Nathaniel Lichfield & Partners

Planning. Design. Economics.

2015 Wyre ELS Update Addendum Report

Wyre Borough Council

10 December 2015

41525/02/MW/CR

Contents

Introduction

1.0

1.1 Wyre Borough Council [WBC] has commissioned Nathaniel Lichfield & Partners [NLP] to sensitivity test the demand forecasting elements of the 2015 Wyre Employment Land Study Update [ELSU] with two additional econometric job projections to assess whether the Experian dataset presents a robust basis for the forecasting the future needs. The document will provide further evidence to inform the Council's evidence base for its forthcoming Local Plan Examination in Public [EiP].

1.2 The Council published its Issues and Options Paper in June 2015 and is seeking to adopt its Local Plan in mid-2017.

Background and Purpose of the Addendum

1.3 This report will form part of the evidence base for WBC, helping to ensure that emerging plan policies are sound, positively prepared, justified and consistent with national policy. It forms an Addendum to the 2015 ELSU document and will aid the formation of a clear economic strategy to assist in the necessary delivery of employment sites.

1.4 The original ELSU used employment projections from Experian's March 2015 data release for Wyre Borough as the basis of its labour demand forecasting scenarios. This was then used to project the quantity of employment land the Council should cater for across the plan period.

1.5 This Addendum provides a short critique of the local area-based econometric projections provided by Oxford Economics and Cambridge Econometrics. The forecasts have been translated into employment land requirements and a judgement made as to whether any future adjustments should be made to the employment land OAN range for Wyre Borough as a result.

Approach to Defining Job Growth

1.6 It is important to note at the outset that the three forecasting houses appraised in this note, namely Experian, Oxford Economics [OE] and Cambridge Econometrics [CE], all produce credible and robust estimates of job growth at a local area level. However, there are methodological differences between them regarding how the various job projections are derived. This can mean that in certain circumstances and in certain spatial areas, one may produce a more realistic, or appropriate, level of job growth than another. A commentary is provided below of how each forecasting house calculates job growth at a local spatial area.

Experian

1.7 The Experian econometric forecasts begin with UK-wide economic variables to create a core macro-economic forecast, indicating the national demand for labour. Regional forecasts of employment change are constrained to conform to these UK-wide employment figures, and local forecasts are constrained to

match the regional totals. These forecasts set out the expected levels of growth across 12 broad sectors and 38 categories.

1.8   For its local forecasts, Experian begins with ONS population projections along with its own employment forecasts. It then creates and adjusts its own economic activity and unemployment rates to align with both the population and employment figures. Appendix D to the Experian Data Guide (June 2015) states that "*the participation rate is an endogenous variable in all our models. It is not a fixed assumption.*" Hence, if demand for labour is high (i.e. there are a large number of new jobs), the economic activity rate is assumed to increase and/or unemployment to decrease.

1.9   Commuting rates are fixed for the local forecasts, although if there is deemed to be insufficient demand or supply for labour after the adjustment of economic activity and unemployment rates, the resulting commuting rate may be different. Therefore, Experian's local forecasts are led and constrained by both the ONS population projections and its own macroeconomic jobs forecasts.

1.10   For further information on the Experian methodology, see the Experian UK Regional Planning Service Data Guide (June 2015) in Appendix 1.

Oxford Economics

1.11   Oxford Economics [OE] forecasts are produced in a similar way to Experian, in terms of starting with national forecasts of demand for labour set out in 19 individual sectors, then moving to regional and local forecasts in turn, constraining each of these to the larger geographical area figures.

1.12   However, OE produces its own forecasts of population, which are economically driven. The births and deaths figures are taken from the ONS 2012-based population projections, but predicted migration levels are generated by OE.

1.13   As with the Experian local forecasts, OE adjusts the proportion of the working age population that is in employment, in order to reflect the level of demand for labour; OE frames this as a combined 'employment rate', rather than separate economic activity and unemployment rates. OE also adjusts migration, based on the view that fewer people would move into an area if the employment rate is falling too fast, i.e. employment prospects are weak.

1.14   As with the Experian model, commuting rates are fixed. Therefore, there are three variable elements in the OE model (migration, economic activity rates and unemployment rates), compared to just two in the Experian model (economic activity rates and unemployment rates). In contrast to the approach adopted by Experian, this recognises that migration (and hence, population levels) will change in response to employment growth.

1.15   Therefore, OE's local forecasts are led and constrained by its macroeconomic forecasts and to a lesser extent by the ONS population projections.

1.16   For further information on the OE methodology, see the OE Local Authority District Forecasting Model Guide in Appendix 2.

Cambridge Econometrics

1.17   As with the Experian and OE methodologies, Cambridge Econometrics [CE] begins with a macro-economic forecast for the UK. However, it differs in maintaining a constant ratio between the local economic growth of each industry and the growth of that industry in the wider region or the UK as a whole.

1.18   CE also differs from Experian and OE in that it assumes that "*economic growth in the local area is not constrained by supply-side factors, such as population and the supply of labour*". Therefore, population, unemployment and economic activity rates are not applied as inputs into the model at all, and the forecasts only deal with economic growth.

1.19   The CE methodology guide states that "*if, in reality, the labour supply is not there to meet projected growth in employment, growth could be slower*". This suggests that the relationship between population and employment growth is not addressed as part of the CE modelling.

1.20   The broad assumptions of CE's econometric modelling are set out in their Methodology Note reproduced in Appendix 3.

Experian Modelling Results from the 2015 ELSU

Experian Baseline Scenario

1.21   To recap from the 2015 ELSU, Experian's March 2015 econometric model release projected overall growth in the order of 3,570 workforce jobs between 2011 and 2031 in Wyre Borough. The split relating to each of the 38 Experian SIC sectors over the period 2011-2031 has been combined into Experian's 12 broad industrial sectors to allow meaningful comparisons with the alternative CE and OE datasets, and are presented in Table 1.1.

Table 1.1   Total Workforce Job Growth, Experian Baseline (2011-2031)

Sector	Wyre	% change
Agriculture, Forestry and Fishing	-110	-10%
Mining and Quarrying	0	-
Manufacturing	-360	-10%
Utilities	-230	-49%
Construction	1,010	29%
Wholesale and Retail	1,090	17%
Transport and Storage	190	16%
Accommodation, Food Services and Recreation	1,280	33%
Information and Communication	-100	-17%
Finance and Insurance	0	0%
Professional and Other Private Services	680	15%
Public Services	120	1%
TOTAL	**3,570**	**10%**

Source: Experian March 2015

1.22   This analysis indicates that Accommodation & Food Services, Wholesale & Retail and Construction are expected to be key drivers of employment growth within the Borough over the next 20 years. Sectors forecast to incur the largest employment losses during this period include Manufacturing and Utilities.

1.23   Table 1.2 separates this job growth out by B-Use Class. This includes an allowance for jobs in other, non B-class, sectors that typically utilise industrial or office space, such as some construction uses, vehicle repair, courier services, road transport and cargo handling and some public administration activities.

Table 1.2   Forecast Employment Change in Wyre 2011-2031 – Experian Baseline Jobs, by Use Class

	Offices (B1a/b)*	Manufacturing (B1c/B2)**	Distribution (B8)***	Total B-class Jobs	Other Non B-Class Jobs	Jobs in All Sectors
Wyre	765	-91	851	1,525	2,045	3,570

Source: Experian / NLP analysis

* includes a proportion of public sector employment and administration & support services

**includes vehicle repair and some construction activities

***   includes elements of transport & communications sectors

Adjusted Experian Baseline Scenario

1.24   WBC Officers requested that NLP interrogate the Experian figures to ensure the Borough's employment projection was realistic. Two particular issues were considered to be worthy of detailed consideration. Firstly, whether there were any coding errors in the BRES employment data which informed Experian's baseline employment forecasts (an issue that was initially highlighted and addressed in the original 2012 Wyre ELR); and secondly, whether the significant recent job losses at Norcross were adequately reflected in the job forecasts.

Potential Coding Errors

1.25   A coding error was picked up in the 2012 ELS study[1] which suggested that the BRES data, upon which the Experian projections were based, had over-estimated the number of jobs in a particular industrial sector ('*Services to building and landscape activities*') by around 3,000 workers. This was attributed to the Headquarters of a regional recruitment agency recording all of its employees as being based in a small office in Wyre. This coding error had fed through to the Experian projections. Adjustments were subsequently made by NLP to correct this error in the previous ELR.

1.26   As the 2015 ELR Update used Experian employment forecasts, WBC officers expressed concerns that a similar issue may occur. NLP subsequently analysed the Experian and BRES datasets in detail to examine whether this anomaly was still influencing the forecasts, and if so, whether any adjustments to the data were necessary. On the basis of the analysis, NLP concluded that

---

[1] Wyre Borough Council (2012) Employment Land and Commercial Leisure Study, page 63

there was no justification for making any further manual adjustments to the forecasts for this particular sector.

Norcross

1.27   The second query requiring further investigation related to the job losses at the Norcross site and the extent to which they were reflected in the Experian projections. A comparison was made of the BRES job data and the Experian figures for the '*Public Administration and Defence'* sector over the period 2009-2013. Discussions were held with Experian to test whether these actual job losses were adequately factored into their future projections.

1.28   As the BRES survey data is volatile, Experian endeavours to remove sample volatility, but not underlying trends. The downside to this process is that to smooth the BRES results means that sharp movements in the last historical observation period are not always fully taken into account until the following year, where Experian has 2 data points confirming that the movement is a 'real' movement, i.e. it relates to an underlying trend and is not a blip.

1.29   Based on the trends observed in the data and discussions with Experian, NLP adjusted the subsequent years' annual incremental growth projections in line with the underlying rate of change projected by Experian to 2031.

1.30   This Addendum tests these same queries against the two new employment projections in order to see whether any adjustments to the OE/CE raw data may be necessary.

2.0   # Alternative OE/CE Employment Projections

Introduction

2.1   This Section analyses two alternative employment projections from OE and CE, and contrasts them with the Experian employment projections used in the previous ELSU. Experian's March 2015 release was used to inform the ELSU, hence to enable reasonable comparisons to be made, the equivalent releases were obtained from OE and CE as follows:

1   Oxford Economics' [OE] Spring 2015 data release; and,

2   Cambridge Econometrics' [CE] April 2015 data release.

2.2   As with the Experian datasets, NLP initially examined the OE and CE datasets to see whether the identified anomalies (i.e. those relating to the coding errors and the impact of the Norcross job losses) are likely to have been taken into account in these datasets.

Coding Errors

2.3   An analysis was undertaken of the OE and CE datasets to examine whether the 2010 BRES anomaly (in which the sector of 'Services to building and landscape activities' had been overestimated in Wyre by around 3,000 workers) was still influencing the forecasts, and if so, whether any adjustments to the data were necessary.

2.4   Figure 2.1 compares job growth in OE's 'Administrative and support service activities' sector, CE's 'Business support services' and Experian's 'Administrative & Supportive Services' with the corresponding BRES industrial categories[2].

2.5   During discussions with Experian, they confirmed that the BRES, like many samples, is quite volatile. As such, they endeavour to remove sample volatility, but not underlying trends. On the basis of the evidence before us, it appeared that Experian had 'smoothed over' the 2010 BRES data and hence resolved the anomaly.

---

[2] SIC2 codes 77-82

Figure 2.1   BRES codes 77-82 vs. equivalent sector within OE, CE and Experian datasets
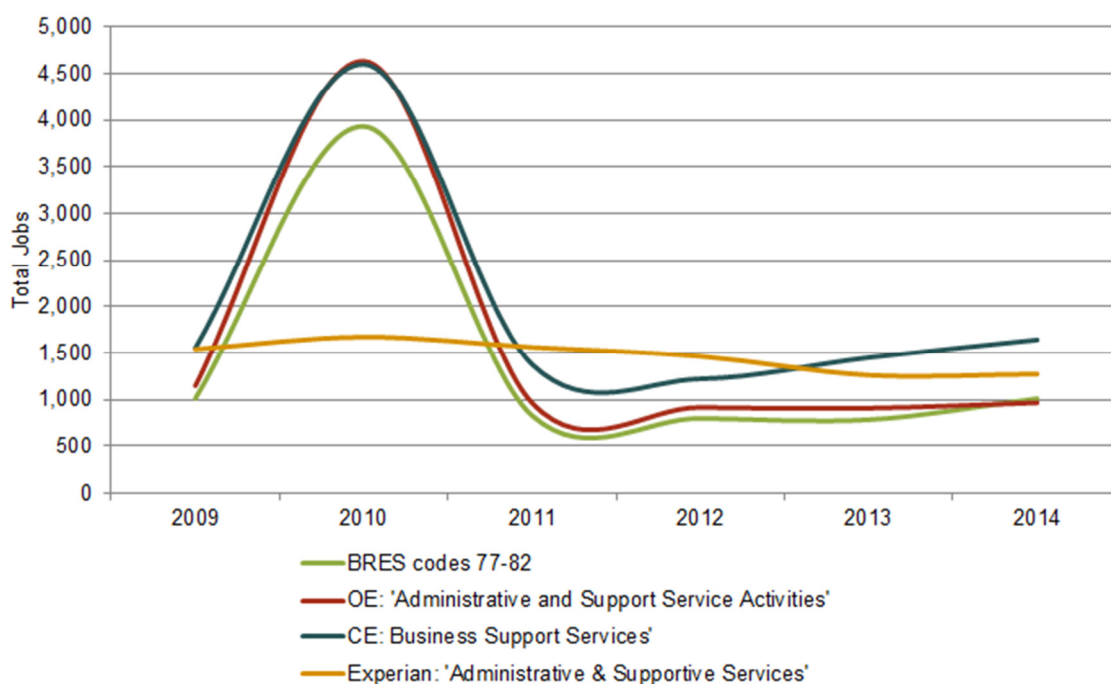
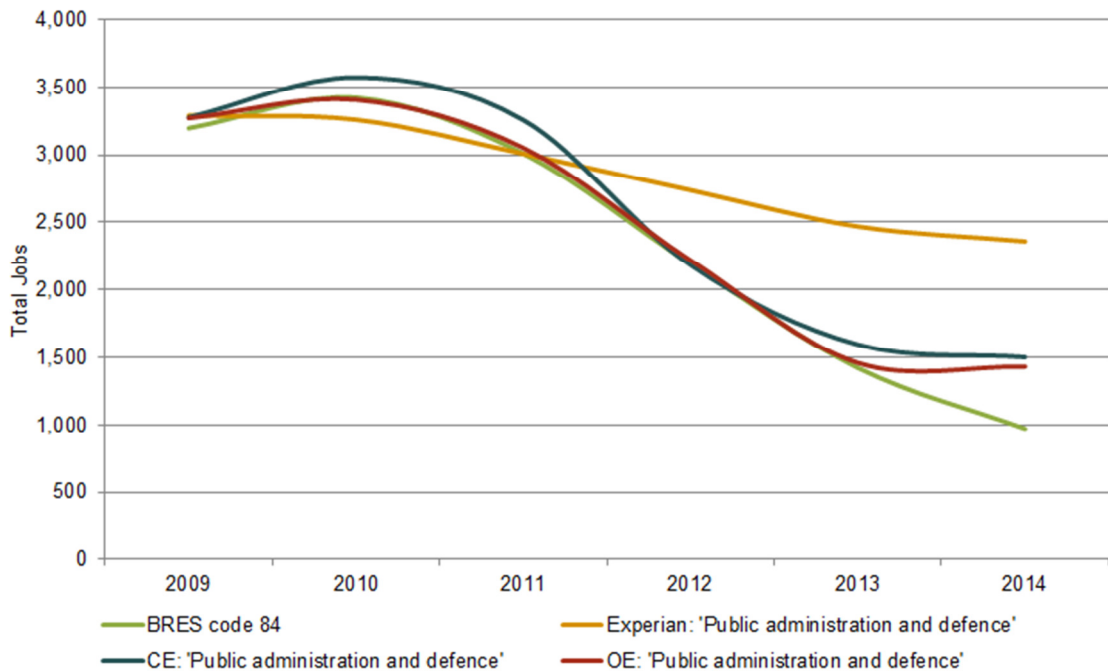Source: BRES 2009-2014 / OE 2015 / CE 2015 / Experian 2015

2.6   It is clear that the 2010 'spike' is incorporated into both the OE and CE datasets. However, following on from this 'spike' the OE dataset reverts almost exactly to the BRES trend. The CE projection in this sector also falls significantly in 2011, although the fall is not quite as sharp as with the BRES/OE adjustment and the growth trajectory is more pronounced to 2014 as a result. In general the OE, Experian and BRES datasets converge to a similar rate of growth.

2.7   Overall, by the end of the plan period 2011-2031, there remains a slight increase of 255 jobs in OE's '*Administrative and Support Service Activities'*, an increase of 637 jobs in CE's '*Business Support Services'* sector but a decrease of 310 in Experian's '*Administrative and Support Services'*.

2.8   On balance it is possible that the artificial coding error boost in 2010 may have had some upward influence on the CE projections going forward in this sector. This may reduce the weight that can be attached to the CE projections going forward as a result. Whilst the error was also incorporated into the OE projections for 2010, it appears to have been ameliorated from 2011 onwards and does not appear to have adversely affected OE's future projections in this sector.

Norcross Job Losses

2.9   The ELSU concluded that the Experian projections did not make sufficient adjustment to its projections to allow for the significant Norcross job losses in recent years. A similar analysis has been undertaken for the OE and CE forecasts. To test whether the actual Norcross job losses have been adequately factored into the projections, a comparison was made of the BRES

job data and the OE/CE figures for the '*Public Administration and Defence*' sector over the period 2009-2013 as illustrated in Figure 2.2[3].

Figure 2.2   1.1 Job Growth in BRES code 84 vs equivalent sector within OE, CE and Experian datasets

Source: BRES 2009-2013 / OE 2015 / CE 2015 / Experian 2015

Note: 'Public administration and defence; compulsory social security' (BRES) / 'Public administration and defence' (OE) / 'Public Administrative & Defence' (Experian)

2.10   Figure 2.2 suggests that there is a very close correlation between the OE / CE data sets and the source BRES data, which aligns with the job relocations from the Norcross site. This is in contrast to the Experian figures, which show a much less pronounced decline in this sector, which justified a manual adjustment.

2.11   On the basis of this evidence there does not appear to be any justification for making any further manual adjustments to either the OE or CE forecasts for this particular sector to reflect the Norcross job losses.

Comparison of the Projections

2.12   As noted above, whilst all three forecasting houses produce reliable and robust job growth projections, there can be some variance at a local area level due to the slightly different methodologies employed and increased data volatility at this spatial level. This next section analyses whether we could attach more or less weight to any or all of these projections in the context of Wyre Borough.

Comparison with ONS Job Density Statistics

2.13   In terms of the weight that can be attached to the three datasets, it is worth comparing the employment change with past trends, as illustrated in Figure

---

[3] SIC2 code 84: 'Public administration and defence; compulsory social security'

2.3. Over the thirteen years 2000 to 2013, ONS job density statistics suggests that the total number of jobs[4] in Wyre Borough grew by 3,000, at a rate of c230 annually. Trended forward over the 20-year projection period, this would equate to a total job growth of 4,620 between 2011 and 2031.

Figure 2.3   Overall Employment Increases 2011-31, by dataset
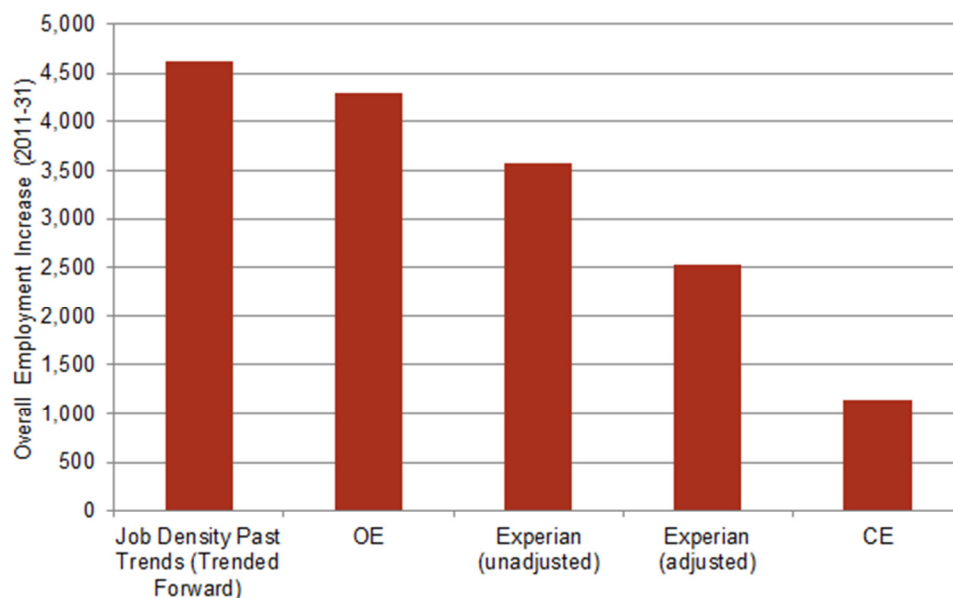
Source: ONS Job Density Statistics 2000-2013 (2015) / OE / Experian / CE / NLP analysis

2.14   This rate of past job growth appears to be mirrored most closely by OE's future projections. Even so, this growth, of 215 jobs per annum, is around 7% lower than the level achieved since 2000. The unadjusted (179 jobs per annum) and adjusted (126 jobs annually) Experian are lower still, whilst the CE projection, at just 57 jobs (net) growth annually over the plan period, appears pessimistic when compared to past levels of growth.

Sectoral Job Growth

2.15   Table 2.1 presents a comparison of the various econometric job projections. Although the three forecasting houses release data broken down across a number of sectors, these have been amalgamated by NLP into 12 broad SIC sectors to enable comparisons to be made. Figure 2.4 and Figure 2.5 demonstrate the overall divergence between the different employment forecasts.

2.16   Whilst all of the projections indicate growth over the plan period, the magnitude varies considerably across the projections. For instance, the OE projections suggest a growth of over 4,300 jobs over the projection period, whilst the CE projections (starting from a much higher base) project a level of growth almost three-quarters lower. Both the adjusted and unadjusted Experian projections sit between the CE/OE growth forecasts and align with the overall average across the three scenarios.

---

[4] Under the ONS Job Density definition, total jobs includes employees, self-employed, government-supported trainees and HM Forces

2.17   For the most part, the key sectors that are increasing / decreasing the most for Wyre are similar; the issue is the scale of change. For instance, Professional & Other Private Services is a sector that is forecast to grow across all three sets of projections. However, whilst OE projects 1,924 jobs to be created (net) between 2011-31, CE project 1,461, whilst Experian project just 680 - less than half OE's projection over the same period.

2.18   Figure 2.5 also demonstrates that growth in both Construction and Wholesale & Retail is expected to be strong for both the Experian and OE projections, but is minimal for the CE projections, which appears out of step with the average.

2.19   The manual adjustment to take into account the Norcross job losses in the Experian (adjusted) scenario can be seen within the figures. The Experian unadjusted figures project an overall increase in the 'Public Services'[5] of 120. However, once the Norcross adjustment was made, the forecasts now project a decrease of -927 over the same period, which is more in line with the CE figures.

Table 2.1   Comparison of Econometric Models' Workforce Net Job Growth

| Sectors	Wyre				
	Experian (unadjusted)	Experian (adjusted)	OE (unadjusted)	CE (unadjusted)	Average*
Agriculture, Forestry & Fishing	-110	-110	-33	-92	-78
Mining and Quarrying	0	0	0	13	4
Manufacturing	-360	-360	-729	-468	-519
Utilities	-230	-230	90	158	6
Construction	1,010	1,010	851	335	732
Wholesale and Retail	1,090	1,090	894	95	693
Transport and Storage	190	190	259	-87	121
Accommodation, Food Services & Recreation	1,280	1,280	1,422	775	1,159
Information and Communication	-100	-100	-95	-286	-160
Finance and Insurance	0	0	20	52	24
Professional & Other Private Services	680	680	1,924	1,461	1,355
Public Services	120	-927	-300	-819	-682
TOTAL	3,570	2,523	4,304	1,137	2,655

Source: Experian December 2014 / CE 2015 / OE 2015 / NLP analysis

*Average taken of Experian (adjusted) and unadjusted OE / CE figures

Note: cells highlighted in red are more than 300 jobs higher/lower than the average.

---

[5] Within the Experian dataset this broad SIC sector includes the categories of Public Administration & Defence; Education; Health and Residential Care & Social Work.

Figure 2.4   Wyre Total Job Growth by Scenario (2011-2031)
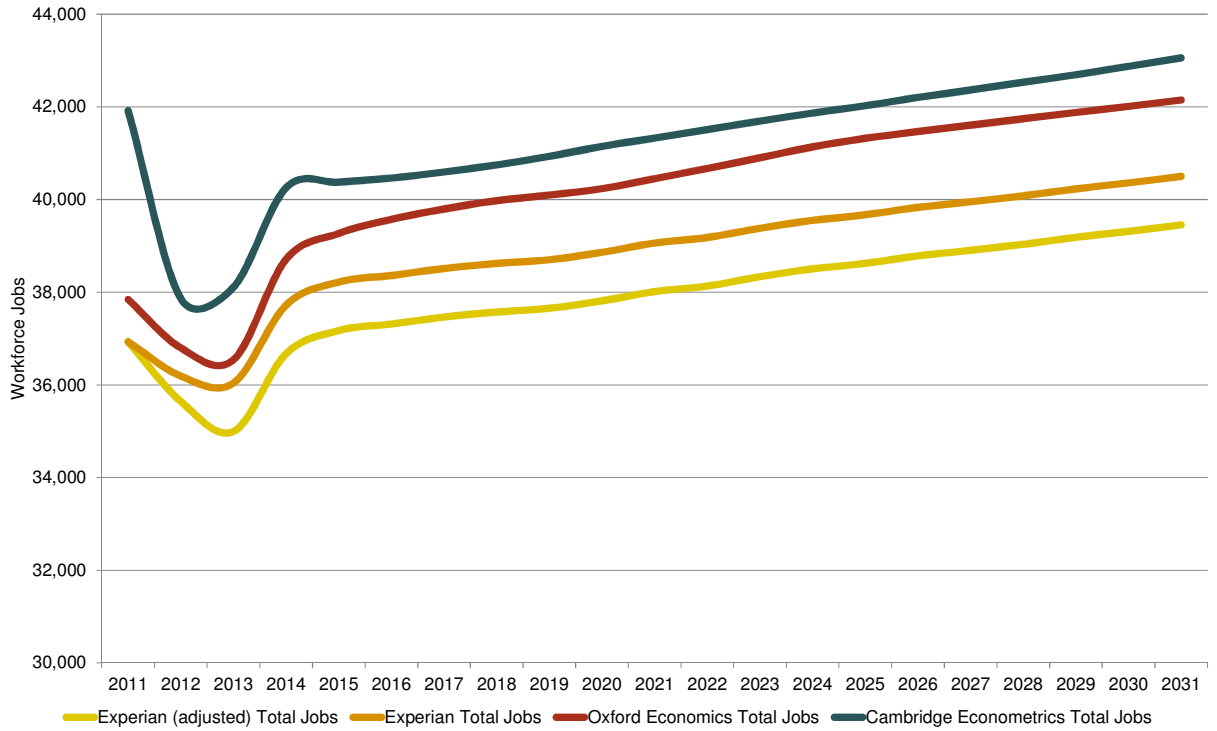
Source: Experian / Oxford Economics / Cambridge Econometrics / NLP analysis

Figure 2.5   Sectoral Job Growth in Wyre (2011- 2031)
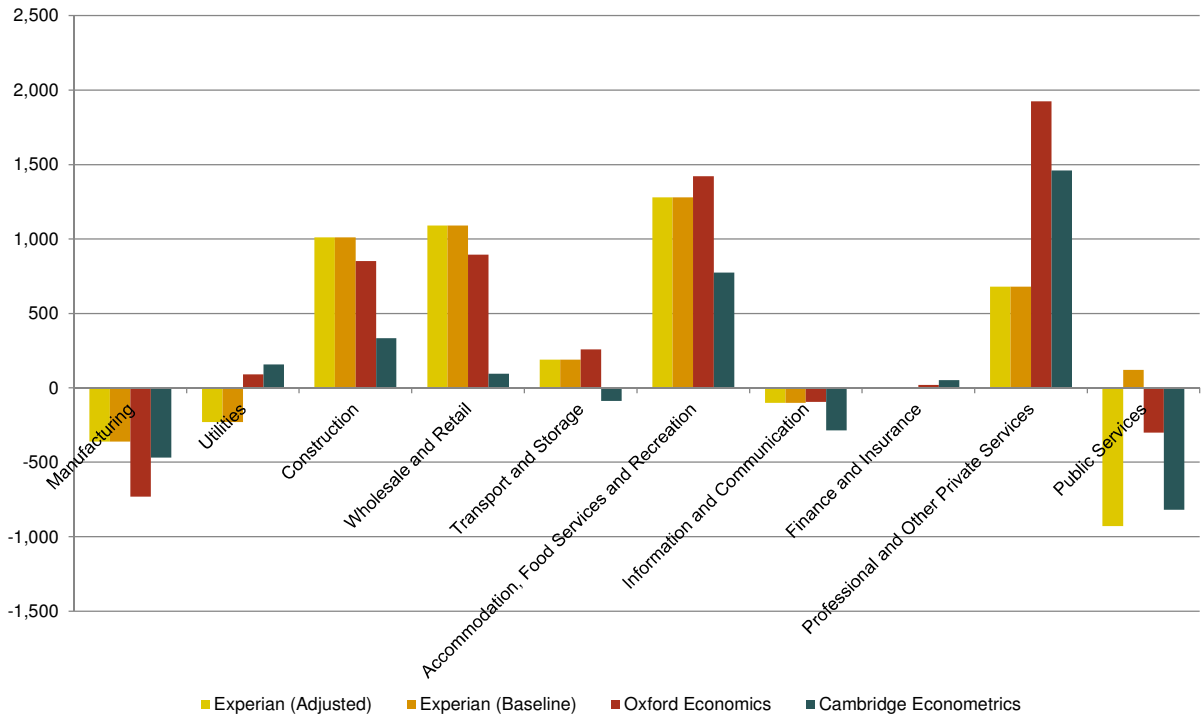
Source: Experian / Oxford Economics / Cambridge Econometrics / NLP analysis

Note: Agriculture, Forestry & Fishing and Mining & Quarrying have been excluded from this comparison as their growth as they have demonstrate low growth and to enable easier visual comparison of the other broad-SIC sectors

2.20   Overall, the Experian (adjusted) figure appears to be closely in line with the average of all three projections, with the OE projections significantly above and the CE projections far below the average. As regards the latter, the forecast growth in the sectors closely related to population growth and consumption, i.e. Construction, Wholesale & Retail and Accommodation, Food Services and Recreation, is particularly low for CE, at just +1,205 compared to +3,380 for Experian and +3167 for OE. Other anomalies appear to be the (unadjusted) Experian growth in public services, which was corrected following the Norcross adjustment.

Adjusting the Base Date

2.21   The difference between the highest rate of employment (workforce-based, rather than residence-based jobs) recorded pre-recession (in 2010) and the lowest rate of employment recorded post-recession (in 2013) is -5,920 within the BRES dataset. The OE dataset provides the closest match with this fall, recording a -6,569 fall (a difference of 649). This compares with CE's fall of -7,383 (a difference of 1,463), Experian's (baseline) fall of 1,290 (a difference of 4,630) and Experian's (adjusted) fall of 2,337 (a difference of 3,583), as outlined in Table 2.2.

Table 2.2   Pre/Post Recessionary employment change within each dataset (relative to BRES decrease)

Dataset	Employment Change (2010-2013)	Difference between Employment Change and BRES decrease over the same period
Experian (adjusted)	-1,290	+ 4,630
Experian (unadjusted)	- 2,337	+ 3,583
CE	-7,383	- 1,463
OE	- 6,569	- 649
BRES	- 5,920	0

Source: Experian / CE / OE / NLP analysis

2.22   Figure 2.6 shows the wide variation between the different projections relative to the source data over this period. It indicates that the BRES job data is significantly lower than all three estimates of the actual number of jobs based in the Borough by OE, CE and Experian. Furthermore, it indicates that the use of a slightly different time period for the projections would have resulted in a very different level of growth.

Figure 2.6   Longer term, recessionary employment trends
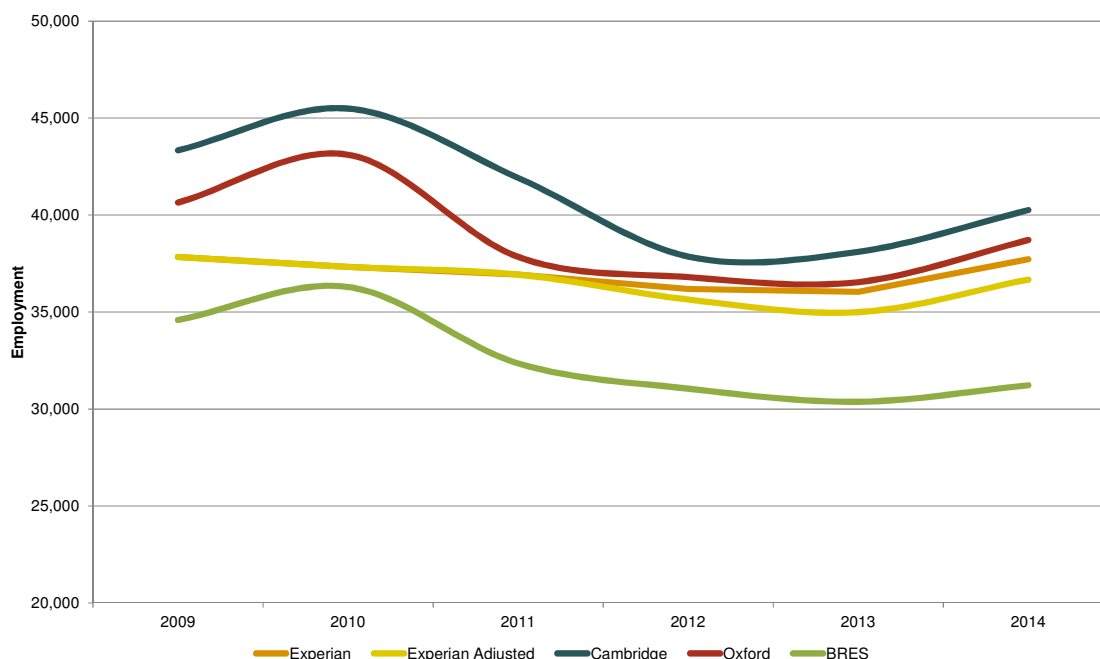
Source: Experian / CE / OE / NLP analysis

2.23   Over the Plan period (2011-2031) the OE projections have the highest increase in employment (+4,304, compared to CE's +1,137 and the adjusted Experian growth of +2,523).

2.24   However, if this projection period started in 2012 instead of 2011, the gain in employment would converge, with Experian (adjusted) projecting +3,811, OE +5,351 and CE +5,194 to 2031. This is due to the CE projections witnessing a sharp fall in growth between 2011 and 2012, a decline which took place a year earlier in the other two projections.

Conclusion

2.25   It is important to recognise that there are inevitably uncertainties and limitations associated with modelling assumptions under any of the future labour demand scenarios considered. In particular, depending upon the methodology applied, there may be data anomalies in the source data used to build the forecasts, which then have the potential to become accentuated over time.

2.26   Whilst Experian, OE and CE provide overall methodologies setting out their broad assumptions in defining their local area based econometric models, they do not disclose the many detailed assumptions they make concerning the local and regional economy, along with the adjustments made to the raw data in order to calculate such forecasts. Because of this, it is difficult to make robust decisions concerning the comparative weight to attach to each forecast for Wyre Borough.

2.27   As noted above, and following discussions with the forecasting company, an adjustment was considered to be necessary to the Experian projections to

address the Norcross anomaly. This does not appear to be necessary for either the OE or CE projections.

2.28 However, as regards the coding error in the 2010 BRES for Business and Support Services, this may have been accentuated in the CE data projections going forward, artificially increasing the growth in this sector.

2.29 Conversely, the growth in many of the other sectors identified by CE appears low when contrasted with Experian and OE, and would represent a marked decline on the level of growth achieved in recent years, recognising that this is partly due to the starting point date. A base date of 2012 would result in a much higher net job growth figure to 2031 using the CE forecasts.

2.30 In general however, the overall trajectory of growth forecast by all three modelling houses appears similar from 2016 to 2031, with the main difference being the variances of growth/decline between 2011 and 2015 and the total number of workforce jobs (with CE starting from a much higher base than BRES, Experian and to a lesser extent OE).

2.31 On balance, it is considered that greater weight should be attached to the (adjusted) Experian and Oxford Economics projections in this instance for Wyre Borough.

3.0   # Employment Land Requirements

Introduction

3.1   This Section considers future employment space requirements in Wyre for the period 2011-2031 by drawing on several methodologies that are guided by the National Planning Practice Guidance and aligned with the approach used to inform the 2015 ELSU. These scenarios are used to inform the assessment of future employment space needs for office and industrial (i.e. manufacturing and distribution) uses using the OE and CE employment projections, with the (adjusted) Experian projections included for comparative purposes. The detailed methodology applied is set out in the 2015 ELSU.

Results

3.2   Table 3.1 summarises the job growth over the Plan period 2011-2031 for Wyre using the OE and CE employment projections, with the job growth separated out by B-Use Classes. This includes an allowance for jobs in other non B-class sectors that typically utilise industrial or office space, such as some construction uses, vehicle repair, courier services, road transport and cargo handling and some public administration activities.

Table 3.1   Forecast Employment Change in Wyre 2011-2031 – Jobs, by Use Class

	Offices (B1a/b)*	Manufacturing (B1c/B2)**	Distribution (B8)***	Total B-class Jobs	Other Non B-Class Jobs	Jobs in All Sectors
Experian (adjusted)	-282	-91	851	478	2,045	2,523
OE	1,100	-412	412	1,100	3,204	4,304
CE	451	-312	-3	135	1,002	1,137

Source: Experian / Oxford Economics / Cambridge Econometrics 2015 / NLP analysis
* includes a proportion of public sector employment and administration & support services
**includes vehicle repair and some construction activities
***   includes elements of transport & communications sectors

3.3   Table 3.1 suggests that of the 1,137 and 4,304 net additional job growth forecast for Wyre by CE and OE respectively, just 12% (135) and 25% (1,100) are likely to relate to B-Class uses. As with the adjusted Experian projection, both the OE and CE projections show an increase in office-based jobs, and a decline in manufacturing-based employment, albeit of a different magnitude. It is interesting that the Experian projections suggest a decline in office jobs going forward, but a substantial increase in the distribution sector compared to a more modest growth in this sector for OE and a neutral rate of growth for CE.

3.4   The B-class element of these employment growth forecasts have been converted to net future employment floorspace requirements by applying the latest published density figures for employment space. This takes into account recent trends in occupancy for the different B class uses.

3.5   To estimate space requirements, the following average ratios have been applied to the job forecasts:

1   **Office:** One B1a/b general office workforce job requires 12.5 sq. m. of employment floorspace [Gross External Area, or GEA];

2   **Industry:** A combined B1c/B2 factor of one job per 42 sq. m. was obtained by taking an average of one B1c light industrial job (47 sq. m.) and one B2 industrial workforce job (36 sq. m.) of employment floorspace [GEA];

3   **Warehousing:** 1 job per 65 sqm is assumed for general, smaller scale warehousing (which characterises the vast majority of warehouse stock in Wyre).

3.6   These assumptions are based on the latest HCA/Offpat guidance on employment densities published in 2010, adjusted to translate FTEs into workforce jobs[6]. This guidance takes account of recent trends in terms of the changing use of employment space, the main change being the more efficient utilisation of office space due to increased flexible working and hot-desking. This has resulted in a decrease in the amount of floorspace per office worker compared to previous guidance.

3.7   An adjustment has been made to reflect the fact that vacancy rates in Wyre are currently around 8% for commercial floorspace and around 5% for industrial/warehousing floorspace[7]. On the basis that a figure of 10% better reflects 'normal' market conditions, the model has assumed that where current rates are lower, the future supply should be adjusted so that the stock is brought back into balance and achieves a vacancy rate of 10% overall by 2031. This way the model ensures that slightly more land is provided to 'boost' vacancy rates to a sustainable level.

3.8   Where a reduction in jobs is forecast (such as within B1c/B2 manufacturing) the associated negative floorspace has been halved to reflect the fact that job decline at a particular company does not automatically translate into a comparable loss of floorspace, at least not in the short-medium term, due in part to companies being locked into long term leasing agreements etc.

3.9   The resultant OE-and CE-based floorspace projections are provided in Table 3.2. Within Wyre they indicate a total net B-class floorspace requirement of 1,206 sq. m. for the CE projections, driven primarily by growth in Offices (B1a/b), with moderate declines in Manufacturing (B1c/B2) floorspace. The equivalent OE figures for Wyre indicate a total net B-class floorspace increase of over 50,500 sq. m., driven primarily by an increase in B1a/b Offices and, to a greater extent, by B8 distribution floorspace alongside a moderate decline in B1c/B2 manufacturing floorspace. Both floorspace projections are below the adjusted Experian figure due to the higher densities afforded to B8 warehousing.

---

[6] Based on HCA/Offpat Employment Densities Guide (2010) and converted to Gross External Area (GEA) and total workforce jobs by NLP
[7] These figures are based upon a vacancy analysis carried out by Keppie Massie, who surveyed all of the key business parks and industrial estates within Wyre Borough to identify current occupancy levels as of Spring 2015.

Table 3.2   Forecast Net Floorspace Change (sqm) in Wyre 2011-2031

	Offices (B1a/b)	Manufacturing (B1c/B2)	Distribution (B8)	Total B-class
Experian (adjusted)	-1,764	-1,917	71,152	67,471
OE	16,550	-8,650	42,602	50,502
CE	7,875	-6,557	-112	1,206

Source: Experian / Oxford Economics / Cambridge Econometrics 2015 / NLP analysis

3.10   The net floorspace figures have been converted into land through the application of a 40% plot ratio as per the 2015 ELSU. The results are provided in Table 3.4 and indicate that the net CE land requirement is minimal, whilst the OE requirement still lags behind the Experian figures due to an increased reliance on higher density office, rather than distribution land.

Table 3.3   Forecast Net Land Change (ha) in Wyre 2011-2031

	Offices (B1a/b)	Manufacturing (B1c/B2)	Distribution (B8)	Total B-class
Experian (adjusted)	-0.44	-0.48	17.79	16.87
OE	4.14	-2.16	10.65	12.63
CE	1.97	-1.64	-0.03	0.30

Source: Experian / Oxford Economics / Cambridge Econometrics 2015 / NLP analysis

Converting Net to Gross

3.11   To convert the net requirement for employment space into gross (the amount of employment space or land to be allocated/planned for), an allowance is typically made for some replacement of losses of existing employment space that may be developed for other, non B-Class, uses in future.

3.12   As with the 2015 ELSU, the following measures have been applied to the net land requirements:

1   Allowing for the replacement of a planned rate of losses equal to 1.49 ha per annum; and

2   A 2-year gross take-up safety margin.

3.13   The results of the scenario modelling for the various projections, including an allowance for a margin of choice and the replacement of losses, are summarised in Table 3.4.

Table 3.4   Wyre Gross Employment Land Comparisons 2011-2031 (ha)

WYRE		Office	Industrial	
		B1a/b	B1c/B2	B8
Experian Baseline Adjusted	2011-2031 (net)	-0.44	-0.48	17.79
	2011-2031 (gross)	46.64		
	+ Flexibility factor	**52.76**		
Oxford Economics	2011-2031 (net)	4.14	-2.16	10.65
	2011-2031 (gross)	42.39		
	+ Flexibility factor	**48.52**		
Cambridge Econometrics	2011-2031 (net)	1.97	-1.64	-0.03
	2011-2031 (gross)	30.07		
	+ Flexibility factor	**36.19**		

Source: NLP analysis

3.14   In summary, the CE projections suggest that the need for employment land will be in the order of 36.2 ha. This is below both the OE and the Experian (adjusted) projections and is driven almost entirely by the need to replace lost stock due to a minimal level of net job growth in the B-class sectors over the period 2011 to 2031. Whilst the OE projection is more positive, this too is below the adjusted Experian scenario. This is despite a higher level of job growth in both the B-Class and non B-class sectors, as it is more weighted towards B1a/b uses which tend to have higher employment densities than B8 warehousing, which dominate the Experian demand trajectory.

4.0   # Conclusion

Introduction

4.1   This final section considers whether the sensitivity testing indicates that a change to the OAN range is necessary.

Implications

4.2   The 2015 ELSU concluded that Wyre Borough's OAN range was between **43 ha to 67 ha** of employment land to 2031, and equivalent to the labour supply (215 dwellings per annum [dpa]) at the lower end of the range, and the past take up scenario at the top end. This range represented a narrowing of the previous ELR's range of between 34 ha – 80 ha.

4.3   This Addendum has modelled two further employment projections and produced two additional requirement figures, of 49 ha (from the OE projections) and 36 ha (from the CE projections).

Figure 4.1   Employment Land Summary of Scenarios
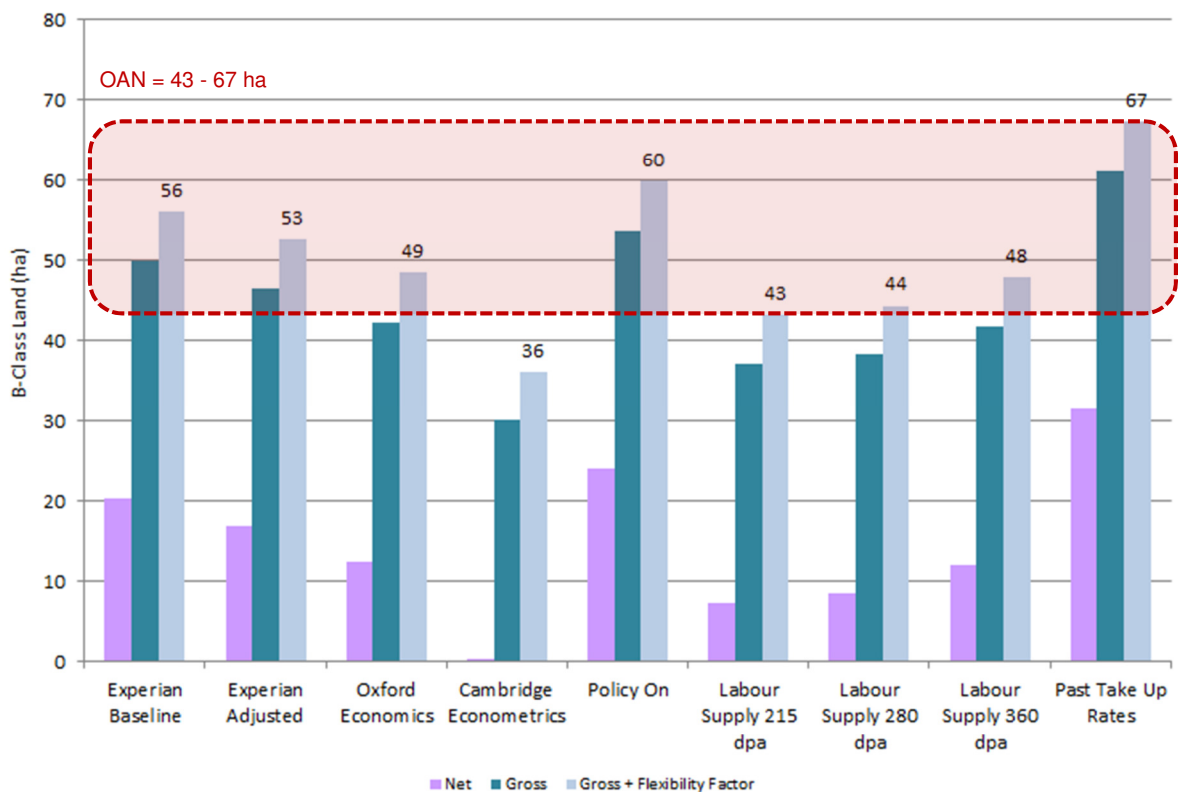
Source: NLP analysis

4.4   It is apparent from Figure 4.1 that the CE projection sits well below even the bottom end of the ELSU OAN range, and is some 7ha below the lowest labour supply scenario. Depending upon where within the 215 dpa-360 dpa labour supply range the SHMA identifies as Wyre Borough's housing OAN, the CE scenario could be even further adrift. It is clearly vital that the Borough's

housing need and employment land need dovetail together, or there is a risk that unsustainable patterns of development to occur.

4.5 As well as being out of step with the labour supply scenarios, the CE job growth projection also indicates a relatively low level of job growth between 2011 and 2031 (although this is due in part to the steep decline in jobs that CE estimated took place between 2011 and 2012; this adjustment happened a year earlier in the OE/Experian modelling). It is also possible that the BRES coding error relating to Business and Support Services in 2010 was not fully corrected in the data and resulted in a higher level of growth in this sector going forward.

4.6 For these reasons it is considered that in this instance, less weight can be attached to the CE projections when identifying Wyre Borough's employment land OAN.

4.7 As for the OE projections, they forecast a similar level of growth as the adjusted Experian projections, albeit the magnitude in terms of employment land requirements is lower due to a greater reliance on higher density office employment rather than B8 distribution. The overall requirement, at 49 ha, is just 4 hectares below the adjusted Experian figures. Hence it is unlikely that if the Policy On scenario assumptions used the OE forecasts as a base rather than the adjusted Experian projections, there would be a marked difference in the resulting level of employment land need.

4.8 On balance therefore, it is considered that the ELSU range of 43-67 ha based on the Experian projections remains robust in the light of the OE and CE sensitivity tests that were modelled. Both the Experian and OE projections appear to remain valid in light of the sensitivity testing, although it is suggested that less weight could be attached to the CE projections in this instance due to anomalies and inconsistencies in certain sectors.

4.9 Ultimately, WBC will be required to make a decision on a suitable level of employment land to be provided in the Borough based on the evidence before it, balancing the social, economic and environmental dimensions to sustainable development in line with the National Planning Policy Framework.

Appendix 1   Experian Data Guide: UK Regional Planning Service (June 2015)

Appendix 2 Oxford Economics Local Authority District Forecasting Model (2015)

Appendix 3   Cambridge Econometrics Local Authority District Forecasting Model (2015)

Nathaniel Lichfield & Partners
Planning. Design. Economics.

Planning Consultancy of the Year · ★ ★ ★ · 2011-2014 RTPI

- Applications & Appeals
- Climate Change & Sustainability
- Community Engagement
- Daylight & Sunlight
- Economics & Regeneration
- Environmental Assessment
- Expert Evidence
- GIS & Spatial Analytics
- Graphic Design
- Heritage
- Property Economics
- Site Finding & Land Assembly
- Strategy & Appraisal
- Urban Design

Bristol
0117 403 1980

Cardiff
029 2043 5880

Edinburgh
0131 285 0670

Leeds
0113 397 1397

London
020 7837 4477

Manchester
0161 837 6130

Newcastle
0191 261 5685

Thames Valley
0118 334 1920

nlpplanning.com