



Briefing Note

Our ref 41343/MW/CRo
Date 16 January 2014
To Ribble Valley Local Plan EiP
From NLP

Subject **PopGroup Modelling Output Sheets**

1.0 **Introduction**

1.1 During the Matter 3 Hearing Session debate on Wednesday 15th January, reference was made to the process by which NLP had arrived at the Objectively Assessed Need [OAN] for housing in Ribble Valley Borough. In particular, how the figure of 250 dwellings per annum [dpa], subsequently taken forward by Ribble Valley Borough Council [RVBC] in their Submission Draft Core Strategy, was evidenced.

1.2 Four demographic PopGroup modelling output sheets were produced by NLP and submitted to the EiP as Appendix 1 to the Updated Housing Needs report 2013 (*Post 5.8*). However, no equivalent output sheets setting out the equivalent 250 dpa figure were provided. These sheets are attached to this note alongside a brief explanation of the modelling results in order to provide further assistance to the Inspector.

2.0 **Overview**

2.1 The debate during the morning session of the Matter 3 debate on 15th January centred around the derivation of the OAN for housing in Ribble Valley. There appeared to be a general agreement that without any mitigation, a growth target of around 100 jobs per annum would require around 280 dpa. At the Hearing Session, NLP confirmed that if the Council were to pursue a figure significantly lower than 280 dpa, whilst also planning for annual job growth of 100 jobs per annum to 2028, it would need to suggest appropriate measures in its Core Strategy outlining how it would mitigate or avoid the adverse housing, economic and other outcomes. Nevertheless, NLP also noted that if the Council could demonstrably mitigate the adverse impacts, then 250 dpa (which is around 10% lower than the 280 dpa figure) could be appropriate at the top end of the OAN range.

2.2 The Inspector queried why 250 dpa could be considered an appropriate 'hybrid' figure in the context of an OAN of up to 280 dpa and job growth of 1,600, and how this had been formulated. Given the Inspector's line of questioning it was felt appropriate to provide him with further information outlining how this figure

was derived. It is relevant to note that NLP did not have the modelled scenarios at the session, as this had not been explicitly raised in the representations. NLP was keen to avoid misleading the Inspector without having the relevant evidence to hand. This short note therefore seeks to provide that background information to provide further assistance to the Inspector.

- 2.3 At the time of preparing the Updated Housing Needs Report, the Council's ELR was also in the process of preparation. NLP was informed by RVBC that a key plank of the ELR and subsequent Local Plan would involve decreasing the level of net out commuting, providing a better match between skills and jobs in the Borough and bring empty homes back into use. These policy measures could have the effect of reducing the level of new homes needed to meet demand (i.e. the OAN).
- 2.4 NLP considered that it would be reasonable to model a modest decrease in net out commuting of around 3% as a measure of the overall success of that policy. 3% was used because it was considered that this was broadly the level that could be justified. A more severe reduction could require very substantial mitigation, which could be difficult to achieve in an area such as Ribble Valley, which presently lacks the major urban centres and commensurate employment areas (the Salmesbury Enterprise Zone notwithstanding) of nearby Boroughs.

3.0 **Results**

- 3.1 The results of the model runs are displayed in Table 3.1, with the accompanying PopGroup output sheets attached in Appendix A. Scenarios I and L are reproduced from Appendix 1 of the Updated Housing Needs report 2013 (*Post 5.8*). As the model runs all apply the same basic assumptions and data inputs (with the only modification being the constraint on future housing delivery and reduction in net out commuting), it is unsurprising that they display a clear progression, with the higher levels of housing growth increasing the level of population, household, and job growth accordingly.
- 3.2 The Table demonstrates that without mitigation, the provision of around 250 dpa could result in an increase in jobs equal to around 910, which represents a reduction in the 100 jobs per annum necessary to align fully with the ELR.
- 3.3 However, the table further indicates that with mitigation (in this example by gradually reducing the level of net out-commuting by around 3% by 2028, although other measures, such as bringing empty homes back into use, could have a similar effect), then a dwelling requirement of 245 dpa could potentially be justified whilst also sustaining around 100 jobs per annum.
- 3.4 NLP applied an element of judgement to the figures on the grounds that this could potentially over-estimate the success of such a measure.

Table 3.1 Summary of Ribble Valley Model Runs (incorporating 250 dpa with and without mitigation) 2011-28

2011-28	Scenario I: 2011-based CLG (Interim) H'hold Projections 2011-28	Scenario L: ELR Job growth	Implications of 250 dpa (without mitigation)	Implications of c.250 dpa (with mitigation)
Population Change	5,596	8,738	7,330	7,106
of which Natural Change	-1,881	-1,124	-1,278	-1,298
of which Net Migration	7,477	9,862	8,609	8,404
Household Change	3,603	4,553	4,066	3,990
Dwelling Change	3,761	4,753	4,244	4,165
Dwellings p.a.	221	280	250	245
Economic Activity	33	1,670	868	739
Jobs	96	1,700	914	1,698

Source: NLP Analysis Using PopGroup

- 3.5 It was NLP's judgement that if an appropriate form of mitigation were applied, in this case a reduction in net out-commuting but also potentially through other policy initiatives such as the reduction of vacancy rates through targeted empty homes programmes (which was not modelled), then a figure closer to 250 dpa would be appropriate. This figure is also close to the CLG 2008-based household projections (Scenario D) which envisages a more rapid level of household formation in the short-to-medium term.

HEaDROOM Modelling Results

Population Estimates and Forecasts

Scenario I: PopGroup Baseline 2011-based CLG Household Projections

Components of Population Change

Ribble Valley

	Year beginning July 1st.....																							
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Births																								
Male	266	267	267	265	265	265	264	263	262	261	259	258	258	257	257	256	257	259	260	262	266	270	276	282
Female	253	254	255	252	253	253	251	250	249	248	247	246	246	245	244	244	245	246	248	250	253	257	262	269
All Births	519	521	522	517	518	517	515	513	511	509	506	505	504	502	501	501	502	505	508	512	519	527	538	551
TFR	1.95	1.97	1.97	1.93	1.92	1.90	1.88	1.86	1.85	1.84	1.83	1.82	1.82	1.81	1.80	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	
Deaths input																								
Deaths																								
Male	283	283	290	293	291	294	298	302	305	308	312	316	320	325	328	334	338	343	349	354	359	364	370	376
Female	303	304	307	309	305	305	306	308	309	310	312	316	320	324	330	335	340	345	351	358	363	370	377	383
All deaths	586	586	597	602	596	599	604	610	614	618	624	632	640	649	658	669	678	688	700	712	722	734	747	759
SMR: males	102.2	99.4	98.9	97.2	93.8	92.0	90.4	88.8	87.0	85.3	83.8	82.3	80.9	79.5	78.2	77.1	76.0	74.9	74.1	73.2	72.4	71.5	70.9	70.3
SMR: females	100.8	98.6	97.2	95.8	92.4	90.3	88.6	87.0	85.0	82.9	81.1	79.7	78.2	77.1	76.0	74.9	73.7	72.7	71.6	71.0	70.0	69.4	68.8	67.9
SMR: male & female	101.5	99.0	98.0	96.5	93.1	91.1	89.5	87.9	86.0	84.1	82.5	81.0	79.6	78.3	77.0	76.0	74.8	73.8	72.8	72.0	71.2	70.4	69.8	69.1
Expectation of life	81.1	81.3	81.3	81.5	81.7	81.9	82.0	82.2	82.4	82.5	82.7	82.8	82.9	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.8	83.9	84.0
Deaths input																								
In-migration from the UK																								
Male	1,373	1,393	1,397	1,405	1,428	1,434	1,437	1,442	1,447	1,451	1,451	1,460	1,467	1,474	1,478	1,479	1,481	1,485	1,488	1,492	1,496	1,498	1,498	1,501
Female	1,503	1,515	1,524	1,522	1,542	1,544	1,543	1,544	1,548	1,555	1,549	1,551	1,555	1,560	1,566	1,576	1,586	1,593	1,601	1,608	1,615	1,624	1,635	1,644
All	2,876	2,908	2,921	2,926	2,969	2,978	2,980	2,986	2,994	3,012	3,000	3,011	3,022	3,033	3,044	3,056	3,067	3,078	3,089	3,100	3,111	3,122	3,133	3,144
SMiGr: males	52.3	53.1	53.3	53.5	54.4	54.6	54.7	54.8	55.1	55.6	55.3	55.4	55.5	55.4	55.2	54.7	54.3	53.9	53.5	53.1	52.5	51.9	51.3	50.7
SMiGr: females	56.4	57.4	58.0	58.0	58.7	58.8	58.8	58.9	59.2	59.6	59.3	59.1	58.8	58.6	58.4	58.3	58.0	57.6	57.2	56.6	56.0	55.5	55.1	54.6
Migrants input																								
Out-migration to the UK																								
Male	1,280	1,244	1,243	1,243	1,268	1,261	1,265	1,266	1,267	1,256	1,215	1,218	1,200	1,192	1,189	1,188	1,182	1,171	1,163	1,153	1,145	1,138	1,131	1,125
Female	1,405	1,347	1,336	1,330	1,363	1,361	1,355	1,348	1,338	1,332	1,285	1,271	1,278	1,275	1,266	1,256	1,252	1,251	1,248	1,247	1,244	1,240	1,235	1,231
All	2,686	2,592	2,579	2,574	2,631	2,622	2,620	2,614	2,606	2,588	2,500	2,489	2,478	2,467	2,456	2,444	2,433	2,422	2,411	2,400	2,389	2,378	2,367	2,356
SMiGr: males	48.8	47.4	47.4	47.4	48.3	48.1	48.2	48.2	48.2	47.9	46.3	46.2	45.8	44.4	44.0	43.3	42.5	41.8	41.0	40.2	39.4	38.7	38.0	37.0
SMiGr: females	52.7	51.1	50.9	50.7	51.9	51.9	51.7	51.4	51.2	51.0	49.1	48.4	48.3	47.9	47.2	46.5	45.8	45.2	44.6	43.9	43.1	42.4	41.6	40.9
Migrants input																								
In-migration from Overseas																								
Male	95	108	108	108	107	107	107	107	107	107	107	107	107	107	108	108	107	107	107	107	107	107	107	107
Female	92	92	92	92	90	90	90	90	90	90	90	90	90	90	92	92	90	90	90	90	90	90	90	90
All	177	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
SMiGr: males	54.5	61.7	61.7	61.7	61.6	61.7	61.9	62.0	62.2	62.5	62.6	62.4	62.5	62.4	62.2	61.7	61.2	60.5	59.8	58.9	58.1	57.2	56.3	55.4
SMiGr: females	48.0	54.1	54.1	54.1	54.5	54.8	55.0	55.2	55.4	55.6	55.9	56.0	55.8	55.7	55.5	55.2	54.8	54.2	53.6	52.9	52.1	51.3	50.6	49.7
Migrants input																								
Out-migration to Overseas																								
Male	60	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	110	110	110	110	110	110	109	109
Female	49	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	89	90	90	90	90	90	91
All	109	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
SMiGr: males	34.6	63.8	63.7	63.8	63.7	63.8	64.0	64.1	64.3	64.6	64.8	64.7	64.7	64.4	64.1	63.6	63.0	62.3	61.5	60.6	59.6	58.7	57.7	56.8
SMiGr: females	28.5	52.0	52.0	52.0	52.3	52.8	53.0	53.2	53.4	53.6	53.6	53.6	53.6	53.6	53.5	53.3	52.9	52.4	51.8	51.2	50.5	49.7	49.1	48.2
Migrants input																								
Migration - Net Flows																								
UK	+191	+316	+342	+352	+339	+356	+361	+372	+389	+425	+500	+522	+544	+567	+589	+611	+633	+656	+678	+700	+722	+744	+767	+789
Overseas	+68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary of population change																								
Natural change	-47	-65	-75	-85	-78	-82	-90	-97	-103	-109	-118	-127	-136	-147	-157	-168	-176	-183	-192	-199	-203	-207	-209	-207
Net migration	+259	+316	+342	+352	+339	+356	+361	+372	+389	+425	+500	+522	+544	+567	+589	+611	+633	+656	+678	+700	+722	+744	+767	+789
Net change	+192	+251	+267	+267	+261	+274	+271	+274	+286	+316	+382	+395	+408	+420	+432	+443	+457	+472	+486	+501	+519	+538	+558	+582

Summary of Population estimates/forecasts

	Population at mid-year																								
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
0-4	2,830	2,834	2,865	2,851	2,870	2,923	2,914	2,901	2,890	2,878	2,872	2,867	2,861	2,857	2,852	2,846	2,843	2,844	2,850	2,864	2,886	2,917	2,955	3,003	
5-10	3,821	3,822	3,893	3,971	4,024	4,036	4,061	4,091	4,138	4,137	4,169	4,229	4,227	4,219	4,206	4,197	4,184	4,174	4,163	4,149	4,138	4,122	4,120	4,125	
11-15	3,846	3,855	3,720	3,673	3,609	3,553	3,561	3,507	3,792	3,792	3,840	3,829	3,875	3,875	3,949	3,990	4,065	4,054	4,038	4,025	4,009	3,996	3,983	3,968	
16-17	1,568	1,548	1,602	1,609	1,576	1,590	1,570	1,470	1,434	1,471	1,482	1,543	1,595	1,599	1,644	1,663	1,601	1,639	1,717	1,727	1,724	1,719	1,715	1,705	1,701
18-59Female, 64Male	31,406	31,286	31,152	31,110	31,103	31,125	31,090	31,023	30,998	30,931	30,879	30,801	30,804	30,792	30,784	30,806	30,883	30,954	31,004	31,109	31,318	31,509	31,755	32,084	32,448
60/65-74	8,497	8,718	8,517	8,328	8,175	8,238	8,371	8,475	8,468	8,443	8,446	8,390	8,366	8,421	8,600	8,796	8,994	10,171	10,384	10,626	10,786	10,897	10,987	11,015	11,007
75-84	3,838	3,914	4,004	4,150	4,238	4,335	4,418	4,561	4,753	4,829	5,107	5,440	5,863	5,982	6,056	6,123	6,182	6,167	6,164	6,157	6,096	6,093	6,107	6,195	

Population Estimates and Forecasts

Scenario L: ELR Job Growth

Components of Population Change

Ribble Valley

	Year beginning July 1st																							
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Births																								
Male	266	272	277	278	282	285	289	292	295	299	300	299	297	292	289	288	287	285	284	284	286	289	294	300
Female	253	259	263	265	268	271	275	278	281	285	286	285	283	278	276	274	273	272	271	271	272	275	280	286
All Births	519	532	540	543	550	555	563	571	576	583	585	584	580	571	565	562	559	557	555	555	558	564	573	586
TFR	1.95	1.97	1.97	1.93	1.92	1.90	1.88	1.86	1.85	1.84	1.83	1.82	1.82	1.81	1.80	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79
Deaths																								
Male	283	284	291	295	293	296	300	304	307	310	314	318	323	327	331	336	341	345	351	356	362	367	372	379
Female	303	305	310	312	308	308	311	313	314	316	318	322	325	330	335	340	344	349	354	361	366	373	380	386
All deaths	586	589	601	606	600	604	610	617	621	626	632	640	648	656	665	676	685	694	706	717	728	739	752	764
SMR: males	102.2	99.4	98.9	97.2	93.8	92.0	90.4	88.8	87.1	85.2	83.8	82.2	80.9	79.5	78.1	77.1	76.0	74.9	74.1	73.2	72.4	71.6	70.9	70.3
SMR: females	100.8	98.6	97.2	95.8	92.4	90.3	88.6	87.0	85.0	83.0	81.2	79.8	78.2	77.1	76.0	74.9	73.7	72.7	71.6	71.0	70.0	69.4	68.8	67.9
SMR: male & female	101.5	99.0	98.0	96.5	93.1	91.1	89.5	87.9	86.0	84.1	82.5	81.0	79.6	78.3	77.0	76.0	74.8	73.8	72.8	72.0	71.2	70.4	69.8	69.1
Expectation of life	81.1	81.3	81.3	81.5	81.7	81.9	82.0	82.2	82.4	82.5	82.7	82.8	82.9	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.8	83.9	84.0
Deaths input																								
In-migration from the UK																								
Male	1,601	1,506	1,476	1,423	1,439	1,517	1,515	1,501	1,545	1,537	1,521	1,522	1,479	1,505	1,494	1,479	1,424	1,477	1,482	1,488	1,491	1,495	1,497	
Female	1,754	1,693	1,651	1,570	1,573	1,650	1,635	1,618	1,666	1,656	1,642	1,633	1,560	1,609	1,599	1,599	1,547	1,600	1,607	1,612	1,620	1,627	1,639	1,647
All	3,355	3,168	3,127	2,993	3,012	3,167	3,151	3,119	3,211	3,193	3,163	3,155	3,059	3,114	3,093	3,079	2,970	3,076	3,089	3,100	3,111	3,122	3,133	3,144
SMiGr: males	61.0	56.6	55.0	52.7	53.1	55.9	55.4	54.5	55.9	55.4	54.5	54.1	52.3	52.8	52.0	51.0	48.7	50.3	50.0	49.7	49.3	48.8	48.3	47.7
SMiGr: females	65.8	61.8	60.9	57.5	57.5	60.3	59.4	58.6	60.3	59.7	58.9	58.1	55.6	56.2	55.4	55.0	52.6	54.0	53.7	53.1	52.6	52.2	51.8	51.4
Migrants input																								
Out-migration to the UK																								
Male	1,274	1,250	1,251	1,248	1,244	1,243	1,250	1,254	1,264	1,260	1,212	1,219	1,194	1,187	1,187	1,187	1,180	1,167	1,161	1,150	1,142	1,135	1,129	1,122
Female	1,397	1,350	1,349	1,352	1,356	1,357	1,350	1,346	1,336	1,340	1,288	1,270	1,284	1,279	1,269	1,257	1,253	1,255	1,250	1,250	1,247	1,243	1,238	1,234
All	2,671	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,500	2,489	2,478	2,467	2,456	2,444	2,433	2,422	2,411	2,400	2,389	2,378	2,367	2,356
SMiGr: males	48.5	46.9	46.6	46.2	45.9	45.7	45.5	45.7	45.4	45.3	42.2	41.7	41.3	41.0	40.4	39.7	39.2	38.4	37.8	37.1	36.4	35.8	35.8	
SMiGr: females	52.4	50.2	49.8	48.5	48.6	49.6	49.1	48.8	48.4	48.3	46.2	45.2	44.7	44.0	43.2	42.6	42.3	41.8	41.2	40.5	39.8	39.2	38.5	
Migrants input																								
In-migration from Overseas																								
Male	95	107	107	107	107	106	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	106	106
Female	82	93	93	93	93	94	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	94	94
All	177	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
SMiGr: males	54.5	60.5	59.6	59.1	58.8	58.7	58.6	58.6	58.4	58.2	57.8	57.7	57.8	57.3	56.9	56.4	56.2	55.6	54.9	54.2	53.6	52.7	51.9	51.9
SMiGr: females	48.0	53.1	52.4	51.7	51.9	52.1	51.7	51.9	51.9	51.9	51.9	51.9	51.8	51.5	51.4	51.0	50.7	50.2	49.8	49.3	48.5	47.8	47.3	46.6
Migrants input																								
Out-migration to Overseas																								
Male	60	111	111	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	109	109
Female	49	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	91	91
All	109	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
SMiGr: males	34.6	62.5	61.6	60.9	60.7	60.6	60.6	60.3	60.3	60.1	60.0	59.7	59.5	59.1	58.7	58.4	58.0	57.7	57.1	56.5	55.7	55.0	54.1	53.4
SMiGr: females	28.5	51.1	50.4	49.9	50.0	50.2	49.9	50.1	50.2	50.2	50.1	49.9	49.7	49.8	49.7	49.4	49.1	48.7	48.2	47.7	47.0	46.3	45.9	45.1
Migrants input																								
Migration - Net Flows																								
UK	+684	+568	+527	+393	+412	+567	+551	+519	+611	+593	+663	+666	+582	+648	+638	+634	+537	+656	+678	+700	+722	+744	+767	+789
Overseas	+68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary of population change																								
Natural change	-67	-57	-61	-63	-50	-48	-47	-46	-45	-43	-47	-56	-68	-85	-100	-114	-126	-137	-151	-162	-170	-175	-179	-178
Net migration	+752	+568	+527	+393	+412	+567	+551	+519	+611	+593	+663	+666	+582	+648	+638	+634	+537	+656	+678	+700	+722	+744	+767	+789
Net change	+685	+511	+466	+330	+362	+519	+504	+473	+567	+551	+616	+610	+513	+562	+538	+520	+411	+518	+527	+538	+553	+569	+588	+611

Summary of Population estimates/forecasts

	Population at mid-year																								
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
0-4	2,830	2,876	2,936	2,933	2,965	3,053	3,096	3,136	3,170	3,210	3,241	3,269	3,287	3,288	3,278	3,253	3,220	3,181	3,153	3,133	3,124	3,125	3,135	3,156	3,191
5-10	3,821	3,852	3,940	4,044	4,117	4,139	4,184	4,233	4,310	4,318	4,363	4,504	4,557	4,599	4,638	4,676	4,701	4,707	4,705	4,696	4,655	4,613	4,570	4,529	4,466
11-15	3,846	3,879	3,755	3,716	3,647	3,582	3,602	3,729	3,730	3,804	4,004	3,981	4,025	4,097	4,100	4,156	4,277	4,315	4,352	4,381	4,413	4,438	4,456	4,462	4,453
16-17	1,568	1,557	1,615	1,629	1,601	1,629	1,619	1,498	1,457	1,564	1,551	1,651	1,717	1,752	1,645	1,675	1,772	1,795	1,810	1,825	1,845	1,857	1,868	1,868	
18-59Female, 64Male	31,400	31,608	31,679	31,768	31,785	31,855	31,957	32,018	32,099	32,176	32,249	32,278	32,994	32,428	32,494	32,564	32,724	32,744	32,803	32,910	33,157	33,375	33,670	34,072	34,512
60/65-74	8,497	8,741	8,952	9,073	9,225	9,289	9,442	9,568	9,574	9,555	9,554	9,521	9,496	9,565	9,747	9,941	10,128	10,289	10,493	10,745	10,866	10,988	11,059	11,055	11,030
75-84	3,838	3,926	4,018	4,166	4,251	4,348	4,428	4,569	4,763	4,947	5,134	5,479	5,729	5,921	6,042	6,116	6,190	6,253	6,239	6,235	6,221	6,168	6,171	6,186	6,272
85+	1,492	1,540	1,594	1,626	1,694	1,751	1,837	1,918	1,989	2,073	2,181	2,252	2,335	2,450	2,527	2,639	2,733	2,863	3,030	3,189	3,368	3,633	3,829	4,006	4,111
Total	57,292	57,977	58,488	58,955	59,285	59,647	60,165	60,669	61,142	61,708	62,259	62,875	63,485	63,999	64,561	65,098	65,618	66,030	66,548	67,075	67,613	68,166	68,735	69,323	69,933

Population impact of constraint

Number of persons	-1,182	+464	+268	+227	+93	+12	+167	+151	+119	+211	+193	+163	+144	+37	+81	+49	+23	-96							
Labour Force																									
Number of Labour Force	29,371	29,626	29,728	29,831	29,890	29,948	30,006	30,064	30,122	30,224	30,326	30,428	30,530	30,632	30,735	30,837	30,939	31,041	31,239	31,426	31,681	31,964	32,294	32,637	32,992
Change over previous year	-829	+254	+103	+103	+58	+58	+58	+58	+58	+102	+102	+102	+102	+102	+102	+102	+102	+102	+198	+187	+255	+283	+329	+343	+355
Number of supply units	28																								

Population Estimates and Forecasts

250 dpa

Components of Population Change

Ribble Valley

	Year beginning July 1st																								
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Births																									
Male	266	269	272	274	278	280	283	287	290	294	296	294	291	285	280	276	273	272	271	271	272	275	280	287	
Female	253	256	259	261	265	267	269	273	276	280	282	280	277	271	266	263	260	258	258	258	259	262	267	273	
All Births	519	525	531	534	543	547	552	559	567	574	577	573	567	556	546	539	534	531	529	529	531	538	547	560	
TFR	1.95	1.97	1.97	1.93	1.92	1.90	1.88	1.86	1.85	1.84	1.83	1.82	1.82	1.81	1.80	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	
Births input																									
Deaths																									
Male	283	283	290	294	292	295	299	303	306	310	314	317	321	325	328	333	338	342	348	353	359	364	369	375	
Female	303	304	308	310	307	307	309	312	313	315	317	321	324	328	332	337	341	346	351	358	363	370	377	383	
All deaths	586	587	598	604	599	602	608	615	620	625	631	638	645	653	661	670	679	688	700	711	722	733	746	758	
SMR: males	102.2	99.4	98.9	97.2	93.8	92.0	90.4	88.8	87.1	85.2	83.8	82.2	80.9	79.5	78.1	77.1	76.0	74.9	74.1	73.2	72.4	71.6	70.9	70.3	
SMR: females	100.8	98.6	97.2	95.8	92.4	90.3	88.6	87.0	85.0	82.9	81.8	79.8	78.2	77.1	76.0	74.9	73.7	72.7	71.6	71.0	70.0	69.4	68.8	67.9	
SMR: male & female	101.5	99.0	98.0	96.5	93.1	91.1	89.5	87.9	86.0	84.1	82.5	81.0	79.6	78.3	77.0	76.0	74.8	73.8	72.8	72.0	71.2	70.4	69.8	69.1	
Expectation of life	81.1	81.3	81.3	81.5	81.7	81.9	82.0	82.2	82.4	82.5	82.7	82.8	82.9	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.8	83.9	84.0	
Deaths input																									
In-migration from the UK																									
Male	1,443	1,473	1,491	1,482	1,432	1,450	1,530	1,547	1,562	1,562	1,451	1,464	1,408	1,403	1,400	1,404	1,444	1,474	1,481	1,492	1,496	1,499	1,499	1,501	
Female	1,581	1,621	1,661	1,608	1,563	1,574	1,645	1,662	1,681	1,680	1,564	1,566	1,500	1,493	1,489	1,507	1,556	1,585	1,595	1,608	1,615	1,623	1,634	1,643	
All	3,025	3,094	3,152	3,070	2,995	3,024	3,176	3,209	3,242	3,242	3,016	3,030	2,908	2,896	2,888	2,912	2,999	3,059	3,077	3,100	3,111	3,122	3,133	3,144	
SMiGR: males	55.0	55.8	56.1	54.7	53.3	53.8	56.6	56.8	56.9	56.7	52.3	52.5	50.4	50.0	49.7	49.7	50.8	51.6	51.4	51.3	50.8	50.3	49.7	49.2	
SMiGR: females	59.3	60.9	62.1	59.6	57.6	58.1	60.6	61.0	61.5	61.1	56.5	56.4	53.6	53.1	52.8	53.4	54.7	55.2	55.0	54.7	54.2	53.7	53.3	52.8	
Migrants input																									
Out-migration to the UK																									
Male	1,274	1,252	1,253	1,250	1,245	1,244	1,251	1,255	1,265	1,261	1,212	1,220	1,195	1,189	1,189	1,191	1,184	1,171	1,164	1,152	1,145	1,138	1,131	1,124	
Female	1,397	1,348	1,347	1,350	1,355	1,356	1,349	1,345	1,335	1,339	1,288	1,268	1,283	1,277	1,266	1,254	1,249	1,251	1,247	1,246	1,244	1,240	1,236	1,232	
All	2,671	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,500	2,488	2,478	2,467	2,456	2,444	2,433	2,422	2,411	2,400	2,389	2,378	2,367	2,356	
SMiGR: males	48.5	47.4	47.2	46.7	46.3	46.3	46.1	46.1	45.8	45.8	43.8	42.8	41.8	42.8	42.3	42.1	41.7	41.0	40.4	39.6	38.9	38.2	37.5	36.8	
SMiGR: females	52.4	50.6	50.3	50.0	50.0	50.0	49.7	49.4	48.8	48.7	46.5	45.7	45.8	45.4	44.9	44.4	43.9	43.6	43.0	42.4	41.7	41.0	40.3	39.6	
Migrants input																									
In-migration from Overseas																									
Male	95	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	
Female	82	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	
All	177	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	
SMiGR: males	54.5	61.1	60.4	59.8	59.4	59.3	59.7	59.4	59.2	58.9	58.6	58.5	58.6	58.8	58.8	58.8	58.5	58.2	57.5	56.8	56.1	55.3	54.4	53.6	
SMiGR: females	48.0	53.6	53.1	52.4	52.4	52.7	52.5	52.6	52.5	52.4	52.3	52.4	52.3	52.4	52.5	52.6	52.5	52.0	51.6	51.0	50.2	49.4	48.8	48.1	
Migrants input																									
Out-migration to Overseas																									
Male	60	111	111	110	110	110	111	110	111	110	110	110	111	110	110	110	110	110	110	110	110	110	110	110	
Female	49	89	89	90	90	90	89	90	89	90	89	90	89	90	90	90	90	90	90	90	90	90	90	90	
All	109	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	
SMiGR: males	34.6	63.1	62.4	61.7	61.3	61.2	61.5	61.2	60.9	60.6	60.4	60.4	60.4	60.4	60.3	60.4	60.2	59.8	59.1	58.5	57.6	56.8	55.9	55.1	
SMiGR: females	28.5	51.6	51.0	50.4	50.5	50.7	50.6	50.8	50.7	50.6	50.5	50.5	50.4	50.8	50.9	50.9	50.8	50.3	49.9	49.3	48.6	47.8	47.3	46.5	
Migrants input																									
Migration - Net Flows																									
UK	+354	+494	+552	+470	+395	+424	+576	+609	+642	+642	+516	+541	+431	+429	+433	+467	+566	+637	+666	+700	+722	+744	+767	+789	
Overseas	+68	+0	0	-0	-0	-0	0	0	+0	-0	+0	0	+0	-0	0	+0	+0	+0	+0	-0	+0	-0	-0	+0	
Summary of population change																									
Natural change	-67	-62	-67	-70	-56	-55	-56	-56	-53	-51	-54	-65	-78	-97	-115	-132	-145	-157	-171	-182	-190	-196	-199	-198	
Net migration	+422	+494	+552	+470	+395	+424	+576	+609	+642	+642	+516	+541	+431	+429	+433	+467	+566	+637	+666	+700	+722	+744	+767	+789	
Net change	+355	+432	+485	+400	+339	+370	+519	+553	+589	+591	+462	+476	+352	+332	+318	+336	+421	+480	+495	+518	+532	+549	+567	+591	

Summary of Population estimates/forecasts

	Population at mid-year																								
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
0-4	2,830	2,851	2,903	2,898	2,933	3,016	3,045	3,084	3,122	3,164	3,198	3,214	3,222	3,211	3,184	3,143	3,096	3,056	3,025	3,002	2,991	2,990	2,999	3,019	3,056
5-10	3,821	3,830	3,912	4,017	4,094	4,114	4,147	4,194	4,273	4,280	4,343	4,449	4,488	4,514	4,535	4,555	4,565	4,571	4,566	4,544	4,510	4,465	4,417	4,373	4,335
11-15	3,846	3,861	3,734	3,697	3,632	3,763	3,579	3,706	3,783	3,908	3,988	3,957	3,992	4,051	4,037	4,079	4,184	4,220	4,252	4,278	4,307	4,329	4,345	4,349	4,338
16-17	1,568	1,550	1,609	1,622	1,595	1,622	1,610	1,491	1,451	1,501	1,510	1,584	1,652	1,658	1,699	1,728	1,619	1,647	1,739	1,759	1,773	1,788	1,805	1,816	1,826
18-59Female, 64Male	31,400	31,383	31,400	31,503	31,571	31,629	31,632	31,707	31,947	31,940	32,047	31,978	32,010	31,940	31,862	31,794	31,807	31,979	31,912	32,004	32,241	32,451	32,737	33,129	33,557
60/65-74	8,497	8,732	8,929	9,050	9,208	9,267	9,412	9,538	9,549	9,528	9,531	9,491	9,460	9,519	9,688	9,889	10,044	10,204	10,404	10,652	10,769	10,888	10,955	10,949	10,922
75-84	3,838	3,917	4,008	4,157	4,244	4,341	4,417	4,558	4,755	4,939	5,128	5,468	5,713	5,900	6,013	6,080	6,148	6,213	6,198	6,194	6,179	6,127	6,131	6,145	6,231
85+																									

Population Estimates and Forecasts

1,600 Jobs, 3% reduction in net out commuting

Components of Population Change

Ribble Valley

	Year beginning July 1st																									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030			2031	2032	2033	2034
Births																										
Male	266	272	277	278	281	282	285	287	289	291	291	289	285	280	276	273	271	269	268	268	270	274	279	286		
Female	253	259	263	265	267	269	271	274	275	277	277	275	272	266	263	260	258	256	255	256	257	261	266	272		
All Births	519	532	540	543	548	551	556	561	564	568	568	564	557	546	538	533	529	525	523	524	528	535	545	558		
TFR	1.95	1.97	1.97	1.93	1.92	1.90	1.88	1.86	1.85	1.84	1.83	1.82	1.82	1.81	1.80	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79		
Births input																										
Deaths																										
Male	283	284	291	295	293	295	299	303	306	309	313	316	320	324	328	333	338	342	348	353	359	363	369	375		
Female	303	305	310	312	307	307	310	312	312	314	316	320	323	327	332	337	341	345	351	357	363	370	377	383		
All deaths	586	589	601	606	600	602	609	615	618	623	628	636	643	651	660	670	679	687	699	710	721	733	746	758		
SMR: males	102.2	99.4	98.9	97.2	93.8	92.0	90.4	88.8	87.1	85.2	83.8	82.2	80.9	79.5	78.1	77.1	76.0	74.9	74.1	73.2	72.4	71.6	70.9	70.3		
SMR: females	100.8	98.6	97.2	95.8	92.4	90.3	88.6	87.0	85.0	82.9	81.2	79.8	78.2	77.1	76.0	74.9	73.7	72.7	71.6	71.0	70.0	69.4	68.8	67.9		
SMR: male & female	101.5	99.0	98.0	96.5	93.1	91.1	89.5	87.9	86.0	84.1	82.5	81.0	79.6	78.3	77.0	76.0	74.8	73.8	72.8	72.0	71.2	70.4	69.8	69.1		
Expectation of life	81.1	81.3	81.3	81.5	81.7	81.9	82.0	82.2	82.4	82.5	82.7	82.8	82.9	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.8	83.9	84.0		
Deaths input																										
In-migration from the UK																										
Male	1,601	1,506	1,476	1,374	1,390	1,469	1,466	1,455	1,499	1,491	1,475	1,476	1,431	1,459	1,449	1,434	1,379	1,484	1,488	1,493	1,496	1,500	1,499	1,501		
Female	1,754	1,663	1,651	1,516	1,519	1,595	1,577	1,563	1,610	1,600	1,584	1,575	1,520	1,551	1,540	1,539	1,487	1,594	1,601	1,607	1,615	1,623	1,634	1,643		
All	3,355	3,169	3,127	2,890	2,909	3,064	3,043	3,017	3,109	3,091	3,059	3,051	2,950	3,010	2,988	2,974	2,866	3,078	3,089	3,100	3,111	3,122	3,133	3,144	51,674	8,336
SMiGR: males	61.0	56.6	55.0	50.9	51.5	54.4	54.0	53.4	54.9	54.5	53.8	53.5	51.7	52.5	51.8	50.9	48.6	52.2	51.9	51.5	51.0	50.5	49.9	49.3		
SMiGR: females	65.8	61.8	60.9	55.5	55.7	58.6	57.9	57.3	59.2	58.7	58.0	57.4	54.8	55.7	55.0	54.7	52.3	55.8	55.5	54.9	54.4	53.9	53.5	53.0		
Migrants input																										
Out-migration to the UK																										
Male	1,274	1,250	1,251	1,248	1,244	1,244	1,251	1,256	1,266	1,262	1,214	1,222	1,196	1,190	1,190	1,190	1,184	1,171	1,164	1,153	1,145	1,138	1,131	1,124		
Female	1,397	1,350	1,349	1,352	1,356	1,356	1,349	1,344	1,334	1,338	1,286	1,267	1,281	1,276	1,266	1,254	1,250	1,252	1,247	1,247	1,244	1,240	1,236	1,232		
All	2,671	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,500	2,489	2,478	2,467	2,456	2,444	2,433	2,422	2,411	2,400	2,389	2,378	2,367	2,356	43,338	
SMiGR: males	48.5	46.9	46.6	46.2	46.1	46.1	46.1	46.1	46.4	46.1	44.2	44.3	42.2	42.6	42.5	42.3	41.7	41.2	40.6	39.8	39.0	38.3	37.6	36.9		
SMiGR: females	52.4	50.2	49.8	49.5	49.7	49.8	49.5	49.3	49.0	49.1	47.1	46.2	46.2	45.8	45.2	44.6	44.0	43.8	43.2	42.6	41.9	41.2	40.5	39.7		
Migrants input																										
In-migration from Overseas																										
Male	95	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107		
Female	82	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93		
All	177	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	3,377	
SMiGR: males	54.5	60.5	59.6	59.1	59.0	59.1	59.4	59.3	59.5	59.5	59.5	59.3	59.3	59.4	59.2	59.0	58.6	58.5	57.8	57.1	56.3	55.5	54.6	53.8		
SMiGR: females	48.0	53.1	52.4	51.7	52.0	52.5	52.2	52.6	52.8	52.9	53.1	53.1	52.9	53.0	52.9	52.8	52.6	52.3	51.8	51.2	50.4	49.6	49.0	48.2		
Migrants input																										
Out-migration to Overseas																										
Male	60	111	111	110	110	110	111	110	111	111	111	111	111	110	110	110	110	110	110	110	110	110	110	110		
Female	49	89	89	90	90	90	89	89	89	89	89	89	89	89	90	90	90	90	90	90	90	90	90	90		
All	109	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	3,309	
SMiGR: males	34.6	62.5	61.6	60.9	60.9	61.0	61.2	61.2	61.3	61.3	61.3	61.2	61.2	61.0	60.8	60.6	60.3	60.1	59.5	58.8	57.9	57.1	56.1	55.3		
SMiGR: females	28.5	51.1	50.4	49.9	50.1	50.5	50.4	50.7	50.9	51.1	51.2	51.1	51.0	51.3	51.3	51.1	50.9	50.6	50.1	49.5	48.8	48.0	47.5	46.6		
Migrants input																										
Migration - Net Flows																										
UK	+684	+568	+527	+290	+309	+464	+443	+417	+509	+491	+560	+562	+473	+543	+533	+529	+433	+656	+678	+700	+722	+744	+767	+789	8,336	
Overseas	+68	+0	+0	-0	+0	-0	+0	-0	+0	+0	-0	-0	-0	-0	-0	+0	0	+0	-0	+0	+0	-0	-0	-0	68	
Summary of population change																										
Natural change	-67	-57	-61	-63	-52	-52	-52	-54	-54	-55	-61	-72	-86	-105	-121	-137	-149	-162	-176	-186	-193	-198	-201	-200	-1,298	
Net migration	+752	+568	+527	+290	+309	+464	+443	+417	+509	+491	+560	+562	+473	+543	+533	+529	+433	+656	+678	+700	+722	+744	+767	+789	8,404	
Net change	+685	+511	+467	+227	+257	+413	+391	+363	+455	+436	+499	+490	+386	+438	+412	+393	+283	+493	+502	+514	+529	+546	+565	+589	7,106	

Summary of Population estimates/forecasts

	Population at mid-year																										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030			2031	2032	2033	2034	2035
0-4	2,830	2,876	2,936	2,833	2,957	3,036	3,069	3,098	3,119	3,148	3,166	3,180	3,185	3,172	3,149	3,113	3,069	3,020	2,991	2,970	2,961	2,962	2,975	2,999	3,039		
5-10	3,821	3,852	3,940	4,044	4,109	4,124	4,162	4,202	4,270	4,324	4,343	4,473	4,500	4,524	4,547	4,555	4,545	4,535	4,508	4,469	4,422	4,373	4,329	4,292			
11-15	3,846	3,879	3,755	3,716	3,642	3,572	3,586	3,707	3,754	3,891	3,965	3,937	3,975	4,040	4,036	4,086	4,196	4,224	4,255	4,278	4,302	4,319	4,329	4,326	4,309		
16-17	1,568	1,557	1,615	1,629	1,599	1,628	1,614	1,491	1,448	1,495	1,501	1,576	1,644	1,631	1,694	1,728	1,620	1,647	1,742	1,763	1,777	1,790	1,806	1,816	1,824		
18-59Female, 64Male	31,400	31,698	31,679	31,768	31,715	31,715	31,746	31,734	31,745	31,750	31,751	31,769	31,752	31,711	31,702	31,699	31,792	31,730	31,790	31,881	32,121	32,332	32,620	33,014	33,443		
60/65-74	8,467	8,741	8,952	9,073	9,220	9,277	9,424	9,543	9,542	9,514	9,509	9,459	9,437	9,497	9,671	9,857	10,035	10,167	10,289	10,638	10,757	10,877	10,947	10,942	10,916		
75-84	3,838	3,826	4,018	4,166	4,248	4,343	4,421	4,558	4,750	4,831	5,115	5,457	5,703	5,882	6,009	6,080	6,150	6,210	6,196	6,191	6,176	6,122	6,125	6,138	6,223		
85+	1,492	1,540	1,594	1,626	1,692	1,747	1,830	1,909	1,978	2,061	2,166	2,236	2,317	2,430	2,525	2,615	2,708	2,836	3,004	3,164	3,344	3,610	3,806	3,984	4,090	2011-28	