Strategic Distribution of Employment Requirements Background Paper

Introduction

1. Councils in Greater Nottingham have been working jointly and have adopted Aligned Core Strategies. The joint working has also produced a joint evidence base with the Nottingham City Region Employment Land Study (NCRELS) 2007 and its update 2009 underpinning the various Aligned Core Strategies across the Nottingham Core Housing Market Area. NCRELS and its updates have been incorporated into the Greater Nottingham Employment Background Paper June 2012 (EBP) submitted as part of the evidence base for the Aligned Core Strategies of Broxtowe Borough, Gedling Borough and Nottingham City Council and for the separate but aligned Core Strategies of Erewash Borough Council and Rushcliffe Borough Council.

2. Policy 4 (Employment Provision and Economic Development) of the various Aligned Core Strategies[1] requires the Councils to keep under review the need for and supply of office floorspace and industrial/warehousing land and to ensure sufficient supplies of employment land and floorspace remain available over the Plan period. The Policy 4 employment space provisions were set out in terms of minimum requirements to provide some flexibility in meeting unforeseen demand. The Councils are working jointly on a new evidence base in support of their various Local Plan Part 2 documents and other local development documents.

3. The NCRELS work was published in 2007 and updated in 2009 and sets out forecasts of jobs and floorspace requirements for those sectors[2] falling within the Use Classes that are likely to occupy employment space. Originally published in 2007 this work largely predates the economic downturn. At the time of submission of the various Aligned Core Strategies and their subsequent examinations, the Core HMA Councils considered that broadly the scale of job growth originally set out in NCRELS and subsequently updated in the EBP (June 2012) would be a realistic estimate as the economy improves. Furthermore it was also considered that any forecast prepared in the immediate aftermath of the economic crash would inevitably be heavily influenced by the downward economic trends and would be overly pessimistic.

4. The latest Bank of England Inflation Report[3] set out views on prospects for the national economy and in summary concludes that economic growth is strong although the pace of recovery will slow and

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[1] This is numbered Policy 5 in the Rushcliffe Borough Core Strategy
[2] Use Classes Order : includes the Business Class comprising: B1 a) office, B1b) research and development, B1 c) light industry; B2 General industry; and finally B8 Storage or distribution
[3] Inflation Report, Bank of England August 2015

there remain risks to economic activity in the euro area and China. Given the prospects for a sustained economic recovery and the fact that the original NCRELS report is now increasingly out of date it is time to take a fresh look at the need for employment space. The Councils are also mindful of the need to ensure that emerging development plans are supported by an up to date evidence base as required by the National Planning Policy Framework (NPPF) and the National Planning Practice Guidance (NPPG).

5. On this basis, Councils in both the Nottingham Core Housing Market Area (Core HMA) [4] and the Nottingham Outer Housing Market Area (Outer HMA)[5] have commissioned Nathaniel Lichfield and Partners (NLP) to prepare up to date evidence on economic prospects and employment land forecasts separately for both the Core and Outer HMAs. This new evidence called the Employment Land Forecasting Study (ELFS) will support their emerging Local Plans. The findings for the two HMA areas are contained within the same ELFS document.

6. The brief for the NLP study sought to ensure a high degree of compatibility with the methodology employed in the NCRELS to enable comparison. The earlier NCRELS study closely followed the methodology outlined in the ODPM Guidance[6] which has now been superseded by the National Planning Practice Guidance (NPPG) although much of this earlier ODPM guidance remains relevant. The NLP ELFS uses similar methodology to forecasting floorspace requirements to that employed for NCRELS but reflects the more recent NPPF and the NPPG. The latter advises that in considering future floorspace requirements it should be based on a range of data which is current and robust. However, there are some methodological differences in assumptions between the two which are identified later in this paper.

7. In addition to commissioning new employment and floorspace forecasts, NLP were asked to identify Functional Economic Market Areas (FEMAs) and more specifically to provide guidance on whether Hucknall should be treated as part of the Core HMA for planning purposes.

8. This paper is prepared in support of Local Plans being prepared for the Core HMA. In addition to setting out the justification for new economic evidence it summarises the key findings from ELFS and it also provides a comparison with the EBP. Crucially this paper sets out the technical basis for revisiting the distribution of office floorspace provisions in the various Aligned Core Strategies (which form Part 1

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[4] The Core HMA Councils comprise: Broxtowe Borough, Erewash Borough, Gedling Borough, Nottingham City and Rushcliffe Borough. Ashfield District is wholly within the Outer HMA but the town of Hucknall which is within Ashfield District is closely related to Nottingham
[5] The Nottingham Outer HMA includes: Ashfield District, Mansfield District and Newark and Sherwood District.
[6] Employment Land reviews Guidance Note, Office of the Deputy Prime Minister December 2004

Local Plans) and for this revised distribution to be included in Part 2 Local Plans or other local development documents where these are being produced. It also provides the basis for additional industrial land provisions to be included in Part 2 Local Plans where relevant above the minimum level set in the Aligned Core Strategies. This paper relates only to the Core HMA and does not cover the Outer HMA.

Summary of ELFS report – main findings of scenarios

9. Following the advice set out in the NPPG, the NLP work estimates future employment space 2011 – 2033 using both past trends and forecasts based on future econometric and labour supply scenarios as set out below.

   - Labour demand scenarios based on econometric forecasts of future employment change using forecasts provided by Experian Ltd. These include:
      o Base forecast – provides employment forecasts but takes no account of the Local Economic Partnership's (LEP) Strategic Economic Plan for boosting employment growth[7]; and
      o Policy on forecast – this scenario takes account of the LEP's job growth ambitions and includes within the forecast estimates of additional employment growth associated with LEP Priority projects.

   - Labour supply scenario – an estimate of the future workforce based on the housing growth assumed in the Aligned Core Strategies and therefore of the number of jobs required to meet the needs of the workforce.

10. For the Core HMA overall the various scenarios provide a range of office floorspace requirements[8] between 2011 – 2033 of 217,000 sq. m – 502,000[9] sq. m with industrial land ranging from 60 ha – 200 ha[10]. The bottom of the range largely reflects future needs based on projecting past rates of take-up for each Council; however, the ELFS report at paragraph 6.15 mentions various caveats relating to the quality of the take-up data and recommends greater weight should be placed on the labour demand and supply scenarios but notes that the past completions method is a useful yardstick for comparison.

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[7] Local Economic Partnerships have been set up as replacements for regional development agencies. The Local Economic Partnership for Derby, Derbyshire, Nottingham and Nottinghamshire is known as D2N2. The growth strategy is set out in the D2N2 Strategic Economic Plan (SEP) 2014 which sets out priorities for the next 10 years. D2N2 has agreed a Growth Deal (July 2014) with government that supports the LEP priorities.
[8] The ELFS floorspace requirements are expressed as Gross External Area (see ELFS page 88 footnote 51)
[9] ELFS paragraph 6.17 (figures have been rounded to nearest thousand).
[10] ELFS paragraph 6.17 (figures rounded to nearest whole number).

Labour Demand

11. ELFS labour demand forecasts using Experian data are provided up to 2033:

- The Experian base forecasts show an increase of 41,238 jobs[11] by 2033 (includes part time and full time employment)
- Of the 41,238 jobs about 18,400 are forecast to be in B class jobs and 22,800 in non B class jobs such as retail, health or education.
- Manufacturing jobs are forecast to decline by about 3,700 by 2033 although this is not as marked as in the NCRELS study.
- This is partly offset by predicted growth in the warehousing sector of 1,200.
- NLP have provided forecasts that show future job growth taking into account the LEP aspirations which they estimate could result in an additional 12,700 jobs in the Core HMA (called the LEP Policy on scenario).
- Under the LEP Policy on scenario the forecast labour demand to 2033 is for an additional 12,700 jobs giving a total of 53,960[12] jobs across the Core HMA. Of these about 28,600 are expected to be in the B class sectors and around 25,400 in non B class sectors.
- The majority of job growth (Policy on scenario) is expected to be in Nottingham City (29,400) and to a lesser extent Broxtowe (9,400) and Rushcliffe (10,800). More modest job growth is forecast in Erewash (3000) and Gedling (1,300).
- This LEP Policy on scenario takes account of the D2N2 priority projects as set out in its Strategic Economic Plan and the additional employment assumed to be created as a result of LEP intervention in certain projects.
- These LEP projects are located in Nottingham, Broxtowe and Rushcliffe which have the most significant job growth and the biggest uplift in job growth from the base to the LEP Policy on scenarios.

Labour supply

12. ELFS provides estimates of the future supply of labour based on the housing growth assumed in the Aligned Core Strategies. From this housing growth it is possible to derive the number of people resident in those homes and the number of jobs required to meet the needs of that population taking into account economic activity rates, unemployment and commuting patterns.

- Workplace based labour supply across the HMA is forecast to be 47,620 by 2033 which is in between the Experian base and LEP Policy on jobs forecasts of 41,238 and 53,960 respectively.

Past rates of employment delivery

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[11] ELFS Table 5.2
[12] ELFS Table 5.7

13.   Estimates of future employment space needs are provided by projecting forward completions data provided by the HMA Councils. However, NLP consider that the data the take-up is based on is insufficiently robust data of varying quality and from different time periods and therefore do not recommend this method to base future requirements upon. The use of this method indicates:

- Projections based on past completions gives the lowest range of employment space requirements 216,870 sq. m of office and about 60 ha of industrial and warehousing land across the Core HMA.

Hucknall

14.   ELFS has also examined the study area in terms of understanding functional economic market areas. A functional economic market area is defined as an area where at least 75% of the area's resident workforce is also employed in the same area. This test has been applied to the five Core HMA Councils plus Hucknall where results indicate that over 80% of people live and work in the same area. Further analysis indicates that 34% of Hucknall residents live and work within Hucknall whilst 43% commute to jobs in the Core HMA compared to only 8% commuting to the rest of Ashfield (excluding Hucknall). ELFS concludes that Hucknall has stronger linkages to the Nottingham Core HMA than the rest of Ashfield District and as such it is considered appropriate to treat it as part of the Nottingham Core HMA for strategic employment planning purposes.

Comparison between ELFS labour demand with the EBP labour demand

15. Direct comparisons between the ELFS labour demand forecasts and the labour demand forecasts set out in the EBP (based on the earlier NCRELS work) must be subject to certain caveats including the difference in time between their commissioning and the timescales used for forecasting. The earlier work set out in the EBP provides labour supply forecasts to 2028 and the later ELFS to 2033 but the latter does provide a split at 2028. The ELFS also forecasts the total number of jobs as opposed to full time equivalents (FTEs) which was used in the EBP. However, a crude approximation of the likely total jobs arising from the FTEs contained within the EBP can be calculated which is shown in Table 1 column D below (FTEs are shown in brackets). Bearing in mind the caveats about making comparisons set out above, Table 1 compares the ELFS labour demand forecast against the earlier EBP forecast based on NCRELS and its distribution to individual Councils.

Table 1: comparing ELFS labour demand and workforce forecasts and ACS EBP labour demand to 2028

A	B	C	D	E
Council	ELFS Experian Baseline additional jobs (Nottm adjusted)[13]	ELFS Policy on additional jobs (Nottm adjusted) Difference between B+C is in ()s.	EBP ACS additional jobs to 2028 FTEs[14] in ()s	ELFS workforce supply to 2028
Broxtowe	5,647	7,902 (2,255)	4,824 (4,100)	1,394
Erewash	2,212	2,223 (11)	4,824 (4,100)	4,190
Gedling	796	807 (11)	4,353 (3,700)	3,048
Nottingham	14,086	23,610 (9,524)	23, 647 (20,100)	21,682
Rushcliffe	7,369	8,289 (920)	5,176 (4,400)	6,483
ACS Plan Area	20,529	32,319 (11,790)	32,824 (27,900)	26,124
HMA	30,110	42,831 (12,721)	42,824 (36,400)	36,797

Source: ELFS (NPL) 2015 Table 5.2 (column B). Column C is calculated by adding the additional jobs set out in the final column of ELFS Table 5.7. Column D is taken from Employment Background Paper June 2012 paragraph 75. Column E based on ELFS Table 2.4 where 2028 figures are calculated from the 2033 forecast on a pro rata basis.

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[13] The Experian job forecasts were adjusted to account that the employment base forecast includes some large companies in Nottingham where employees were recorded incorrectly (ELFS paragraph 5.13).

[14] The EBP figures have been converted into FTEs. See appendix for calculations.

16. At 2028, table 1 above shows that:

- The ELFS Policy on forecast for the HMA to 2028 results in an estimated 42,831 jobs which is similar to the EBP total jobs figure estimated at 42,824 (derived from the FTEs as set out in column D Table 1);
- Job demand in comparison with the earlier EBP work is distributed in a different way across the various Councils. Comparing columns C and D shows significant increases in Broxtowe and Rushcliffe and significant reductions in both Gedling and Erewash. Nottingham City's total jobs forecasts is very similar in both the ELFS and EBP forecasts
- The LEP Policy on scenario adds 12,721 jobs which are expected to be additional jobs created from LEP projects located within Broxtowe, Nottingham City and Rushcliffe.
- Comparison between ELFS Policy on total jobs forecast and labour supply by 2028 indicates more jobs than labour supply (columns C and E)

Table 2: comparing ELFS labour demand and workforce forecasts and ACS EBP labour demand to 2033

A	B	C	D	E
Council	ELFS Experian Baseline total jobs (Nottm adjusted)	ELFS Policy on total jobs (adjusted) to 2033.	Employment Background Paper ACS total jobs to 2033[15] (FTEs in brackets)	ELFS workforce supply to 2033
Broxtowe	7,174	9,429	6,242 (5,306)	1,804
Erewash	3,009	3,020	6,242 (5,306)	5,422
Gedling	1,307	1,318	5,633 (4,788)	3,945
Nottingham City	19,914	29,439	30,602 (26,012)	28,059
Rushcliffe	9,834	10,754	6,699 (5,694)	8,390
ACS Plan Area	28,395	40,186	42,478 (36,106)	33,808
HMA	41,238	53,960	55,419 (47,106)	47,620

Source: ELFS Table 2.4 (columns B, C, E) and Employment Background paper June 2012 para 75.

Main findings

17. By 2033 table 2 above shows that:

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[15] The EBP sets out how the labour demand forecast is distributed to each Council. These figures were extrapolated to 2033 by dividing by 17 and multiplying by 22. Total jobs were derived by multiplying FTEs by 100/85. See appendix for calculations.

- The ELFS Policy on jobs forecast of almost 54,000 across the HMA for 2033 is similar to EBP (about 55,400) when the latter is expressed as total jobs (see columns C + D) albeit the EBP forecasts are slightly more optimistic.
- At 2033 the total number of jobs is about 54,000 (part time and full time) which is greater than the work place based labour supply forecast of about 48,000 a difference of 6,000.

Table 3: ELFS labour demand and supply in FTEs to 2028 and EBP labour demand to 2028 in FTEs

A	B	C	D	E
Council	ELFS Experian Baseline FTE jobs (Nottm adjusted) [16]	ELFS Policy on FTE jobs (Nottm adjusted)[17].	Employment Background Paper ACS FTEs	ELFS workplace labour supply[18]
Broxtowe	4,800	6,717	4,100	1,394
Erewash	1,880	1,890	4,100	4,190
Gedling	677	686	3,700	3,048
Nottingham	11,973	20,069	20,100	21,682
Rushcliffe	6,264	7,046	4,400	6,483
ACS Plan Area	17,450	27,471	27,900	26,124
HMA	25,594	36,406	36,400	36,797

Source: Column B is taken from ELFS Table 5.2 Experian base forecast.
Column C - ELFS Table 5.2 plus additional jobs added to the baseline forecast set out in final column ELFS Table 5.7 adjusted to FTEs.
Column D - Employment Background Paper June 2012, paragraph 75.
Column E - ELFS Table 2.4 (ACS workplace labour supply) derived for 2028 on a pro rata basis.

18. Table 3, above compares labour demand and supply in FTEs at 2028 which gives a more balanced picture.

- At 2028 labour demand in FTEs is approximately 36,400 compared to a labour supply estimated at about 36,795.
- Comparison also shows the ELFS labour demand and supply forecasts are in line with the EBP forecast of 36,400 FTEs at 2028[19]

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[16] ELFS Table 5.2 adjusted to reflect FTEs which are approximately 85% of total jobs. Note the ELFS Experian job forecasts were adjusted to take account that the employment base includes some large companies in Nottingham where employment is recorded incorrectly (see ELFS paragraph 5.13).

[17] ELFS Table 5.2 adjusted to reflect that FTEs are approximately 85% of total jobs (see appendix).

[18] ELFS Table 2.4 - the 2028 figures were calculated on a pro rata basis by dividing the 2033 figure of 47,620 by 22 and multiplying by 17. This is a work place based forecast of people potentially economically active in future.

[19] It should be noted that the ACS Employment Background Paper June 2012 has considered the ACS housing provisions and labour demand and states: "the overall conclusion is that the provision of housing across the HMA is commensurate with planned anticipated labour demand implied by economic policies and assumptions, bearing in mind also the uncertainty of long-term (EBP para 61).

19. It is recognised that a proportion of economically active people will work part time and some will have more than one part time job. Further consideration of the impact of part time working is set out below in the section "Balancing Labour Demand and Supply".

Labour demand Forecasts by employment sector to 2033

Table 4: Forecast employment Change Policy on – by sector to 2033

Council	Offices	Manufacturing	Distribution	Non B Class	Total Jobs	Jobs FTEs
Broxtowe	3,625	2616	248	2,940	9,429	8015
Erewash	462	-1,173	-524	4,255	3,020	2,567
Gedling	540	155	792	-169	1,318	1,120
Nottingham	17,652	-4,403	-372	16,562	29,439	25,023
Rushcliffe	6,772	881	1,326	1,776	10,754	9,141
ACS Plan Area	21,817	-1,632	668	19,333	40,186	34,158
Core HMA	29,051	-1,924	1,470	25,364	53,960	45,866

Source: ELFS Table 5.7

20. Like the earlier work in the EBP, ELFS provides jobs forecasts for office, manufacturing and warehousing/distribution. Table 4 sets out the forecasts for each Council, ACS Plan Area and for the Core HMA and the following points are worth noting:

- That virtually all employment growth is in office based jobs and in non B class jobs (including health, retail and education) with the office sector making up 54% of the total growth in jobs;
- The NLP Experian Policy on forecasts further declines in manufacturing employment (approximately -2,000) although this decline is not as marked as in the earlier NCRELS and is nearly balanced by growth in the warehousing sector (about 1,500) indicating this sector is stabilising;
- a net growth of 53,960 jobs is forecast at an average of 2,452 per annum in comparison the EBP forecast a total annual growth in all jobs of 2,519.
- In terms of FTEs this job growth to 2033 is estimated at 46,000

21. Most significant is the long term trend of growth in service type jobs and further decline in manufacturing employment which was very evident in the earlier NCRELS work although according to ELFS the loss of employment in the manufacturing sector is anticipated to be far less in future.

Floorspace Requirements

22. The ELFS provides floorspace requirements under the various scenarios which are reproduced in Table 5 below which provides forecasts for 2028 and can be compared with the ACS Policy 4 floorspace provisions set out in column E. Like the EBP, the Experian base (column A) and LEP Policy on (column B) labour demand forecasts have been translated into floorspace and land requirements for office uses and separately for industrial/warehousing. The ELFS study converts total jobs to floorspace taking into account that some workers are part time.

23. The ELFS study also converts the likely labour supply (based on the ACS housing provisions) into land requirements using the same density and plot ratio assumptions as for the labour demand scenarios (column C).

24. The Core HMA Councils accept the findings in the ELFS report that the data on past completions is insufficiently robust and reliable to base future employment space provisions upon for the reasons set out in ELFS paragraph 5.89 and 5.90. Given this, the requirement for employment space based on past take-up is excluded from Table 5.

Table 5: Floorspace Requirements and comparison with the ACS

Council/Area	A	B	C	D	E
	Experian baseline 2011 - 28	Policy-on 2011-28	Labour supply	ELFS range 2011 - 2028	ACS Core Strategies 2011-28
HMA office	291,131	404,069	316,763	291,000 – 404,000	420,800
HMA I/W	107	128	129	107 - 129	67
Broxtowe office	36,545	49,810	24,555	25,000 – 50,000	34,000
Broxtowe I/W	25.57	37.36	12.08	26 - 37	15
Erewash office	19,411	19,464	23,120	19,000 – 23,000	42,900
Erewash I/W	3.84	3.87	10.11	4 - 10	10
Gedling office	5,781	5,834	8,537	6,000 – 9,000	23,000
Gedling I/W	10.68	10.73	18.24	11 - 18	10
Nottingham office	148,083	245,072	185,178	148,000 – 245,000	253,000
Nottingham I/W	30.71	34.84	56.66	31 - 57	12
Rushcliffe office	81,311	83,889	75,373	75,000 – 84,000	67,900
Rushcliffe I/W	36.16	41.37	32.39	32 - 41	20

Source: ELFS Appendix 11 tables 6.1 – 6.6

25. Analysis of table 5 indicates the following points:
   - The policy on and baseline forecast requirements for office differ by about 113,000 sq. m due to approximately 8,000 additional office based jobs created under the LEP Policy on scenario.
   - The ELFS LEP Policy on labour demand forecast for the HMA office space to 2028 is slightly below the HMA forecast for office space in the EBP; however in line with the jobs forecasts the distribution of demand across the Councils is different to that in the EBP. It is higher in Broxtowe and Rushcliffe but less in Erewash and Gedling.
   - The ELFS estimated range for industrial and warehousing sectors is relatively narrow between 107 and 129 ha.
   - The LEP Policy on forecast for industrial and warehousing is significantly higher than the HMA forecast set out in the EBP due largely to the fact that manufacturing employment is forecast to decline less rapidly than the original NCRELS and there are substantial increases in requirements for Nottingham, Broxtowe and Rushcliffe compared to the ACS provision.
   - For office space the labour supply method results in a requirement that lies between the ELFS LEP Policy on and base scenarios.
   - For manufacturing and warehousing the labour supply estimate is very close to the LEP Policy on scenario and is above the earlier HMA forecast set out in the EBP.

26. A key difference between the ELFS forecasts and the earlier EBP is that fewer job losses in manufacturing are expected as employment in this sector stabilises in line with the LEP SEP. NLP have accounted for planned losses in manufacturing sites (from SHLAA data) and consider that some of this space will need to be replaced which together with a growing warehousing sector means that demand for industrial and warehousing land is estimated to be far higher than the earlier EBP.

27. However, there are methodological differences in assumptions between the ELFS and the EBP that would result in some differences in how jobs translate into floorspace. These differences are as follows:

   - the later ELFS study is based on the latest HCA Floorspace Densities Guide[20]:
     - For office employment, ELFS uses 12.5 sq. m per worker as the most recent data available and reflecting recent trends towards the more efficient use of floorspace. In contrast the EBP is based on 15 sq. m per worker.
     - For industrial jobs, ELFS uses a job density of 42 sq. m per worker and for warehousing 1 job per 65 sq. m is assumed for smaller scale warehousing and 1 job per 74 sq. m for larger[21].

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[20] Homes and Communities Agency Floorspace Densities Guide 2nd Edition 2010
[21] A 50% split between large and smaller warehousing was assumed.

> o The NCRELS was based on a composite average for industrial and warehousing space of 42 sq. m per worker.

28. The two studies therefore differ slightly in terms of assumptions about worker to floorspace densities. The different assumptions in worker densities in the ELFS study reduce the office floorspace requirement for a given amount of office jobs in comparison to NCRELS because it is assumed more workers occupy less space (resulting in a reduction in floorspace requirements of about 17%). For manufacturing and warehousing the opposite effect occurs firstly because warehousing is separated out from the composite average used in NCRELS and also because of the lower worker to floorspace density rates applied. The Councils consider this is entirely reasonable because firstly, NPL have used the latest available data on floorspace density which reflects recent trends. Secondly the growing specialisation of the warehousing sector and its growing importance in the Core HMA justifies a more tailored approach using the latest evidence on job density.

Balancing labour demand and labour supply

29. The total labour demand is estimated to be 54,000 additional jobs (full and part time to 2033) which is equivalent to about 46,000 FTEs. Comparison with the forecast workplace based labour supply indicates that the labour supply would be about 48,000 indicating that by 2033 the labour demand expressed as FTEs would broadly balance with labour supply. In terms of total jobs the difference is about 6,000 indicating that total jobs would be greater than the potential number of work placed based labour supply although some of these would work part time and some would have more than one job.

30. Research from ONS published in November 2014[22] shows that 1 in 10 of all workers would like more hours and in part time workers it is 1 in 5 (22%). According to the APS in 2014 just under 30% of people worked part time in the Core HMA and assuming 1 in 5 want more hours (based on the national figures) then about 21,000 of these are willing and available to work longer hours. This provides a significant additional pool of labour available to match job opportunities.

31. The forecast workplace based labour supply assumes that commuting rates remains the same over the forecast period to 2033. It has been estimated that the HMA as a whole experiences net out-commuting of approximately 3,000 workers. However, new Travel to Work Areas (TTWA) were released in September 2015 based on commuting data from the 2011 Census. Analysis of the Nottingham TTWA[23] indicates that there was a net outflow of 9,050 people. Whilst, the area covered

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[22] Source: "Underemployment and Overemployment in the UK", ONS November 2014.
[23] Nottingham City Council: 2011 Census Nottingham City Travel to Work Areas, September 2015

by the Nottingham TTWA is not exactly the same as the Core HMA it nevertheless indicates that there are significant net outflows of commuters. A reduction in out commuting is a desirable policy objective and one made more achievable by the policy of urban concentration with regeneration in the ACS. Accessible locations, mixed use development and improved public transport are key policies in the ACS along with complementary efforts to match people and jobs through training and development. There is likely to be a greater opportunity for people to work more locally and the out-commuters are a potential source of additional workers.

32. On a cautionary note a quantitative analysis of this nature can only result in broad approximations when considering the balance between labour demand and supply. Small changes in assumptions for example, unemployment rates and economic activity rates can lead to significantly different results in the labour supply. It should also be borne in mind that the labour force estimates are based on population data which can be projected forward with a relatively high degree of certainty, whereas the jobs data is based on econometric modelling which is less certain, especially over the longer term.

33. However, on the above findings and having taken into account the uncertainties highlighted, the Councils consider that the working population and job growth are broadly in balance at 2028 and 2033. In terms of total jobs a small short fall could potentially happen, however, it would not be significant and could be filled by more part time workers doing additional hours and by reductions in out commuting.

Revised distribution of office and additional industrial/warehousing land

34. The Councils across the Core HMA are committed to working with the LEP in terms of delivering the SEP priorities many of which are on committed employment sites such as the Boots Enterprise Zone. It is appropriate therefore to adopt the higher end of the range (LEP Policy on scenario) as the basis for setting out employment requirements in Part 2 Local Plans and other local development documents.

35. For the HMA as a whole the LEP Policy on forecasts of labour demand or jobs is similar to the original NCRELS findings which underpin ACS Policy 4. As set out above, this LEP Policy on job forecast translates into a similar level of office floorspace to the EBP but for industrial and warehousing land there needs to be a significant uplift.

36. ACS Policy 4 requires the Councils to keep under review the level of development of office floorspace and the need to maintain an adequate supply to be set out in Part 2 Local Plans. The ELFS study provides a refreshed assessment of need for office employment space and the basis for reviewing its supply and distribution in part 2 Local Plans.

37. For industrial and manufacturing space, the ACS Policy 4 set out the need for joint working to ensure that a sufficient supply of land is maintained to provide for a range and choice of sites in part 2 Local Plans to 2028. For Broxtowe, Gedling and Nottingham the minimum provision is 37 ha, to which needs to be added Rushcliffe's figure of 20 ha and for Erewash 10 ha giving a HMA wide minimum figure of 67 ha. The ELFS evidence indicates that a significantly greater quantity of B1 c), B2 and B8 employment land is required.

38. The review of the likely labour demand and subsequent employment space requirements indicate that the HMA Councils should plan for more industrial and warehousing land across the HMA above the minimums provided by the ACS and the Erewash and Rushcliffe Core Strategies. For office floorspace the latest ELFS evidence suggests a modest redistribution of office floorspace is required to provide office space in the more attractive locations and to support LEP priorities.

39. It is worth stressing that ELFS provides employment space requirements for each Council area but emphasises that the distribution of this need must be considered across the HMA as a whole as set out in ELFS paragraph 6.18 in the following terms:

    "The need for office and industrial/warehousing floorspace should be considered on a Core HMA wide basis and the distribution between the constituent authorities should have regard to the strategy of urban regeneration and the strategic

priorities and locations set out in the 2014 Aligned Core Strategy (ACS)".

40. The Core HMA Councils consider that the ELFS evidence justifies firstly, a limited redistribution of office floorspace is needed in Part 2 Local Plans; secondly, additional land for manufacturing and warehousing to be allocated in LP2s in line with the following principles:
   - The strategy of the ACS of urban concentration and regeneration
       - To support Nottingham City as a regional centre and the town centres of Arnold, Beeston and Bulwell;
       - To provide significant levels of economic development as part of SUEs and to support brownfield regeneration sites for example, Stanton Regeneration Site and Gedling Colliery;
       - To support knowledge based sectors in general and expansion of the universities.
   - To reflect the commitment to support the LEP SEP and the need to implement committed or allocated sites/projects including for example, Boots Enterprise Zone, Rolls Royce, and A46 Corridor Projects
   - The general availability and location of employment land supply
   - To meet shortfalls in sustainable locations , for Nottingham City which cannot meet its own need for industrial land;
   - To protect the Nottingham Derby Green Belt.

41. The proposed distribution is set out in Table 6 below and indicates the broad level of provision required in each Council area to meet requirements. The proposed figures are not precise targets but provide guidance for local plans.

Table 6: Revised Distribution of office and manufacturing/warehousing space

Council	Policy on		Proposed distribution		ACS provisions		ACS comparison	
	I+W ha	Office (rounded) sq. m	I+W ha	Office Sq. m	I+W ha	Office Sq. m	I+W ha	Office Sq. m
Broxtowe	37	49,800	15	34,000	15	34,000	same	same
Erewash	4	19,500	10	42,900	10	42,900	same	same
Gedling	11	5,800	19	10,000	10	23,000	+ 9	- 13,000
Nottingham City	35	245,100	25	253,000	12	253,000	+ 13	same
Rushcliffe	41	83,900	50	80,000	20	67,900	+ 30	+12,100
Core HMA	128	404,100	119	419,900	67	420,800	+52	-900

Source: ELFS/Core HMA Councils

District commentary

Nottingham
42. The office provision remains the same as set out in ACS Policy 4 reflecting the pre-eminence of Nottingham City as a Regional Centre and that there are substantial commitments including LEP priority sites such as the Nottingham Creative Quarter, Broadmarsh and Southern Gateway and the Boots Enterprise Zone (located in Nottingham City and Broxtowe Borough). The amount of industrial and warehousing land increases from 12 ha in the ACS to 25 ha which is the effective capacity of Nottingham City to accommodate industrial and warehousing development and the shortfall of 10 ha may be sought in the surrounding Districts.

Gedling
43. Gedling office provision has been reduced from 23,000 sq. m to 10,000 sq. m which reflects the findings of the ELFS study that demand for offices is likely to be less than previously anticipated. However, the Borough is forecast to require a similar amount of industrial and warehousing land to the ACS and it is also well placed to support Nottingham City in meeting its needs. The office capacity for the District has been reassessed following planning permission being granted at Teal Close (for a maximum of 4,500 sq. m of office space) with significant potential remaining at the Top Wighay Farm Sustainable Urban Extension for both office and warehousing and distribution.

44. Industrial and warehousing land is available in the Borough and is well located to meet some of the needs arising from Nottingham City and therefore its requirement for industrial/warehousing land rises from 10 to 19 ha.

Broxtowe
45. Broxtowe Borough has significant employment sites already identified which includes LEP priority sites including the Boots Enterprise Zone. The Borough is also the potential location for the HS2 hub station and ELFS notes that whilst Toton is not currently a strong location for employment land, the potential HS2 hub station could facilitate a step change in the market opening up the area to business and based on the Volterra[24] analysis could support up to 1,500 jobs. However, ELFS concludes that it will take time for the commercial market to become established which would be consistent with experience at other high speed rail stations and therefore any job growth is unlikely in the short/medium term and more likely to take place late in the plan period.

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[24] Maximising the Economic Benefits of the East Midlands HS2 Station at Toton, Volterra Partners, November 2013.

46. Broxtowe Borough is heavily constrained by Green Belt given the need to maintain openness between Nottingham and Derby and to avoid coalescence with the Erewash Towns. The employment space both office and industrial and warehousing remain as set out in the ACS which is similar to the level of existing availability of employment land.

Erewash

47. The economic potential of this Borough is highly dependent upon the former Stanton Regeneration Site. This is an allocated SUE where significant levels of employment space are planned including 10 ha of general industrial and warehousing land and 10 ha for a B1 a) business park which could support about 42,000 sq. m of office space.

Rushcliffe

48. ELFS indicates that transport improvements especially the A46 have enhanced Rushcliffe's attractiveness as a business location which also benefits from improved access along the A453 to the M1 motorway and the East Midlands Airport. This is reflected in the number of strategic allocations and other planned commitments in the adopted Core Strategy which ensure that there is availability of good quality sites in Rushcliffe well placed to meet industrial and warehousing needs arising from the HMA. LEP priority projects have been identified along the A46 Corridor and it is assessed that allocated sites in Rushcliffe could support 80,000 sq. m of office space and 50 ha of Industrial and warehousing land.

Hucknall (Ashfield District)

49. There is sufficient employment land supply identified in Hucknall (about 40 ha) against both the Policy on and labour supply forecasts which indicate a range of between 11 and 21.5 ha of industrial and warehousing land and 5,000 to 6,000 sq. m of office space. Ashfield District does not consider the estimates of employment space based on past take-up to be realistic. In terms of supply over 40 ha of employment land is identified within the Hucknall Area which includes the strategic site at Rolls Royce. This site is a LEP priority and is acknowledged in the ACS as of sub-regional importance that will help serve Greater Nottingham. Given its location, scale and nature this site will help meet demand arising from both the Nottingham Core and Outer HMA areas.

Other Districts

50. A strategic rail freight distribution facility is proposed in North West Leicestershire called the East Midlands Gateway to be located north of East Midlands Airport close to Junction 24 of the M1. This will comprise rail connected distribution facilities and container handling and also manufacturing and processing which is expected to create 7,000 jobs. A decision on the latter is expected late in 2015 or early 2016.

Overall Conclusions on distribution

51. There is a modest shortfall of 9 ha (about 7%) between the identified supply of industrial and warehousing land in the HMA and the Policy-on scenario. This modest shortfall is not felt to be strategically significant for the following reasons:

   - There are inherent difficulties associated with forecasting future job growth especially over the longer term given the need to make assumptions about so many socio economic variables including for example, population growth, economic growth rates, unemployment rates and economic activity, interest rates etc.
   - Therefore like all forecasts ELFS will be subject to margins of error and these are likely to be larger than the 7% shortfall identified in paragraph 50 above.
   - There are also uncertainties about assumptions relating to the additionality of jobs assumed in the Policy on scenario. It is necessary to make assumptions about the timing and implementation of certain priority development projects. However, experience demonstrates that implementation of development projects is subject to considerable uncertainty. A case in point is the potential job growth associated with the proposed HS2 hub station at Toton which is most likely to occur in the longer term as the commercial property market slowly establishes itself around the potential development of the station hub which is not expected to be operational until 2033.

52. For the reasons set out above the forecasts must be viewed as a guide and not a precise target. In addition to the employment land supply identified within the Core HMA Councils there is also potential supply on strategic sites in nearby adjoining Council areas that are also potentially available to the market including the sub regional site at Rolls Royce Site (Hucknall) and the proposed East Midlands Gateway near M1 junction 24 which would contribute to meeting needs for office, industrial and warehousing floorspace over a wider area.

Appendix

Calculations

Table A1: Employment Background paper: Distribution of Jobs to each Council

Council	Jobs FTEs
Broxtowe	4,100
Erewash	4,100
Gedling	3,700
Nottingham City	20,100
Rushcliffe	4,400
Hucknall	900
Total	37,400

Source: paragraph 75 Employment Background Paper June 2012

Note: Hucknall is not part of the Core HMA and the sum of the Core HMA Councils job figures excluding Hucknall is 36,400 (figs may not sum exactly due to rounding).

Table A2: Employment Background Paper distribution of jobs extrapolated to 2033

A	B	C	D	E
Council	**2028 jobs FTEs**	**2028 total jobs**	**2033 jobs FTEs**	**2033 Total Jobs**
Broxtowe	4,100	4,824	5,306	6,242
Erewash	4,100	4,824	5,306	6,242
Gedling	3,700	4,353	4,788	5,633
Nottingham City	20,100	23,647	26,012	30,602
Rushcliffe	4,400	5,176	5,694	6,699
ACS Plan Area	27,900	32,824	36,106	42,478
HMA	**36,400**	**42,824**	**47,106**	**55,419**

Notes
B taken from paragraph 75 of the Employment Background Paper
C = B*100/85 as FTEs are estimated as 85% of total jobs. This is based on the Annual Population Survey 2014 estimate that people working part time comprise just under 30% of the Core HMA workforce. Assuming each part time worker works on average 50% of the hours of a full time job means that for every 100 workers 70 would be full time and 30 would be part time doing the equivalent of 15 jobs. Therefore the ratio is 100 total jobs = 85 FTEs or 85%.
D = column B divided by 17 (the years of the plan period 2011 – 2028) and multiplying by 22 to obtain figures for 2033 on a pro rata basis.
E = D*100/85 to get total job numbers)

ELFS forecasts to 2028

Table A3: Extract of ELFS Table 2.4 Total Workforce Jobs 2011 - 2028 (total jobs)

Council	2011	2016	2021	2026	2028	change 2011 - 2028
Broxtowe	43,000	44,918	46,531	48,071	48,647	5,647
Erewash	42,116	42,964	43,309	44,029	44,328	2,212
Gedling	35,775	35,451	35,746	36,286	36,571	796
Nottingham	219,706	227,580	238,452	250,864	255,701	35,995
Nottingham adjusted	196,200	196,751	201,185	20,7774	210,286	14,086
Rushcliffe	45,202	46,645	48,974	51,564	52,571	7,369
Core HMA total	36,2293	366,729	375,745	387,724	392,403	30,110
ACS total	**27,4975**	**277120**	**283,462**	**292,131**	**295,504**	**20,529**

Source: taken from Table 5.2 ELFS

Table A4: ELFS baseline and Policy on forecasts to 2028 total jobs and FTEs

A	B	C	D	E	F
Council	ELFS Experian Baseline total jobs (Nottm adjusted)	ELFS Experian Baseline FTE jobs (Nottm adjusted)	ELFS additional jobs and difference from the baseline	ELFS Policy on total jobs (adjusted)	ELFS Policy on jobs in FTEs
Broxtowe	5,647	4,800	2,255	7,902	6,717
Erewash	2,212	1,880	11	2,223	1,890
Gedling	796	677	11	807	686
Nottingham	14,086	11,973	9,524	23,610	20,069
Rushcliffe	7,369	6,264	920	8,289	7,046
ACS Plan Area	20,529	17,450	11,790	32,319	27,471
HMA	30,110	25,594	12,721	42,831	36,406

Notes
Column B from ELFS Table 5.2 derived by taking 2028 column for each Council and subtracting the 2011 column figures for e.g. Broxtowe 2028 job figure is 48,647 minus 2011 figure of 43,000 = 5647.
Column C = B*85%
Column D is taken from ELFS Table 5.7
E = B+D
F = E*85%