Figure 2.3 illustrates how a shortage can occur when supply falls. Figure 2.3 shows an initial equilibrium at E1, with labour demand LD, labour supply LS1 and real wage W1. If the labour supply curve falls to LS2, the market-clearing level of wages rises to W2. If wages remain at W1 a shortage of S1 would emerge.

Shortages of labour from falling supply could arise due to increasing retirements or a decrease in the desirability of the job compared to alternatives, or, perhaps a fall in the availability of EEA migrants following the EU referendum.

Figure 2.3: A decrease in supply leading to shortage

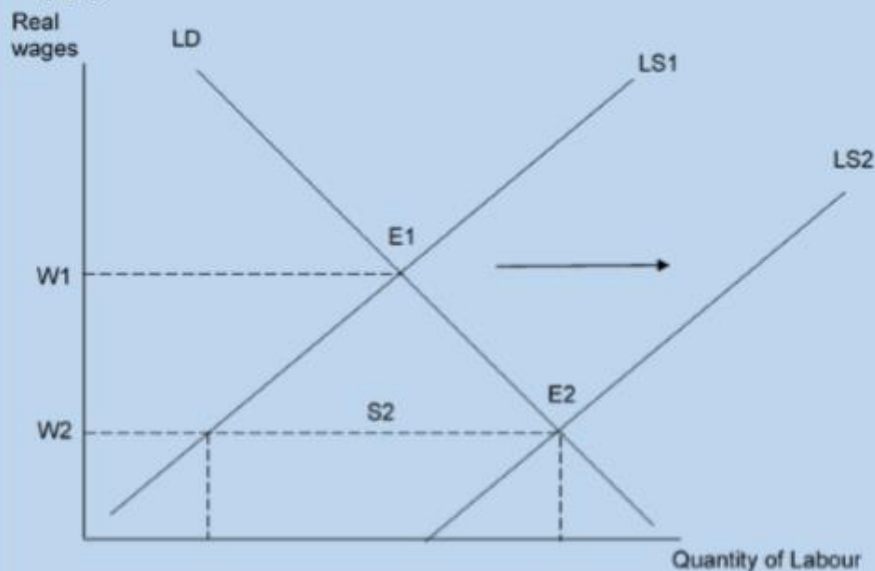


(c) Shortages can arise due to structural problems within the labour market that prevent wages from rising to clear the labour market. This type of shortage could occur where, as in Figure 2.1, labour demand and supply are stable. In the case of structural shortages there is no upward pressure on wages or changes in employment and the vacancy rate, while high, is also likely to be static over time.

Box 2.4 Solutions to Shortage

As previously discussed, shortages occur when real wages (W_2) are below the market-clearing value (W_1), causing there to be a gap (S_2) between the labour demand and supply as seen in Figure 2.4.

Figure 2.4: Supply and demand curve showing outward expansion in labour supply.



There are 3 broad solutions to addressing labour market shortages:

- Increase wages. A laissez-faire approach would be to simply wait for real wages to increase to the market-clearing level but more concerted action may be needed if the shortage is structural. Both wages and employment would rise in this case.
- Decrease labour demand. An inward shift in the demand curve would bridge the shortage gap. This would turn the current real wage into the market-clearing real wage. One way in which this might happen is if employers find a way to raise productivity, getting the same output from fewer workers. Neither employment nor wages would change in this case.
- Policies for increasing labour supply. Immigration is one way to do this, but increased training is another. Employment would rise but wages would not in

this case. As this solution does not increase wages, we would expect it to be particularly attractive to employers.

Raising wages and increasing labour supply may both reduce shortages but may differ in how they resolve the problems caused by shortages.

The extent to which rising wages lead to rises in employment depends on how sensitive is the supply of labour to the wages offered. If supply is fixed, perhaps because the job requires specific skills that cannot be quickly or easily obtained, the rise in wages will equalise demand and supply only because demand falls. This will benefit the workers concerned but will do nothing to increase the output of the sector. In a scenario where it is important to increase employment in the sector, an increase in supply may be the only sensible solution in this case. It is likely that the supply of labour is more constrained in the short-run than the long-run. Increasing labour supply to deal with short-run shortages without raising wages does little to attract more people into the occupation that may be a better longer-run solution to shortage.

Migration Policy Development Board



Appendix 16:

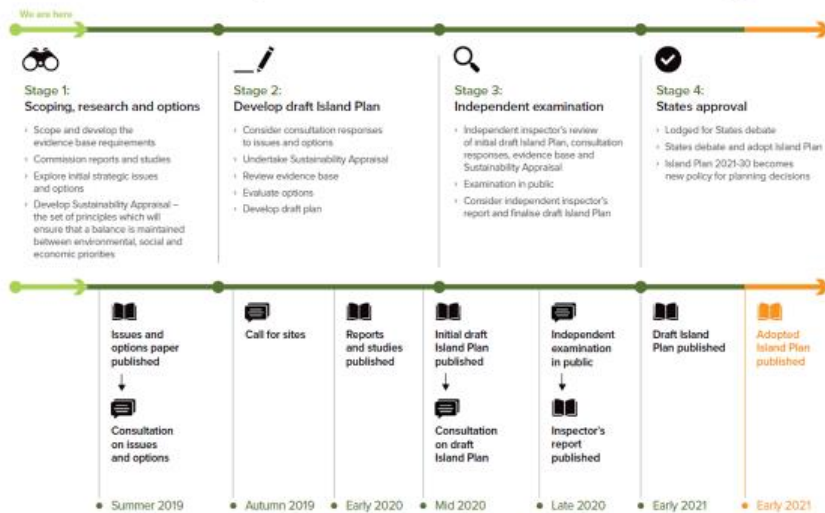
Presentation – Island Plan & Housing

Island Plan and Housing

2019

Island Plan 2021-30: the process

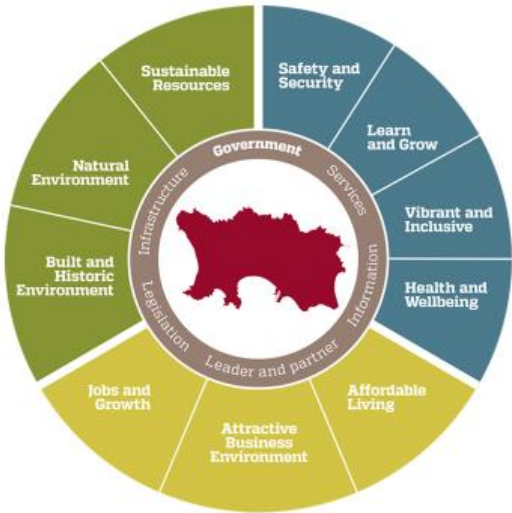
 **ISLAND PLAN
2021-30**



Balancing
competing
interests

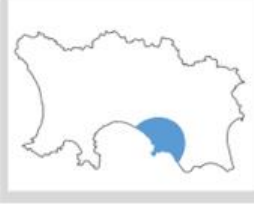
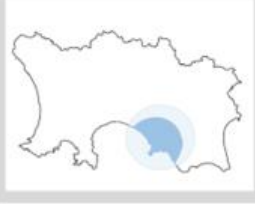
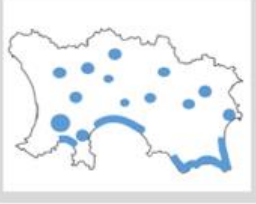


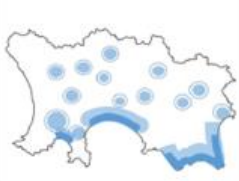

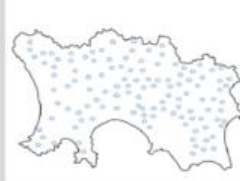
Sustainability
Appraisal



Consulting on the big-picture questions

Island Plan Context Recognising the significance of...						
Putting children first	Ageing society	Population trends	Climate change	Economy	Health and well-being	Multi-lateral environmental agreements
Spatial Strategy testing six options for focusing development						
Increasing density within the town of St Helier	Outward expansion of town	Increasing density in out-of-town built up areas	Outward expansion of out-of-town built up areas	A new settlement or the significant expansion of an existing settlement	Re-development and consolidation of building clusters in the countryside	
Sustainable Environment		Sustainable Economy			Sustainable Communities	
• Marine Environment • Countryside • Built Environment • Travel and Transport		• Role of St. Helier • Employment Land • Rural economy • Minerals and waste			• Homes • Open space • Community Infrastructure	

Option 1 Increasing density within the town of St Helier	Option 2 Outward expansion of town a) to the north, east and west; b) to the south	Option 3 Increasing density in other built up areas
		
<p>The town of St Helier stretches from First Tower in the west; to Mont-a-L'Abbe in the north; and Greve D'Azette in the east.</p> <p>Increasing the density of new development here would maintain and give greater emphasis to the existing policy direction of the current Island Plan.</p>	<p>The urban fringes of the town comprise open countryside that could be developed to help meet development needs. Building on the edge of town would represent a change from the current Island Plan.</p> <p>There is also potential to change the existing use of parts of harbour and La Collette to enable the 'expansion' of the town to the south. Such schemes would need to be commercially viable and address current safety issues.</p> <p>The current Island Plan includes the development of the St Helier Waterfront, which is effectively an expansion of the town to the south.</p>	<p>Other built-up areas include the coastal strip from St Aubin to Gorey; Red Houses and Les Quennevais; and a range of smaller built-up areas including parish centres.</p> <p>Increasing the density of new development here would maintain and give greater emphasis to the existing policy direction of the current Island Plan.</p>

Option 4 Outward expansion of other built up areas	Option 5 A new settlement or the significant expansion of an existing settlement	Option 6 Development in the countryside
		
<p>The edges of the other built-up areas (described under Option 3) generally comprise open countryside. Most is currently defined as Green Zone but some is within the Coastal National Park. Some of the land on the edges of existing built areas could be used to help meet development needs.</p> <p>Expanding these built-up areas, by releasing land on the edge of them for new development, would represent a change from the policy direction of the current Island Plan.</p>	<p>The boldest option would be to create a new settlement, or significantly expand an existing settlement. The development of a significant amount of new housing in Les Quennevais and Maufant are examples of this approach, where it has been undertaken in the past.</p> <p>This would likely require an extensive process of land acquisition and the development of open countryside. This would represent a significant change from the policy direction of the current Island Plan.</p>	<p>This option would involve relaxing rules about converting, demolishing and rebuilding, and extending existing buildings in the countryside.</p> <p>It would mean increasing the density of development in the countryside and developing more areas of under-used or open land around the edge of existing clusters of buildings in the countryside.</p> <p>The redevelopment and consolidation of buildings or building clusters in the countryside would represent a significant change from the policy direction of the current Island Plan.</p>

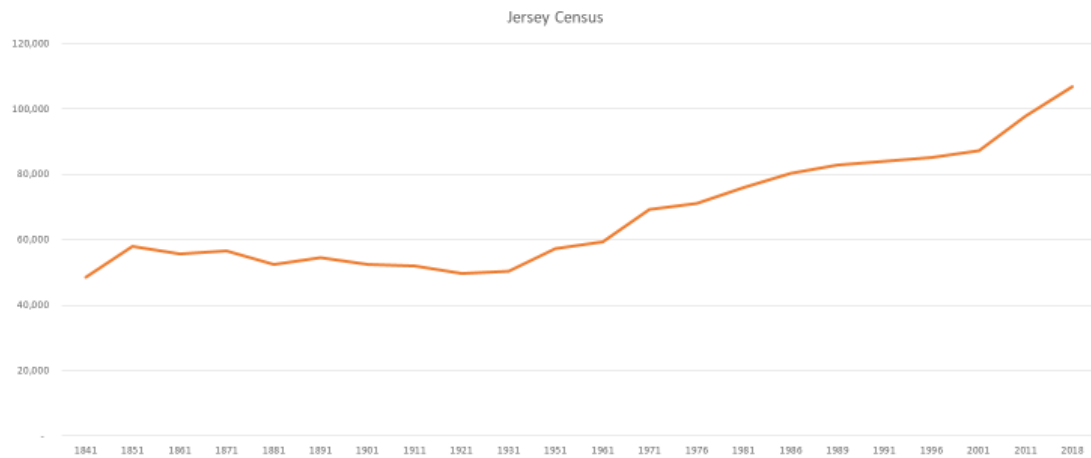


How is the Island currently performing?

Census Data 1841-2011



Jersey's resident population at the end of 2018 was estimated as 106,800

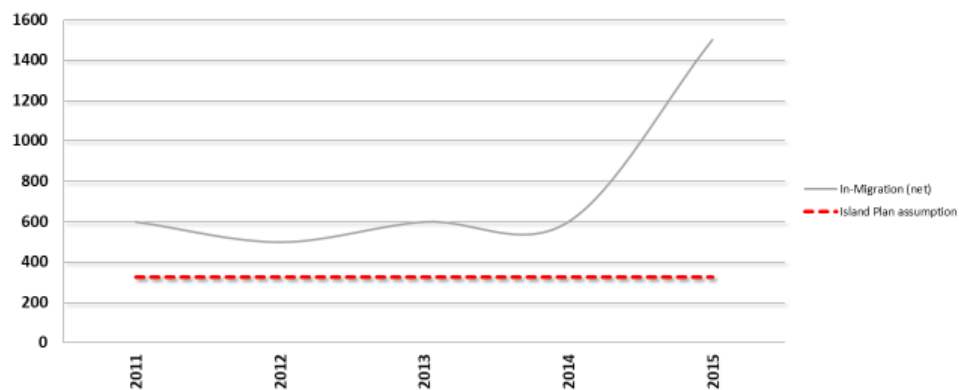


Latent demand over the life of the current Island Plan



Consider impacts on overcrowding and "hidden homeless"

Actual v IPR assumption annual change in Jersey's resident population: 2011 to 2015

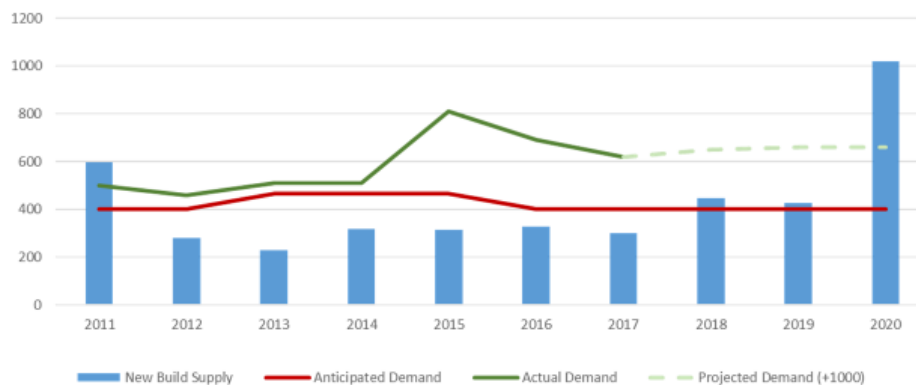




Over the period of the 2011-2020 Island plan there is projected to be:

supply of 4,256 new additional units (stock increase of 10%)

new demand* of 6,070 units (demand increase of 15%)

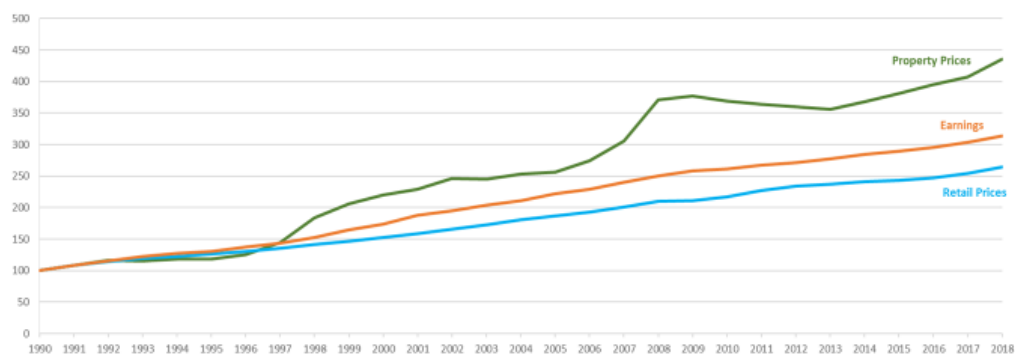


House Prices

Comparison with RPI and AEI



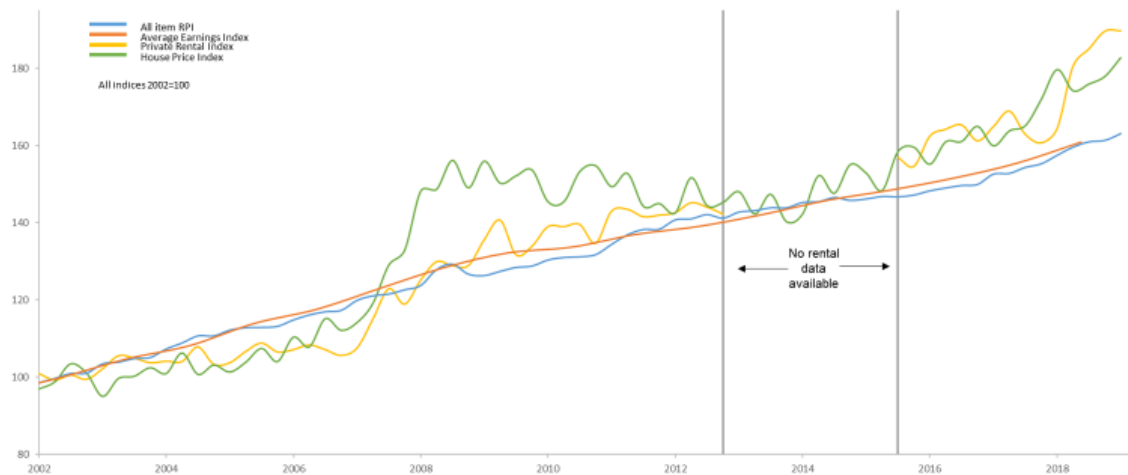
Index, 1990 = 100



House Prices



Comparison with RPI and AEI

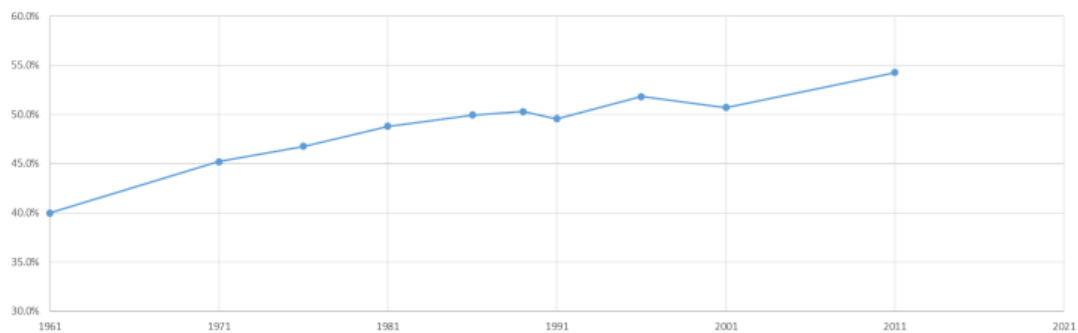


Home Ownership



Census rates of owner occupancy

in the period 1961-2011 the percentage of dwellings that were owner occupied in Jersey increased from 40% to 54%

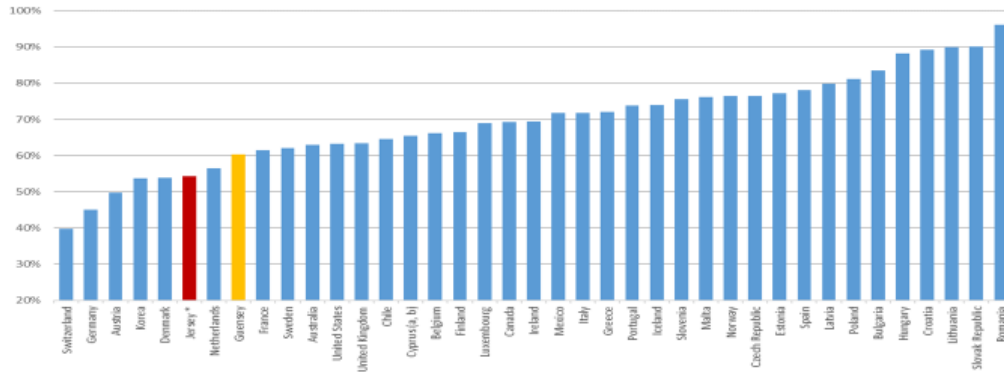


Home Ownership



Owner occupancy international comparison

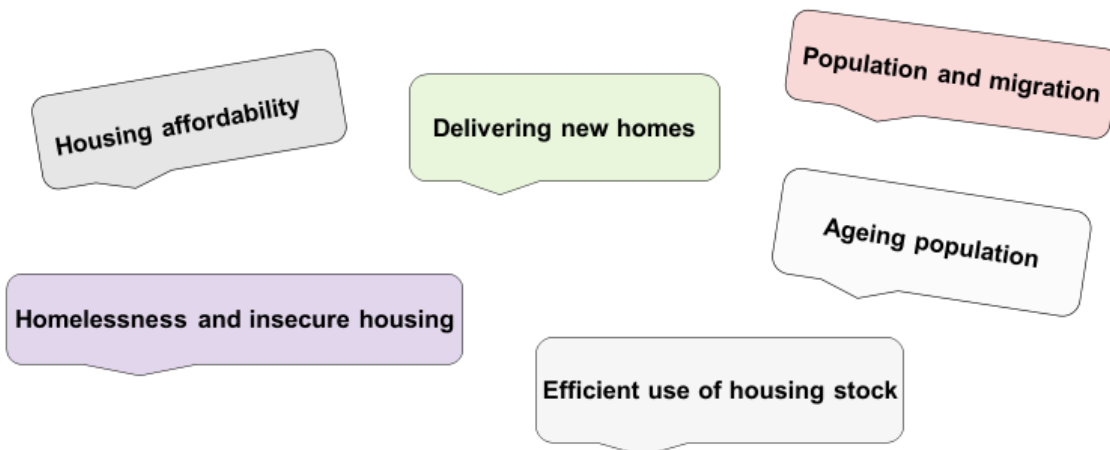
Jersey's rate of owner occupancy (54%) was below the majority of nations
Both Guernsey (60%) and the UK (63%) had higher rates of owner occupancy



Challenges



- What housing challenges is Jersey facing?



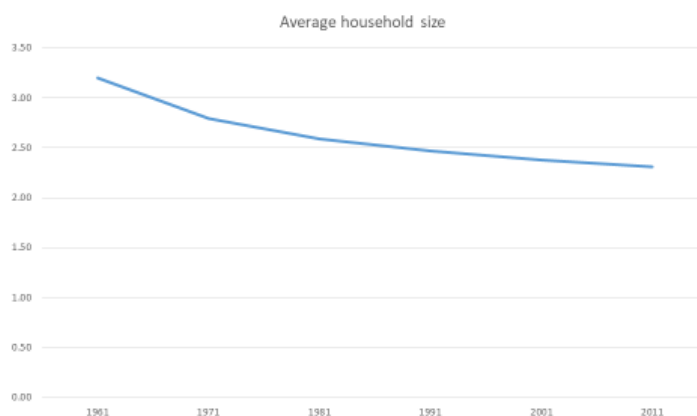
What 'planning' challenges might we anticipate over the next 10-15 years?



Average Household size



The average number of people per private household is in decline



Current programme of work



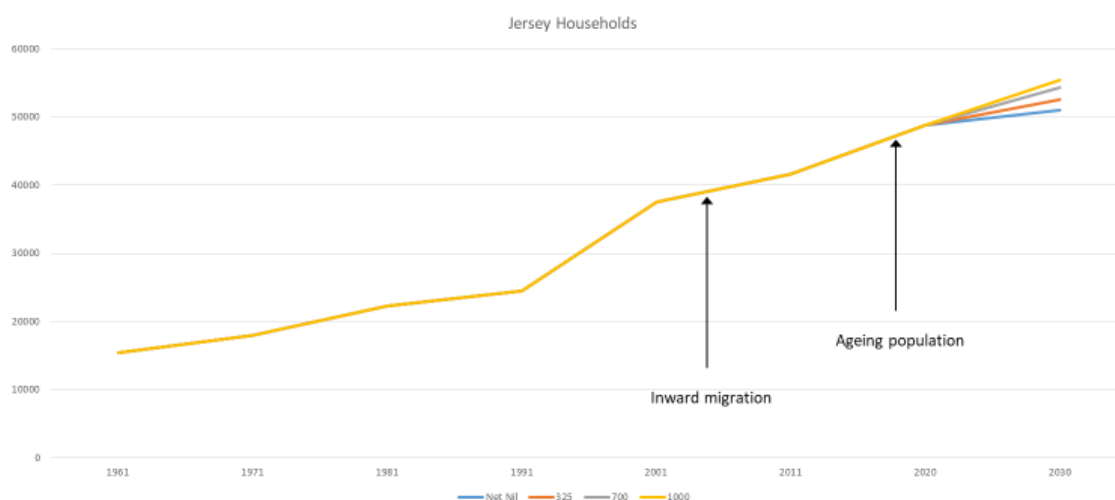
- Objective Assessment of Housing Need – estimate of Jersey's housing requirements 2021-2030

		+1000 migration	Net Nil	+325 migration	+700 migration
Non-Qualified	All	1,110	-1750	-830	250
Owner-Occupied	All	3,800	3,040	3,280	3,570
Qualified Rent	All	930	50	340	670
Social Rent	All	920	890	910	910
Total	All	6,760	2,230	3,700	5,400

- Key workers policy – homes to attract and retain staff in health professions and children's social work
- Homelessness review and strategy

The OAHN for Jersey over the Island Plan period 2021-2030 (dependant upon migration scenario):

2,230 more dwellings 3,700 more dwellings 5,400 more dwellings 6,760 more dwellings



Thank you



Questions?



Migration Policy Development Board



Appendix 17:

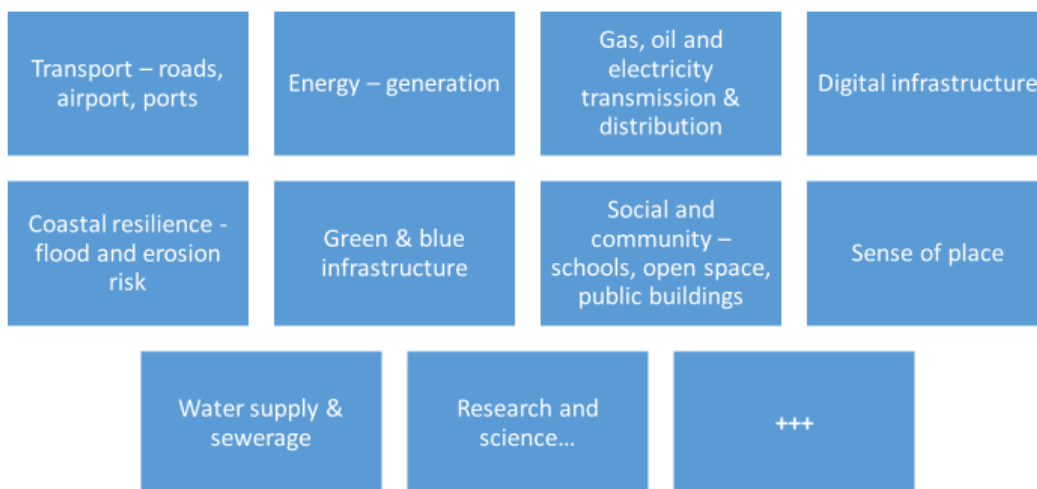
Presentation – Infrastructure & carrying capacity

Migration policy development board: Infrastructure and carrying capacity

Fiona Glover

27.06.2019

Scope of public infrastructure





Challenges

- Upgrading infrastructure to meet demand
- Reach capacity at different points in time
- Different implications
- Challenges for physical and natural environment and policy implications

Opportunities

- Fiscal levers and demand management policies
 - Fit for purpose legislation and regulation
 - New technologies and demand management opportunities
-

Predict and provide

- Not a neutral solution
- Expensive eg. Additional interconnector
- Significant additional impacts / unintended consequences
- Look and feel
- Natural habitats
- Ecosystems services

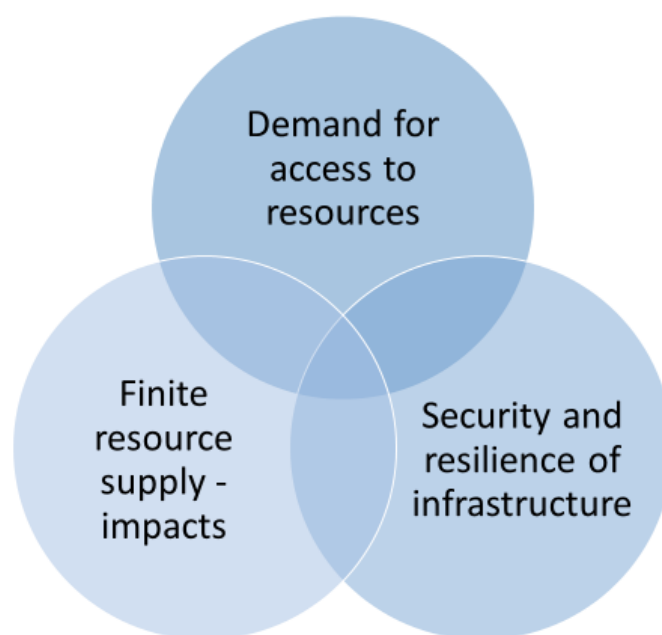
Demand Management

- Will not achieve significant savings alone
 - Energy efficiency - 5%
 - Water saving – 10%
 - Transport (STP target 15%; achieved 2% reduction at peak time)
-

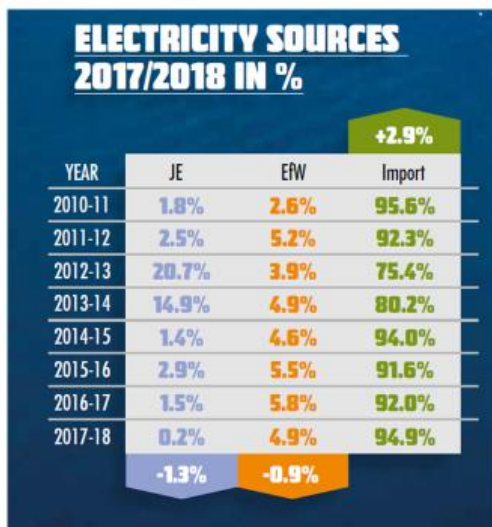




Predict and provide	Demand Management
<ul style="list-style-type: none">• Not a neutral solution• Expensive eg. Additional interconnector• Significant additional impacts / unintended consequences• Look and feel• Natural habitats• Ecosystems services	<ul style="list-style-type: none">• Will not achieve significant savings alone<ul style="list-style-type: none">• Energy efficiency - 5%• Water saving – 10%• Transport (STP target 15%; achieved 2% reduction at peak time)



Electricity & security of supply



- 95% imported low carbon and hydro; 2017 supply agreement for 5 years EDF
- 3 sub sea cables
- 245MW of low carbon power available
 - 178MW peak demand March 2018
- SmartSwitch is Jersey Electricity's (JE) five-year, £11m project to install Smart Meters in every premise in the Island
- Carbon neutral by 2030
 - 20k heating for homes
 - 60k vehicles
- Implications?
 - Additional sub station
 - Additional interconnector
 - Renewables and storage

Water supply & treatment based on +700



- Demand is expected to increase by 17% to 24 million litres a day by 2045.
- If no action is taken, demand would exceed supply by 8.2 million litres a day during severe drought conditions from that year.



Jersey Evening Post

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Plan for projected major water shortages by 2045

News | Published: Jun 10, 2019

PLANS to safeguard water supplies – including by building a new reservoir or expanding Val de la Mare – are being considered following projections that climate change and a growing population could cause major water shortages.

Solid waste disposal



- ERF capacity 105k tonnes; net calorific value (NCV) of 9.2MJ/kg
- Higher NCV means capacity is lower c.90k tonnes
- Current throughput c.70k tonnes
- End of design life 2041
- New plant will be required
- Recycling rates will affect NCV



Liquid waste treatment



- Based on 118k population
- Sewage treatment works due for completion 2022
- Design life to 2045
- Potential for +20% expansion
- Capacity and security of sewerage network
 - 107 pumping stations

Coastal flood and erosion risk

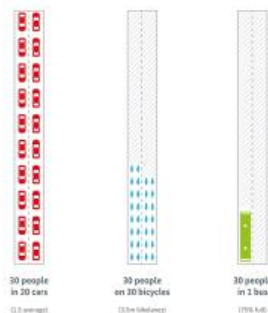


- 460 properties currently at risk of coastal flooding, increasing to 2822 by 2120 (with present management)
- Additional potential GVA / business disruption losses up to £110m over the next 10 years

Cash Value	Short Term - Epoch 1 (2020-2040) (£m)	Medium Term - Epoch 2 (2040-2070) (£m)	Long Term - Epoch 3 (2070-2120) (£m)	Whole SMP period (100 years) (£m)
Benefits	113.9	328.9	2,174.3	2,617.1
Costs	36.6	84.4	76.9	197.9
BCR	3.1	3.9	28.3	13.2

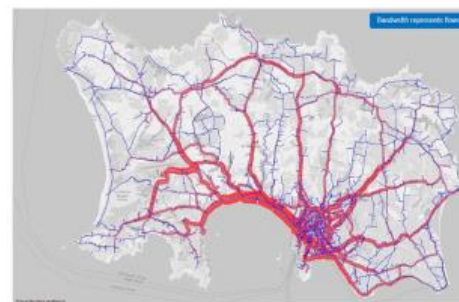
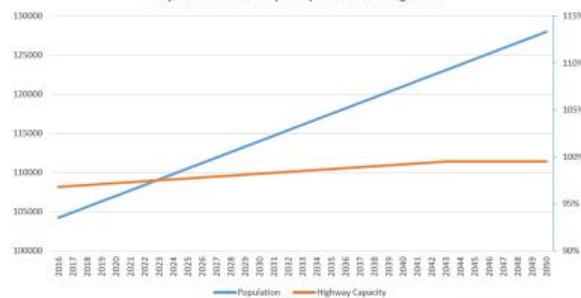
Transport network

Road Space Requirements



- Network is currently at capacity during the peak hours – no more road space available
- Building additional road space is not viable
- New trips will need to be via bus or active travel
- People will not give up the car unless it is more expensive or takes a lot longer than a bus

Population Growth (+700) vs Traffic Congestion





Infrastructure Plan 2019	Demand Management	Compliance
<ul style="list-style-type: none">• Scope• Scenarios• Modelling• Options	<ul style="list-style-type: none">• No regrets• Fiscal levers• Behaviours	<ul style="list-style-type: none">• Legislation & Regulation<ul style="list-style-type: none">• Drainage Law• Electricity Law• MEA's



Thank you