



# Technical Annex

---

Date 9<sup>th</sup> November 2015

## Subject Labour Supply Sensitivity Tests

---

### 1.0 Introduction

1.1 NLP's July 2015 report: '*Review of the Objectively Assessed Need for Housing in Sefton*' [ROANH], analysed the implications of the 2012-based Sub-National Household Projections [SNHP] on the objectively assessed need for housing in Sefton Borough. In line with the Planning Practice Guidance, these represent the starting point for objectively assessed housing need (albeit not necessarily the end-point).

1.2 NLP undertook a detailed modelling exercise incorporating the latest household projections and other data sources including the latest econometric job projections from respected forecasting houses Experian and Oxford Economics. Due to the particular characteristics of Sefton's ageing population (and the lower level of economic activity associated with older residents), when set against job forecasts that appeared to buck the long term trend of decline, the modelling suggested a very wide range of potential future outcomes for housing need.

1.3 The report concluded that, based on the staged approach to identifying the housing OAN as set out in the Practice Guidance, the demographically-driven objectively assessed housing need [OAN] would equate to 690 dpa, whilst to address economic needs and to make a meaningful contribution to affordable housing delivery, the economic-led OAN range would be higher, at between 710 dpa – 1,290 dpa. Specifically:

- 1 The demographically driven housing OAN, at 690 dpa, represents the outcome of the staged approach to identifying the housing OAN as set out in the Practice Guidance. It takes the Department for Communities and Local Government's [CLG's] latest household projections as its starting point (604 dpa 2012-2030, including an allowance for vacant/second homes), adjusts this to 627 dpa to accelerate the household formation rate of the younger age groups, and finally uplifts this figure by 10% to 690 dpa to address worsening market signals and past under-delivery.
- 2 Such an approach meets Sefton Council's demographic requirements in full; represents a substantial boost on the amount of housing that has been delivered in the past (387 dpa over the past 11 years) and exceeds the LEP's baseline projection of job growth. However, due to the demographic challenges facing the Borough (with a very substantial

ageing of the population), even this level of dwelling provision would lead to a decline in the total number of jobs between 2012 and 2030;

- 3 Taking an economically-driven housing OAN approach which doesn't lead to a decline in jobs over time, a figure of **710 dpa** would effectively stabilise the economy and ensure that at the very least the number of jobs based in the Borough stays the same between 2012 and 2030;
- 4 Moving upward, a figure of 780 dpa would align with the current LEP's Policy On growth aspirations (+900 jobs), whilst at the very top end, a figure of **1,290 dpa** would align with the 'blended average' of the Experian and OE job growth projections in the Borough, equivalent to an additional 10,099 jobs by 2030. A delivery figure at the top end of the range would also go a meaningful way to addressing the high level of affordable housing need identified in the Council's 2014 SHMA (of 434 dpa, or 1,447 dpa based on 30% delivery).

1.4 Whilst recognising that this would be very challenging to deliver and have significant implications for adjoining authorities, it was considered that greater weight could be attached to a housing need figure towards the upper end of the 710 dpa – 1,290 dpa economically driven OAN range as this would reflect the most recent economic projections for the Borough and begin to realistically address affordable housing needs.

1.5 Clearly a relatively wide housing OAN range was identified in the ROANH, whilst work relating to the Council's emerging Employment Land and Premises Study (undertaken by BE Group) was still ongoing at the time. The July 2015 NLP report therefore recommended that Sefton Council should consider commissioning further work to refine the point on the OAN range that Sefton should be seeking to target as its housing requirement.

1.6 This Technical Annex reports the findings of this additional modelling work, which has involved NLP undertaking a series of sensitivity tests to the key PopGroup model runs set out in the July 2015 ROANH. The sensitivity tests explore the dwelling requirements resulting from changes to selected key assumptions concerning economic activity and unemployment rates. These assumptions have resulted from labour supply work undertaken by BE Group/Ekosgen<sup>1</sup>.

## 2.0 **Data Input Assumptions**

2.1 The Practice Guidance is clear that as part of the assessment of housing need, employment trends should be taken into account through an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and also having regard to the growth of the working age

---

<sup>1</sup>BE Group and Ekosgen (October 2015): "Assessment of Labour Supply Implications, A Report for Sefton Council"

population in the HMA. Any cross-boundary migration assumptions (particularly where one area decides to assume a lower internal migration figure than the HMA figures suggest) will need to be agreed with the other relevant LPA under the Duty to Co-operate (DtC). Failure to do so will mean that there would be an increase in unmet housing need. Furthermore:

*“Where the supply of working age population that is economically active (labour force supply) is less than the projected job growth, this could result in unsustainable commuting patterns (depending on public transport accessibility or other sustainable options such as walking or cycling) and could reduce the resilience of local businesses. In such circumstances, plan makers will need to consider how the location of new housing or infrastructure development could help address these problems.”<sup>2</sup>*

2.2 In terms of how NLP interpreted this guidance to translate population into jobs in the July 2015 ROANH study, the key assumptions were as follows:

- a Projected **migration** under the 2012-SNPP based scenarios is taken from the age-specific numbers of in and out internal and international migrants as projected. For the economic-led scenarios, migration is ‘flexed’ (i.e. inflated or constrained) in order to produce a population and labour force sufficient to support the given level of job change;
- b To calculate **unemployment** rates, the latest (at the time of modelling) Annual Population Survey<sup>3</sup> data indicated that the pre-recession unemployment rate for Sefton was 5.8%. Hence the modelling utilised a projection on the basis that rates would return to this by 2020, as it is more reflective of out-of-recession trends. This rate was held constant from 2020 to 2030. For the years 2012, 2013 and 2014, the actual figures (as reported by the Annual Population Survey) were used, with the decline to 5.8% beginning post-2014.
- c Age and gender-specific **economic activity rates** are used. The basis for this is the 2011 Census<sup>4</sup>, and for age groups up to 65-69 the ONS 2006-based Labour Force Projections [LFP] have been applied. In addition, allowances have been made (for 65-69) for the increases in State Pension Age which will occur in 2018-2020 and 2026-2028. In the oldest age groups (70+), the ONS Labour Force Projections significantly underestimated the economic activity rate, projecting a slight decline in male rates over the period 2006-2020 and female rates to remain static. Therefore an alternative assumption has been adopted, whereby rates are projected to reach a mid-point between the ONS Labour Force

---

<sup>2</sup>Practice Guidance, §2a-018-20140306

<sup>3</sup>The Annual Population Survey, which is conducted on a quarterly basis by the ONS, provides data that can produce reliable estimates at local authority level. Key topics covered in the survey include education, employment, health and ethnicity.

<sup>4</sup> Given the 2011 Census only provides rates for older age groups as a single ‘65 and over’ age group, an estimate of older age economic activity (necessary in order to accurately project the labour force) has been calculated based on the decline in economic activity over the life course from the 2001 Census, which provided rates up to age 65-69 and 70-74.

Projections and a linear trend based on growth between 2001 and 2011. These rates were then held constant.

- d Regarding the **commuting rate (or labour force ratio)** the PopGroup model used 2013 data regarding the number of employed residents (based on the number of economically active people taken from the Annual Population Survey, less those unemployed) and the number of jobs (i.e. employment plus self-employment) in Sefton, taken from the most recent Experian publication (in this case, May 2015). This indicated a Labour Force ratio of 1.28 for 2013. This figure takes into account commuting patterns as well as double-jobbing (as it is a ratio of employed residents to jobs in the Borough). This was held constant over the projection period to 2030.

2.3 NLP therefore assumed that commuting rates would remain broadly constant over time, whilst both the unemployment rate and economic activity rates assumed a degree of improvement over the course of the plan period.

2.4 As this essentially assumes that a greater proportion of the resident population for particular age cohorts are likely to be in employment in 2030 than they are in 2012, this has a dampening effect on housing demand as fewer in-migrants are needed to move into Sefton to take up the job opportunities likely to arise. In addressing any further potential shortfall in the economically-active population, the adjustment necessarily falls on migration.

2.5 Having applied these assumptions, the outputs of the key scenarios underpinning the OAN range in the July 2015 ROANH study are set out in Table 2.1.

Table 2.1 Key Model Outputs - Demographic and Economic Led Scenarios

	Demographic-Led		Economic-led	
	Scenario A: 2012 SNPP, 2012 Headship Rates	Scenario Ai: 2012 SNPP, Partial Catch-up to 2008 Headship Rates	Scenario E: Job Stabilisation (0 Jobs)	Scenario H: Blended Jobs (Experian, OE)
Population Change	+4,961	+4,961	+10,114	+35,652
of which natural change	-5,650	-5,650	-5,768	-839
of which net migration	+10,611	+10,611	+15,883	+36,491
Household Change	+10,368	+10,766	+12,229	+22,071
Dwelling Change	+10,874	+11,291	+12,825	+23,147
<b>Dwellings p.a. to 2030</b>	<b>+604</b>	<b>+627</b>	<b>+712</b>	<b>+1,286</b>
Labour Force	-2,922	-2,922	+668	+14,394
Jobs	-2,642	-2,642	+0	+10,099
Jobs p.a.	-147	-147	+0	+561

Source: NLP using PopGroup

- 2.6 The Table demonstrates that, based on the assumptions applied by NLP in the PopGroup modelling, and due to the ageing population and the concurrent reduction in the labour force, there would need to be over 712 dwellings provided annually before the number of jobs begins to increase over and above the level achieved in 2012.
- 2.7 These assumptions represent the modellers' professional judgement, are relatively conservative and have been found sound at a number of Local Plan EiPs and appeals. This approach aligns with that set out in the Planning Advisory Service's '*Technical Advice Note on Objectively Assessed Need and Housing Targets*':
- "It is important to avoid unrealistic assumptions on the relationship between housing, population and jobs. A number of housing assessments have been criticised by Inspectors for expecting very fast increases in economic activity rates. Such increases reduce the population growth, and hence number of homes, that is required to support a given number of new jobs. But unrealistic figures put the emerging plan at risk".<sup>5</sup>*
- 2.8 There is clearly an element of judgement to be attached to the selection of the data inputs and how these are likely to change over time. This has been recognised in the recent High Court judgement between Kings Lynn and West Norfolk Borough Council versus CLG and Elm Park Holdings Ltd<sup>6</sup>.
- 2.9 In that Judgment, Mr Justice Dove confirmed that in meeting household and population projections taking account of migration and demographic change, the Practice Guidance illustrates that this is:
- "a statistical exercise involving a range of demographic data for which there is no one set methodology, but which will involve elements of judgement about trends and the interpretation and application of the empirical material available. These judgements will arise for instance in relation to whether, for example, adjustments for local demography or household formation rates are required, and the extent and nature of adjustments for market signals. Judgement will further be involved in taking account of economic projections in undertaking this exercise."* [§34]
- 2.10 These judgements can make a significant impact on the housing OAN, and particularly for the employment-led scenarios. On this basis, and following the production of BE Group/Ekosgens' "*Assessment of Labour Supply Implications Report*" in October 2015 and the availability of new data within that document, Sefton Council requested that NLP run a series of further sensitivity tests. This concerned the assumptions regarding economic activity rates and unemployment change over the course of the plan period to help inform the

---

<sup>5</sup>Prepared for PAS by Peter Brett Associates (July 2015): Objectively Assessed Need and Housing Targets: Technical advice note, second edition, paragraph 8.15

<sup>6</sup>Citation Number: [2015] EWHC 2464 (Admin)

debate as to where the appropriate OAN lies within the wider range identified in the ROANH study.

2.11 A further sensitivity test suggested by BE Group/Ekosgen was for NLP to begin calculating the level of housing need using 2015 as a starting point, rather than 2012, “*reflecting the fact that a significant proportion of employment growth between 2012 and 2015 is likely to be replacement demand and generate limited demand for housing*” [page 4]. However, even under the highest growth scenario (the ‘Blended’ job growth approach), the 2015-2030 housing need would still be 1,230 dpa, down just 56 dpa from the 2012-2030 figure of 1,286 dpa. This is because although much of the forecast job growth would have already occurred prior to 2015, the key issue is a rapidly dwindling workforce from 2017 onwards. This means that more and more migrants are required to stabilise the workforce even if job growth is relatively low. Given the marginal difference between the two approaches, and due to the need to provide an OAN in line with the Local Plan period (2012-2030), this sensitivity test was not explored further.

2.12 Therefore to the four scenarios set out in Table 2.1 above, the following amendments were made to the economic activity rates and, separately, the unemployment rates (with all other inputs the same as before).

### **Economic Activity Rates**

2.13 Following advice received from BE Group/Ekosgen in their October 2015 note, “*Assessment of Labour Supply Implications*”, Sefton Council requested that NLP model the following adjustments to economic activity rates (with the results summarised in Table 2.2):

- Assume that current 65+ trends for economic activity continue over the Local Plan period;
- Incorporate the latest Annual Population Survey data (covering 2004 Q4 – 2015 Q1) which suggests that the economic activity rate for this 65+ age group could rise to 18% by 2030;
- Using the Sefton 2012-based SNPP for 2030, apply this uplift to the population aged 65+ by five-year age bands and gender in proportion to existing participation levels to estimate the specific economic activity rates for each group.

Table 2.2 Economic Activity Rate Comparison 2012-2030

	Males			Females		
	2012	2030 NLP	2030 BE Group / Ekosgen	2012	2030 NLP	2030 BE Group / Ekosgen
15-19	38%	39%	39%	40%	42%	42%
20-24	84%	85%	85%	79%	82%	82%
25-29	90%	93%	93%	82%	87%	87%
30-34	89%	92%	92%	80%	85%	85%
35-39	87%	91%	91%	80%	84%	84%
40-44	88%	91%	91%	82%	86%	86%
45-49	88%	91%	91%	82%	86%	86%
50-54	84%	88%	88%	78%	85%	85%
55-59	75%	80%	80%	68%	76%	76%
60-64	54%	59%	59%	37%	49%	49%
65-69	22%	29%	52%	16%	23%	35%
70-74	11%	14%	21%	7%	9%	15%
75-79	6%	7%	11%	3%	4%	7%
80-84	3%	3%	5%	1%	2%	3%
85+	1%	2%	3%	1%	1%	1%

Source: NLP using PopGroup / BE Group/Ekosgen inputs

2.14 According to the principles underpinning BE Group/Ekosgens' approach, the economic activity rate for each of the 65+ age cohorts in 2030 is lower than the rate of the age group below in 2012. For example, the economic activity rate of 70-74 year old males in 2030 (21%) is assumed to be less than the 2012 economic activity rate for 65-69 year old males (22%).

2.15 As can be seen from Table 2.2, the largest uplift occurs for residents aged 65-69 (52%/35% based on BE Group/Ekosgens' assumptions, compared to 29%/23% for Males/Females based on NLP's usual approach) and, to a lesser extent, people aged 70-74.

### Unemployment

2.16 Following advice received from BE Group/Ekosgen in their October 2015 note, "Assessment of Labour Supply Implications", Sefton Council requested that NLP model the following adjustments to unemployment rates (with the results summarised in Table 2.3):

- Assume a single unemployment rate for all age groups (in line with NLP's current approach);

- The current assumption is that unemployment will be in line with the long term pre-recession average for Sefton (5.82%) in 2030. This is higher than the current rate of unemployment (5.3% July 2014 – June 2015, ONS Annual Population Survey);
- Assume that unemployment converges on a long-term average of 4%;
- This is 70% of the pre-recession average level in Sefton. According to BE Group/Ekosgen, this will reflect current public policy and restrictions on the groups that are able to access welfare in the future (see page 4 of “Assessment of Labour Supply Implications”).

Table 2.3 Unemployment Rate Comparison 2012-2030

	NLP	BE Group/Ekosgen
2012	8.3%	8.3%
2013	9.1%	9.1%
2014	6.2%	6.2%
2015	6.1%	6.1%
2016	6.1%	6.1%
2017	6.0%	6.0%
2018	5.9%	5.9%
2019	5.9%	5.9%
2020	5.8%	5.8%
↓	↓	...and reduced to 4% pro-rata by 2030
2030	5.8%	4.0%

Source: NLP using PopGroup / BE Group/Ekosgen inputs



3.0

## Results

3.1

The results of these additional sensitivity tests are set out in Table 3.1 and Table 3.2, with the original July 2015 ROANH results compared to the adjusted economic activity and unemployment rates:

Table 3.1 Comparator Model Outputs - Demographic Led Scenarios

	Scenario A: 2012 SNPP, 2012 Headship Rates			Scenario Ai: 2012 SNPP, Partial Catch-up to 2008 Headship Rates		
	ROANH	Ec Ac	Unemp	ROANH	Ec Ac	Unemp
Population Change	4,961	4,961	4,961	4,961	4,961	4,961
of which natural change	-5,650	-5,650	-5,650	-5,650	-5,650	-5,650
of which net migration	10,611	10,611	10,611	10,611	10,611	10,611
Household Change	10,368	10,368	10,368	10,766	10,766	10,766
Dwelling Change	10,874	10,874	10,874	11,291	11,291	11,291
<b>Dwellings p.a. to 2030</b>	<b>604</b>	<b>604</b>	<b>604</b>	<b>627</b>	<b>627</b>	<b>627</b>
Labour Force	-2,922	2,693	-2,922	-2,922	2,693	-2,922
Jobs	-2,642	1,490	-812	-2,642	1,490	-812
Jobs p.a.	-147	83	-45	-147	83	-45

Source: NLP using PopGroup

Table 3.2 Comparator Model Outputs – Employment-Led Scenarios

	Scenario E: Job Stabilisation (0 Job Growth)			Scenario H: Blended Jobs (Experian, OE)		
	ROANH	Ec Ac	Unemp	ROANH	Ec Ac	Unemp
Population Change	10,114	394	5,769	35,652	25,582	30,857
of which natural change	-5,768	-6,516	-6,090	-839	-1,608	-1,192
of which net migration	15,883	6,910	11,860	36,491	27,191	32,049
Household Change	12,229	8,499	10,560	22,071	18,208	20,229
Dwelling Change	12,825	8,913	11,075	23,147	19,095	21,216
<b>Dwellings p.a. to 2030</b>	<b>712</b>	<b>495</b>	<b>615</b>	<b>1,286</b>	<b>1,061</b>	<b>1,179</b>
Labour Force	668	668	-1,840	14,394	14,394	11,626
Jobs	0	0	0	10,099	10,099	10,099
Jobs p.a.	0	0	0	561	561	561

Source: NLP using PopGroup

3.2

The two tables indicate that the sensitivity tests exert a downward influence on the level of housing need related to the two employment-led scenarios, whilst boosting the level of job growth under the two demographic projections. The reduction is particularly pronounced for the economic activity adjustments.

- 3.3 The two demographic scenarios generate identical results with the exception of the number of households and dwellings required under each, as the data inputs are identical with the exception of headship rates. Whilst the level of population growth, household change and dwelling need remains unchanged for these two scenarios, by increasing the number of economically active residents over the age of 65 in the Borough by 2030, the number of jobs would increase from -2,922 to +1,490 (a change of 4,132). Reducing the number of unemployed residents more sharply than before would have a less pronounced effect on the number of jobs based in the Borough, with a difference of 1,830. The change in jobs would still be negative under this sensitivity test for Scenarios A and Ai, at -812.
- 3.4 For the two employment-led scenarios, the sensitivity tests exert a more pronounced influence. This time, as the job output is the element of the modelling that is constrained, it does not change from before. However, as both sensitivity tests allow job targets to be reached by enabling more existing local residents to remain/enter the job market, the difference to be made up by economic in-migrants is much lower, leading to a reduction in their housing needs. Therefore for the economic activity sensitivity test, to stabilise the local economy would require just 495 dpa compared to 712 dpa in the ROANH scenario. This would require a very low level of population growth, at just 394, less than a tenth of the level of growth indicated by the latest 2012-based population projections and therefore its realism is questionable.
- 3.5 For the unemployment sensitivity test to Scenario E, the housing requirement is around 100 dpa lower than before. Because net job growth is held at zero, there would actually be a reduction in the labour force overall as a greater proportion of the existing residents would be in employment.
- 3.6 Finally, for Scenario H, the economic activity sensitivity test would reduce the dwelling need by 225 dpa, down to 1,061 dpa. The level of population change necessary to sustain an annual job growth of 561 would also reduce significantly, by over 10,000 from the ROANH model (almost all of which would be due to a concurrent reduction in net migration). As for the unemployment sensitivity test, this almost represents a halfway house between the two other scenarios, with a dwelling need of 1,179 dpa and population growth of 30,857 compared to 35,652 in the ROANH.

#### 4.0 Discussion

- 4.1 This note has been prepared by NLP at the request of Sefton Council to analyse the implications of certain sensitivity tests, based on suggestions made by BE Group/Ekosgen in their paper "*Assessment of Labour Supply Implications*" on changes to economic activity and unemployment rates in the Borough.

- 4.2 It is recognised that the previous ROANH (in paragraphs 7.40-7.41) stated that the only alternatives to a significant reversal of migratory trends necessary to underpin job growth at the scale forecast by the blended job growth scenario would be through:
- a change in commuting patterns;
  - increased economic activity rates/reduced unemployment; or
  - planning for a mix of housing that encouraged economically active residents to stay/move into the Borough.
- 4.3 The report noted that this was a policy choice for the Council to make, rather than OAN considerations. That said, the choice of commuting, economic activity and unemployment rates and how these are likely to change over the course of the Plan period have always been part of the reasoned professional judgement applied by demographic modellers when determining the inputs to the PopGroup model.
- 4.4 These elements of judgement about trends and the interpretation and application of the empirical material available is recognised in the recent Kings Lynn High Court judgement<sup>7</sup> to be appropriate when identifying the housing OAN. The key issue is at which point the data inputs move away from being reasoned professional judgements and more towards policy-driven, aspirational figures.
- 4.5 For example, the PAS Guidance states that a risky approach is to plan for recalling commuters, so the ratio of workplace jobs to resident workers is assumed to rise over the plan period so that more jobs can be accommodated for a given number of dwellings:
- “The expected shift in commuting should be believable and acceptable to the other local authorities affected by it. Strategies of recalling commuters should not be adopted unilaterally; they require cross-boundary agreement in line with the Duty to Co-operate” [8.16]*
- 4.6 At this moment in time we understand there is no agreement between Sefton and adjoining authorities as to commuting patterns. Consequently, this was not explored as a sensitivity test.
- 4.7 However, changes to the economic activity and unemployment rates were examined in further detail. The justification for these as realistic scenarios is set out in detail in BE Group/Ekosgens’ note, “*Assessment of Labour Supply Implications*”.
- 4.8 Ostensibly, the sensitivity test involving an increase in economic activity rates for the older age cohorts could have the most significant reduction on housing need for the employment-led scenarios. However, NLP has concerns

---

<sup>7</sup>Citation Number: [2015] EWHC 2464 (Admin)

regarding the extent to which BE Group/Ekosgens' assumption moves more towards a policy choice and away from being a realistic adjustment based on empirical research and evidence.

4.9 An alternative approach would be to adopt the economic activity rates that were forecast for the UK as a whole in the Office for Budget Responsibility's Fiscal Sustainability Report (July 2014). To do this would involve the assumption that the economic activity rates within Sefton reflect the national average.

4.10 A summary of the employment and economic activity rates associated with each of these options is set out in Table 4.1. It is conceded that this does not quite compare like with like, with economic activity likely to be slightly higher than employment rates. However even so there appears to be a much stronger correlation (particularly for males) with the NLP approach underpinning the ROAHN, than the suggested approach by BE Group/Ekosgen. In particular, it is considered unlikely that economic activity rates for males in Sefton are likely to rise from 22% currently, to 52% in 2030, whilst even at a national level, employment rates are only forecast to increase from 24% to 32% for that age category over the same time period.

Table 4.1 Comparator Model Outputs – Employment Rates

		UK		Sefton Borough			
		OBR (Employment Rates)		NLP (Economic Activity Rates)		BE Group/Ekosgen (Economic Activity Rates)	
		2012	2030	2012	2030	2012	2030
<b>Males</b>	<b>65-69</b>	24%	32%	22%	29%	22%	52%
	<b>70-74</b>	10%	13%	11%	14%	11%	21%
<b>Females</b>	<b>65-69</b>	15%	29%	16%	23%	16%	35%
	<b>70-74</b>	5%	11%	7%	9%	7%	15%

Source: OBR Fiscal Sustainability Report / NLP/2011 Census / BE Group/Ekosgen

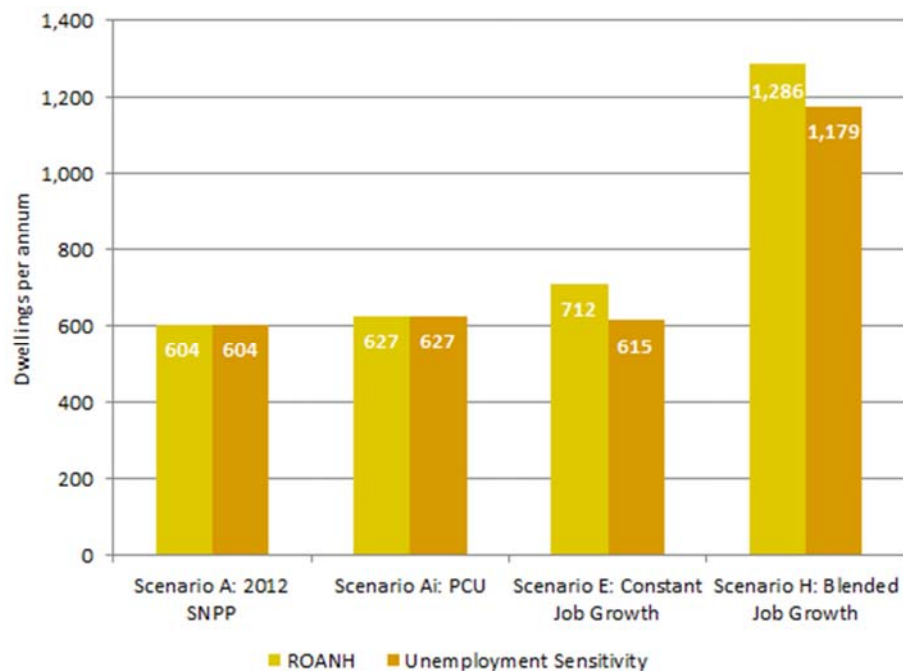
4.11 For this reason, it is considered that the suggested changes to the economic activity rate would be so extreme for these age categories as to move beyond the bounds of a realistic judgement and more towards an aspirational policy choice for the Council to apply.

4.12 As for the unemployment rate, BE Group/Ekosgen considered that this will reflect current public policy and restrictions on the groups that are able to access welfare in the future. According to BE Group/Ekosgen, and based on the SNPP for 2030, this is equivalent to 2% of people aged 16+ being unemployed and falls between the Oxford Economics and Experian long term forecasts for unemployment.

4.13

To summarise, it is considered that greater weight can be placed upon the unemployment sensitivity tests than for the economic activity rate adjustments. The remaining scenarios are presented in Figure 4.1.

Figure 4.1 Sefton Scenario Modelling Comparison



Source: NLP

5.0

## Conclusion on Housing OAN Range

5.1

The following points summarise NLP's revised position on Sefton's OAN following the publication of BE Group/Ekosgens' paper on "Assessment of Labour Supply Implications" and the additional sensitivity testing undertaken in this note:

- 1 NLP considers that there is no justification for departing from the Government's latest official population and household projections (both 2012-based) with the exception of a modest uplift for headship rates of younger age cohorts, and taking into account recent population estimates and local demographic factors (in line with the Practice Guidance). This enables NLP to conclude that the starting point for identifying demographic needs is **627 dpa**;
- 2 A realistic adjustment to the underlying unemployment rate would increase the number of jobs likely to be based in the Borough under this Scenario (Ai), although the figure would still be negative between 2012 and 2030 (-812). Once a 10% uplift is applied to address worsening market signals and past under-delivery, this equates to the demographically driven housing OAN, at **690 dpa**.

- 3 Full affordable housing needs exceed this, at 434 affordable dpa (or 1,447 dpa @30%). There is therefore a clear need to uplift this demographically-led figure to take account of the significant affordable housing need in Sefton;
- 4 Taking an economically-driven housing OAN which doesn't lead to a decline in jobs over time, a figure of around **710 dpa** would effectively stabilise the economy and ensure that at the very least the number of jobs based in Sefton Borough stabilises over the coming years;
- 5 The consequences of Sefton's uncommon demographic profile with economic growth aspirations superimposed upon it will inevitably result in a high dwelling requirement. In a situation whereby unfettered economic growth is pursued in line with the 'blended' approach to job growth, even with a realistic adjustment made to unemployment rates (given the step change in employment) it is considered that a figure of **1,180 dpa** would be justified at the top end of the range. This represents a reduction on the previous figure of 1,286 dpa, but is generally consistent with NLP's earlier work;
- 6 Whilst this figure would cut across the logic of past trends in population and migration growth, it would align the housing need with economic growth needs and importantly, would represent a significant uplift to Sefton's housing need figure to make a meaningful contribution to increasing affordable housing delivery. At 30%, delivering 1,180 dpa could result in the provision of **354 affordable dwellings annually**, over 80% of the total affordable housing need (434 dpa) in the SHMA, and a level significantly in excess of what has been delivered in the recent past<sup>8</sup>;
- 7 In general, whilst recognising that this would be very challenging to deliver, it is considered that greater weight could be attached to a housing need figure towards the **upper end of the 710 dpa – 1,180 dpa** economically-driven OAN range. This would reflect the most recent economic projections for the Borough.

5.2 Whilst this is the OAN that Sefton Council should consider, it is of course recognised that the housing requirement figure it ultimately chooses to take forward in its emerging Local Plan may be different (if justified in accordance with the Framework and the Practice Guidance).

5.3 There are significant implications of a high OAN in terms of Sefton Borough's ability to accommodate such growth as set out in the 2015 Consequences Study Update. Furthermore, there will be clear implications for neighbouring local authorities where Sefton has a strong migratory/travel to work

---

<sup>8</sup>According to the 2014 Sefton SHMA, the size of the affordable housing sector actually fell over the decade to 2011, with a net loss of around 1,600 social rented properties between 2001 and 2011 due to extensive demolition programmes (page 21).

relationship, most notably Liverpool City, which could influence the outcomes of regeneration strategies and housing delivery programmes in the City. These are policy considerations for Sefton Council to consider in defining its housing requirement in its emerging Local Plan.

- 5.4 Depending upon the extent to which Sefton Council is able to accommodate this level of housing need within its own boundaries in accordance with paragraphs 14, 47 and 179 of the Framework, these conclusions may support the need for comprehensive sub-regional assessment of housing need and supply - post adoption of the Local Plan – in an early Plan Review given the significant cross boundary labour supply and regeneration implications.



## Appendix 1: Inputs and Assumptions

	Scenario A: 2012 SNPP, 2012 Headship Rates	Scenario Ai: 2012 SNPP, Partial Catch-up to 2008 Headship Rates	Scenario E: Job Stabilisation (Zero Job Growth)	Scenario H: Blended Jobs (Experian, OE)
<b>Population</b>				
<b>Baseline Population</b>	A 2012 baseline population is taken from the 2012 Mid-year population estimates for Sefton Borough, split by age cohort and gender.			
<b>Births</b>	Future change assumed in the Total Fertility Rate [TFR] uses the birth projections from the ONS 2012-based Interim SNPP. This in turn is used to derive future projected TFRs through PopGroup.			
<b>Deaths</b>	Future change assumed in the SMR uses the death projections from the ONS 2012-based Interim SNPP. This in turn is used to derive future projected SMRs in PopGroup.			
<b>Internal Migration</b>	Gross domestic in and out migration flows are adopted based on forecast migration into the Borough from the ONS 2012-based SNPP for the actual internal migration flows 2012-2030. This is the sum of internal migration (elsewhere in England) and cross-border migration (elsewhere in the UK) (SNPP Table 5).		Internal in-migration and outmigration is flexed (inflated or deflated) to achieve the necessary number of economically active people to underpin the economy in the Borough for this employment scenario.  This was based on job stabilisation between 2012 and 2030.	As Scenario E, but with potential unconstrained employment growth (total jobs) in Sefton Borough of +10,099 between 2012 and 2030 based on a combination of OE and Experian projections.
<b>International Migration</b>	Gross international in and out migration flows are adopted based on forecast migration in Sefton Borough from the ONS 2012-based SNPP for the actual internal migration flows 2012-2030.		As above, but for international rather than internal migration.	



	Scenario A: 2012 SNPP, 2012 Headship Rates	Scenario Ai: 2012 SNPP, Partial Catch-up to 2008 Headship Rates	Scenario E: Job Stabilisation (Zero Job Growth)	Scenario H: Blended Jobs (Experian, OE)
<b>Propensity to Migrate (Age Specific Migration Rates)</b>	Age Specific Migration Rates (ASMigR) for both in and out migration is based upon the age profile of migrants to and from the Borough projected in the 2012-based SNPP. These identify a migration rate for each age cohort within the Borough (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of the Borough (but not the total numbers of migrants).			
<b>Housing</b>				
<b>Headship Rates</b>	Headship rates that are specific to Sefton are applied in the modelling. These are taken from the 2012-based Sub-National Household Projections, and as of October 2015 'Stage 1' outputs were available. These provided headship rates by age, sex and relationship status. The relationship statuses have been amalgamated so that headship rates by sex and five year age group only are inputted into the modelling. Applied to the population, these determine the percent of people in a given age/sex group who will form a head of household. For all scenarios except Ai, the rates as taken directly from CLG are applied.  For the 'partial catch-up' sensitivity scenario, the rates for young people in the age groups 15-19 to 30-34 are projected to reach, by 2033, half way between then 2008-based and 2012-based projections.			
<b>Population not in households</b>	The number of population not in households (e.g. those in institutional care) is similarly taken from the 2012-based household projections. CLG provide these by the number of people in each sex/five year age groups/relationship status in institutional care. Above age 75, these numbers have been converted into a rate; therefore under scenarios which project a different population size and/or age structure to the 2012 SNPP (which the CLG household projections are based on) this is taken into account when considering the number of elderly people likely to be in care home or other non-household accommodation.			
<b>Vacancy / 2nd Home Rate</b>	A vacancy and second homes rate is applied to the number of households, representing the natural vacancies/not permanently occupied homes which occur within the housing market. This means that more dwellings than households are required to meet needs. The average vacancy/second home rate in Sefton Borough is 4.6% based on the second home/vacancy rates in CLG Council Tax Base data for 2013/2014, held constant over the forecast period.			
<b>Economic</b>				

	Scenario A: 2012 SNPP, 2012 Headship Rates	Scenario Ai: 2012 SNPP, Partial Catch-up to 2008 Headship Rates	Scenario E: Job Stabilisation (Zero Job Growth)	Scenario H: Blended Jobs (Experian, OE)
<b>Economic Activity Rate</b>	<p>Age and gender-specific economic activity rates are used. The basis for this is the 2011 Census<sup>9</sup>, and for age groups up to 65-69 the ONS 2006-based Labour Force Projections [LFP] have been applied. In addition, allowances have been made (for 65-69) for the increases in State Pension Age which will occur in 2018-2020 and 2026-2028. In the oldest age groups (70+), the ONS LFP significantly underestimated the economic activity rate, projecting a slight decline in male rates over the period 2006-2020 and female rates to remain static. Therefore an alternative assumption has been adopted, whereby rates are projected to reach a mid-point between the ONS LFP and a linear trend based on growth between 2001 and 2011. These rates were then held constant.</p> <p><b>For the economic activity sensitivity tests</b>, following advice received from BE Group/Exosgen, it was assumed that current 65+ trends for economic activity continue over the Local Plan period, rising by 18% by 2030. The assumption was also made that this uplift should be applied to the population aged 65+ by five-year age bands and gender in proportion to existing participation levels to estimate the specific economic activity rates for each group.</p>			
<b>Commuting Rate</b>	<p>Regarding the commuting rate (or labour force ratio) the PopGroup model used 2013 data regarding the number of employed residents (based on the number of economically active people taken from the Annual Population Survey, less those unemployed) and the number of jobs (i.e. employment plus self-employment) in Sefton, taken from the most recent Experian publication (in this case, May 2015). This indicated an Labour Force ratio of 1.28 for 2013. This figure takes into account commuting patterns as well as double-jobbing (as it is a ratio of employed residents to jobs in the Borough). This was held constant over the projection period to 2030.</p>			
<b>Unemployment</b>	<p>To calculate unemployment rates, the latest (at the time of modelling) Annual Population Survey data indicated that the pre-recession unemployment rate for Sefton was 5.8%. Hence the modelling utilised a projection on the basis that rates would return to this by 2020, as it is more reflective of out-of-recession trends. This rate was held constant from 2020 to 2030. For the years 2012, 2013 and 2014, the actual figures (as reported by the Annual Population Survey) were used, with the decline to 5.8% beginning post-2014.</p> <p><b>For the unemployment rate sensitivity tests</b>, it was assumed that unemployment converges on a long-term average of 4% rather than the 5.8% rate assumed above.</p>			

<sup>9</sup> Given the 2011 Census only provides rates for older age groups as a single '65 and over' age group, an estimate of older age economic activity (necessary in order to accurately project the labour force) has been calculated based on the decline in economic activity over the life course from the 2001 Census, which provided rates up to age 65-69 and 70-74.



Nathaniel Lichfield  
& Partners

Planning. Design. Economics.

## Appendix 2: PopGroup Output Sheets

Population Estimates and Forecasts

Sefton

NLP

Components of Population Change

Scenario A: 2012 SNPP, 2012 Headship Rates - Economic Activity Rates Sensitivity

	Year beginning July 1st .....																		
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	
<b>Births</b>																			
Male	1,410	1,425	1,430	1,425	1,422	1,427	1,425	1,422	1,415	1,407	1,399	1,389	1,378	1,366	1,354	1,342	1,331	1,321	
Female	1,343	1,357	1,362	1,357	1,355	1,359	1,358	1,354	1,348	1,340	1,333	1,323	1,312	1,301	1,289	1,278	1,268	1,258	
All Births	2,754	2,782	2,792	2,783	2,777	2,786	2,783	2,776	2,763	2,748	2,732	2,712	2,690	2,666	2,643	2,620	2,599	2,579	
TFR	1.84	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.84	1.84	
Births input																			
<b>Deaths</b>																			
Male	1,521	1,459	1,454	1,448	1,445	1,446	1,448	1,448	1,454	1,461	1,468	1,476	1,486	1,499	1,511	1,523	1,536	1,552	
Female	1,693	1,554	1,534	1,537	1,537	1,540	1,533	1,533	1,537	1,538	1,538	1,543	1,546	1,549	1,557	1,568	1,575	1,583	
All deaths	3,214	3,013	2,989	2,986	2,982	2,986	2,981	2,981	2,991	2,999	3,007	3,019	3,032	3,049	3,068	3,091	3,111	3,135	
SMR: males	116.0	108.9	105.9	102.8	100.0	97.5	95.1	92.7	90.6	88.7	86.8	85.0	83.4	82.0	80.6	79.2	77.9	76.8	
SMR: females	111.3	101.0	97.8	96.1	94.2	92.5	90.2	88.3	86.6	84.8	83.0	81.5	79.9	78.4	77.2	76.0	74.7	73.6	
SMR: persons	113.4	104.7	101.6	99.2	96.9	94.8	92.5	90.4	88.5	86.6	84.8	83.2	81.6	80.2	78.8	77.5	76.2	75.1	
Expectation of life: males	77.8	78.5	78.8	79.2	79.5	79.8	80.1	80.4	80.7	81.0	81.2	81.5	81.7	82.0	82.2	82.4	82.6	82.8	
Expectation of life: females	82.5	83.4	83.7	83.9	84.1	84.4	84.6	84.8	85.0	85.3	85.5	85.7	85.9	86.1	86.3	86.5	86.7	86.8	
Expectation of life: persons	80.3	81.2	81.5	81.7	82.0	82.3	82.5	82.8	83.0	83.3	83.5	83.7	84.0	84.2	84.4	84.6	84.7	84.9	
Deaths input																			
<b>In-migration from the UK</b>																			
Male	3,937	3,947	3,960	3,973	3,983	3,993	4,000	4,005	4,007	4,006	4,004	4,003	4,008	4,017	4,028	4,040	4,053	4,066	
Female	4,033	4,042	4,051	4,057	4,060	4,062	4,062	4,058	4,052	4,043	4,032	4,026	4,028	4,036	4,046	4,060	4,074	4,088	
All	7,970	7,989	8,012	8,030	8,043	8,054	8,062	8,063	8,059	8,049	8,036	8,029	8,036	8,053	8,074	8,100	8,127	8,154	
SMiGR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants input																			
<b>Out-migration to the UK</b>																			
Male	3,850	3,844	3,842	3,846	3,827	3,812	3,798	3,781	3,768	3,751	3,738	3,732	3,746	3,740	3,735	3,731	3,740	3,741	
Female	4,005	3,997	3,979	3,976	3,948	3,924	3,894	3,871	3,840	3,825	3,813	3,791	3,778	3,789	3,786	3,784	3,788	3,797	
All	7,855	7,841	7,821	7,822	7,775	7,736	7,692	7,652	7,608	7,576	7,551	7,524	7,524	7,529	7,520	7,514	7,528	7,537	
SMiGR: males	29.6	29.5	29.5	29.6	29.5	29.5	29.5	29.5	29.5	29.5	29.6	29.6	29.8	29.8	29.8	29.7	29.8	29.7	
SMiGR: females	29.6	29.6	29.6	29.6	29.6	29.5	29.5	29.5	29.4	29.4	29.4	29.4	29.4	29.5	29.5	29.4	29.4	29.4	
Migrants input																			
<b>In-migration from Overseas</b>																			
Male	661	643	639	660	636	629	625	617	615	619	615	610	617	619	619	623	634	630	
Female	654	644	639	645	628	622	612	605	602	607	604	599	602	608	608	616	621	623	
All	1,315	1,286	1,277	1,306	1,264	1,252	1,237	1,223	1,217	1,226	1,219	1,208	1,220	1,228	1,239	1,255	1,253		
SMiGR: males	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SMiGR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Migrants input																			
<b>Out-migration to Overseas</b>																			
Male	584	565	561	563	552	542	547	539	536	540	536	531	538	541	541	545	556	552	
Female	554	543	538	531	523	515	512	505	502	506	503	498	501	508	507	516	521	523	
All	1,138	1,108	1,099	1,094	1,074	1,057	1,059	1,043	1,038	1,046	1,039	1,028	1,040	1,048	1,047	1,061	1,077	1,075	
SMiGR: males	81.7	78.9	78.3	78.7	77.3	76.2	77.2	76.5	76.6	77.6	77.6	77.3	78.9	79.6	79.9	80.8	82.5	81.9	
SMiGR: females	96.3	94.7	94.2	93.1	92.0	91.2	91.2	90.7	90.9	92.4	92.6	92.5	93.9	95.7	96.0	98.0	99.2	99.8	
Migrants input																			
<b>Migration - Net Flows</b>																			
UK	+115	+148	+191	+208	+268	+318	+370	+411	+451	+473	+485	+505	+512	+524	+553	+586	+598	+617	
Overseas	+176	+178	+178	+212	+190	+195	+179	+179	+179	+180	+180	+180	+180	+179	+179	+178	+178	+178	
<b>Summary of population change</b>																			
Natural change	-460	-231	-197	-203	-204	-200	-198	-206	-228	-252	-274	-307	-343	-382	-425	-471	-513	-556	
Net migration	+291	+326	+370	+419	+457	+513	+549	+590	+630	+652	+665	+685	+692	+704	+733	+764	+777	+795	
Net change	-169	+95	+172	+216	+253	+313	+351	+384	+402	+401	+390	+378	+349	+321	+308	+294	+284	+239	
Crude Birth Rate /000	10.06	10.17	10.20	10.16	10.13	10.15	10.13	10.09	10.03	9.96	9.89	9.80	9.71	9.61	9.52	9.42	9.34	9.26	
Crude Death Rate /000	11.75	11.01	10.92	10.90	10.88	10.88	10.85	10.84	10.86	10.87	10.88	10.91	10.94	10.99	11.05	11.12	11.18	11.25	
Crude Net Migration Rate /000	1.07	1.19	1.35	1.53	1.67	1.87	2.00	2.14	2.29	2.36	2.41	2.48	2.50	2.54	2.64	2.75	2.79	2.85	
<b>Summary of Population estimates/forecasts</b>																			
	Population at mid-year																		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	14,651	14,644	14,670	14,547	14,437	14,417	14,454	14,458	14,446	14,425	14,393	14,339	14,267	14,181	14,085	13,981	13,871	13,760	13,652
5-10	16,812	17,028	17,283	17,678	18,097	18,259	18,279	18,321	18,379	18,289	18,193	18,177	18,211	18,208	18,183	18,145	18,094	18,017	17,922
11-15	15,583	14,952	14,550	14,264	14,093	14,127	14,361	14,634	14,875	15,286	15,540	15,627	15,647	15,706	15,637	15,558	15,535	15,574	15,579
16-17	6,798	6,789	6,637	6,290	6,064	5,881	5,740	5,613	5,614	5,624	5,784	6,020	6,130	6,139	6,268	6,415	6,370	6,258	6,232
18-59Female, 64Male	151,774	151,156	150,498	149,989	149,300	148,455	147,479	146,453	145,436	144,095	142,833	141,515	140,296	139,123	138,066	137,209	136,485	135,762	135,139
60/65- 74	39,026	39,393	40,023	40,650	41,239	41,901	42,421	42,843	43,405	44,138	43,954	44,235	44,860	45,609	46,293	46,851	47,417	47,858	48,211
75-84	21,169	21,469	21,586	21,645	21,640	21,728	22,027	22,394	22,586	22,929	24,094	24,794	25,370	25,870	26,362	26,725	26,972	27,262	27,625
85+	7,894	8,099	8,375	8,733	9,142	9,498	9,818	10,214	10,573	10,930	11,345	11,800	12,102	12,396	12,671	12,979	13,412	13,929	14,298
Total	273,697	273,528	273,624	273,796	274,012	274,266	274,579	274,929	275,314	275,715	276,116	276,506	276,885	277,254	277,555	277,862	278,155	278,419	278,658
<b>Dependency ratios, mean age and sex ratio</b>																			
0-15 / 16-65	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31
65+ / 16-65	0.35	0.36	0.37	0.38	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.52	0.53
0-15 and 65+ / 16																			

Population Estimates and Forecasts

Sefton

NLP

Components of Population Change

Scenario Ai: 2012 SNPP, PCU - Economic Activity Rates Sensitivity

	Year beginning July 1st .....																		
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	
<b>Births</b>																			
Male	1,410	1,425	1,430	1,425	1,422	1,427	1,425	1,422	1,415	1,407	1,399	1,389	1,378	1,366	1,354	1,342	1,331	1,321	
Female	1,343	1,357	1,362	1,357	1,355	1,359	1,358	1,354	1,348	1,340	1,333	1,323	1,312	1,301	1,289	1,278	1,268	1,258	
All Births	2,754	2,782	2,792	2,783	2,777	2,786	2,783	2,776	2,763	2,748	2,732	2,712	2,690	2,666	2,643	2,620	2,599	2,579	
TFR	1.84	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.84	1.84	
Births input																			
<b>Deaths</b>																			
Male	1,521	1,459	1,454	1,448	1,445	1,446	1,448	1,448	1,454	1,461	1,468	1,476	1,486	1,499	1,511	1,523	1,536	1,552	
Female	1,693	1,554	1,534	1,537	1,537	1,540	1,533	1,533	1,537	1,538	1,538	1,543	1,546	1,549	1,557	1,568	1,575	1,583	
All deaths	3,214	3,013	2,989	2,986	2,982	2,986	2,981	2,981	2,991	2,999	3,007	3,019	3,032	3,049	3,068	3,091	3,111	3,135	
SMR: males	116.0	108.9	105.9	102.8	100.0	97.5	95.1	92.7	90.6	88.7	86.8	85.0	83.4	82.0	80.6	79.2	77.9	76.8	
SMR: females	111.3	101.0	97.8	96.1	94.2	92.5	90.2	88.3	86.6	84.8	83.0	81.5	79.9	78.4	77.2	76.0	74.7	73.6	
SMR: persons	113.4	104.7	101.6	99.2	96.9	94.8	92.5	90.4	88.5	86.6	84.8	83.2	81.6	80.2	78.8	77.5	76.2	75.1	
Expectation of life: males	77.8	78.5	78.8	79.2	79.5	79.8	80.1	80.4	80.7	81.0	81.2	81.5	81.7	82.0	82.2	82.4	82.6	82.8	
Expectation of life: females	82.5	83.4	83.7	83.9	84.1	84.4	84.6	84.8	85.0	85.3	85.5	85.7	85.9	86.1	86.3	86.5	86.7	86.8	
Expectation of life: persons	80.3	81.2	81.5	81.7	82.0	82.3	82.5	82.8	83.0	83.3	83.5	83.7	84.0	84.2	84.4	84.6	84.7	84.9	
Deaths input																			
<b>In-migration from the UK</b>																			
Male	3,937	3,947	3,960	3,973	3,983	3,993	4,000	4,005	4,007	4,006	4,004	4,003	4,008	4,017	4,028	4,040	4,053	4,066	
Female	4,033	4,042	4,051	4,057	4,060	4,062	4,062	4,058	4,052	4,043	4,032	4,026	4,028	4,036	4,046	4,060	4,074	4,088	
All	7,970	7,989	8,012	8,030	8,043	8,054	8,062	8,063	8,059	8,049	8,036	8,029	8,036	8,053	8,074	8,100	8,127	8,154	
SMiGR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants input																			
<b>Out-migration to the UK</b>																			
Male	3,850	3,844	3,842	3,846	3,827	3,812	3,798	3,781	3,768	3,751	3,738	3,732	3,746	3,740	3,735	3,731	3,740	3,741	
Female	4,005	3,997	3,979	3,976	3,948	3,924	3,894	3,871	3,840	3,825	3,813	3,791	3,778	3,789	3,786	3,784	3,788	3,797	
All	7,855	7,841	7,821	7,822	7,775	7,736	7,692	7,652	7,608	7,576	7,551	7,524	7,524	7,529	7,520	7,514	7,528	7,537	
SMiGR: males	29.6	29.5	29.5	29.6	29.5	29.5	29.5	29.5	29.5	29.5	29.6	29.6	29.8	29.8	29.8	29.7	29.8	29.7	
SMiGR: females	29.6	29.6	29.6	29.6	29.6	29.5	29.5	29.5	29.4	29.4	29.4	29.4	29.4	29.5	29.5	29.4	29.4	29.4	
Migrants input																			
<b>In-migration from Overseas</b>																			
Male	661	643	639	660	636	629	625	617	615	619	615	610	617	619	619	623	634	630	
Female	654	644	639	645	628	622	612	605	602	607	604	599	602	608	608	616	621	623	
All	1,315	1,286	1,277	1,306	1,264	1,252	1,237	1,223	1,217	1,226	1,219	1,208	1,220	1,228	1,239	1,255	1,253		
SMiGR: males	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SMiGR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Migrants input																			
<b>Out-migration to Overseas</b>																			
Male	584	565	561	563	552	542	547	539	536	540	536	531	538	541	541	545	556	552	
Female	554	543	538	531	523	515	512	505	502	506	503	498	501	508	507	516	521	523	
All	1,138	1,108	1,099	1,094	1,074	1,057	1,059	1,043	1,038	1,046	1,039	1,028	1,040	1,048	1,047	1,061	1,077	1,075	
SMiGR: males	81.7	78.9	78.3	78.7	77.3	76.2	77.2	76.5	76.6	77.6	77.6	77.3	78.9	79.6	79.9	80.8	82.5	81.9	
SMiGR: females	96.3	94.7	94.2	93.1	92.0	91.2	91.2	90.7	90.9	92.4	92.6	92.5	93.9	95.7	96.0	98.0	99.2	99.8	
Migrants input																			
<b>Migration - Net Flows</b>																			
UK	+115	+148	+191	+208	+268	+318	+370	+411	+451	+473	+485	+505	+512	+524	+553	+586	+598	+617	
Overseas	+176	+178	+178	+212	+190	+195	+179	+179	+179	+180	+180	+180	+180	+179	+179	+178	+178	+178	
<b>Summary of population change</b>																			
Natural change	-460	-231	-197	-203	-204	-200	-198	-206	-228	-252	-274	-307	-343	-382	-425	-471	-513	-556	
Net migration	+291	+326	+370	+419	+457	+513	+549	+590	+630	+652	+665	+685	+692	+704	+733	+764	+777	+795	
Net change	-169	+95	+172	+216	+253	+313	+351	+384	+402	+401	+390	+378	+349	+321	+308	+294	+284	+239	
Crude Birth Rate /1000	10.06	10.17	10.20	10.16	10.13	10.15	10.13	10.09	10.03	9.96	9.89	9.80	9.71	9.61	9.52	9.42	9.34	9.26	
Crude Death Rate /1000	11.75	11.01	10.92	10.90	10.88	10.88	10.85	10.84	10.86	10.87	10.88	10.91	10.94	10.99	11.05	11.12	11.18	11.25	
Crude Net Migration Rate /1000	1.07	1.19	1.35	1.53	1.67	1.87	2.00	2.14	2.29	2.36	2.41	2.48	2.50	2.54	2.64	2.75	2.79	2.85	
<b>Summary of Population estimates/forecasts</b>																			
	Population at mid-year																		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	14,651	14,644	14,670	14,547	14,437	14,417	14,454	14,458	14,446	14,425	14,393	14,339	14,267	14,181	14,085	13,981	13,871	13,760	13,652
5-10	16,812	17,028	17,283	17,678	18,097	18,259	18,279	18,321	18,379	18,289	18,193	18,177	18,211	18,208	18,183	18,145	18,094	18,017	17,922
11-15	15,583	14,952	14,550	14,264	14,093	14,127	14,361	14,634	14,875	15,286	15,540	15,627	15,647	15,706	15,637	15,558	15,535	15,579	15,579
16-17	6,798	6,789	6,637	6,290	6,064	5,881	5,740	5,613	5,614	5,624	5,784	6,020	6,130	6,139	6,268	6,415	6,370	6,258	6,232
18-59Female, 64Male	151,774	151,156	150,498	149,989	149,300	148,455	147,479	146,453	145,436	144,095	142,833	141,515	140,296	139,123	138,066	137,209	136,485	135,762	135,139
60/65- 74	39,026	39,393	40,023	40,650	41,239	41,901	42,421	42,843	43,405	44,138	43,954	44,235	44,860	45,609	46,293	46,851	47,417	47,858	48,211
75-84	21,169	21,469	21,586	21,645	21,640	21,728	22,027	22,394	22,586	22,929	24,094	24,794	25,370	25,870	26,362	26,725	26,972	27,262	27,625
85+	7,894	8,099	8,375	8,733	9,142	9,498	9,818	10,214	10,573	10,930	11,345	11,800	12,102	12,396	12,671	12,979	13,412	13,929	14,298
Total	273,697	273,528	273,624	273,796	274,012	274,266	274,579	274,929	275,314	275,715	276,116	276,506	276,885	277,254	277,555	277,862	278,155	278,419	278,658
<b>Dependency ratios, mean age and sex ratio</b>																			
0-15 / 16-65	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31
65+ / 16-65	0.35	0.36	0.37	0.38	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.52	0.53
0-15 and 65+ / 16-65																			

Population Estimates and Forecasts

Sefton

NLP

Components of Population Change

Scenario E: Job Stabilisation - Economic Activity Rates Sensitivity

	Year beginning July 1st .....																		
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	
<b>Births</b>																			
Male	1,410	1,422	1,347	1,343	1,339	1,345	1,347	1,348	1,347	1,348	1,348	1,348	1,347	1,343	1,338	1,332	1,326	1,319	
Female	1,343	1,355	1,283	1,279	1,275	1,281	1,283	1,284	1,283	1,284	1,285	1,284	1,283	1,279	1,274	1,269	1,263	1,256	
All Births	2,754	2,777	2,631	2,622	2,614	2,626	2,630	2,632	2,630	2,632	2,633	2,632	2,629	2,622	2,612	2,601	2,589	2,575	
TFR	1.84	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.84	1.84	
Births input																			
<b>Deaths</b>																			
Male	1,521	1,455	1,432	1,425	1,421	1,422	1,425	1,425	1,431	1,438	1,445	1,453	1,463	1,476	1,486	1,497	1,509	1,524	
Female	1,693	1,551	1,512	1,516	1,516	1,521	1,515	1,518	1,522	1,524	1,529	1,531	1,533	1,539	1,549	1,555	1,555	1,561	
All deaths	3,214	3,006	2,944	2,941	2,937	2,943	2,940	2,942	2,953	2,962	2,974	2,982	2,994	3,009	3,026	3,046	3,064	3,085	
SMR: males	116.0	108.9	105.9	102.8	100.0	97.5	95.1	92.7	90.6	88.7	86.8	85.0	83.4	82.0	80.6	79.2	77.9	76.8	
SMR: females	111.3	101.0	97.8	96.1	94.2	92.5	90.2	88.3	86.6	84.8	83.0	81.5	79.9	78.4	77.2	76.0	74.7	73.6	
SMR: persons	113.4	104.7	101.6	99.2	96.9	94.8	92.5	90.4	88.5	86.6	84.8	83.2	81.6	80.1	78.8	77.5	76.2	75.1	
Expectation of life: males	77.8	78.6	78.9	79.3	79.6	79.9	80.2	80.6	80.8	81.1	81.4	81.6	81.9	82.1	82.3	82.5	82.7	82.9	
Expectation of life: females	82.3	83.4	83.7	83.9	84.2	84.4	84.6	84.9	85.1	85.3	85.6	85.8	86.0	86.2	86.4	86.6	86.8	86.9	
Expectation of life: persons	80.2	81.2	81.5	81.8	82.1	82.3	82.6	82.9	83.1	83.4	83.6	83.9	84.1	84.3	84.5	84.7	84.9	85.1	
Deaths input																			
<b>In-migration from the UK</b>																			
Male	3,867	2,264	4,009	3,976	4,042	4,079	4,078	4,091	4,129	4,120	4,114	4,115	4,069	4,049	4,047	4,038	4,029	4,012	
Female	3,961	2,318	4,101	4,061	4,120	4,149	4,141	4,145	4,176	4,158	4,144	4,138	4,090	4,067	4,066	4,058	4,050	4,034	
All	7,828	4,583	8,111	8,037	8,162	8,228	8,219	8,236	8,306	8,278	8,258	8,252	8,158	8,116	8,113	8,097	8,079	8,047	
SMiGR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants input																			
<b>Out-migration to the UK</b>																			
Male	3,920	5,515	3,793	3,843	3,769	3,727	3,720	3,696	3,646	3,637	3,628	3,621	3,684	3,709	3,715	3,732	3,764	3,794	
Female	4,077	5,733	3,928	3,973	3,887	3,836	3,814	3,783	3,716	3,710	3,700	3,679	3,717	3,757	3,766	3,785	3,812	3,851	
All	7,998	11,248	7,721	7,816	7,656	7,563	7,534	7,479	7,361	7,347	7,329	7,300	7,401	7,466	7,481	7,517	7,576	7,645	
SMoGR: males	30.1	42.3	30.3	30.6	30.1	29.8	29.7	29.6	29.2	29.2	29.1	29.1	29.5	29.7	29.8	29.9	30.1	30.3	
SMoGR: females	30.1	42.4	30.5	30.8	30.3	29.9	29.8	29.7	29.2	29.2	29.1	29.0	29.3	29.6	29.8	29.8	29.9	30.2	
Migrants input																			
<b>In-migration from Overseas</b>																			
Male	387	388	387	406	393	396	386	386	386	386	386	386	386	386	386	386	386	386	
Female	340	341	340	354	345	347	340	340	340	340	340	340	340	340	340	340	340	340	
All	727	729	727	760	738	743	726	726	726	726	726	726	726	726	726	726	726	726	
SMiGR: males	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMiGR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input																			
<b>Out-migration to Overseas</b>																			
Male	309	309	310	309	310	310	310	310	310	310	310	310	310	310	310	310	310	310	
Female	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
All	549	549	550	549	550	550	550	550	550	550	550	550	550	550	550	550	550	550	
SMoGR: males	43.2	43.2	45.2	45.1	45.2	45.1	45.2	45.3	45.3	45.3	45.4	45.5	45.6	45.6	45.7	45.8	45.9	45.9	
SMoGR: females	41.7	41.9	44.2	44.2	44.4	44.5	44.6	44.7	44.9	45.1	45.2	45.4	45.4	45.6	45.7	45.8	45.9	46.0	
Migrants input																			
<b>Migration - Net Flows</b>																			
UK	-170	-6,665	+389	+222	+506	+665	+685	+757	+944	+931	+929	+952	+757	+650	+632	+579	+503	+402	
Overseas	+178	+179	+177	+211	+188	+193	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	
<b>Summary of population change</b>																			
Natural change	-460	-229	-314	-319	-323	-317	-310	-310	-322	-330	-336	-350	-365	-387	-413	-445	-475	-511	
Net migration	+8	-6,486	+566	+433	+694	+858	+861	+933	+1,121	+1,107	+1,106	+1,129	+933	+826	+808	+755	+679	+578	
Net change	-452	-6,715	-252	+114	+371	+541	+551	+623	+798	+777	+770	+779	+569	+440	+359	+310	+264	+67	
Crude Birth Rate /1000	10.07	10.29	9.87	9.83	9.79	9.82	9.81	9.80	9.76	9.74	9.72	9.69	9.65	9.61	9.56	9.51	9.45	9.39	
Crude Death Rate /1000	11.75	11.14	11.04	11.02	11.00	11.00	10.97	10.95	10.96	10.96	10.97	10.99	11.02	11.07	11.13	11.19	11.26		
Crude Net Migration Rate /1000	0.03	-24.03	2.12	1.82	2.60	3.21	3.21	3.47	4.16	4.10	4.08	4.15	3.43	3.03	2.96	2.76	2.48	2.11	
<b>Summary of Population estimates/forecasts</b>																			
	Population at mid-year																		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	14,651	14,622	14,108	13,949	13,800	13,765	13,806	13,766	13,779	13,803	13,825	13,835	13,837	13,817	13,784	13,743	13,689	13,627	13,553
5-10	16,812	17,010	16,898	17,243	17,595	17,700	17,672	17,715	17,721	17,811	17,509	17,502	17,555	17,525	17,519	17,506	17,470	17,418	
11-15	15,583	14,886	14,246	13,980	13,803	13,838	14,060	14,324	14,548	14,927	15,144	15,192	15,170	15,221	15,112	15,008	14,902	14,906	14,951
16-17	6,798	6,620	6,192	5,825	5,611	5,448	5,319	5,206	5,215	5,231	5,363	5,595	5,696	5,704	5,803	5,902	5,825	5,694	5,694
18-59Female, 64Male	151,774	151,190	145,763	145,419	144,751	144,076	143,354	142,550	141,781	140,804	139,891	138,925	138,036	137,048	136,096	135,306	134,558	133,744	132,933
60/65- 74	39,026	39,401	39,729	40,361	40,943	41,603	42,143	42,589	43,195	43,971	44,835	44,150	44,810	45,581	46,279	46,866	47,440	47,864	48,190
75-84	21,169	21,446	21,372	21,416	21,388	21,466	21,754	22,119	22,314	22,666	23,837	24,548	25,133	25,631	26,107	26,456	26,699	26,904	27,364
85+	7,894	8,071	8,223	8,589	9,006	9,373	9,701	10,091	10,430	10,766	11,152	11,581	11,868	12,148	12,408	12,710	13,030	13,333	13,687
Total	273,697	273,245	266,530	266,763	266,697	267,268	267,809	268,360	268,963	269,781	270,556	271,327	272,106	272,675	273,114	273,509	273,820	274,023	274,091
<b>Dependency ratios, mean age and sex ratio</b>																			
0-15 / 16-65	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31
65+ / 16-65	0.35	0.36	0.38	0.38	0.39	0.40	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.50	0.51	0.52	0.54
0-15 and 65+ / 16-65	0.63	0.64	0.66	0.67	0.68	0.69	0.70	0.71	0.73	0.74	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.85	
Median age males	42.3	42.5	43.3	43.5	43.7	43.9	44.0	44.0	43.9	43.8	43.7	43.7	43.8	43.8	43.9	44.0	44.1	44.2	
Median age females	45.3	45.7	46.5	46.8	47.1	47.3	47.6	47.8	48.0	48.2	48.4	48.5	48.5	48.5	48.5	48.5	48.5	48.5	

**Population Estimates and Forecasts**

**Sefton**

**NLP**

**Components of Population Change**

**Scenario H: Blended Job Growth - Economic Activity Rates Sensitivity**

	Year beginning July 1st .....																		
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	
<b>Births</b>																			
Male	1,410	1,458	1,498	1,523	1,530	1,542	1,547	1,550	1,552	1,559	1,564	1,565	1,563	1,556	1,544	1,530	1,515	1,499	
Female	1,343	1,389	1,427	1,451	1,457	1,469	1,474	1,476	1,485	1,489	1,491	1,489	1,482	1,470	1,457	1,443	1,428	1,428	
All Births	2,754	2,847	2,925	2,974	2,987	3,011	3,021	3,026	3,030	3,043	3,053	3,056	3,052	3,038	3,014	2,987	2,958	2,927	
TFR	1.84	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.84	1.84	
Births input																			
<b>Deaths</b>																			
Male	1,521	1,462	1,463	1,460	1,457	1,458	1,461	1,461	1,468	1,478	1,486	1,496	1,508	1,522	1,534	1,547	1,560	1,576	
Female	1,693	1,560	1,548	1,557	1,558	1,562	1,556	1,557	1,562	1,564	1,566	1,572	1,575	1,578	1,584	1,594	1,601	1,608	
All deaths	3,214	3,022	3,011	3,017	3,015	3,020	3,017	3,018	3,029	3,042	3,052	3,068	3,083	3,100	3,119	3,141	3,161	3,184	
SMR: males	116.0	108.9	105.9	102.8	100.0	97.5	95.1	92.7	90.6	88.7	86.8	85.0	83.4	82.0	80.6	79.2	77.9	76.8	
SMR: females	111.3	101.0	97.8	96.1	94.2	92.5	90.2	88.3	86.6	84.8	83.0	81.5	79.9	78.4	77.2	76.0	74.7	73.6	
SMR: persons	113.4	104.7	101.6	99.2	96.9	94.8	92.5	90.4	88.5	86.6	84.8	83.2	81.6	80.1	78.8	77.5	76.2	75.1	
Expectation of life: males	77.8	78.6	78.9	79.3	79.6	79.9	80.2	80.6	80.8	81.1	81.4	81.6	81.9	82.1	82.3	82.5	82.7	82.9	
Expectation of life: females	82.3	83.4	83.7	83.9	84.2	84.4	84.6	84.9	85.1	85.3	85.6	85.8	86.0	86.2	86.4	86.6	86.8	86.9	
Expectation of life: persons	80.2	81.2	81.5	81.8	82.1	82.3	82.6	82.9	83.1	83.4	83.6	83.9	84.1	84.3	84.5	84.7	84.9	85.0	
Deaths input																			
<b>In-migration from the UK</b>																			
Male	4,620	4,637	4,531	4,104	4,083	4,099	4,103	4,189	4,321	4,301	4,297	4,266	4,175	4,111	4,099	4,089	4,081	4,041	
Female	4,733	4,748	4,635	4,192	4,162	4,169	4,167	4,244	4,371	4,341	4,327	4,290	4,196	4,130	4,118	4,110	4,102	4,063	
All	9,352	9,385	9,166	8,295	8,245	8,268	8,270	8,433	8,692	8,642	8,624	8,557	8,371	8,241	8,217	8,198	8,183	8,105	
SMiGR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants input																			
<b>Out-migration to the UK</b>																			
Male	3,173	3,160	3,275	3,716	3,727	3,707	3,695	3,598	3,454	3,457	3,447	3,470	3,579	3,646	3,663	3,682	3,712	3,765	
Female	3,300	3,285	3,391	3,841	3,845	3,816	3,788	3,683	3,521	3,526	3,516	3,525	3,610	3,694	3,714	3,734	3,760	3,821	
All	6,473	6,445	6,666	7,557	7,572	7,523	7,483	7,282	6,975	6,983	6,962	6,995	7,189	7,341	7,377	7,415	7,472	7,587	
SMiGR: males	24.4	23.8	24.3	27.2	27.3	27.1	27.1	26.4	25.4	25.4	25.2	25.3	26.1	26.5	26.6	26.7	26.9	27.2	
SMiGR: females	24.4	23.8	24.2	27.1	27.2	27.1	27.0	26.4	25.3	25.3	25.2	25.2	25.8	26.3	26.4	26.6	26.7	27.1	
Migrants input																			
<b>In-migration from Overseas</b>																			
Male	387	388	387	406	393	396	386	386	386	386	386	386	386	386	386	386	386	386	
Female	340	341	340	354	345	347	340	340	340	340	340	340	340	340	340	340	340	340	
All	727	729	727	760	738	743	726	726	726	726	726	726	726	726	726	726	726	726	
SMiGR: males	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMiGR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input																			
<b>Out-migration to Overseas</b>																			
Male	309	309	310	309	310	310	310	310	310	310	310	310	310	310	310	310	310	310	
Female	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
All	549	549	550	549	550	550	550	550	550	550	550	550	550	550	550	550	550	550	
SMiGR: males	43.2	42.4	41.6	41.0	40.9	40.9	40.9	41.0	41.1	41.1	41.1	41.1	41.1	41.2	41.3	41.4	41.4	41.5	
SMiGR: females	41.7	40.9	40.1	39.5	39.5	39.6	39.7	39.9	40.1	40.1	40.2	40.3	40.4	40.6	40.8	41.0	41.1	41.2	
Migrants input																			
<b>Migration - Net Flows</b>																			
UK	+2,879	+2,940	+2,500	+738	+673	+745	+787	+1,151	+1,717	+1,660	+1,662	+1,562	+1,182	+901	+840	+783	+712	+518	
Overseas	+178	+179	+177	+211	+188	+193	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	
<b>Summary of population change</b>																			
Natural change	-460	-175	-85	-43	-28	-9	+4	+8	+1	+1	+1	-12	-31	-62	-104	-154	-203	-257	
Net migration	+3,057	+3,119	+2,677	+949	+861	+938	+963	+1,327	+1,893	+1,836	+1,838	+1,738	+1,358	+1,077	+1,016	+959	+888	+694	
Net change	+2,597	+2,944	+2,591	+906	+833	+929	+968	+1,335	+1,894	+1,837	+1,839	+1,726	+1,328	+1,014	+912	+805	+685	+437	
Crude Birth Rate /000	10.01	10.25	10.43	10.54	10.55	10.60	10.60	10.58	10.53	10.51	10.47	10.42	10.36	10.26	10.15	10.03	9.91	9.79	
Crude Death Rate /000	11.69	10.88	10.73	10.69	10.65	10.63	10.59	10.55	10.53	10.50	10.47	10.46	10.46	10.48	10.50	10.55	10.59	10.65	
Crude Net Migration Rate /000	11.12	11.23	9.54	3.36	3.04	3.30	3.38	4.64	6.58	6.34	6.31	5.93	4.61	3.64	3.42	3.22	2.97	2.32	
<b>Summary of Population estimates/forecasts</b>																			
<i>Population at mid-year</i>																			
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	14,651	14,865	15,145	15,260	15,264	15,342	15,496	15,603	15,707	15,826	15,926	15,998	16,039	16,029	15,980	15,901	15,796	15,669	15,515
5-10	16,812	17,170	17,593	18,146	18,648	18,900	19,008	19,152	19,339	19,418	19,492	19,651	19,872	20,024	20,122	20,184	20,216	20,203	20,146
11-15	15,583	14,994	14,685	14,488	14,344	14,417	14,484	14,999	15,296	15,800	16,156	16,361	16,485	16,640	16,661	16,685	16,770	16,928	17,036
16-17	6,798	6,696	6,455	6,088	5,849	5,664	5,531	5,421	5,446	5,491	5,655	5,923	6,055	6,094	6,255	6,428	6,408	6,313	6,310
18-59Female, 64Male	151,774	153,392	154,901	156,142	156,888	156,361	154,701	153,968	153,475	153,035	152,630	152,172	151,714	151,037	150,285	149,679	149,146	148,573	147,962
60/65- 74	39,026	39,539	40,316	41,075	41,717	42,424	43,008	43,498	44,163	45,021	44,953	45,348	46,092	46,940	47,707	48,362	49,008	49,503	49,896
75-84	21,169	21,521	21,684	21,769	21,739	21,810	22,096	22,465	22,675	23,057	24,274	25,028	25,652	26,185	26,694	27,073	27,347	27,675	28,075
85+	7,894	8,127	8,460	8,863	9,296	9,651	9,974	10,359	10,700	11,049	11,448	11,891	12,189	12,475	12,736	13,040	13,466	13,978	14,340
Total	273,697	276,294	279,236	281,830	282,736	283,569	284,496	285,466	286,801	288,696	290,533	292,372	294,098	295,425	296,440	297,352	298,157	298,642	299,279
<b>Dependency ratios, mean age and sex ratio</b>																			
0-15 / 16-65	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32
65+ / 16-65	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.49	0.50
0-15 and 65+ / 16-65	0.63	0.64	0.64	0.65	0.65	0.66	0.67	0.69	0.70	0.71	0.72	0.73	0.74	0.75	0.77	0.78	0.79	0.81	0.82
Median age males	42.3	42.3	42.4	42.4	42.5	42.5	42.5	42.5	42.5	42.3	42.2	42.2	42.2	42.2	42.3	42.4	42.5	42.6	42.8
Median age females	45.3	45.4	45.5	45.6	45.8	46.0	46.2	46.4	46.5	46.5	46.5	46.4	46.2	46.1	46.1	46.2	46.3	46.3	46.5
Sex ratio males /100 females	92.0	92.2	92.4	92.6	92.7	92.9	93.0	93.1	93.3	93.4	93.6	93.7	93.9	94.0	94.1	94.2	94.3	94.4	94.5
<b>Population impact of constraint</b>																			
Number of persons	+2,764	+2,792	+2,308	+531	+406	+427	+417	+741	+1,267	+1,187	+1,177	+1,056	+670	+376	+287	+197	+113	-99	
<b>Labour Force</b>																			
Number of Labour Force	131,601																		

**Population Estimates and Forecasts**

**Sefton**

**NLP**

**Components of Population Change**

**Scenario A: 2012 SNPP, 2012 Headship Rates - Unemployment Rates Sensitivity**

	Year beginning July 1st .....																		
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	
<b>Births</b>																			
Male	1,410	1,425	1,430	1,425	1,422	1,427	1,425	1,422	1,415	1,407	1,399	1,389	1,378	1,366	1,354	1,342	1,331	1,321	
Female	1,343	1,357	1,362	1,357	1,355	1,359	1,358	1,354	1,348	1,340	1,333	1,323	1,312	1,301	1,289	1,278	1,268	1,258	
All Births	2,754	2,782	2,792	2,783	2,777	2,786	2,783	2,776	2,763	2,748	2,732	2,712	2,690	2,666	2,643	2,620	2,599	2,579	
TFR	1.84	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.84	1.84	
Births input																			
<b>Deaths</b>																			
Male	1,521	1,459	1,454	1,448	1,445	1,446	1,448	1,448	1,454	1,461	1,468	1,476	1,486	1,499	1,511	1,523	1,536	1,552	
Female	1,693	1,554	1,534	1,537	1,537	1,540	1,533	1,533	1,537	1,538	1,538	1,543	1,546	1,549	1,557	1,568	1,575	1,583	
All deaths	3,214	3,013	2,989	2,986	2,982	2,986	2,981	2,981	2,991	2,999	3,007	3,019	3,032	3,049	3,068	3,091	3,111	3,135	
SMR: males	116.0	108.9	105.9	102.8	100.0	97.5	95.1	92.7	90.6	88.7	86.8	85.0	83.4	82.0	80.6	79.2	77.9	76.8	
SMR: females	111.3	101.0	97.8	96.1	94.2	92.5	90.2	88.3	86.6	84.8	83.0	81.5	79.9	78.4	77.2	76.0	74.7	73.6	
SMR: persons	113.4	104.7	101.6	99.2	96.9	94.8	92.5	90.4	88.5	86.6	84.8	83.2	81.6	80.2	78.8	77.5	76.2	75.1	
Expectation of life: males	77.8	78.5	78.8	79.2	79.5	79.8	80.1	80.4	80.7	81.0	81.2	81.5	81.7	82.0	82.2	82.4	82.6	82.8	
Expectation of life: females	82.5	83.4	83.7	83.9	84.1	84.4	84.6	84.8	85.0	85.3	85.5	85.7	85.9	86.1	86.3	86.5	86.7	86.8	
Expectation of life: persons	80.3	81.2	81.5	81.7	82.0	82.3	82.5	82.8	83.0	83.3	83.5	83.7	84.0	84.2	84.4	84.6	84.7	84.9	
Deaths input																			
<b>In-migration from the UK</b>																			
Male	3,937	3,947	3,960	3,973	3,983	3,993	4,000	4,005	4,007	4,006	4,004	4,003	4,008	4,017	4,028	4,040	4,053	4,066	
Female	4,033	4,042	4,051	4,057	4,060	4,062	4,062	4,058	4,052	4,043	4,032	4,026	4,028	4,036	4,046	4,060	4,074	4,088	
All	7,970	7,989	8,012	8,030	8,043	8,054	8,062	8,063	8,059	8,049	8,036	8,029	8,036	8,053	8,074	8,100	8,127	8,154	
SMiGR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants input																			
<b>Out-migration to the UK</b>																			
Male	3,850	3,844	3,842	3,846	3,827	3,812	3,798	3,781	3,768	3,751	3,738	3,732	3,746	3,740	3,735	3,731	3,740	3,741	
Female	4,005	3,997	3,979	3,976	3,948	3,924	3,894	3,871	3,840	3,825	3,813	3,791	3,778	3,789	3,786	3,784	3,788	3,797	
All	7,855	7,841	7,821	7,822	7,775	7,736	7,692	7,652	7,608	7,576	7,551	7,524	7,524	7,529	7,520	7,514	7,528	7,537	
SMiGR: males	29.6	29.5	29.5	29.6	29.5	29.5	29.5	29.5	29.5	29.5	29.6	29.6	29.8	29.8	29.8	29.7	29.8	29.7	
SMiGR: females	29.6	29.6	29.6	29.6	29.6	29.5	29.5	29.5	29.4	29.4	29.4	29.4	29.4	29.5	29.5	29.4	29.4	29.4	
Migrants input																			
<b>In-migration from Overseas</b>																			
Male	661	643	639	660	636	629	625	617	615	619	615	610	617	619	619	623	634	630	
Female	654	644	639	645	628	622	612	605	602	607	604	599	602	608	608	616	621	623	
All	1,315	1,286	1,277	1,306	1,264	1,252	1,237	1,223	1,217	1,226	1,219	1,208	1,220	1,228	1,227	1,239	1,255	1,253	
SMiGR: males	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMiGR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input																			
<b>Out-migration to Overseas</b>																			
Male	584	565	561	563	552	542	547	539	536	540	536	531	538	541	541	545	556	552	
Female	554	543	538	531	523	515	512	505	502	506	503	498	501	508	507	516	521	523	
All	1,138	1,108	1,099	1,094	1,074	1,057	1,059	1,043	1,038	1,046	1,039	1,028	1,040	1,048	1,047	1,061	1,077	1,075	
SMiGR: males	81.7	78.9	78.3	78.7	77.3	76.2	77.2	76.5	76.6	77.6	77.6	77.3	78.9	79.6	79.9	80.8	82.5	81.9	
SMiGR: females	96.3	94.7	94.2	93.1	92.0	91.2	91.2	90.7	90.9	92.4	92.6	92.5	93.9	95.7	96.0	98.0	99.2	99.8	
Migrants input																			
<b>Migration - Net Flows</b>																			
UK	+115	+148	+191	+208	+268	+318	+370	+411	+451	+473	+485	+505	+512	+524	+553	+586	+598	+617	
Overseas	+176	+178	+178	+212	+190	+195	+179	+179	+179	+180	+180	+180	+180	+179	+179	+178	+178	+178	
<b>Summary of population change</b>																			
Natural change	-460	-231	-197	-203	-204	-200	-198	-206	-228	-252	-274	-307	-343	-382	-425	-471	-513	-556	
Net migration	+291	+326	+370	+419	+457	+513	+549	+590	+630	+652	+665	+685	+692	+704	+733	+764	+777	+795	
Net change	-169	+95	+172	+216	+253	+313	+351	+384	+402	+401	+390	+378	+349	+321	+308	+294	+284	+239	
Crude Birth Rate /000	10.06	10.17	10.20	10.16	10.13	10.15	10.13	10.09	10.03	9.96	9.89	9.80	9.71	9.61	9.52	9.42	9.34	9.26	
Crude Death Rate /000	11.75	11.01	10.92	10.90	10.88	10.88	10.85	10.84	10.86	10.87	10.88	10.91	10.94	10.99	11.05	11.12	11.18	11.25	
Crude Net Migration Rate /000	1.07	1.19	1.35	1.53	1.67	1.87	2.00	2.14	2.29	2.36	2.41	2.48	2.50	2.54	2.64	2.75	2.79	2.85	
<b>Summary of Population estimates/forecasts</b>																			
	Population at mid-year																		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	14,651	14,644	14,670	14,547	14,437	14,417	14,454	14,458	14,446	14,425	14,393	14,339	14,267	14,181	14,085	13,981	13,871	13,760	13,652
5-10	16,812	17,028	17,283	17,678	18,097	18,259	18,279	18,321	18,379	18,289	18,193	18,177	18,211	18,208	18,183	18,145	18,094	18,017	17,922
11-15	15,583	14,952	14,550	14,264	14,093	14,127	14,361	14,634	14,875	15,286	15,540	15,627	15,647	15,706	15,637	15,558	15,535	15,574	15,579
16-17	6,798	6,789	6,637	6,290	6,064	5,881	5,740	5,613	5,614	5,624	5,784	6,020	6,130	6,139	6,268	6,415	6,370	6,258	6,232
18-59Female, 64Male	151,774	151,156	150,498	149,989	149,300	148,455	147,479	146,453	145,436	144,095	142,833	141,515	140,296	139,123	138,066	137,209	136,485	135,762	135,139
60/65- 74	39,026	39,393	40,023	40,650	41,239	41,901	42,421	42,843	43,405	44,138	43,954	44,235	44,860	45,609	46,293	46,851	47,417	47,858	48,211
75-84	21,169	21,469	21,586	21,645	21,640	21,728	22,027	22,394	22,586	22,929	24,094	24,794	25,370	25,870	26,362	26,725	26,972	27,262	27,625
85+	7,894	8,099	8,375	8,733	9,142	9,498	9,818	10,214	10,573	10,930	11,345	11,800	12,102	12,396	12,671	12,979	13,412	13,829	14,298
Total	273,697	273,528	273,624	273,796	274,012	274,266	274,579	274,929	275,314	275,715	276,116	276,506	276,885	277,234	277,555	277,862	278,155	278,419	278,658
<b>Dependency ratios, mean age and sex ratio</b>																			
0-15 / 16-65	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31
65+ / 16-65	0.35	0.36	0.37	0.38	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.45	0.47	0.48	0.49	0		



Population Estimates and Forecasts

Sefton

NLP

Components of Population Change

Scenario Ai: 2012 SNPP, PCU - Unemployment Rates Sensitivity

	Year beginning July 1st .....																		
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	
<b>Births</b>																			
Male	1,410	1,425	1,430	1,425	1,422	1,427	1,425	1,422	1,415	1,407	1,399	1,389	1,378	1,366	1,354	1,342	1,331	1,321	
Female	1,343	1,357	1,362	1,357	1,355	1,359	1,358	1,354	1,348	1,340	1,333	1,323	1,312	1,301	1,289	1,278	1,268	1,258	
All Births	2,754	2,782	2,792	2,783	2,777	2,786	2,783	2,776	2,763	2,748	2,732	2,712	2,690	2,666	2,643	2,620	2,599	2,579	
TFR	1.84	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.84	1.84	
Births input																			
<b>Deaths</b>																			
Male	1,521	1,459	1,454	1,448	1,445	1,446	1,448	1,448	1,454	1,461	1,468	1,476	1,486	1,499	1,511	1,523	1,536	1,552	
Female	1,693	1,554	1,534	1,537	1,537	1,540	1,533	1,533	1,537	1,538	1,538	1,543	1,546	1,549	1,557	1,568	1,575	1,583	
All deaths	3,214	3,013	2,989	2,986	2,982	2,986	2,981	2,981	2,991	2,999	3,007	3,019	3,032	3,049	3,068	3,091	3,111	3,135	
SMR: males	116.0	108.9	105.9	102.8	100.0	97.5	95.1	92.7	90.6	88.7	86.8	85.0	83.4	82.0	80.6	79.2	77.9	76.8	
SMR: females	111.3	101.0	97.8	96.1	94.2	92.5	90.2	88.3	86.6	84.8	83.0	81.5	79.9	78.4	77.2	76.0	74.7	73.6	
SMR: persons	113.4	104.7	101.6	99.2	96.9	94.8	92.5	90.4	88.5	86.6	84.8	83.2	81.6	80.2	78.8	77.5	76.2	75.1	
Expectation of life: males	77.8	78.5	78.8	79.2	79.5	79.8	80.1	80.4	80.7	81.0	81.2	81.5	81.7	82.0	82.2	82.4	82.6	82.8	
Expectation of life: females	82.5	83.4	83.7	83.9	84.1	84.4	84.6	84.8	85.0	85.3	85.5	85.7	85.9	86.1	86.3	86.5	86.7	86.8	
Expectation of life: persons	80.3	81.2	81.5	81.7	82.0	82.3	82.5	82.8	83.0	83.3	83.5	83.7	84.0	84.2	84.4	84.6	84.7	84.9	
Deaths input																			
<b>In-migration from the UK</b>																			
Male	3,937	3,947	3,960	3,973	3,983	3,993	4,000	4,005	4,007	4,006	4,004	4,003	4,008	4,017	4,028	4,040	4,053	4,066	
Female	4,033	4,042	4,051	4,057	4,060	4,062	4,062	4,058	4,052	4,043	4,032	4,026	4,028	4,036	4,046	4,060	4,074	4,088	
All	7,970	7,989	8,012	8,030	8,043	8,054	8,062	8,063	8,059	8,049	8,036	8,029	8,036	8,053	8,076	8,100	8,127	8,154	
SMiGR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants input																			
<b>Out-migration to the UK</b>																			
Male	3,850	3,844	3,842	3,846	3,827	3,812	3,798	3,781	3,768	3,751	3,738	3,732	3,746	3,740	3,735	3,731	3,740	3,741	
Female	4,005	3,997	3,979	3,976	3,948	3,924	3,894	3,871	3,840	3,825	3,813	3,791	3,778	3,789	3,786	3,784	3,788	3,797	
All	7,855	7,841	7,821	7,822	7,775	7,736	7,692	7,652	7,608	7,576	7,551	7,524	7,524	7,529	7,520	7,514	7,528	7,537	
SMiGR: males	29.6	29.5	29.5	29.6	29.5	29.5	29.5	29.5	29.5	29.5	29.6	29.6	29.8	29.8	29.8	29.7	29.8	29.7	
SMiGR: females	29.6	29.6	29.6	29.6	29.6	29.5	29.5	29.5	29.4	29.4	29.4	29.4	29.4	29.5	29.5	29.4	29.4	29.4	
Migrants input																			
<b>In-migration from Overseas</b>																			
Male	661	643	639	660	636	629	625	617	615	619	615	610	617	619	619	623	634	630	
Female	654	644	639	645	628	622	612	605	602	607	604	599	602	608	608	616	621	623	
All	1,315	1,286	1,277	1,306	1,264	1,252	1,237	1,223	1,217	1,226	1,219	1,208	1,220	1,228	1,239	1,255	1,253		
SMiGR: males	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SMiGR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Migrants input																			
<b>Out-migration to Overseas</b>																			
Male	584	565	561	563	552	542	547	539	536	540	536	531	538	541	541	545	556	552	
Female	554	543	538	531	523	515	512	505	502	506	503	498	501	508	507	516	521	523	
All	1,138	1,108	1,099	1,094	1,074	1,057	1,059	1,043	1,038	1,046	1,039	1,028	1,040	1,048	1,047	1,061	1,077	1,075	
SMiGR: males	81.7	78.9	78.3	78.7	77.3	76.2	77.2	76.5	76.6	77.6	77.6	77.3	78.9	79.6	79.9	80.8	82.5	81.9	
SMiGR: females	96.3	94.7	94.2	93.1	92.0	91.2	91.2	90.7	90.9	92.4	92.6	92.5	93.9	95.7	96.0	98.0	99.2	99.8	
Migrants input																			
<b>Migration - Net Flows</b>																			
UK	+115	+148	+191	+208	+268	+318	+370	+411	+451	+473	+485	+505	+512	+524	+553	+586	+598	+617	
Overseas	+176	+178	+178	+212	+190	+195	+179	+179	+179	+180	+180	+180	+180	+179	+179	+178	+178	+178	
<b>Summary of population change</b>																			
Natural change	-460	-231	-197	-203	-204	-200	-198	-206	-228	-252	-274	-307	-343	-382	-425	-471	-513	-556	
Net migration	+291	+326	+370	+419	+457	+513	+549	+590	+630	+652	+665	+685	+692	+704	+733	+764	+777	+795	
Net change	-169	+95	+172	+216	+253	+313	+351	+384	+402	+401	+390	+378	+349	+321	+308	+294	+284	+239	
Crude Birth Rate /000	10.06	10.17	10.20	10.16	10.13	10.15	10.13	10.09	10.03	9.96	9.89	9.80	9.71	9.61	9.52	9.42	9.34	9.26	
Crude Death Rate /000	11.75	11.01	10.92	10.90	10.88	10.88	10.85	10.84	10.86	10.87	10.88	10.91	10.94	10.99	11.05	11.12	11.18	11.25	
Crude Net Migration Rate /000	1.07	1.19	1.35	1.53	1.67	1.87	2.00	2.14	2.29	2.36	2.41	2.48	2.50	2.54	2.64	2.75	2.79	2.85	
<b>Summary of Population estimates/forecasts</b>																			
	Population at mid-year																		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	14,651	14,644	14,670	14,547	14,437	14,417	14,454	14,458	14,446	14,425	14,393	14,339	14,267	14,181	14,085	13,981	13,871	13,760	13,652
5-10	16,812	17,028	17,283	17,678	18,097	18,259	18,279	18,321	18,379	18,289	18,193	18,177	18,211	18,208	18,183	18,145	18,094	18,017	17,922
11-15	15,583	14,952	14,550	14,264	14,093	14,127	14,361	14,634	14,875	15,286	15,540	15,627	15,647	15,706	15,637	15,558	15,535	15,579	15,579
16-17	6,798	6,789	6,637	6,290	6,064	5,881	5,740	5,613	5,614	5,624	5,784	6,020	6,130	6,139	6,268	6,415	6,370	6,258	6,232
18-59Female, 64Male	151,774	151,156	150,498	149,989	149,300	148,455	147,479	146,453	145,436	144,095	142,833	141,515	140,296	139,123	138,066	137,209	136,485	135,762	135,139
60/65- 74	39,026	39,393	40,023	40,650	41,239	41,901	42,421	42,843	43,405	44,138	43,954	44,235	44,860	45,609	46,283	46,851	47,417	47,858	48,211
75-84	21,169	21,469	21,586	21,645	21,640	21,728	22,027	22,394	22,586	22,929	24,094	24,794	25,370	25,870	26,362	26,725	26,972	27,262	27,625
85+	7,894	8,099	8,375	8,733	9,142	9,498	9,818	10,214	10,573	10,930	11,345	11,800	12,102	12,396	12,671	12,979	13,412	13,929	14,298
Total	273,697	273,528	273,624	273,796	274,012	274,266	274,579	274,929	275,314	275,715	276,116	276,506	276,885	277,234	277,555	277,862	278,155	278,419	278,658
<b>Dependency ratios, mean age and sex ratio</b>																			
0-15 / 16-65	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31
65+ / 16-65	0.35	0.36	0.37	0.38	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.45	0.47	0.48	0.49	0.50	0.52	0.53
0-15 and 65+ / 16-65	0																		

Population Estimates and Forecasts

Sefton

NLP

Components of Population Change

Scenario E: Job Stabilisation - Unemployment Rates Sensitivity

	Year beginning July 1st .....																		
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	
<b>Births</b>																			
Male	1,410	1,422	1,347	1,343	1,341	1,349	1,354	1,353	1,351	1,356	1,362	1,366	1,370	1,373	1,375	1,373	1,369	1,368	
Female	1,343	1,355	1,283	1,279	1,277	1,285	1,289	1,288	1,287	1,291	1,297	1,301	1,305	1,308	1,310	1,307	1,304	1,303	
All Births	2,754	2,777	2,631	2,622	2,618	2,634	2,643	2,641	2,638	2,647	2,658	2,667	2,676	2,681	2,685	2,680	2,672	2,671	
TFR	1.84	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.84	
Births input																			
<b>Deaths</b>																			
Male	1,521	1,455	1,432	1,425	1,421	1,423	1,426	1,426	1,431	1,440	1,448	1,457	1,468	1,482	1,494	1,506	1,518	1,535	
Female	1,693	1,551	1,512	1,516	1,517	1,522	1,517	1,519	1,523	1,525	1,527	1,533	1,536	1,540	1,548	1,559	1,565	1,573	
All deaths	3,214	3,006	2,944	2,941	2,938	2,945	2,943	2,944	2,954	2,965	2,975	2,989	3,004	3,022	3,043	3,065	3,084	3,108	
SMR: males	116.0	108.9	105.9	102.8	100.0	97.5	95.1	92.7	90.6	88.7	86.8	85.0	83.4	82.0	80.6	79.2	77.9	76.8	
SMR: females	111.3	101.0	97.8	96.1	94.2	92.5	90.2	88.3	86.6	84.8	83.0	81.5	79.9	78.4	77.2	76.0	74.7	73.6	
SMR: persons	113.4	104.7	101.6	99.2	96.9	94.8	92.5	90.4	88.5	86.6	84.8	83.2	81.6	80.1	78.8	77.5	76.2	75.1	
Expectation of life: males	77.8	78.6	78.9	79.3	79.6	79.9	80.2	80.6	80.8	81.1	81.4	81.6	81.9	82.1	82.3	82.5	82.7	82.9	
Expectation of life: females	82.3	83.4	83.7	83.9	84.2	84.4	84.6	84.9	85.1	85.3	85.6	85.8	86.0	86.2	86.4	86.6	86.8	86.9	
Expectation of life: persons	80.2	81.2	81.5	81.8	82.1	82.3	82.6	82.9	83.1	83.4	83.6	83.9	84.1	84.3	84.5	84.7	84.9	85.1	
Deaths input																			
<b>In-migration from the UK</b>																			
Male	3,867	2,264	4,009	4,015	4,082	4,126	4,044	4,068	4,212	4,231	4,229	4,236	4,211	4,204	4,108	4,100	4,191	4,163	
Female	3,961	2,318	4,101	4,101	4,161	4,197	4,107	4,122	4,260	4,269	4,259	4,260	4,232	4,223	4,127	4,121	4,213	4,185	
All	7,828	4,583	8,111	8,116	8,243	8,324	8,151	8,190	8,472	8,500	8,488	8,496	8,443	8,428	8,235	8,221	8,404	8,348	
SMiGR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants input																			
<b>Out-migration to the UK</b>																			
Male	3,920	5,515	3,793	3,804	3,729	3,679	3,754	3,718	3,563	3,527	3,514	3,500	3,543	3,554	3,655	3,670	3,602	3,644	
Female	4,077	5,733	3,928	3,932	3,846	3,787	3,849	3,806	3,632	3,597	3,584	3,556	3,574	3,600	3,705	3,722	3,649	3,699	
All	7,998	11,248	7,722	7,736	7,575	7,467	7,603	7,524	7,195	7,125	7,099	7,056	7,116	7,154	7,359	7,392	7,251	7,343	
SMoGR: males	30.1	42.3	30.3	30.3	29.7	29.3	29.9	29.7	28.5	28.2	28.0	27.9	28.1	28.1	28.8	28.8	28.2	28.4	
SMoGR: females	30.1	42.4	30.5	30.5	29.9	29.5	30.0	29.8	28.5	28.2	28.0	27.8	27.8	27.9	28.6	28.7	28.0	28.3	
Migrants input																			
<b>In-migration from Overseas</b>																			
Male	387	388	387	406	393	396	386	386	386	386	386	386	386	386	386	386	386	386	
Female	340	341	340	354	345	347	340	340	340	340	340	340	340	340	340	340	340	340	
All	727	729	727	760	738	743	726	726	726	726	726	726	726	726	726	726	726	726	
SMiGR: males	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMiGR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input																			
<b>Out-migration to Overseas</b>																			
Male	309	309	310	309	310	310	310	310	310	310	310	310	310	310	310	310	310	310	
Female	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
All	549	549	550	549	550	550	550	550	550	550	550	550	550	550	550	550	550	550	
SMoGR: males	43.2	43.2	45.2	45.1	45.1	45.1	45.0	45.1	45.2	45.1	45.1	45.1	45.0	44.9	44.8	44.8	44.8	44.7	
SMoGR: females	41.7	41.9	44.2	44.2	44.4	44.4	44.4	44.6	44.8	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.8	44.8	
Migrants input																			
<b>Migration - Net Flows</b>																			
UK	-170	-6,665	+389	+380	+668	+857	+548	+666	+1,277	+1,375	+1,389	+1,440	+1,327	+1,273	+876	+829	+1,153	+1,005	
Overseas	+178	+179	+177	+211	+188	+193	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	
<b>Summary of population change</b>																			
Natural change	-460	-229	-314	-319	-320	-311	-300	-303	-316	-319	-317	-322	-329	-341	-357	-385	-411	-437	
Net migration	+8	-6,486	+566	+591	+856	+1,050	+724	+842	+1,454	+1,551	+1,565	+1,617	+1,503	+1,450	+1,052	+1,005	+1,329	+1,181	
Net change	-452	-6,715	-252	+272	+536	+739	+424	+540	+1,137	+1,233	+1,249	+1,294	+1,174	+1,109	+695	+621	+918	+744	
Crude Birth Rate /000	10.07	10.29	9.87	9.82	9.79	9.83	9.84	9.82	9.77	9.76	9.76	9.75	9.74	9.72	9.70	9.66	9.60	9.57	
Crude Death Rate /000	11.75	11.14	11.04	11.02	10.99	10.99	10.96	10.94	10.95	10.94	10.93	10.93	10.93	10.93	10.95	10.99	11.04	11.08	
Crude Net Migration Rate /000	0.03	-24.03	2.12	2.21	3.20	3.92	2.70	3.13	5.39	5.72	5.75	5.91	5.47	5.25	3.80	3.62	4.78	4.23	
<b>Summary of Population estimates/forecasts</b>																			
	Population at mid-year																		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	14,651	14,622	14,108	13,949	13,812	13,792	13,850	13,804	13,811	13,864	13,927	13,981	14,030	14,064	14,095	14,089	14,069	14,070	14,056
5-10	16,812	17,010	16,898	17,243	17,604	17,719	17,704	17,743	17,747	17,859	17,887	17,913	17,907	17,926	17,979	17,810	17,836	17,865	17,874
11-15	15,583	14,886	14,246	13,980	13,808	13,849	14,078	14,338	14,560	14,953	15,188	15,255	15,256	15,334	15,256	15,168	15,151	15,212	15,205
16-17	6,798	6,620	6,192	5,825	5,614	5,454	5,328	5,211	5,218	5,241	5,381	5,622	5,732	5,750	5,859	5,963	5,889	5,772	5,786
18-59Female, 64Male	151,774	151,190	145,763	145,419	144,884	144,306	143,722	142,822	141,990	141,247	140,645	140,000	139,452	138,861	138,343	137,726	137,155	136,792	136,402
60/65- 74	39,026	39,401	39,729	40,361	40,951	41,619	42,169	42,609	43,212	44,005	43,893	44,233	44,923	45,729	46,468	47,077	47,675	48,145	48,516
75-84	21,169	21,446	21,372	21,416	21,392	21,474	21,767	22,128	22,320	22,681	23,866	24,591	25,190	25,705	26,201	26,557	26,807	27,124	27,514
85+	7,894	8,071	8,223	8,589	9,009	9,379	9,711	10,098	10,435	10,780	11,176	11,617	11,916	12,211	12,487	12,795	13,221	13,743	14,115
Total	273,697	273,245	266,530	266,763	267,054	267,591	268,330	268,753	269,293	270,430	271,663	272,912	274,206	275,380	276,489	277,183	277,804	278,722	279,466
<b>Dependency ratios, mean age and sex ratio</b>																			
0-15 / 16-65	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31
65+ / 16-65	0.35	0.36	0.38	0.38	0.39	0.40	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.50	0.52	0.53
0-15 and 65+ / 16-65																			

**Population Estimates and Forecasts**

**Sefton**

**NLP**

**Components of Population Change**

**Scenario H: Blended Job Growth - Unemployment Rates Sensitivity**

	Year beginning July 1st .....																		
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	
<b>Births</b>																			
Male	1,410	1,458	1,498	1,523	1,532	1,546	1,554	1,555	1,556	1,566	1,576	1,583	1,587	1,585	1,581	1,569	1,557	1,548	
Female	1,343	1,389	1,427	1,451	1,459	1,473	1,480	1,481	1,482	1,492	1,501	1,507	1,511	1,510	1,505	1,495	1,483	1,474	
All Births	2,754	2,847	2,925	2,974	2,991	3,019	3,034	3,035	3,038	3,058	3,077	3,090	3,098	3,095	3,086	3,064	3,039	3,021	
TFR	1.84	1.86	1.86	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.84	1.84	1.84	1.84	
Births input																			
<b>Deaths</b>																			
Male	1,521	1,462	1,463	1,460	1,457	1,459	1,462	1,462	1,468	1,479	1,489	1,500	1,513	1,529	1,542	1,555	1,569	1,587	
Female	1,693	1,560	1,548	1,557	1,558	1,563	1,557	1,558	1,562	1,566	1,569	1,576	1,580	1,585	1,593	1,604	1,611	1,619	
All deaths	3,214	3,022	3,011	3,017	3,015	3,022	3,020	3,020	3,031	3,045	3,058	3,076	3,093	3,113	3,135	3,159	3,179	3,206	
SMR: males	116.0	108.9	105.9	102.8	100.0	97.5	95.1	92.7	90.6	88.7	86.8	85.0	83.4	82.0	80.6	79.2	77.9	76.8	
SMR: females	111.3	101.0	97.8	96.1	94.2	92.5	90.2	88.3	86.6	84.8	83.0	81.5	79.9	78.4	77.2	76.0	74.7	73.6	
SMR: persons	113.4	104.7	101.6	99.2	96.9	94.8	92.5	90.4	88.5	86.6	84.8	83.2	81.6	80.1	78.8	77.5	76.2	75.1	
Expectation of life: males	77.8	78.6	78.9	79.3	79.6	79.9	80.2	80.6	80.8	81.1	81.4	81.6	81.9	82.1	82.3	82.5	82.7	82.9	
Expectation of life: females	82.3	83.4	83.7	83.9	84.2	84.4	84.6	84.9	85.1	85.3	85.6	85.8	86.0	86.2	86.4	86.6	86.8	86.9	
Expectation of life: persons	80.2	81.2	81.5	81.8	82.1	82.3	82.6	82.9	83.1	83.4	83.6	83.9	84.1	84.3	84.5	84.7	84.9	85.0	
Deaths input																			
<b>In-migration from the UK</b>																			
Male	4,620	4,637	4,531	4,144	4,124	4,147	4,068	4,164	4,400	4,409	4,408	4,386	4,315	4,266	4,157	4,148	4,244	4,192	
Female	4,733	4,748	4,635	4,232	4,204	4,218	4,130	4,219	4,450	4,449	4,439	4,410	4,337	4,285	4,176	4,169	4,266	4,214	
All	9,352	9,385	9,166	8,376	8,328	8,365	8,198	8,383	8,850	8,858	8,848	8,796	8,653	8,551	8,332	8,316	8,509	8,406	
SMiGR: males	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
SMiGR: females	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Migrants input																			
<b>Out-migration to the UK</b>																			
Male	3,173	3,160	3,275	3,676	3,687	3,659	3,730	3,623	3,376	3,350	3,336	3,352	3,438	3,492	3,606	3,623	3,550	3,615	
Female	3,300	3,285	3,391	3,800	3,803	3,766	3,825	3,708	3,441	3,416	3,403	3,405	3,469	3,538	3,656	3,675	3,596	3,670	
All	6,473	6,445	6,666	7,476	7,490	7,425	7,555	7,331	6,817	6,766	6,739	6,756	6,907	7,030	7,262	7,298	7,146	7,285	
SMiGR: males	24.4	23.8	24.3	26.9	26.9	26.7	27.3	26.6	24.8	24.5	24.3	24.3	24.8	25.1	25.8	25.9	25.3	25.6	
SMiGR: females	24.4	23.8	24.2	26.8	26.9	26.7	27.2	26.5	24.7	24.4	24.2	24.1	24.5	24.9	25.6	25.7	25.1	25.5	
Migrants input																			
<b>In-migration from Overseas</b>																			
Male	387	388	387	406	393	396	386	386	386	386	386	386	386	386	386	386	386	386	
Female	340	341	340	354	345	347	340	340	340	340	340	340	340	340	340	340	340	340	
All	727	729	727	760	738	743	726	726	726	726	726	726	726	726	726	726	726	726	
SMiGR: males	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SMiGR: females	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Migrants input																			
<b>Out-migration to Overseas</b>																			
Male	309	309	310	309	310	310	310	310	310	310	310	310	310	310	310	310	310	310	
Female	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
All	549	549	550	549	550	550	550	550	550	550	550	550	550	550	550	550	550	550	
SMiGR: males	43.2	42.4	41.6	41.0	40.9	40.8	40.8	40.9	41.0	40.9	40.8	40.7	40.6	40.6	40.5	40.6	40.6	40.5	
SMiGR: females	41.7	40.9	40.1	39.5	39.4	39.5	39.6	39.8	40.0	40.0	39.9	39.9	39.9	39.9	40.1	40.1	40.2	40.1	
Migrants input																			
<b>Migration - Net Flows</b>																			
UK	+2,879	+2,940	+2,500	+900	+839	+941	+643	+1,052	+2,034	+2,092	+2,109	+2,040	+1,746	+1,521	+1,071	+1,018	+1,364	+1,121	
Overseas	+178	+179	+177	+211	+188	+193	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	+176	
<b>Summary of population change</b>																			
Natural change	-460	-175	-85	-43	-25	-3	+14	+15	+7	+13	+19	+15	+4	-18	-49	-95	-140	-185	
Net migration	+3,057	+3,119	+2,677	+1,111	+1,027	+1,134	+819	+1,228	+2,210	+2,268	+2,285	+2,216	+1,922	+1,697	+1,247	+1,195	+1,540	+1,297	
Net change	+2,597	+2,944	+2,591	+1,068	+1,002	+1,130	+833	+1,244	+2,217	+2,281	+2,304	+2,231	+1,926	+1,679	+1,197	+1,100	+1,400	+1,112	
Crude Birth Rate /000	10.01	10.25	10.43	10.53	10.55	10.61	10.63	10.60	10.54	10.53	10.51	10.47	10.43	10.36	10.27	10.16	10.04	9.94	
Crude Death Rate /000	11.69	10.88	10.73	10.69	10.64	10.62	10.58	10.54	10.52	10.48	10.44	10.42	10.41	10.42	10.44	10.48	10.50	10.55	
Crude Net Migration Rate /000	11.12	11.23	9.54	3.93	3.62	3.98	2.87	4.29	7.67	7.81	7.80	7.51	6.47	5.68	4.15	3.96	5.09	4.27	
<b>Summary of Population estimates/forecasts</b>																			
<i>Population at mid-year</i>																			
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
0-4	14,651	14,865	15,145	15,260	15,277	15,369	15,542	15,642	15,740	15,887	16,025	16,141	16,227	16,271	16,294	16,239	16,166	16,102	16,007
5-10	16,812	17,170	17,593	18,146	18,657	19,200	19,041	19,180	19,365	19,464	19,567	19,759	20,020	20,220	20,371	20,468	20,538	20,589	20,593
11-15	15,583	14,994	14,685	14,488	14,350	14,429	14,703	15,013	15,307	15,825	16,198	16,422	16,568	16,751	16,802	16,842	16,945	17,139	17,286
16-17	6,798	6,696	6,455	6,088	5,852	5,670	5,540	5,426	5,449	5,501	5,673	5,949	6,089	6,139	6,310	6,487	6,471	6,389	6,400
18-59Female, 64Male	151,774	153,392	154,901	156,142	156,005	155,597	155,077	154,243	153,680	153,462	153,359	153,214	153,090	152,807	152,486	152,043	151,677	151,556	151,366
60/65- 74	39,026	39,539	40,316	41,075	41,725	42,440	43,034	43,518	44,179	45,054	45,009	45,429	46,202	47,084	47,892	48,568	49,236	49,777	50,215
75-84	21,169	21,521	21,684	21,769	21,743	21,818	22,109	22,474	22,681	23,071	24,302	25,069	25,707	26,257	26,786	27,172	27,452	27,802	28,222
85+	7,894	8,127	8,460	8,863	9,290	9,658	9,985	10,367	10,705	11,061	11,471	11,926	12,236	12,536	12,813	13,123	13,555	14,086	14,465
Total	273,697	276,294	279,236	281,830	282,696	283,900	285,030	285,863	287,107	289,324	291,604	293,906	296,139	298,065	299,745	300,942	302,042	303,441	304,554
<b>Dependency ratios, mean age and sex ratio</b>																			
0-15 / 16-65	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32
65+ / 16-65	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.40	0.41	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49
0-15 and 65+ / 16-65	0.63	0.64	0.64	0.65	0.65	0.66	0.67	0.69	0.70	0.71	0.72	0.73	0.74	0.75	0.76	0.77	0.79	0.80	0.81
Median age males	42.3	42.3	42.4	42.4	42.5	42.5	42.5	42.5	42.4	42.2	42.1	42.0	42.0	42.0	42.1	42.1	42.3	42.4	42.5
Median age females	45.3	45.4	45.5	45.6	45.8	46.0	46.2	46.3	46.5	46.5	46.4	46.3	46.0	45.9	45.9	45.9	45.9	45.9	46.0
Sex ratio males /100 females	92.0	92.2	92.4	92.6	92.7	92.9	93.0	93.2	93.3	93.5	93.6	93.8	93.9	94.0	94.1	94.3	94.4	94.5	94.5
<b>Population impact of constraint</b>																			
Number of persons	+2,764	+2,792	+2,308	+693	+571	+622	+273	+641	+1,583	+1,619	+1,623	+1,535	+1,234	+997	+517	+433	+765	+504	
<																			