

# **Economic Needs Assessment Update**

## Central Lincolnshire

March 2020

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# Executive Summary

1. Turley has been commissioned by the Central Lincolnshire authorities of Lincoln, North Kesteven and West Lindsey plus Lincolnshire County Council to update the Economic Needs Assessment<sup>1</sup> (ENA) formerly produced in June 2015 to inform the joint Local Plan – adopted in April 2017 – as part of a review process that commenced in January 2019.

## Revisiting the earlier evidence base

2. This update has considered the recent economic performance of Central Lincolnshire, relative to the employment growth that was envisaged in the 2015 ENA based on data available at that time.
3. The 2015 ENA eventually favoured a baseline forecast that would have seen a total of 628 jobs created on average each year throughout Central Lincolnshire over the current plan period (2012-36). It did, however, also apply adjustments to this baseline where necessary to fully reflect local circumstances and avoid understating the potential for growth, producing a “High Growth” scenario alongside a “Lower Growth” scenario that respectively envisaged the creation of between 819 and 936 jobs throughout Central Lincolnshire each year.
4. While acknowledged to be long-term forecasts that indirectly allow for economic cycles and are rarely accurate by their nature, the passage of time allows the assumptions made in these forecasts to be critically tested against local trends reported over the initial six years of the plan period to 2018, for which data is available. This has revealed that:
  - **Around 1,850 jobs per annum have been created on average in Central Lincolnshire over the plan period to date**, far exceeding – on an average annual basis – the growth anticipated within the range of scenarios presented in the 2015 ENA. Whilst evidently significant in scale, this rate of growth does not appear exceptional in the context of positive regional and national trends in this time;
  - **The departure from the forecasts has been particularly pronounced in certain sectors.** The business administration and support sector has seen job growth substantially beyond that envisaged in the 2015 ENA, even when allowing for its optimistic adjustment to the baseline. Accommodation and food services have also seen stronger job growth than was anticipated, while manufacturing has seen job growth rather than the envisaged decline. Some sectors, most notably retail and wholesale, have also experienced job losses to date rather than the growth that was forecast in the ENA;
  - **Growth has not been uniform below local authority level reflecting the varying performance of individual businesses**, albeit most areas – notably in parts of Lincoln and North Hykeham – have seen increased employment. Job losses seen

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<sup>1</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment

in a minority of statistical areas have generally been less pronounced than the gains experienced elsewhere;

- **There has been only a modest shift in the occupational structure of the workforce**, with no evidence of a significant move towards roles that typically attract higher or lower salaries albeit with the average earnings of those working in Central Lincolnshire having nonetheless risen in recent years;
  - **There has been an increasing supply of floorspace within commercial properties which has created additional capacity to support employment growth**. The overall stock of floorspace has grown over the plan period, and vacancy has reduced, although the latent capacity provided by businesses' occupation of vacant space now appears to have been largely exhausted. On this basis, a further growth in employment will likely need to be supported by additional floorspace or a more intensive use of existing space; and
  - **Reduced unemployment amongst residents is likely to have supported job growth to date**. The latest available data to 2018 indicates that the rate of unemployment has fallen from the recessionary high recorded at the start of the plan period to a notably low level. The economically active population has also increased in size, but the *rate* of economic activity is largely unchanged due principally to an ageing population and a general fall in the participation of students in the labour force. This suggests that Central Lincolnshire has a relatively tight labour market with potentially limited latent capacity to service future demands generated by the growth of local businesses.
5. The apparent divergence from the forecasts of the 2015 ENA is considered to justify a reassessment of the potential scale and profile of future job growth in Central Lincolnshire over the period to be covered by the new Local Plan (2018-40). This will ensure that the review of policies is informed by up-to-date evidence, as required by the National Planning Policy Framework<sup>2</sup> (NPPF).

### Up-to-date forecasts of future employment growth

6. Planning Practice Guidance (PPG) continues to endorse the use of employment forecasts when assessing potential future growth, alongside other datasets. The latest available forecasts have therefore been obtained, as in the 2015 ENA, from two of the three leading providers in Experian and Oxford Economics. They have unfortunately but unavoidably been produced at an exceptionally uncertain time, and also predate the coronavirus pandemic that is ongoing at the time of writing, but local authorities have nonetheless been encouraged to take a positive outlook and plan for the recovery.
7. Experian is the more optimistic of the two forecasts, envisaging the creation of circa 714 jobs per year compared to around 420 jobs per annum under the Oxford Economics forecast which notably assumes that growth will markedly slow beyond the coming decade. Experian has generally made more positive assumptions on the growth

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<sup>2</sup> MHCLG (2019) National Planning Policy Framework, paragraph 31

of individual sectors, with some exceptions, albeit there are also instances where the forecasting houses are in broad agreement.

8. It must, however, be appreciated that any such baseline forecast prepared at any time has inherent limitations arising particularly from their “top-down” methodologies which can result in a failure to fully account for defining features of local economies, or the opportunities for growth that exist therein. Sense checks are therefore strongly advisable, and an interrogation of the assumptions made in the forecasts within this context has found that:
  - **Each of the forecasts appears strongly influenced by an overriding national and regional view on the growth of individual sectors**, which is recognised by the forecasting houses themselves as a limitation. It warns against an automatic acceptance of their outlook as necessarily reflective or representative of local trends in Central Lincolnshire;
  - **Each forecast, while long-term, would lead to a significant departure from recent rates of job creation in Central Lincolnshire.** Experian foresees job growth at little more than a third of the rate recorded to date in the current plan period, and Oxford Economics less than a quarter. Whilst it is appreciated that they are intended to provide a longer-term perspective, the implied rate of growth also appears low in the context of longer-term local trends;
  - **Such a significant forecast slowdown does not align with views of key stakeholders for the long-term prospects of the local economy or the aspirations and investment plans documented in economic strategies.** An emerging Local Industrial Strategy (LIS) for Greater Lincolnshire is aiming to boost productivity and resilience from a strong economic base, addressing identified issues while pursuing opportunities that can have a widespread impact. A strengthened focus on innovation, infrastructure, people, place and the business environment can conceivably benefit Central Lincolnshire and improve its economic performance, beyond the level that could be anticipated in any national forecast, in turn supporting the authorities’ own pursuit of economic growth;
  - **The implicit departure from past trends embedded within the local forecasts is particularly pronounced in certain sectors.** Recent growth in the administrative and support services sector would most significantly slow under the forecasts. Recent employment growth in the manufacturing sector is assumed to reverse, apparently due to an overriding national assumption but in conflict with its strategic importance in this area. The assumed slowing of growth in the digital and visitor economies similarly contrasts with the opportunities identified in the draft LIS.
9. Taking the above into account, it is considered that there is sufficient justification to adjust the baseline forecasts, as in the 2015 ENA, to ensure that they provide a more locally representative outlook for Central Lincolnshire.

## Adjusting the forecasts for Central Lincolnshire

10. Where the above again justifies the application of adjustments to the forecasts, this report deliberately takes a different approach to the 2015 ENA and principally aims to:
  - Soften the “top-down” factors influencing the forecasts for Central Lincolnshire; and
  - Reduce the occasionally extreme departures from locally evidenced trends, which result in conflict with strategic economic plans.
11. This report does so by blending the job growth forecast in each sector by Oxford Economics and Experian with the recent local trend in that sector.
12. This approach supports local sectors’ continued growth beyond the level forecast where this has occurred to date, without expecting a short-term growth trend to necessarily persist. It prevents forecast decline in local sectors such as manufacturing, which have proven resilient in recent years, but is admittedly more negative – with local justification – on the outlook for a small number of sectors such as retail and wholesale. Substantive adjustments are, however, in the minority, with the outlook for most sectors remaining proportionate to at least one forecast while factoring in local evidence and intelligence.
13. The adjustments elevate the forecasts to suggest that **circa 992 jobs will be created annually throughout Central Lincolnshire** over the new plan period (2018-40). This is not dissimilar to the “Higher Growth” scenario developed in the 2015 ENA. It allows for some slowing of the recent rate of job growth, as would be anticipated over the long-term given the cyclical nature of the economy, but remains proportionate to local trends over a similarly long-term period. It is considered to provide a more reliable and robust basis for local planning policy in Central Lincolnshire than the “off the shelf” forecasts sourced to inform this study. This report does, however, simply provide informing evidence, with the level of employment growth to be pursued through the Local Plan and its policies ultimately a judgement to be made by the Councils.

## Understanding the implications of employment growth

14. While this report, like the 2015 ENA, is not intended to represent an employment land review, nor satisfy the associated requirements of the PPG in full, consideration has nonetheless been given to the practical implications of such a level and profile of job growth over the new plan period. This report has focused on the implications for employment land provision, with the related Housing Needs Assessment (HNA) considering the housing that could be needed to sustainably accommodate required growth in the resident labour force.
15. It is suggested that over half of all new jobs will not be within premises that align with B use classes, with the residual largely orientated towards offices such that around **97,500sqm of new office space** – or an estimated **6.5ha of land** – could be needed to accommodate job growth anticipated over the plan period. Substantially fewer jobs can be expected to require **warehouses**, requiring an estimated **17,000sqm of**

**floorspace on 4.3ha of land**, while the implied need for **industrial** land is still more modest (**3,500sqm; 0.9ha**).

16. These estimates are however **purely illustrative**, and necessarily based on evidence-based but broad assumptions. In devising their approach to employment land provision, the Councils are encouraged to supplement this analysis with a fuller consideration of past take-up trends and commercial market evidence, providing further flexibility and choice to the market where justified.

### **Monitoring and review**

17. This report takes a long-term view guided by a variety of evidence relating to a reasonable period of time, but has clearly been produced at a time of **exceptional economic volatility**. Reporting has coincided with the UK's delayed departure from the EU, a general election and the more recent outbreak of coronavirus, which has led to an unprecedented shutdown of economic activity that continues at the time of writing. While this is yet to have been fully reflected in official local data drawn upon to inform this report, and is unlikely to be for some time given the usual time lag, it clearly increases the level of uncertainty when considering – as required by national planning policy – the prospect of future economic growth in Central Lincolnshire over the long-term.
18. With this report intended to inform the production of a new Local Plan, **the Councils are strongly advised to closely monitor wider and local economic trends** during its preparation – particularly as the economy recovers from the coronavirus pandemic – and review the continued applicability of any conclusions drawn at this uncertain time.

# 1. Introduction

- 1.1 Turley has been commissioned by the Central Lincolnshire authorities of Lincoln, North Kesteven and West Lindsey plus Lincolnshire County Council to update the Economic Needs Assessment<sup>3</sup> (ENA) produced in June 2015 to support the joint Local Plan, adopted in April 2017.
- 1.2 The Central Lincolnshire authorities commenced the review of the Local Plan in January 2019 and as part of the review have commissioned updates of key pieces of supporting evidence base work, including this update to the 2015 ENA. This update considers the recent economic performance of Central Lincolnshire, relative to that anticipated in the ENA, and within that context reassesses the potential scale and profile of future job growth over the new plan period (2018-40).
- 1.3 This aims to ensure that the Councils have an up-to-date evidence base from which to develop revised policies for the provision of sufficient land to accommodate the likely creation of new jobs, and – through the related Housing Needs Assessment<sup>4</sup> (HNA) – the housing needed to sustainably accommodate a growing labour force. This responds to the requirements of the National Planning Policy Framework<sup>5</sup> (NPPF) and the supplementary Planning Practice Guidance (PPG).
- 1.4 **It must be recognised at the outset that this report has been produced during a period of exceptional economic volatility.** The study commenced weeks before the UK's scheduled departure from the European Union (EU) on 31 October 2019, which was ultimately delayed to allow for a general election on 12 December. The UK formally left the EU on 31 January 2020, but there remains uncertainty about the nature and consequences of new trading relationships. This has been further compounded by the coronavirus pandemic (COVID-19) which culminated in an unprecedented shutdown of economic activity in the UK and across the world, with uncertain timescales for recovery and unknown long-term consequences. While the pandemic in particular is yet to have been reflected in official local data drawn upon to inform this report, and is unlikely to be for some time yet, it clearly increases the level of uncertainty when considering the long-term prospect of future economic growth which is acknowledged as relevant throughout the report. Where it is recognised that this evidence-based report is to be principally used to inform the revised Local Plan, the Councils are strongly advised to closely monitor both wider and local economic trends in the context of the conclusions drawn at this point in time.
- 1.5 The report is structured as follows:
  - **Section 2 – National Policy and Guidance** – an overview of the requirements of national policy, revised since the ENA was produced in 2015;

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<sup>3</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment

<sup>4</sup> Turley (2020) Central Lincolnshire Housing Needs Assessment

<sup>5</sup> MHCLG (2019) National Planning Policy Framework



- **Section 3 – Previous Evidence on Economic Needs** – a summary of the approach and conclusions of the 2015 ENA, specifically focusing on its future growth scenarios;
- **Section 4 – Employment Growth Trends** – detailed analysis of employment trends in Central Lincolnshire over the current plan period to date, confirming for example the number, type and location of jobs created in this time;
- **Section 5 – Forecasts of Future Employment Growth** – an overview of the employment growth currently envisaged in Central Lincolnshire by two recognised economic forecasting houses, Experian and Oxford Economics;
- **Section 6 – Evaluating the Forecasts** – a critical review of the employment forecasts, with a view to establishing a future level of job growth that would provide a reasonable and robust basis for the emerging review of the Local Plan;
- **Section 7 – Implications for Employment Land** – the amount and type of employment land that could be required to accommodate future job growth is estimated; and
- **Section 8 – Summary and Conclusions** – a concise overview of the findings and implications of this report.

## 2. National Policy and Guidance

2.1 National planning policy sets out the imperative of promoting economic growth and rebalancing the economy to ensure that growth serves to ‘*build a country that works for everyone*’<sup>6</sup>. This accords with the Government’s Industrial Strategy, which aims to create an economy that boosts productivity and individuals’ earning power throughout the UK<sup>7</sup>.

2.2 The NPPF was revised within this context, initially in July 2018 with further minor updates in February 2019. It states that:

*“Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development...”*<sup>8</sup>

2.3 It continues by stating that:

*“The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation and in areas with high levels of productivity, which should be able to capitalise on their performance and potential”*<sup>9</sup>

2.4 Planning policies are therefore expected to draw upon ‘*relevant and up-to-date evidence*’ and<sup>10</sup>:

- Set out a clear economic vision and strategy which **positively and proactively encourages sustainable economic growth**, having regard to Local Industrial Strategies and other local policies for economic development and regeneration;
- Set criteria, or identify strategic sites, for **local and inward investment** to match the strategy and to meet anticipated needs over the plan period;
- Seek to address **potential barriers to investment**, such as inadequate infrastructure, services or housing, or a poor environment;
- Be **flexible** enough to accommodate needs that are not anticipated in the plan, allow for new working practices and enable a rapid response to changes in economic circumstances;
- Recognise and address the **specific locational requirements of different sectors**, making provision for clusters of knowledge-driven, creative and high technology

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<sup>6</sup> Cabinet Office (2017) Building a country that works for everyone: the government’s plan

<sup>7</sup> HM Government (2017) Industrial Strategy: building a Britain fit for the future

<sup>8</sup> MHCLG (2019) National Planning Policy Framework, paragraph 80

<sup>9</sup> *Ibid*, paragraph 80

<sup>10</sup> *Ibid*, paragraphs 31, 81 and 82

industries as well as storage and distribution operations at a variety of scales and in suitably accessible locations; and

- Support a **prosperous rural economy**, by enabling the sustainable growth and expansion of all types of businesses in such areas, supporting the development and diversification of agricultural businesses, enabling appropriate tourism or leisure developments and retaining local services and facilities.

2.5 The PPG further confirms that:

*“Strategic policy-making authorities will need to prepare a robust evidence base to understand existing business needs, **which will need to be kept under review to reflect local circumstances and market conditions**. National economic trends may not automatically translate to particular areas with a distinct employment base”<sup>11</sup>*  
(emphasis added)

2.6 Policy-making authorities are advised of the ‘*need to liaise closely with the business community...to understand their current and potential future requirements*’<sup>12</sup>. Such engagement should aim to understand businesses’ ‘*changing needs and identify barriers to investment*’<sup>13</sup>.

2.7 Authorities’ evidence of market demand should reflect ‘*the locational and premises requirements of particular types of business*’, and should be drawn from:

*“...local data and market intelligence, such as recent surveys of business needs, discussions with developers and property agents and engagement with business and economic forums”<sup>14</sup>*

2.8 Authorities are also required to assess ‘*wider market signals relating to economic growth, diversification and innovation*’<sup>15</sup>.

2.9 The PPG makes clear that a ‘*range of data*’ should be used to ‘*develop an idea of future needs*’. This includes but is not limited to employment forecasts, with the PPG also emphasising the importance of taking account of past take-up trends and ‘*consultation with relevant organisations*’<sup>16</sup>. Any such data should be assessed in the context of ‘*longer term economic cycles*’, with authorities encouraged to ‘*consider and plan for the implications of alternative economic scenarios*’<sup>17</sup>.

2.10 Further advice is provided on how the specific locational requirements of specialist sectors can be addressed:

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<sup>11</sup> PPG Reference ID 2a-025-20190220

<sup>12</sup> PPG Reference ID 2a-026-20190220

<sup>13</sup> PPG Reference ID 61-040-20190315

<sup>14</sup> PPG Reference ID 2a-026-20190220

<sup>15</sup> *Ibid*

<sup>16</sup> PPG Reference ID 2a-027-20190220

<sup>17</sup> *Ibid*

*“When assessing what land and policy support may be needed for different employment uses, it will be important to understand whether there are **specific requirements in the local market** which affect the types of land or premises needed. Clustering of certain industries (such as some high tech, engineering, digital, creative and logistics activities) can play an important role in supporting collaboration, innovation, productivity, and sustainability, as well as in driving the economic prospects of the areas in which they locate. Strategic policy-making authorities will need to develop a clear understanding of such needs and how they might be addressed taking account of relevant evidence and policy within Local Industrial Strategies. For example, this might include the need for greater studio capacity, co-working spaces or research facilities”<sup>18</sup>*

2.11 The PPG recognises that such specialist needs are ‘often more qualitative in nature and will have to be informed by engagement with businesses and occupiers within relevant sectors’<sup>19</sup>.

2.12 Fundamentally, the NPPF requires strategic policies to make ‘sufficient provision’ for employment and other commercial development<sup>20</sup>. They should be positively prepared, seeking to meet assessed needs ‘as a minimum’ if they are to be deemed sound<sup>21</sup>. They must be justified and based on proportionate evidence, and consistent with delivering sustainable development<sup>22</sup>. From an economic perspective, this means that the planning system should:

*“...help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure”<sup>23</sup>*

## Summary

2.13 National policy requires planning authorities to create the conditions in which businesses can invest and expand, allowing areas to build upon their local strengths and encouraging sustainable economic growth.

2.14 Planning policies should be flexible to rapidly respond to unanticipated needs or changes in the economy, and should be based on relevant, wide ranging and up-to-date evidence. Local authorities should retain a clear and current understanding of businesses’ needs, and regularly review both local circumstances and market conditions.

2.15 Future needs should be met as a minimum through strategic policies that make sufficient provision for business premises. This ensures that the planning system can play its role in building a strong, responsive and competitive economy which responds

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<sup>18</sup> PPG Reference ID 2a-032-20190722

<sup>19</sup> *Ibid*

<sup>20</sup> MHCLG (2019) National Planning Policy Framework, paragraph 20

<sup>21</sup> *Ibid*, paragraph 35a

<sup>22</sup> *Ibid*, paragraphs 35b and 35d

<sup>23</sup> *Ibid*, paragraph 8

to identified needs, by ensuring that the right type of land is available at the right time and in the right places to support growth, innovation and improved productivity.

### 3. Previous Evidence on Economic Needs

- 3.1 The 2015 ENA sought to establish evidenced and reasoned conclusions on the level of employment growth that Central Lincolnshire could be expected to experience over the relevant plan period (2012-36).
- 3.2 It devised and tested a number of employment growth scenarios, informed by detailed analysis of historic economic performance and consideration of future growth prospects. The aim was to provide an ambitious yet realistic estimate of employment growth taking account of local intelligence on business sector growth opportunities, findings relating to historic growth trends and the composition of the local economy at that time<sup>24</sup>.
- 3.3 Its scenarios are introduced and explained in this section.

#### Baseline scenario

- 3.4 The 2015 ENA presented three baseline employment forecasts produced by recognised forecasting houses, one sourced from Oxford Economics – based on its summer 2014 release – and two from Experian, dated June and September 2014. This allowed *‘forecasts from different models and different time periods’* to be compared, recognising the inherent potential for variability<sup>25</sup>.
- 3.5 After comparing the three forecasts, in the context of historic trends and consultations<sup>26</sup>, it was concluded that the lower Oxford Economics forecast provided *‘the most robust baseline position for expected employment growth in Central Lincolnshire’*<sup>27</sup>. This conclusion was primarily based on the following:
- The scale of growth forecast in the Oxford Economics model was deemed realistic given the area’s performance in the previous growth period (1998-2008) and the indications at that time that business confidence and growth was expected to slow from 2014;
  - There was an opportunity to add optimism to the baseline position to take account of local economic development and investment opportunities;
  - The Oxford Economics model provided a useful headline sector breakdown; and
  - The two Experian scenarios demonstrated volatility and revealed significant variances, particularly regarding the sectorial and geographical distribution of employment growth across the three authorities.

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<sup>24</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment, paragraphs 1.3-1.5

<sup>25</sup> *Ibid*, paragraph 8.2

<sup>26</sup> A series of consultations were undertaken with strategic local employers across key sectors, and local partners including Visit Lincoln and the Chamber of Commerce. These consultations covered a range of topics including recent economic performance, drivers of growth, growth opportunities, barriers to growth and support needs

<sup>27</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment, paragraph 8.25

- 3.6 The selected baseline forecast from Oxford Economics envisaged the creation of 15,071 jobs across Central Lincolnshire over the period from 2012 to 2036, equivalent to 628 jobs each year on average. It should be noted that this represents a measure of all jobs, rather than the full time equivalents (FTE) necessarily reported elsewhere in the 2015 ENA<sup>28</sup>.

**Table 3.1: 2015 ENA Baseline Scenario (2012-36)**

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
Total employment growth	4,204	6,792	4,076	<b>15,071</b>
Average per annum	175	283	170	<b>628</b>

Source: Oxford Economics, 2014

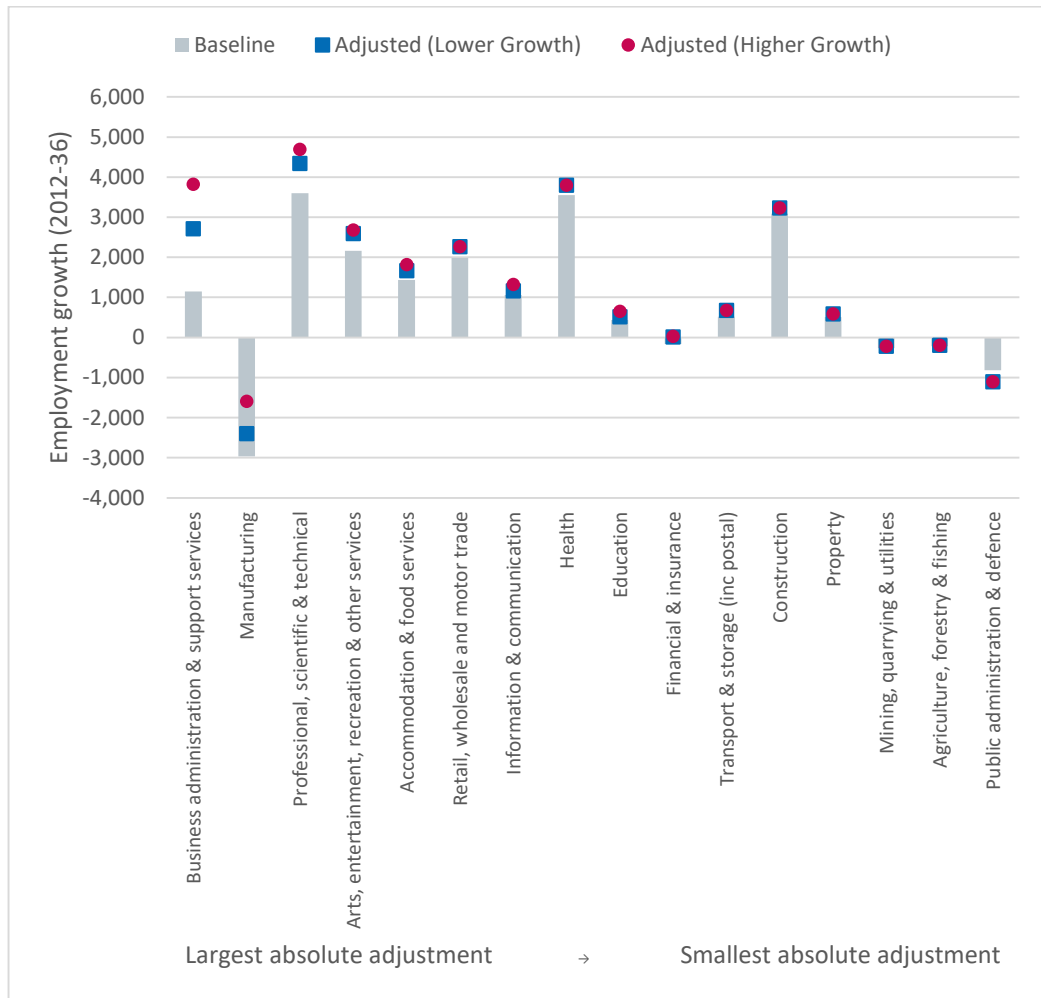
### Adjusted scenarios

- 3.7 The 2015 ENA proceeded to adjust the baseline where justified to fully reflect local circumstances and ensure that the potential for growth was not being understated. This produced a so-called “Higher Growth” scenario alongside a “Lower Growth” scenario, which – whilst higher than the baseline forecast – recognised the uncertain nature of forecasting and took ‘*a slightly less optimistic view*’ on the future economic performance of the sectors where adjustments were deemed necessary<sup>29</sup>. The nature and extent of adjustments made are outlined in section 9 of the 2015 ENA, and are not repeated in detail here.
- 3.8 The following chart illustrates the cumulative impact of these sector-based adjustments at Central Lincolnshire level, in terms of the overall employment growth anticipated over the plan period relative to the baseline. It confirms that the largest absolute adjustment was made for the business administration and support sector, followed by the manufacturing sector where decline was expected to be less pronounced than implied under the baseline forecast on the basis of recent local trends.

<sup>28</sup> Table 10.3 of the 2015 ENA confirms that 15,071 additional jobs equates to 11,894 additional FTE jobs over the plan period

<sup>29</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment, paragraph 9.30

**Figure 3.1: ENA Adjustments to Baseline Forecast for Central Lincolnshire by Sector (2012-36)**



Source: Oxford Economics and ekosgen

- 3.9 These adjustments elevated the level of job growth implied by the baseline, to suggest that as many as 22,469 jobs could be created across Central Lincolnshire between 2012 and 2036 as shown at Table 3.2 overleaf. This was moderated to circa 19,653 jobs under the Lower Growth scenario, albeit this remained around 30% higher than the baseline. It should again be noted that these measure all jobs, rather than FTE as presented in various tables in the 2015 ENA<sup>30</sup>.

<sup>30</sup> Tables 10.3 and 10.11 of the 2015 ENA confirm that this equates to 15,716 and 18,124 additional FTE jobs under the Lower and Higher Growth scenarios respectively over the plan period



**Table 3.2: ENA Adjusted Scenarios (2012-36)**

	Baseline		Adjusted (Lower Growth)		Adjusted (Higher Growth)	
	Total	Annual	Total	Annual	Total	Annual
Lincoln	4,204	175	6,916	288	8,572	357
North Kesteven	6,792	283	7,822	326	8,518	355
West Lindsey	4,076	170	4,914	205	5,380	224
<b>Central Lincolnshire</b>	<b>15,071</b>	<b>628</b>	<b>19,653</b>	<b>819</b>	<b>22,469</b>	<b>936</b>

*Source: Oxford Economics and ekosgen*

### Summary

- 3.10 The 2015 ENA sought, on the basis of data available at the time, to provide an ambitious but realistic estimate of future employment growth in Central Lincolnshire over the period covered by the adopted Local Plan (2012-36).
- 3.11 It drew upon three baseline employment forecasts available at that time, ultimately favouring a forecast produced by Oxford Economics as a robust baseline position. This forecast envisaged the creation of 15,071 jobs across Central Lincolnshire between 2012 and 2036, equivalent to 628 jobs each year on average. This is based on all jobs, rather than the full time equivalents referenced in parts of the 2015 ENA, to reflect the scope of subsequent analysis in this report.
- 3.12 The 2015 ENA proceeded to adjust the baseline where necessary to fully reflect local circumstances and avoid understating the potential for growth. This produced a “High Growth” scenario alongside a “Lower Growth” scenario, the latter – whilst implying stronger growth than the baseline – recognising the uncertain nature of forecasting and taking a slightly less optimistic view on the future economic performance of the sectors where adjustments were deemed necessary. This elevated the level of job growth implied by the baseline to suggest that as many as 22,469 jobs could be created over the plan period, reducing slightly to circa 19,653 jobs under the Lower Growth scenario. This equates to between 819 and 936 jobs per annum.

## 4. Employment Growth Trends

- 4.1 The 2015 ENA sought to estimate the scale of job growth that would occur in Central Lincolnshire over the plan period from 2012, and the passage of time allows its assumptions to be tested against reported trends over the initial six years – for which local level data is available at the time of writing – to 2018.
- 4.2 In undertaking this exercise, it must be acknowledged that the nature of economic forecasting means that any long-term prediction will rarely prove entirely accurate, due to the dynamic nature of the economy at a global, national and local level. It is also recognised that the forecasts considered growth over a relatively long period of 24 years, only a quarter of which is yet to have been captured in official data, and the cyclical nature of economies means that periods of both growth and decline can be reasonably expected over such a long-term horizon. Nonetheless, such a review is considered critical to gain greater insight into how different sectors in the local economy have historically performed against both the baseline and adjusted scenarios presented in the 2015 ENA.
- 4.3 The comparison is undertaken using official employment estimates released by the Office for National Statistics (ONS) and other relevant datasets, alongside the views of stakeholders listed at **Appendix 1**, to provide a rounded and authenticated view of recent change in the Central Lincolnshire economy. This is intended to supplement rather than replace similar analyses of economic data, such as that compiled to guide development of the Greater Lincolnshire Local Industrial Strategy<sup>31</sup> (LIS) for example.
- 4.4 This section generally presents rounded data, which may not appear to sum on this basis.

### Scale of employment growth

- 4.5 The Councils' economic development teams have been consulted to inform this report<sup>32</sup>, and generally expressed a belief that their areas had performed well in recent years. Lincoln city centre has continued to see relatively high levels of business activity, with a growing leisure offer, new professional services in the private sector and new investment in transport bringing more frequent rail services to London and a new Transport Hub. The increasingly metropolitan environment was raised as a positive and attractive feature by one of the businesses separately consulted as part of this study, which additionally noted recent investment in the transport network around Lincoln train station. Another business felt that while poor infrastructure has historically subdued the Lincoln economy, a noticeable improvement has occurred in recent years which has helped to attract and retain workers – including graduates – and create clusters of new jobs.
- 4.6 North Kesteven was generally felt by the Council to have seen reasonable growth in recent years despite the uncertainty created by Brexit, with a reasonable level of

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<sup>31</sup> MetroDynamics (2019) Greater Lincolnshire LEP: Consolidated Local Industrial Strategy Evidence Base

<sup>32</sup> This engagement occurred in January 2020, therefore predating the outbreak of coronavirus (COVID-19) in the UK

confidence in the market. West Lindsey was seen by the Council to have performed steadily in recent years, with no major economic events, no perception of business failure or disinvestment and a relative resilience to Brexit.

- 4.7 These sentiments are supported by official data on job creation. The Business Register and Employment Survey (BRES) is *'the official source of employee and employment estimates by detailed geography and industry'*<sup>33</sup>. It provides publicly available estimates of employment that can be tracked over time, including employees and working owners. This can be reliably compared against *all* jobs forecast within the 2015 ENA, as introduced in the previous section, recognising that the absence of an official count of FTE employment restricts the consistent tracking of this alternative metric over time.
- 4.8 BRES data is currently available over the period to 2018 and suggests that Central Lincolnshire has already seen around 11,100 additional jobs created since 2012, at a rate of circa 1,850 jobs per annum. This far exceeds the employment growth anticipated in the 2015 ENA across Central Lincolnshire. The data presented in Table 4.1 confirms that this is a consistent picture across the three authorities, albeit with the strongest comparative growth recorded in Lincoln, followed by North Kesteven.

**Table 4.1: Actual employment growth relative to forecast (per annum; 2012-18)**

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
<b>BRES</b>	<b>874</b>	<b>666</b>	<b>308</b>	<b>1,849</b>
ENA Adjusted (higher)	357	355	224	936
ENA Adjusted (lower)	288	326	205	819
ENA Baseline	175	283	170	628

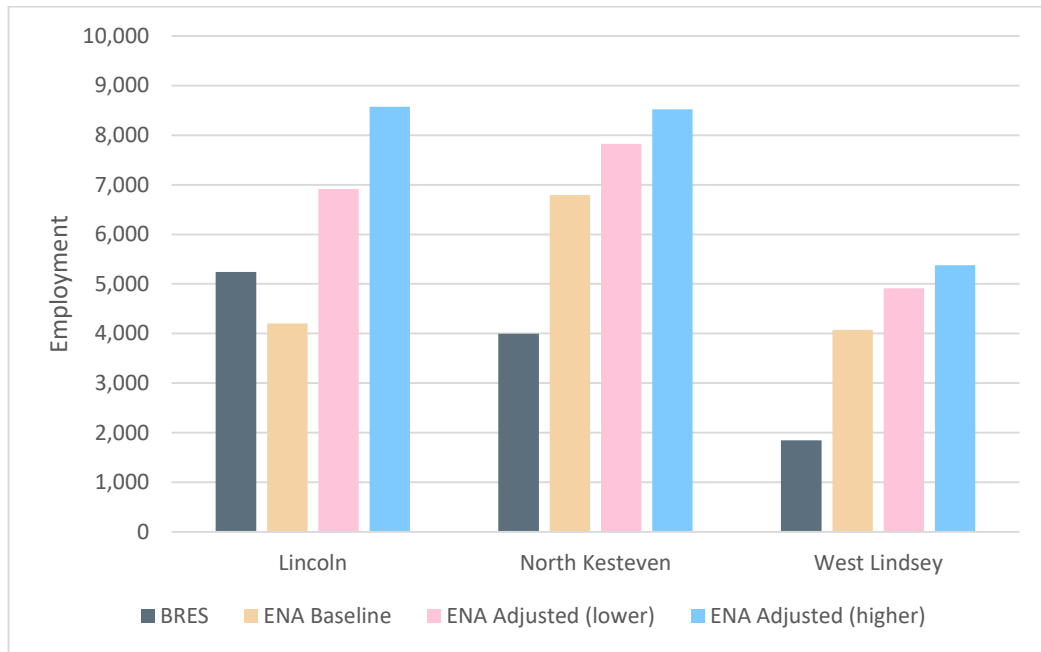
*Source: BRES; Turley analysis*

- 4.9 As a result, over a period of only six years, the Central Lincolnshire authorities have created almost three quarters (74%) of the jobs that they were expected to over 24 years under the baseline scenario. As shown at Figure 4.1, Lincoln is reported to have already exceeded the job growth that it was expected to accommodate over the full period forecast under the baseline scenario, by some 25%.

33

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/businessregisterandemploymentsurveybres>

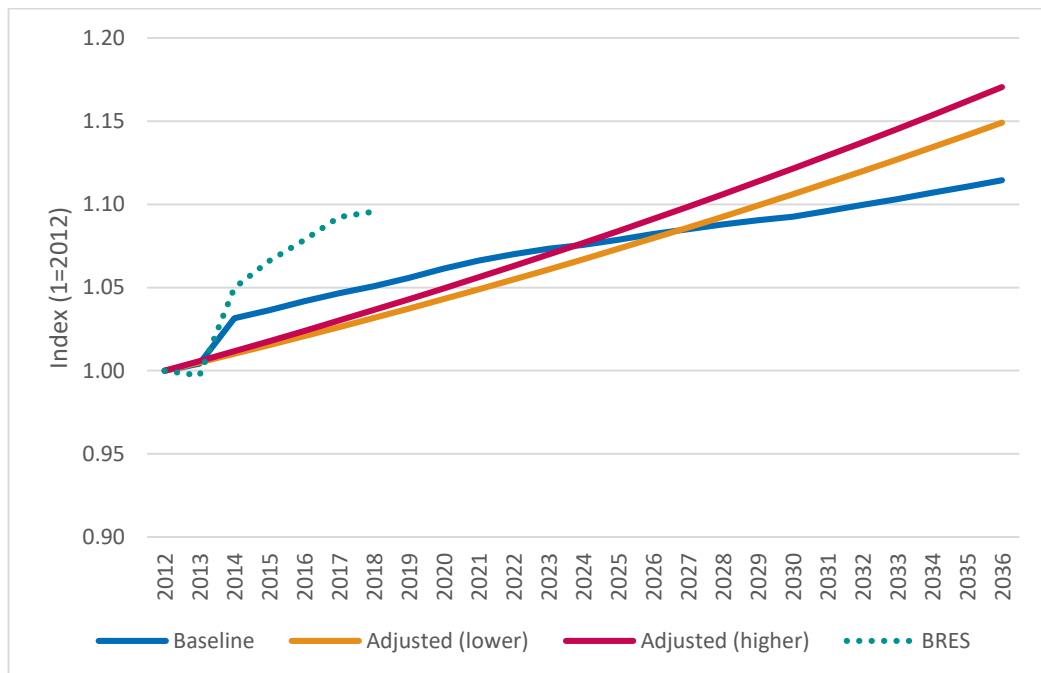
**Figure 4.1: Employment growth to date relative to plan period forecast (2012-18/36)**



*Source: BRES; Turley analysis*

- 4.10 The trajectory of employment growth to date has therefore deviated significantly from that anticipated in the 2015 ENA, as shown by the chart at Figure 4.2 which indexes both actual and forecast change from 2012.

**Figure 4.2: Indexed employment growth in Central Lincolnshire (2012-36)**



*Source: BRES; Turley analysis*

- 4.11 While appearing relatively pronounced compared to the ENA scenarios, it is helpful to place the recent historic picture of employment growth in context by comparing rates of growth with other areas. Table 4.2 shows that, whilst evidently positive, the employment growth recorded in Central Lincolnshire over the plan period to date was proportionately smaller than recorded in the area covered by the Greater Lincolnshire Local Enterprise Partnership (LEP) and in England as a whole, albeit remaining higher than the rate in the East Midlands region. Of the three Central Lincolnshire authorities, North Kesteven saw the greatest proportionate growth in employment, at 11%, with Lincoln and West Lindsey respectively experiencing growth of 10% and 7%.

**Table 4.2: Change in employment in Central Lincolnshire and comparator geographies, 2012 - 2018**

	2012	2018	Change	Change (%)	Change per annum <sup>34</sup> (%)
Lincoln	51,808	57,052	5,244	<b>10%</b>	1.5%
North Kesteven	37,754	41,751	3,997	<b>11%</b>	1.5%
West Lindsey	26,317	28,167	1,850	<b>7%</b>	0.9%
<b>Central Lincolnshire</b>	<b>115,879</b>	<b>126,970</b>	<b>11,091</b>	<b>10%</b>	<b>1.4%</b>
Greater Lincolnshire LEP <sup>35</sup>	402,550	454,513	51,963	<b>13%</b>	1.3%
East Midlands	1,977,686	2,151,490	173,804	<b>9%</b>	1.2%
England	24,208,241	26,841,506	2,633,265	<b>11%</b>	1.6%

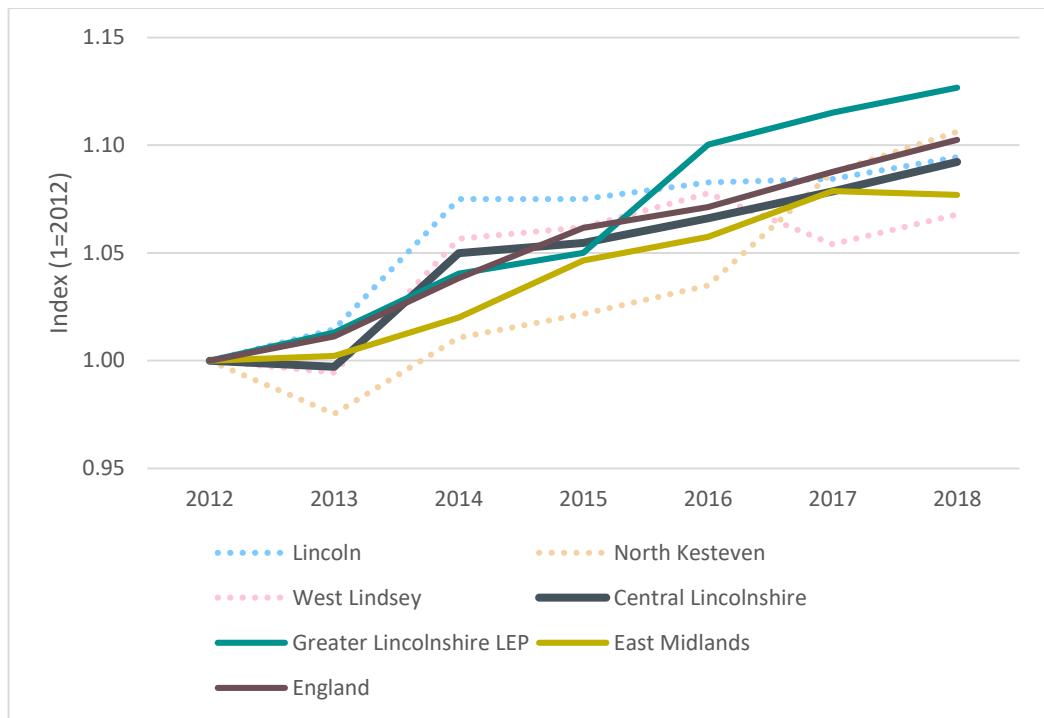
Source: BRES; Turley analysis

- 4.12 Although BRES data can be prone to fluctuation in a single year, indexing annual change over the plan period to date – as at Figure 4.3 – suggests that Central Lincolnshire largely mirrored the growth recorded across the LEP area, East Midlands and England to 2015. Employment growth is subsequently implied to have accelerated in Greater Lincolnshire, with a single year of apparently strong job growth (2015/16) largely responsible for this trend albeit with the introduction of Pay as You Earn (PAYE) businesses within the data at this point potentially contributing at least partially towards this trend. It nonetheless broadly indicates that Central Lincolnshire has performed solidly rather than exceptionally at a time when the regional and national economies have been growing.

<sup>34</sup> All BRES data from 2015 onwards includes businesses registered for Pay as You Earn (PAYE) albeit a figure which includes and excludes such businesses is available for 2015 only. As such, this average consistently *excludes* such businesses when calculating change in 2014/15, but *includes* such businesses when calculating change from 2015/16 onwards. This is considered to provide the most reliable estimate of annual change, but does lead to an unusual situation in which Greater Lincolnshire for example sees a stronger overall rate of growth than Central Lincolnshire but a lower *annual* rate of growth

<sup>35</sup> Please note that BRES figures for the Greater Lincolnshire LEP in 2012 exclude farm agriculture. The sector is, however, included in total employment figures for 2018, meaning that 2012 - 2018 proportionate growth was lower than the figures suggest, seeing as the 2012 baseline was artificially low.

**Figure 4.3: Indexed change in employment (2012-18)**



*Source: BRES; Turley analysis*

#### **Employment growth by sector**

- 4.13 It is helpful to specifically understand the industrial sectors that have contributed towards an overall growth in employment. Such analysis provides insight into the scale of job growth in different sectors and the changing profile of the economy over the plan period to date. This analysis can be undertaken using the same BRES data and is summarised at Table 4.3 overleaf.

**Table 4.3: Change in employment in Central Lincolnshire by sector, 2012 - 2018**

	2012		2018		2012-18	
	Total	%	Total	%	Change ▼	% change
Business admin & support services	6,900	6%	10,500	8%	<b>3,600</b>	52%
Accommodation & food services	7,000	6%	9,500	7%	<b>2,500</b>	36%
Manufacturing	11,500	10%	13,500	11%	<b>2,000</b>	17%
Arts, entertainment, recreation & other services	4,250	4%	6,250	5%	<b>2,000</b>	47%
Information & communication	1,800	2%	3,450	3%	<b>1,650</b>	92%
Construction	6,250	5%	6,750	5%	<b>500</b>	8%
Professional, scientific & technical	6,250	5%	6,750	5%	<b>500</b>	8%
Health	18,000	16%	18,500	15%	<b>500</b>	3%
Property	1,450	1%	1,800	1%	<b>350</b>	24%
Public administration & defence	6,150	5%	6,500	5%	<b>350</b>	6%
Wholesale	4,750	4%	5,000	4%	<b>250</b>	5%
Mining, quarrying & utilities	2,000	2%	2,200	2%	<b>200</b>	10%
Motor trades	3,350	3%	3,550	3%	<b>200</b>	6%
Transport & storage (inc postal)	4,000	3%	4,000	3%	<b>0</b>	0%
Financial & insurance	1,300	1%	1,100	1%	<b>-200</b>	-15%
Agriculture, forestry & fishing	4,850	4%	4,250	3%	<b>-600</b>	-12%
Education	12,500	11%	11,500	9%	<b>-1,000</b>	-8%
Retail	14,000	12%	12,250	10%	<b>-1,750</b>	-13%
<b>All sectors total<sup>36</sup></b>	<b>116,000</b>	<b>100%</b>	<b>127,000</b>	<b>100%</b>	<b>11,000</b>	<b>9%</b>

Source: BRES; Turley analysis

- 4.14 The above indicates that the business administration & support services sector has accounted for the largest number of additional jobs recorded throughout Central Lincolnshire since 2012, having itself seen employment growth of circa 52% in this time.
- 4.15 Accommodation and food services also saw relatively high growth, both in terms of the employment supported in the sector itself and the sector's contribution to total employment growth in Central Lincolnshire. The comparable tables presented at **Appendix 2** indicate that Lincoln has seen particularly pronounced growth in this

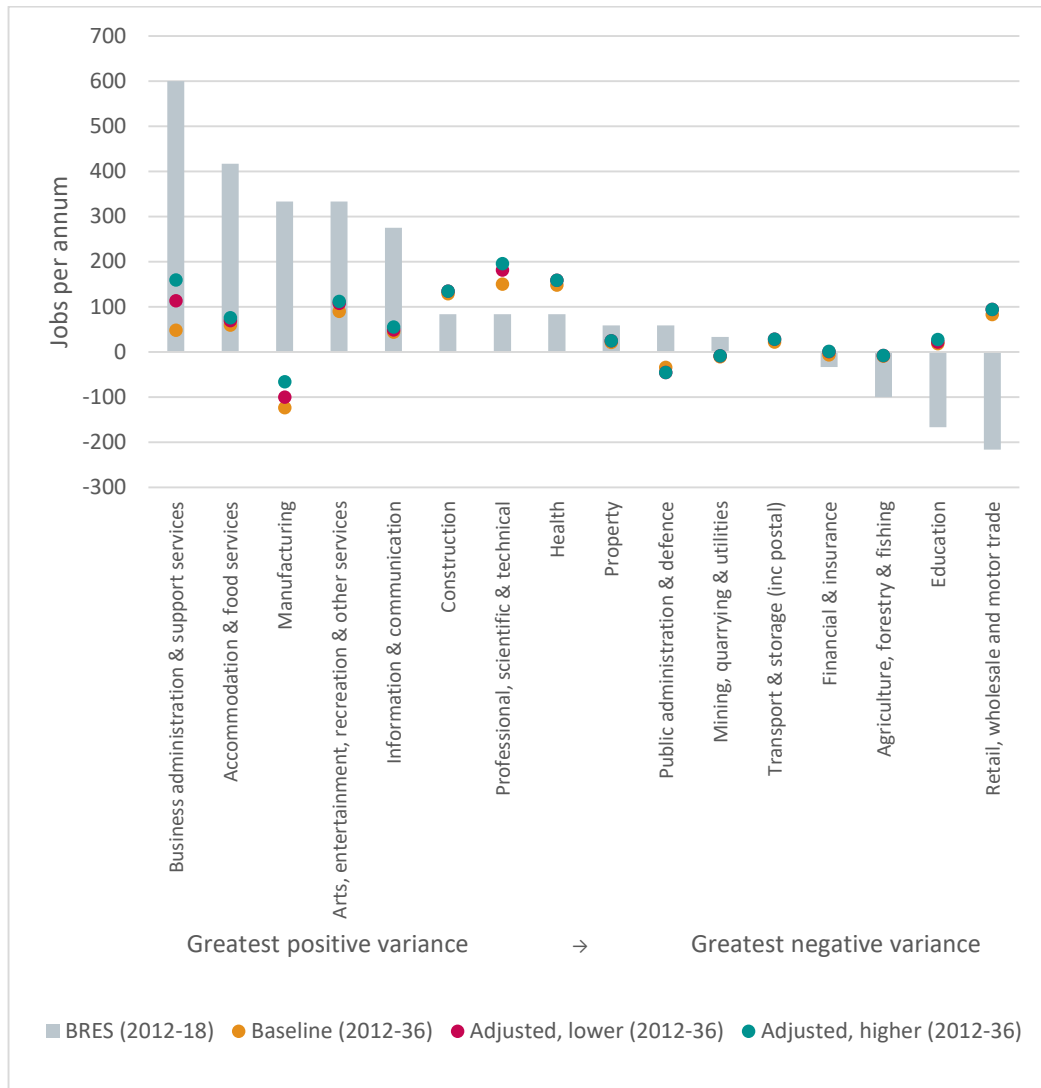
<sup>36</sup> Total change in employment in Central Lincolnshire is lower than that outlined at Table 4.2 due to sectoral BRES data being rounded, whilst total employment data from BRES is unrounded.

sector, which is broadly consistent with the growing food and leisure offer described by the Council's economic development team.

- 4.16 The information & communication sector also experienced a notable increase (92%) in employment, this representing 15% of total employment growth in the Central Lincolnshire with all three authorities contributing as shown at **Appendix 2**. This implied trend has been reinforced by consultation, with Lincoln Science and Innovation Park having noted very strong growth in computing and major investments in the digital sector, specifically data and data centres. Lincoln city centre is implied by the City Council to have been at the forefront in this regard, with its growing digital sector benefiting from proximity to the University of Lincoln and the lifestyle on offer in the city.
- 4.17 At the other end of the scale, the retail industry saw a 13% reduction in jobs over the period 2012-2018, the total share of Central Lincolnshire's jobs accommodated in the sector decreasing from 12% to 10%. Closer examination of the data at the local authority level, summarised at **Appendix 2**, highlights that over half (57%) of retail job losses were in Lincoln, aligning with the sentiment of the Councils' economic development teams and the observed shift towards food, drink and leisure in the city centre. It can also be seen that the number of jobs in the agriculture, forestry and fishing industry decreased by 12%.
- 4.18 The performance of individual sectors over the plan period to date can be compared against the scenarios presented in the 2015 ENA, albeit some aggregation of the sectors presented above is necessary to enable alignment with the level of detail in the forecasts used to underpin the scenarios. Figure 4.4 focuses on the whole of Central Lincolnshire and compares the average job growth annually achieved to date with the growth annually envisaged under each of the ENA scenarios.



**Figure 4.4: Average annual employment growth in Central Lincolnshire by sector compared to ENA scenarios**



Source: ONS; Oxford Economics; ekosgen; Turley analysis

- 4.19 The BRES data suggests that the business administration and support services sector has created substantially more jobs than envisaged by the 2015 ENA, relative even to its higher adjusted scenario that markedly increased the outlook for this sector as shown at Figure 3.1 of this report. Accommodation and food services have also seen considerably stronger job growth than was forecast, while the manufacturing sector has notably seen job *growth* to date in direct contrast to the decline envisaged under each of the ENA's scenarios over the long-term.
- 4.20 In contrast, the retail, wholesale and motor trade sector has evidently contracted in employment terms, rather than creating the new jobs envisaged in the 2015 ENA. Education similarly has to date not seen the more modest growth that was forecast, with agriculture, forestry and fishing also experiencing job losses rather than the more stable position envisaged in the ENA.

- 4.21 Finally, for additional context, the job growth experienced in each sector can be benchmarked against that recorded over the same period across Greater Lincolnshire, the East Midlands and England. This is summarised at Table 4.4.

**Table 4.4: Change in employment in Central Lincolnshire and comparator geographies by sector, 2012 – 2018**

	Central Lincolnshire ▼	Greater Lincolnshire LEP	East Midlands	England
Information & communication	<b>92%</b>	40%	55%	20%
Business admin & support services	<b>52%</b>	26%	7%	20%
Arts, entertainment, recreation & other services	<b>47%</b>	27%	28%	13%
Accommodation & food services	<b>36%</b>	35%	34%	22%
Property	<b>24%</b>	33%	36%	17%
Manufacturing	<b>17%</b>	16%	2%	4%
Mining, quarrying & utilities	<b>10%</b>	0%	9%	15%
Construction	<b>8%</b>	5%	17%	16%
Professional, scientific & technical	<b>8%</b>	12%	16%	25%
Motor trades	<b>6%</b>	9%	20%	15%
Public administration & defence	<b>6%</b>	0%	-10%	-7%
Wholesale	<b>5%</b>	0%	4%	10%
Health	<b>3%</b>	3%	6%	9%
Transport & storage (inc. postal)	<b>0%</b>	14%	15%	18%
Education	<b>-8%</b>	-5%	1%	3%
Agriculture, forestry & fishing	<b>-12%</b>	-	0%	3%
Retail	<b>-13%</b>	-6%	-2%	2%
Financial & insurance	<b>-15%</b>	-11%	3%	-2%
<b>All sectors total<sup>37</sup></b>	<b>9%</b>	<b>13%</b>	<b>9%</b>	<b>11%</b>

Source: BRES; Turley analysis

- 4.22 It is evident that a number of sectors have seen stronger employment growth in Central Lincolnshire than in all of these wider comparator areas over the six year period being examined. This specifically includes information & communication;

<sup>37</sup> Total change in employment in Central Lincolnshire is lower than that outlined at Table 4.2 due to sectoral BRES data being rounded, whilst total employment data from BRES is unrounded. As noted at Footnote 30, total employment growth in the Greater Lincolnshire LEP between 2012 and 2018 is in fact lower than the 13% suggested by BRES figures, due to the non-inclusion of farm agriculture employment within the figures for the agriculture, forestry & fishing sector in 2012.

business administration & supportive services; arts, entertainment, recreation & other services; accommodation & food services; and manufacturing.

- 4.23 Of these sectors, the information and communication (with growth of 92%) and business administration & support services (with growth of 52%) are sectors which proportionally generated a notably higher number of new jobs in Central Lincolnshire than in the wider comparator areas.
- 4.24 In contrast, various sectors performed worse in Central Lincolnshire than in these wider comparator areas, specifically health; transport & storage; education; agriculture, forestry & fishing; retail; and financial & insurance. Indeed, all but the first two specified actually saw a decline in employment in Central Lincolnshire.
- 4.25 Of the above sectors, the 13% reduction in the number of retail jobs in Central Lincolnshire again stands out against more modest losses in the Greater Lincolnshire LEP (6%), East Midlands region (2%) and the slight growth experienced nationally (2%). The 12% reduction in the number of agriculture, forestry & fishing jobs in Central Lincolnshire is also significant relative to comparator geographies.

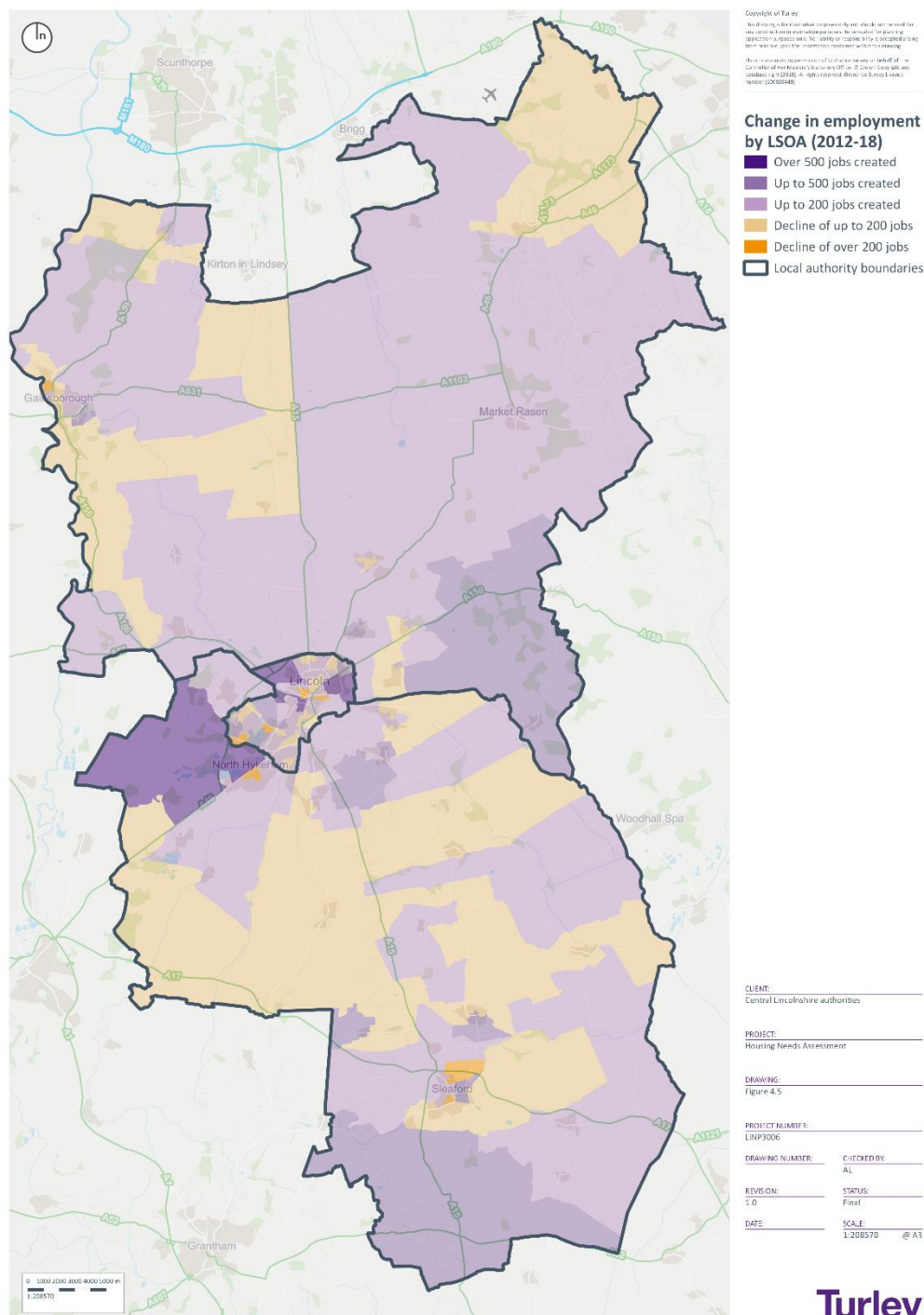
### **Distribution of employment growth**

- 4.26 While the above analysis has focussed on the Central Lincolnshire level, with a breakdown as relevant to individual authorities, it is also insightful to use BRES data to examine where jobs have been created or lost at a smaller spatial scale. This analysis is undertaken using lower super output areas<sup>38</sup> (LSOAs). Figure 4.5 illustrates the extent to which individual LSOAs have contributed in different ways towards the overall growth trend recorded for Central Lincolnshire.

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<sup>38</sup> A breakdown by ward is also available, although changes in ward definitions hinders time series analysis of this nature

**Figure 4.5: Employment change by LSOA (2012-18)**



Source: BRES; Turley analysis

- 4.27 This reveals that the picture of job growth identified at Central Lincolnshire and individual authority level has not been uniformly reflected throughout the area. Overall, approximately two thirds of LSOAs saw an increase in employment since 2012, albeit with close to a third recording a decline. This suggests that in offsetting decline some areas have seen significant levels of employment growth. Indeed, five areas in

the vicinity of Lincoln and North Hykeham are implied to have each created over 1,000 new jobs, but further interrogation suggests a potential anomaly in one isolated case relating to cultural attractions, in the broader recreation sector<sup>39</sup>. The other areas to have seen particularly strong growth, around Brayford Pool, Lincoln County Hospital and the Outer Circle Road, have been similarly interrogated with the more distributed profile of growth across different sectors suggesting no such issue with the data and each containing locations of known concentrations of growing employers.

- 4.28 Fewer areas have generally seen job losses over the plan period to date, and in absolute terms fewer jobs have been lost in these areas than have been *gained* on average in areas that have seen growth<sup>40</sup>. The largest absolute declines are implied to have been seen in parts of Lincoln, Gainsborough and Sleaford, and while this has not been independently verified for the purposes of this analysis a high level “check” does not reveal obvious anomalies that would severely skew the data for the larger geographies focussed on through this report.

### **Nature of employment growth**

- 4.29 The changing numbers of employment opportunities and their sectorial breakdown has implications for the types of jobs that the workforce in the area are undertaking. The BRES data does not provide a breakdown of occupational categories but insight can be gained from the Annual Population Survey<sup>41</sup> (APS) undertaken by the ONS.
- 4.30 Figure 4.6 provides an indication of the changing occupational structure of Central Lincolnshire, by comparing the proportion of the workforce employed in different occupations in 2012 and 2018. It is ordered to show the occupations becoming increasingly prevalent at the top, and becoming less prevalent at the bottom.

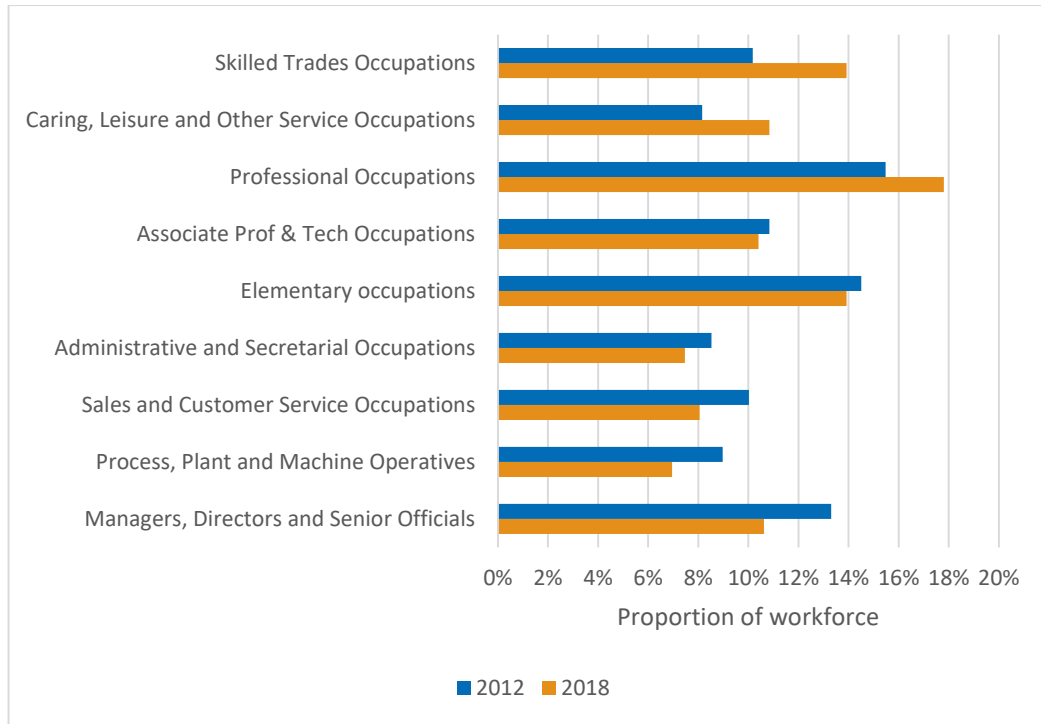
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<sup>39</sup> The LSOA containing Whisby Nature Park (North Kesteven 003D) is implied to have created around 650 additional jobs in “botanical and zoological gardens and nature reserve activities” since 2012, which could simply reflect changes in employee reporting with no supporting evidence to suggest that this level of job growth has been recorded on the ground in this location

<sup>40</sup> These LSOAs on average saw employment fall by 90 jobs, while areas seeing job growth on average created circa 159 jobs

<sup>41</sup> ONS via Nomis (2019) Annual Population Survey: Jan-Dec 2012; Jan-Dec 2018

**Figure 4.6: Change in occupational structure of Central Lincolnshire, 2012 – 2018**



*Source: APS; Turley analysis*

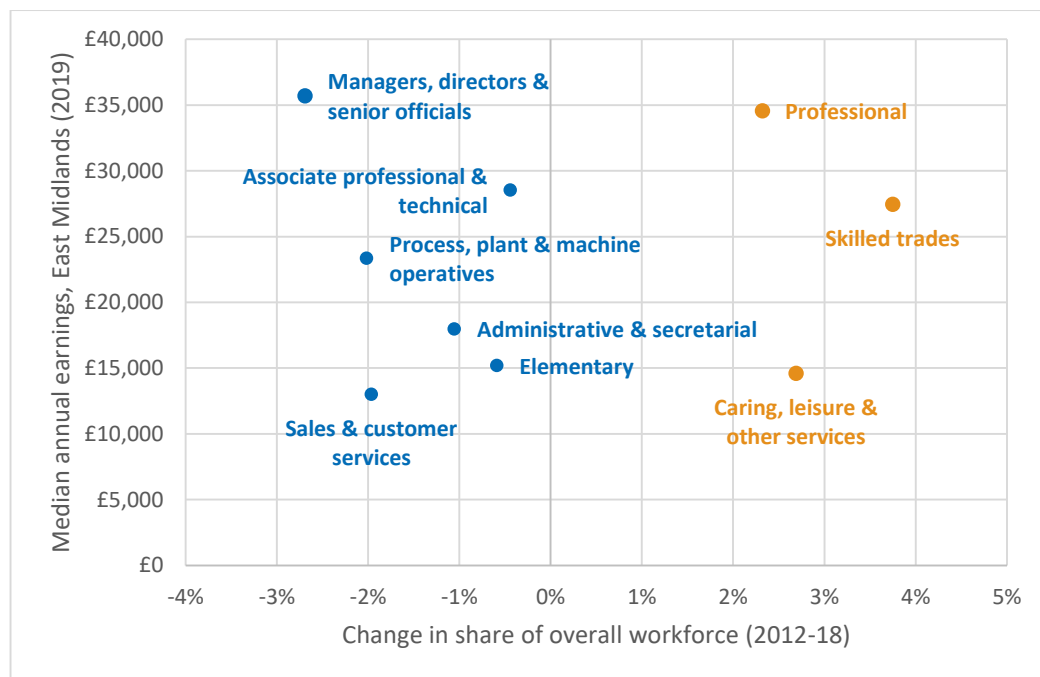
- 4.31 As of 2018, the APS indicates that professional occupations account for the largest proportion (18%) of jobs based in Central Lincolnshire in terms of the major occupational categories<sup>42</sup>. Skilled trades and elementary occupations are the next highest contributors to Central Lincolnshire’s employment, each accounting for 14% of the area’s total jobs.
- 4.32 The representation of skilled trades and caring, leisure & other service occupations in Central Lincolnshire have both grown over the plan period to date. Employment in professional occupations also saw relatively significant growth, which is consistent with the views of a representative of Lincoln Science and Innovation Park who referenced the increase in employees in its businesses.
- 4.33 Conversely the representation of process, plant & machine operatives has decreased over the plan period to date, with the proportion of roles in sales and customer service occupations and as managers, directors & senior officials also falling.
- 4.34 When these trends are considered in the context of the earnings typically seen in different occupations, there is no clear evidence to suggest that Central Lincolnshire has seen a significant shift towards higher or lower paid roles. This is shown by Figure 4.7, which plots the percentage point change in the representation of each occupation across Central Lincolnshire against the median earnings currently recorded in that sector throughout the East Midlands<sup>43</sup> (in the absence of robust local data). While

<sup>42</sup> As defined by the 2010 Standard Occupational Classification (SOC2010)

<sup>43</sup> ONS (2019) Annual Survey of Hours and Earnings: 2019 (provisional). The East Midlands is the lowest geography for which occupation-based official data is available

there is implied to have been a fall in the representation of the most highly paid roles, in managerial occupations, the occupations with the second and fourth highest earnings (professional occupations and skilled trades) have each become increasingly prominent in Central Lincolnshire.

**Figure 4.7: Median annual earnings of occupational groups changing in Central Lincolnshire**



Source: Annual Survey of Hours and Earnings; APS; Turley analysis

- 4.35 This, alongside other factors, has contributed towards a rise in the average earnings of people working in each of the Central Lincolnshire authorities, following the regional trend as shown at Table 4.5 overleaf. This rise has been particularly pronounced in North Kesteven. A Central Lincolnshire average is not presented in this table as this dataset is produced only for local authorities and cannot be robustly aggregated in a representative or accurate manner.

**Table 4.5: Change in gross annual median wages (all employee jobs) 2012 – 2019**

	2012	2019	Change
Lincoln	£19,128	£21,432	12%
North Kesteven	£17,419	£23,100	33%
West Lindsey	£18,420*	£20,954	14%
East Midlands	£20,144	£23,000	14%

*Source: ASHE; Turley analysis*

*\* Note: West Lindsey data not available for 2012. Therefore 2013 data has been used instead as an illustration of trends*

### **Evolution of the business base**

- 4.36 UK Business Counts produced by the ONS provide an indication of change in the profile of businesses in Central Lincolnshire over the plan period to date. This is based on “local units”, which could be individual sites within a larger enterprise.
- 4.37 The data suggests that the number of businesses in Central Lincolnshire has grown by around 930 units over the plan period to date (2012-19). This represents growth of circa 8%, approaching the 11% increase experienced across Greater Lincolnshire but falling below that recorded in the East Midlands (21%) and England (23%).
- 4.38 Table 4.6 overleaf suggests that this divergence from the regional and national trend could be at least partially attributable to a more modest growth in the number of microbusinesses employing fewer than 10 people, which have proliferated at the regional and national level. The table does, however, also show more pronounced growth in the number of medium and large businesses, respectively employing over 50 and 250 employees. Growth in large businesses (250+ employees), while equivalent to only around ten units, has been largely within Lincoln, with North Kesteven and West Lindsey seeing more pronounced growth in the number of medium-sized businesses. It is of note that the growth in large businesses in Lincoln could be as a result of their comparative success and growth as they have increased the size of their workforces and thus progressed through the classifications listed in the column headings of Table 4.6. The same evolutionary process is potentially also a sign of the success of smaller businesses in the other two authorities as they have passed the threshold to become medium sized businesses.



**Table 4.6: Change in business base by number of employees (2012-19)**

	Micro 0 to 9 employees	Small 10 to 49 employees	Medium 50 to 249 employees	Large 250+ employees	Total
Lincoln	14%	1%	0%	25%	<b>11%</b>
North Kesteven	2%	7%	30%	0%	<b>3%</b>
West Lindsey	13%	5%	14%	0%	<b>12%</b>
<b>Central Lincolnshire</b>	<b>9%</b>	<b>4%</b>	<b>12%</b>	<b>33%</b>	<b>8%</b>
Greater Lincolnshire	12%	3%	13%	0%	<b>11%</b>
East Midlands	23%	8%	10%	9%	<b>21%</b>
England	26%	12%	10%	7%	<b>23%</b>

Source: UK Business Counts

- 4.39 As of 2019, the profile of businesses in Central Lincolnshire remains relatively aligned with that of the wider LEP area, the region and the national economy. More than four in every five businesses throughout the area employ fewer than ten employees, albeit with a stronger representation of larger businesses in Lincoln in particular a feature of note. This is, however, potentially more representative of its status as a city and the location of institutes of higher and further education.

**Table 4.7: Current business base by number of employees (2019)**

	Micro 0 to 9 employees	Small 10 to 49 employees	Medium 50 to 249 employees	Large 250+ employees	Total
Lincoln	75%	19%	5%	1%	<b>100%</b>
North Kesteven	84%	13%	3%	0%	<b>100%</b>
West Lindsey	86%	12%	2%	0%	<b>100%</b>
<b>Central Lincolnshire</b>	<b>82%</b>	<b>14%</b>	<b>3%</b>	<b>0%</b>	<b>100%</b>
Greater Lincolnshire	83%	14%	3%	0%	<b>100%</b>
East Midlands	84%	13%	3%	0%	<b>100%</b>
England	85%	12%	3%	0%	<b>100%</b>

Source: UK Business Counts

*Rounded, and may not appear to sum*

### Accommodation of employment growth

- 4.40 Recognising the purpose of the ENA in informing the provision of floorspace to accommodate a growing business base, this section also considers how the growth in jobs referenced above in overall terms has been physically accommodated over the

plan period to date, through analysis of change in the quantum and availability of employment space in Central Lincolnshire.

- 4.41 This draws upon the CoStar commercial property database, which continuously records the quantum and profile of commercial space in areas such as Central Lincolnshire. This is not to be necessarily favoured over the Councils' own monitoring of completed employment space, which has not been available to inform this study, but naturally complements any such monitoring by confirming how the overall inventory is changing in net terms<sup>44</sup>.
- 4.42 Table 4.8 provides a summary of net change in different types of floorspace, in each authority and across Central Lincolnshire. It indicates that the overall inventory of commercial floorspace (comprising industrial/light industrial, office and retail) increased by a net 4.2% between 2012 and 2019 across Central Lincolnshire. This comprised an additional 79,252 sqm floorspace, over 71 net additional properties. It can be seen that the majority (51,182 sqm over 49 properties) of this floorspace was for industrial/light industrial uses (representing 5.2% growth of this type of floorspace), whilst comparatively low 1,570 sqm office floorspace was delivered across 3 net additional properties (equating to 0.5% net growth). The area's retail stock grew by 4.3% during this period despite the previously noted reduction in retail employment, albeit it is conceivable that this broader category also captures the growing number of leisure, food and beverage operators across the area, with growth in retail floorspace being particularly strong in absolute and proportionate terms in Lincoln and in proportionate terms in West Lindsey.
- 4.43 North Kesteven made the most significant contribution to overall commercial floorspace delivery, with the vast majority (37,849 sqm out of 40,536 sqm) of the total floorspace delivered in the district being for industrial/light industrial uses. This equates to a 10.7% growth in the district's industrial/light industrial stock, broadly consistent with the Council's observation of confidence in the market that has led to speculative developments and progress at three strategic sites.
- 4.44 Whilst North Kesteven and Lincoln's stock of office space grew (albeit relatively modestly) between 2012 and 2019 (by a respective 1,584 sqm and 2,555 sqm, this equating to growth of 2.7% and 1.3%), West Lindsey experienced a net loss of office floorspace, which decreased by 2,570 sqm (-2.3%), with CoStar recording two fewer office properties in the area as of the end of 2019 in comparison with the end of 2012.

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<sup>44</sup> Figures are presented on a net basis because new provision is offset in the data by the removal of other floorspace, through redevelopment for example. These aspects cannot be isolated in CoStar data

**Table 4.8: Commercial floorspace stock in Central Lincolnshire, 2012 – 2019**

	2012		2019		2012 – 2019 Change		2012 – 2019 % change	
	Properties	Floorspace (sqm)	Properties	Floorspace (sqm)	Properties	Floorspace (sqm)	Properties	Floorspace
<b>Lincoln</b>								
Industrial/Light Industrial	198	357,786	212	365,977	14	8,191	7.1%	2.3%
Office	274	192,282	276	194,838	2	2,555	0.7%	1.3%
Retail	684	386,333	693	406,544	9	20,211	1.3%	5.2%
<b>All types</b>	<b>1,156</b>	<b>936,402</b>	<b>1,181</b>	<b>967,359</b>	<b>25</b>	<b>30,957</b>	<b>2.2%</b>	<b>3.3%</b>
<b>North Kesteven</b>								
Industrial/Light Industrial	208	352,665	237	390,514	29	37,849	13.9%	10.7%
Office	135	59,447	138	61,031	3	1,584	2.2%	2.7%
Retail	234	125,997	236	127,099	2	1,102	0.9%	0.9%
<b>All types</b>	<b>577</b>	<b>538,110</b>	<b>611</b>	<b>578,645</b>	<b>34</b>	<b>40,536</b>	<b>5.9%</b>	<b>7.5%</b>
<b>West Lindsey</b>								
Industrial/Light Industrial	120	270,487	126	275,629	6	5,142	5.0%	1.9%
Office	87	37,692	85	35,122	-2	-2,570	-2.3%	-6.8%
Retail	256	96,969	264	102,157	8	5,187	3.1%	5.3%
<b>All types</b>	<b>463</b>	<b>405,148</b>	<b>475</b>	<b>412,908</b>	<b>12</b>	<b>7,760</b>	<b>2.6%</b>	<b>1.9%</b>
<b>CENTRAL LINCOLNSHIRE</b>								
Industrial/Light Industrial	526	980,939	575	1,032,121	49	51,182	9.3%	5.2%
Office	496	289,421	499	290,991	3	1,570	0.6%	0.5%
Retail	1,174	609,299	1,193	635,800	19	26,500	1.6%	4.3%
<b>ALL TYPES</b>	<b>2,196</b>	<b>1,879,660</b>	<b>2,267</b>	<b>1,958,912</b>	<b>71</b>	<b>79,252</b>	<b>3.2%</b>	<b>4.2%</b>

Source: CoStar; Turley analysis

- 4.45 While the analysis above confirms that the total commercial floorspace in Central Lincolnshire has increased, implying the provision of new or expanded buildings, it is also important to recognise that the existing stock has been better utilised. The CoStar data highlights that the vacancy rate for all types of floorspace in Central Lincolnshire has reduced between 2012 and 2019, as shown at Table 4.9. This suggests that the occupation of previously vacant space has played a role in contributing towards supporting employment growth to date, albeit the substantially lower vacancy rate now recorded suggests that any such contribution could diminish in future.

**Table 4.9: Commercial vacancy rate in Central Lincolnshire, 2012 – 2019**

	2012 % vacancy	2019 % vacancy	Change in % vacancy
<b>Lincoln</b>			
Industrial/Light Industrial	10.7%	1.2%	-9.5%
Office	7.8%	4.1%	-3.7%
Retail	3.7%	1.7%	-2.0%
<b>All types</b>	<b>8.5%</b>	<b>2.0%</b>	<b>-6.5%</b>
<b>North Kesteven</b>			
Industrial/Light Industrial	6.6%	1.3%	-5.3%
Office	16.5%	0.6%	-15.9%
Retail	14.9%	1.2%	-13.7%
<b>All types</b>	<b>9.7%</b>	<b>1.2%</b>	<b>-8.5%</b>
<b>West Lindsey</b>			
Industrial/Light Industrial	7.3%	1.4%	-5.9%
Office	10.7%	0.7%	-10.0%
Retail	3.0%	1.5%	-1.5%
<b>All types</b>	<b>6.7%</b>	<b>1.4%</b>	<b>-5.3%</b>
<b>CENTRAL LINCOLNSHIRE</b>			
Industrial/Light Industrial	8.3%	1.3%	-7.0%
Office	10.0%	2.9%	-7.1%
Retail	5.9%	1.6%	-4.3%
<b>ALL TYPES</b>	<b>8.4%</b>	<b>1.6%</b>	<b>-6.8%</b>

Source: CoStar; Turley analysis

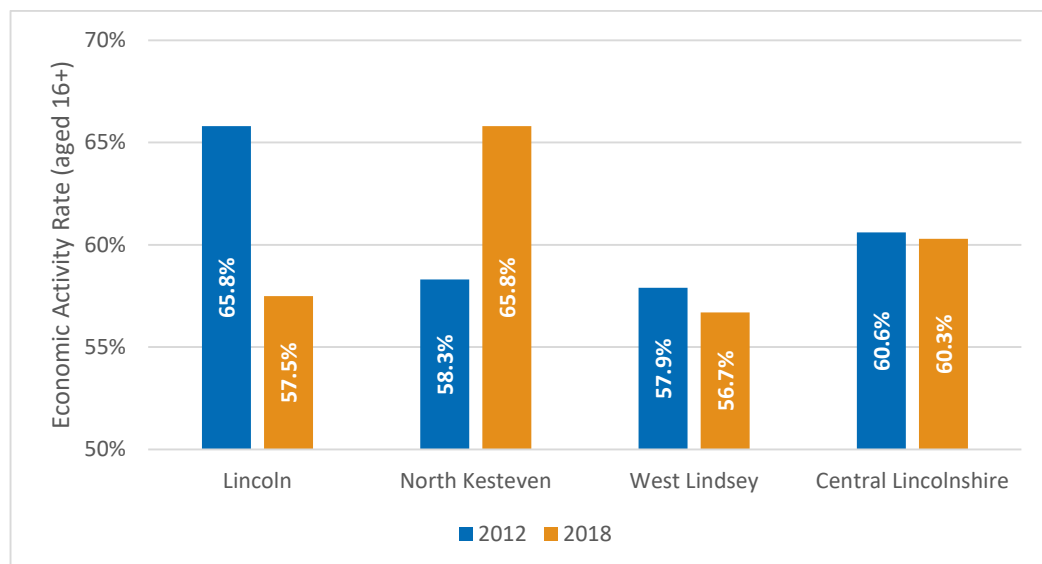
## Labour force response to employment growth

- 4.46 The changes in employment levels noted earlier in this section of the report have had an impact on the workforce. This section provides important consideration of the relationship between the resident labour-force and the economy.

### Economic activity

- 4.47 Figure 4.8 outlines the change in economic activity rates in the individual authorities and Central Lincolnshire as a whole, as reported by the APS<sup>45</sup>. Economic activity relates to whether or not an adult (16+) was working or looking for work at the time of the survey, thus illustrating the extent to which they are actively participating in the labour market.
- 4.48 APS data reports that the absolute number of economically active people aged 16 and over in Central Lincolnshire increased from circa 143,400 in 2012, to 153,600 by 2018. This represented growth of 10,200 economically active people.
- 4.49 On a proportionate basis, however, the APS does also indicate that 60.3% of people aged 16 and over in Central Lincolnshire were economically active as of 2018, this remaining virtually unchanged since 2012, when the rate was recorded as 60.6%. It can be seen that economic activity rates in Lincoln and North Kesteven respectively fell and rose to similar extents over this period, whilst rates in West Lindsey also fell slightly.

**Figure 4.8: Economic Activity Rates in Central Lincolnshire, 2012-2018**



Source: Annual Population Survey; Turley analysis

- 4.50 It is important, however, to unpack what this data shows further with a broadly stable activity rate appearing to sit at odds with a picture of job growth. In this context, it is important to recognise wider demographic changes which have also occurred over this period, which have seen the number of older people who are no longer active in the workforce increase. This naturally reduces the activity rate even where the *absolute number* of people classified as economically active increases, as noted above. Equally,

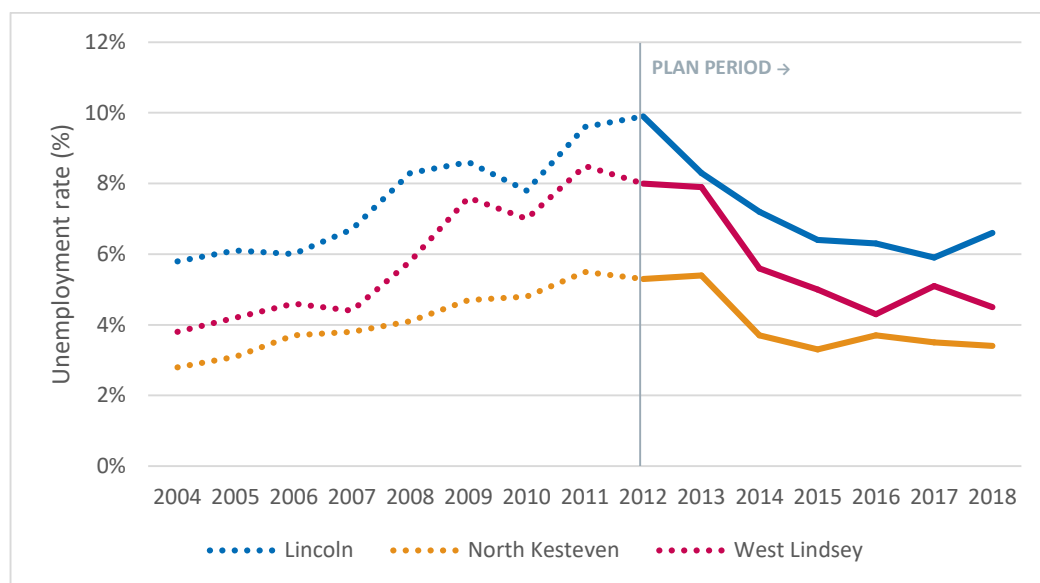
<sup>45</sup> ONS via Nomis (2019) Annual Population Survey: Jan 2012-Dec 2012; Jan 2018-Dec 2018

in the case of Lincoln, it is important to recognise that growth in the number of economically inactive students has impacted upon these figures. By way of illustration, whilst in 2012 around 4,900 out of a total 14,600 economically inactive people in Lincoln were students (this equating to one third of all economically inactive people), by 2018, the number of economically inactive students in Lincoln stood at 9,100, this representing around half of the total 18,300 people who were economically inactive.

### Unemployment

- 4.51 The number of unemployed residents and the rate of unemployment – capturing adults without a job but available to start work – is another important indicator as to the health of the labour-force. Figure 4.9 shows that each of the Central Lincolnshire authorities has seen unemployment rates fall since the start of the current plan period, when unemployment was relatively high in what remained a recessionary climate<sup>46</sup>. This improvement has been particularly pronounced in Lincoln and West Lindsey. The fall in unemployment has naturally created additional capacity in the labour force, an important contributing factor in enabling the relatively strong job growth achieved over the plan period to date.

**Figure 4.9: Unemployment Rates in Central Lincolnshire (2004-18)**



Source: ONS

### Earnings

- 4.52 Where the analysis of occupations earlier in this section highlights the changing types of jobs available for the workforce, analysis of residents' earnings indicates the impacts of these changes for people living in Central Lincolnshire. Table 4.10 draws on data sourced from the Annual Survey of Hours and Earnings (ASHE) and highlights that both Lincoln and particularly North Kesteven have seen residents' median earnings increase beyond the level seen in the wider East Midlands, although median earnings as of 2019 remain lower than the regional average. West Lindsey, conversely, has seen lower

<sup>46</sup> ONS (2019) Model-based estimates of unemployment

wage growth than in the wider region, but 2019 median wages are nonetheless higher than in the East Midlands.

**Table 4.10: Residence-based median gross annual earnings in Central Lincolnshire authorities and East Midlands, 2012 – 2019**

	2012	2019	Change
Lincoln	£23,000	£26,530	15.3%
North Kesteven	£23,846	£28,434	19.2%
West Lindsey	£26,333	£29,818	13.2%
East Midlands	£24,995	£28,517	14.1%

*Source: ASHE; Turley analysis*

## Summary

- 4.53 The 2015 ENA sought to estimate the scale of job growth that would occur in Central Lincolnshire over the plan period from 2012. While acknowledged to be a long-term forecast that by its nature is rarely accurate, and potentially allows for the cyclical nature of the economy over such a horizon, the passage of time allows its assumptions to be tested against reported trends over the initial six years to 2018. This provides critical insight into how sectors have performed relative to the growth anticipated in 2015.
- 4.54 The Council's economic development teams have generally expressed a belief that their areas have performed well in recent years, and these sentiments are supported by official employment data. Central Lincolnshire is estimated to have seen around 11,100 additional jobs created since 2012, at a rate – of circa 1,850 jobs per annum, or 1.4% growth per year – which far exceeds that anticipated under any of the scenarios presented in the 2015 ENA (628-936 jobs per annum). This growth, which does not appear exceptional in the context of national and regional trends during the same period, has resulted in a departure from the employment growth trajectory forecast at that point.
- 4.55 This departure has been particularly pronounced in certain sectors. The business administration and support sector has created substantially more jobs than envisaged on an average annual basis than even the positively adjusted scenario in the 2015 ENA. Accommodation and food services have also seen considerably stronger job growth than was forecast, while the manufacturing sector has seen job growth to date rather than the envisaged decline. In contrast, it is evident that employment in retail and wholesale has declined rather than grown as forecast, with education and agriculture also experiencing job losses as opposed to the relatively stable position anticipated by the ENA.
- 4.56 While the overall trend is one of job growth, this has not been uniform below local authority level. Most areas have seen increased employment, with five areas in the vicinity of Lincoln and North Hykeham implied to have created a particularly significant number of new jobs (albeit with one appearing a statistical anomaly relating to the

recreation sector). The job losses seen in a minority of areas have generally been less pronounced than the gains experienced elsewhere, but the most severe declines appear to have occurred in parts of Lincoln, Gainsborough and Sleaford.

- 4.57 Employment growth appears to have led to a modest shift in the occupational structure of the workforce, towards skilled trades, care, leisure and professional roles and away from managerial, process and sales positions. When considered in the context of earnings, this does not suggest a significant move towards higher or lower paid roles, with the shrinking representation of highly paid managers and directors offset to an extent by growth in relatively well-paid professional and skilled trade positions. Indeed, the data confirms that the average earnings of those working in each of the Central Lincolnshire authorities has increased since the start of the plan period.
- 4.58 Changes in the stock of commercial space also appear to have contributed towards enabling job growth in Central Lincolnshire. CoStar data suggests that the overall inventory has grown, particularly within industrial and retail premises. While the latter apparently conflicts with reducing employment in the sector, this is understood to be a broadly defined category that will also reflect the growing number of leisure, food and beverage operators in this area. It is also of note that the level of vacancy in all types of commercial premises, in each authority, has fallen since the start of the plan period, providing latent capacity to accommodate job growth that – on the basis of the latest data available – appears largely exhausted.
- 4.59 Finally, when focusing on the resident labour force, employment growth is also likely to have been enabled by a pronounced fall in unemployment, recovering from the high rates recorded in a recessionary climate at the start of the current plan period. The number of economically active adults living in Central Lincolnshire has also increased, albeit the *rate* of economic activity amongst adults is largely unchanged since 2012 due principally to the growing number of older people and indeed students that are no longer an active part of the labour force.



## 5. Forecasts of Future Employment Growth

- 5.1 The PPG continues to endorse the use of employment forecasts, alongside other datasets, when assessing future needs<sup>47</sup>.
- 5.2 On this basis, and as in the 2015 ENA, forecasts have been obtained from two of the three leading providers to inform this study, namely:
- **Experian**, specifically its quarterly release dated September 2019. This unusually remains the latest full release at the time of writing some six months later, with the traditional December update clashing with the general election and thus replaced by two higher level variant scenarios which sought to model the impact of the leading parties' manifesto commitments without a detailed breakdown by sector. It is relevant to note, given the outcome of the election, that the scenario based on the Conservative manifesto largely reinforced the overall level of employment growth implied for Central Lincolnshire by the earlier Experian forecast dated September 2019<sup>48</sup>; and
  - **Oxford Economics**, as updated in November 2019. The baseline assumptions are understood, based on subsequent correspondence with Oxford Economics, to have satisfactorily allowed for the outcome of the election.
- 5.3 It is acknowledged that each of the above forecasts was produced before the outbreak of coronavirus, which is having a profound economic impact across the world at the time of writing. The longevity of this impact, its long-term consequences and the timescales for economic recovery are clearly unknown, and it would be premature to at this point speculate on the success of an unprecedented nationally-led economic response that is intended to moderate the impact of the pandemic and secure a timely recovery. In these circumstances, there is considered to remain a general need to balance negative sentiment against the positive approach expected of planning policies, particularly given that authorities have been recently encouraged to '*plan for the recovery*'<sup>49</sup>. The use of forecasts produced prior to the outbreak is therefore considered to remain justified and indeed is unavoidable at the current point in time, in the absence of timely and robust data with which to build more up-to-date forecasts that could themselves be skewed by increasingly volatile conditions.
- 5.4 This section introduces the two forecasts, confirming the implied scale, trajectory and sectorial profile of employment growth. The forecasts are then more critically reviewed in section 6 of this report.

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<sup>47</sup> PPG Reference ID 2a-027-20190220

<sup>48</sup> The Experian scenario based on the Conservative manifesto envisaged the creation of only 400 further jobs in Central Lincolnshire over the revised plan period (2018-40) beyond those already forecast in the previous quarterly release in September 2019

<sup>49</sup> MHCLG (March 2020) Planning Update Newsletter

## Scale of employment growth forecast

- 5.5 The following table compares the overall level of employment growth forecast across Central Lincolnshire both by Experian and Oxford Economics, over the period to be covered by the revised Local Plan<sup>50</sup> (2018-40).

**Table 5.1: Oxford Economics' and Experian's Central Lincolnshire employment forecasts (2018 – 2040)**

	Oxford Economics	Experian <sup>51</sup>
Additional jobs 2018 – 2040	9,239	15,700
% growth in jobs 2018 – 2040	6.5%	11.4%
<b>Average annual job growth 2018 – 2040</b>	<b>420</b>	<b>714</b>
<b>Average annual % job growth 2018 – 2040</b>	<b>0.3%</b>	<b>0.5%</b>

*Source: Oxford Economics; Experian; Turley analysis*

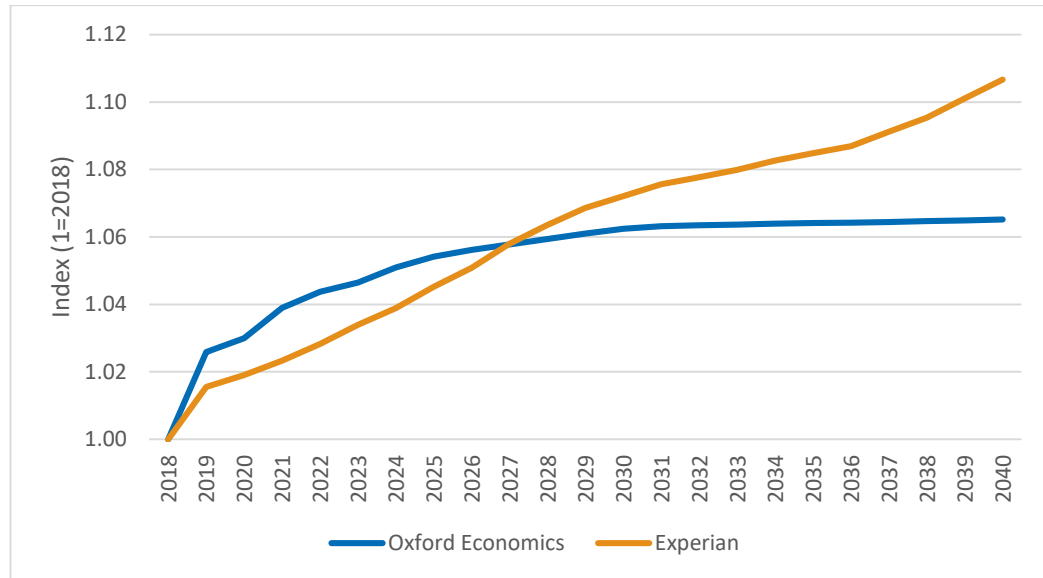
- 5.6 At a headline level, each forecast envisages employment growth in Central Lincolnshire throughout the plan period. This aligns in principle with the relatively positive sentiments expressed during consultation with the Councils' economic development teams, who generally expected a continuation of the recent growth trend introduced in the previous section of this report.
- 5.7 Experian is evidently the more optimistic of the two forecasts, envisaging the creation of 15,700 jobs across Central Lincolnshire or circa 714 jobs per annum. This represents growth of around 11% relative to its own estimate of employment at the beginning of the plan period, or average growth of circa 0.5% per annum.
- 5.8 Oxford Economics forecasts a lower level of employment growth in Central Lincolnshire, with around 9,239 additional jobs over the plan period equivalent to circa 420 jobs per annum. This would grow current employment, again relative to its own independent historic estimates, by circa 7% overall or 0.3% each year on average.
- 5.9 While there are numerous reasons for these differing views on the scale of future employment growth in Central Lincolnshire, with those deemed most significant considered in the remainder of this and the following section, the profile of growth over time immediately appears an influential factor. As illustrated in Figure 5.1 – which indexes change in employment from 2018 onwards – the forecasts are relatively consistent in expecting employment to have grown by around 6% within the next decade, but Oxford Economics thereafter assumes that job growth will slow

<sup>50</sup> Experian forecasts currently run only to 2039, and have therefore been extended by Turley to 2040. It has been reasonably assumed that the absolute level of employment growth forecast in each sector during the last available year (2038/39) continues in the subsequent year

<sup>51</sup> Total figures aggregate the rounded level of growth implied at individual sector level, producing a slightly higher number of jobs than implied by the total "workforce jobs" measure reported by Experian

considerably. Experian assumes, in contrast, that employment growth will continue at a relatively consistent rate throughout the period to 2040.

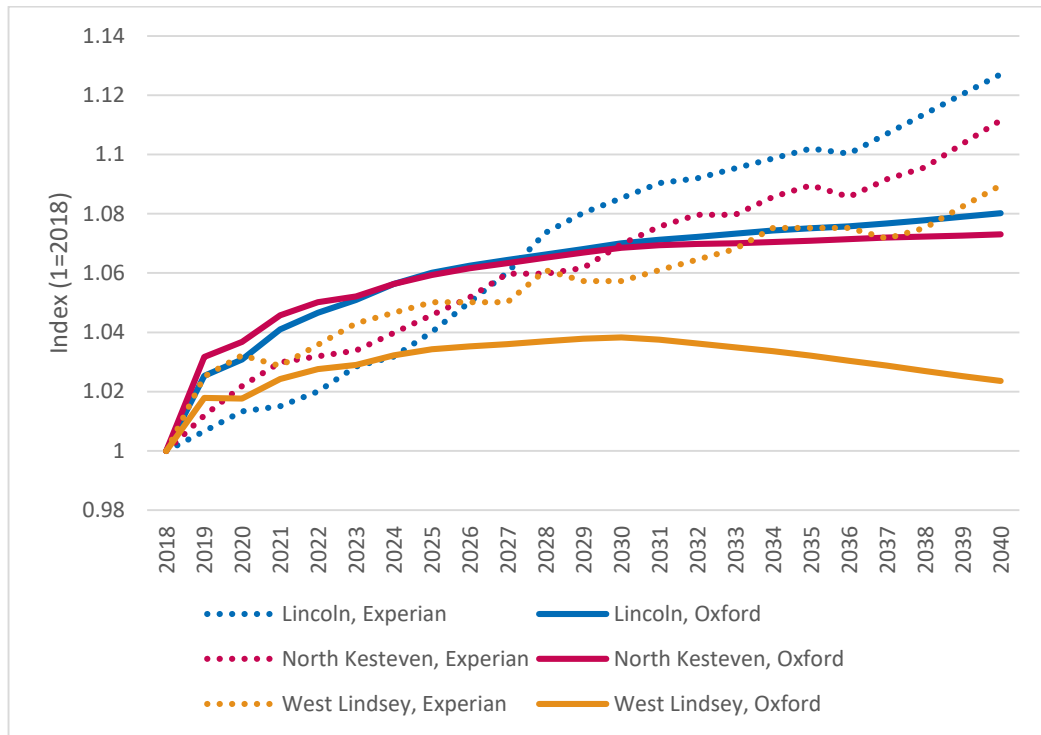
**Figure 5.1: Indexed employment growth forecast in Central Lincolnshire by Experian and Oxford Economics (2018-40)**



Source: Oxford Economics; Experian; Turley analysis

- 5.10 This divergent profile is still more pronounced at authority level, particularly in West Lindsey as shown at Figure 5.2 below. The Oxford Economics forecast implies that there will actually be job *losses* in the district after 2030, contrasting with the relatively stable job growth forecast by Experian. While a higher rate of growth is forecast in both Lincoln and North Kesteven, this remains lower than envisaged by Experian in each case and is also assumed to slow in the latter half of the period assessed here.

**Figure 5.2: Indexed employment growth forecast for Central Lincolnshire authorities by Experian and Oxford Economics (2018-40)**



*Source: Oxford Economics; Experian; Turley analysis*

- 5.11 These profiles result in Oxford Economics forecasting a lower rate of employment growth in each of the Central Lincolnshire authorities relative to Experian, as shown at Table 5.2 overleaf. It is clear that Lincoln is consistently forecast to see the strongest growth, with North Kesteven in both cases only slightly behind in proportionate terms. While West Lindsey is consistently forecast to see the lowest rate of growth amongst the Central Lincolnshire authorities – aligned in principle with the relatively steady growth expected by the Council’s economic development officers – its divergence is particularly severe under the Oxford Economics forecast, which suggests a rate of employment growth in the district that is less than a third of that envisaged in North Kesteven.

**Table 5.2: Employment growth forecast for Central Lincolnshire authorities by Experian and Oxford Economics (2018-40)**

	Oxford Economics			Experian		
	Forecast job growth	% growth	Average annual growth (%)	Forecast job growth	% growth	Average annual growth (%)
Lincoln	4,863	8.0%	0.4%	7,600	12.7%	0.5%
North Kesteven	3,638	7.3%	0.3%	5,600	11.2%	0.5%
West Lindsey	737	2.4%	0.1%	2,500	9.0%	0.4%
<b>Central Lincolnshire</b>	<b>9,239</b>	<b>6.5%</b>	<b>0.3%</b>	<b>15,700</b>	<b>11.4%</b>	<b>0.5%</b>

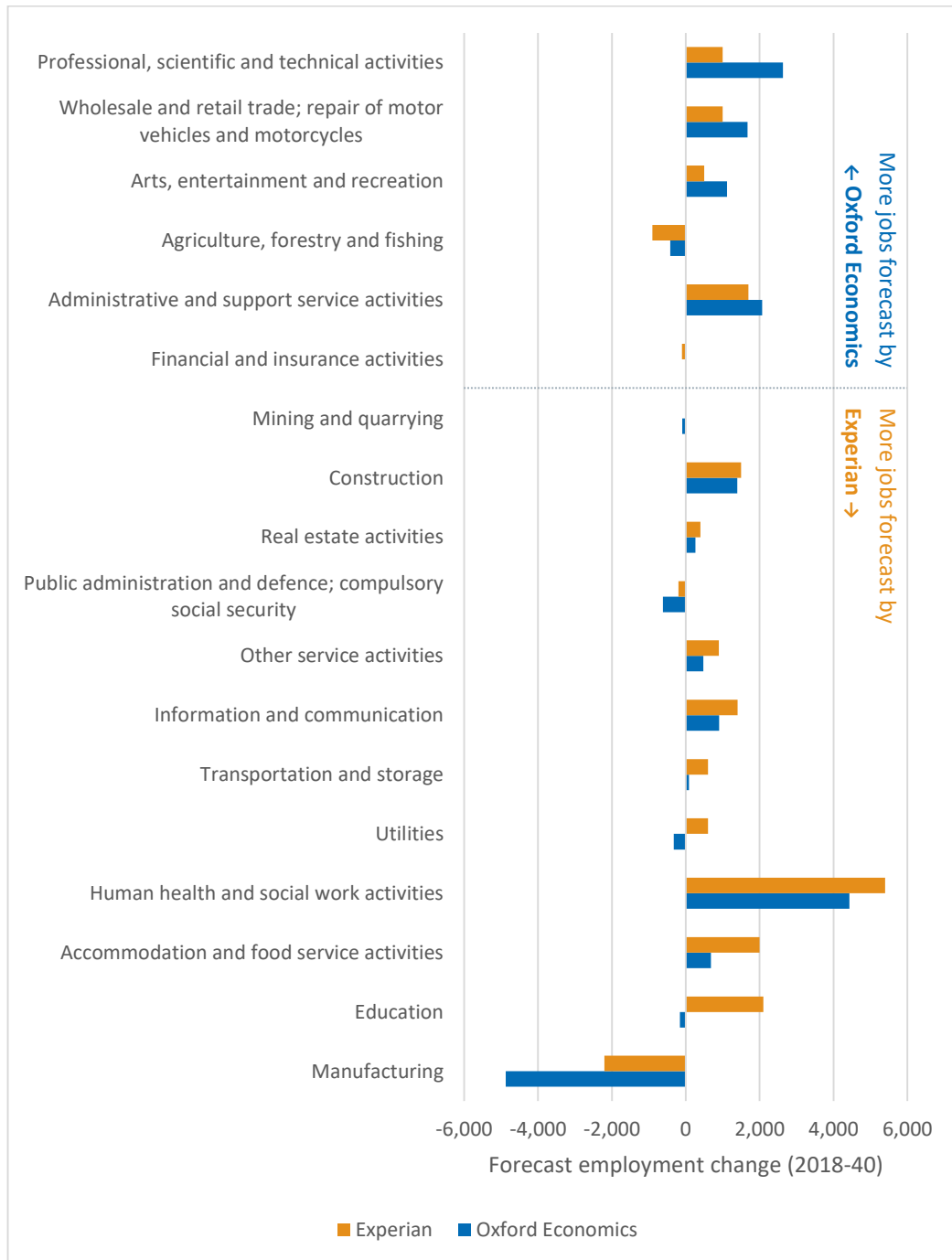
*Source: Oxford Economics; Experian; Turley analysis*

### Forecast employment growth by sector

- 5.12 Each forecast is broken down by industrial sector, providing further insight into their differing outlooks. While the level of detail available differs between the forecasts, a process of aggregation allows direct comparison of the future growth forecast in Central Lincolnshire across 18 common sectors<sup>52</sup>.
- 5.13 Figure 5.3 compares the number of additional jobs forecast in each sector across Central Lincolnshire over the period assessed in this report. It is ordered to illustrate the absolute scale of difference between the forecasts for each sector, with those sectors for which Oxford Economics makes relatively more positive assumptions than Experian identified at the top and vice versa.

<sup>52</sup> This is largely based on the 19 sector breakdown sourced from Oxford Economics, albeit with “electricity, gas, steam and air conditioning supply” and “water supply; sewerage, waste management and remediation activities” aggregated into a “utilities” category to reflect the absence of such a split in the Experian forecast

**Figure 5.3: Comparing employment growth forecast by sector in Central Lincolnshire (2018-40)**



*Source: Oxford Economics; Experian; Turley analysis*

- 5.14 A review of this chart confirms that even forecasts produced at a similar time take different views on the growth prospects of individual sectors. It is clear that Experian has made more positive assumptions on the future growth of two in three sectors, with Oxford Economics more optimistic in only six cases. These most notably include professional, scientific and technical activities, where Oxford Economics forecasts the creation of over double the number of jobs as Experian.

- 5.15 Oxford Economics is considerably more negative on the prospects of the manufacturing sector, forecasting the loss of some 4,870 jobs – or one in every three existing jobs that it records in the sector – which more than doubles the decline also envisaged by Experian. It foresees a slight decline in education jobs, contrasting with the 2,100 additional jobs forecast in the sector by Experian, and is also markedly less optimistic on the potential for job growth in the accommodation and food services sector.
- 5.16 There are, however, also a number of sectors in which the forecasting houses broadly agree on the potential scale of future job growth in Central Lincolnshire. This includes construction, where circa 1,400 to 1,500 additional jobs are forecast, and financial and insurance activities where little growth is anticipated. Administrative and support services and human health and social work activities also appear relatively aligned, if slightly divergent on the precise number of additional jobs to be created.
- 5.17 A more mixed position naturally emerges when considering the growth forecast by sector at authority level. This is shown at Table 5.3 overleaf, which is again ordered based on the scale of difference between the Oxford Economics and Experian forecasts at Central Lincolnshire level but provides an additional breakdown for the individual authorities. It highlights any forecast decline in red and emboldens the more optimistic of the forecasts for each authority in each sector, revealing instances where Oxford Economics actually has a more positive outlook for individual sectors than Experian despite the generally more negative position implied for Central Lincolnshire as a whole. The reverse is also true in a small number of cases.

**Table 5.3: Comparing employment growth forecast by sector in Central Lincolnshire authorities (2018-40)**

	Lincoln		North Kesteven		West Lindsey		Central Lincolnshire	
	Oxford	Experian	Oxford	Experian	Oxford	Experian	Oxford	Experian
Professional, scientific & technical	<b>1,107</b>	300	<b>1,082</b>	400	<b>443</b>	300	<b>2,633</b>	1,000
Wholesale & retail trade	367	<b>700</b>	<b>1,100</b>	0	204	<b>300</b>	<b>1,671</b>	1,000
Arts, entertainment & recreation	<b>385</b>	300	<b>458</b>	100	<b>271</b>	100	<b>1,114</b>	500
Agriculture, forestry & fishing	0	0	<b>-195</b>	<b>-600</b>	<b>-222</b>	<b>-300</b>	<b>-417</b>	-900
Administrative & support services	<b>1,073</b>	1,000	<b>722</b>	400	271	<b>300</b>	<b>2,065</b>	1,700
Financial & insurance activities	<b>22</b>	0	<b>-15</b>	<b>-100</b>	<b>-12</b>	<b>0</b>	<b>-5</b>	-100
Mining & quarrying	<b>-3</b>	<b>0</b>	<b>-51</b>	<b>0</b>	<b>-40</b>	<b>0</b>	<b>-94</b>	<b>0</b>
Construction	<b>460</b>	<b>-100</b>	600	<b>1,100</b>	335	<b>500</b>	1,395	<b>1,500</b>
Real estate	<b>122</b>	0	59	<b>100</b>	83	<b>300</b>	264	<b>400</b>
Public administration & defence	<b>-322</b>	<b>-200</b>	<b>-116</b>	<b>0</b>	<b>-176</b>	<b>0</b>	<b>-614</b>	<b>-200</b>
Other service activities	228	<b>500</b>	146	<b>400</b>	<b>105</b>	0	479	<b>900</b>
Information & communication	<b>388</b>	300	377	<b>1,000</b>	<b>139</b>	100	904	<b>1,400</b>
Transportation & storage	<b>-81</b>	<b>-100</b>	88	<b>900</b>	<b>76</b>	<b>-200</b>	84	<b>600</b>
Utilities	<b>-183</b>	<b>100</b>	<b>-60</b>	<b>400</b>	<b>-80</b>	<b>100</b>	<b>-323</b>	<b>600</b>
Human health & social work	2,598	<b>3,100</b>	1,348	<b>1,500</b>	481	<b>800</b>	4,427	<b>5,400</b>
Accommodation & food services	213	<b>1,400</b>	<b>428</b>	200	44	<b>400</b>	686	<b>2,000</b>
Education	<b>-94</b>	<b>800</b>	50	<b>900</b>	<b>-115</b>	<b>400</b>	<b>-160</b>	<b>2,100</b>
Manufacturing	<b>-1,417</b>	<b>-500</b>	<b>-2,384</b>	<b>-1,100</b>	<b>-1,071</b>	<b>-600</b>	<b>-4,871</b>	<b>-2,200</b>

Source: Oxford Economics; Experian; Turley analysis



## Summary

- 5.18 The PPG continues to endorse the use of employment forecasts, alongside other datasets, when assessing future needs. The latest available forecasts have therefore been obtained, as in the 2015 ENA, from two of the three leading providers in Experian and Oxford Economics. It is, however, explicitly acknowledged that these forecasts were produced at an uncertain time, and naturally predate the coronavirus outbreak that is having a profound and ultimately uncertain economic impact across the world at the time of writing. Local authorities have nonetheless been recently encouraged to plan for the recovery, requiring a positive outlook that is not unduly skewed by negative sentiment.
- 5.19 Each of the employment forecasts anticipates employment growth in Central Lincolnshire over the period to be covered by the revised Local Plan (2018-40). Experian provides the more optimistic of the two forecasts, envisaging the creation of circa 714 jobs per year at an average growth rate of approximately 0.5% per annum. Oxford Economics expects fewer jobs to be created, averaging around 420 jobs per annum equivalent to 0.3% growth each year. The latter outcome is based on the assumption that job growth will considerably slow beyond the coming decade, unlike the more stable rate of growth forecast over the entire plan period by Experian. This divergence between the forecasts is particularly acute in West Lindsey and results in the forecasting of a notably low rate of job growth for the district by Oxford Economics.
- 5.20 Each forecast is broken down by industrial sector to provide further insight into their differing outlooks. A comparison at Central Lincolnshire level – recognising the more varied position naturally emerging for individual authorities – reveals that Experian has made the more positive assumptions on growth for two thirds of the 18 defined sectors, with only six exceptions that most notably include professional, scientific and technical activities. While each forecast envisages substantial job losses in the manufacturing sector, Oxford Economics is considerably more negative such that it anticipates the loss of one in three jobs that currently exist in the sector locally. It also foresees decline in education, contrasting with the job creation forecast in the sector by Experian, and is less optimistic on the potential for job growth in accommodation and food services. There are, however, also sectors in which the forecasting houses are in broad agreement, including construction, financial and insurance activities, administrative and support services and human health and social work.
- 5.21 This section has introduced and analysed the trends within the two forecasts to confirm the implied scale, trajectory and sectorial profile of employment growth. They are critically reviewed in the following section of this report, to consider – as part of the Councils' evidence base for the new Local Plan – the extent which they are representative of likely future employment growth in Central Lincolnshire.

## 6. Evaluating the Forecasts

- 6.1 While the use of employment forecasts is encouraged by the PPG, alongside other datasets, it is important to appreciate that such baseline forecasts – of the type introduced in the previous section – have inherent limitations and require careful and critical consideration, as in the 2015 ENA.
- 6.2 It is acknowledged by the forecasting houses themselves that their “top-down” methodologies mean that they will not fully recognise defining features of local economies, including local specialisms and associated growth opportunities for example. Employment growth in individual sectors can be significantly influenced instead by the forecast’s view of the national economy in particular.
- 6.3 Comprehensive evidence from other areas shows that even ‘*state-of-the art techniques*’ used by the forecasting houses can often result in projections of employment growth that fall ‘*below the actual outturn by a significant margin*’ – as has proven, through the analysis in section 4, to be the case in Central Lincolnshire in recent years – and ‘*sense checks*’ are therefore strongly advisable<sup>53</sup>.
- 6.4 In this context, this section interrogates in greater detail the assumptions made in the forecasts produced for Central Lincolnshire, drawing upon the analysis of local data presented in section 4 of this report, an understanding of local economic priorities and engagement with a range of local stakeholders listed at **Appendix 1**.

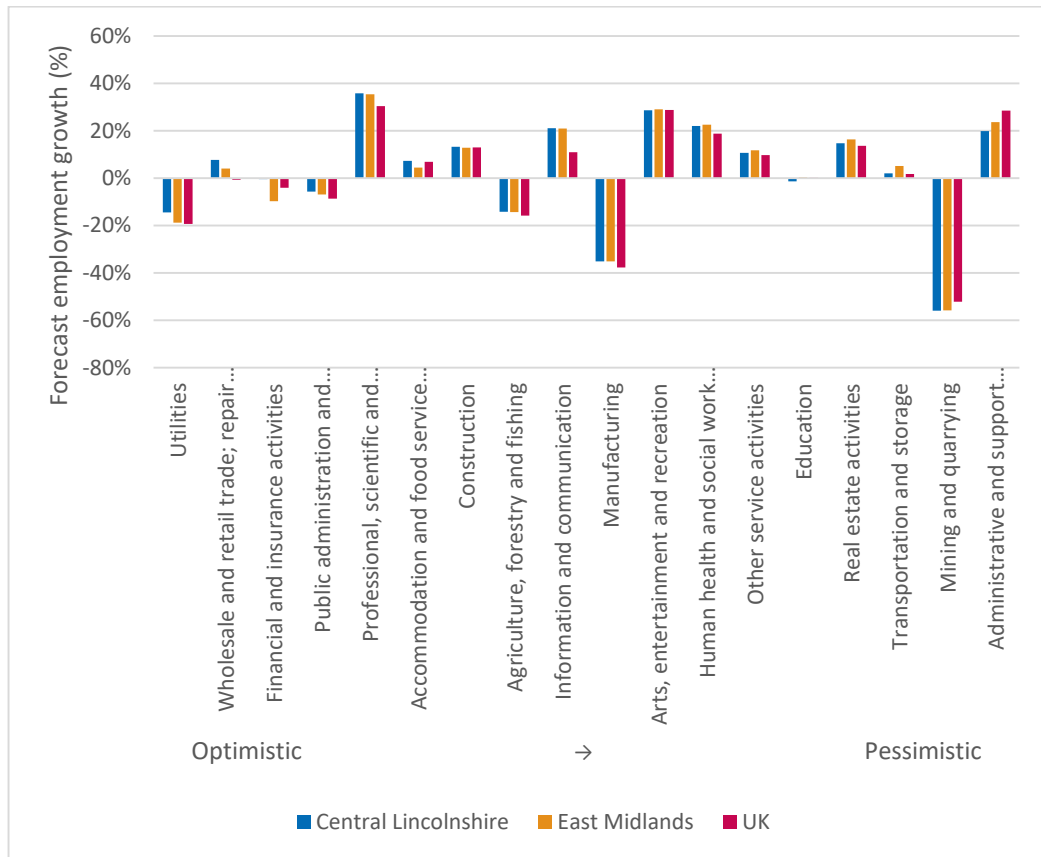
### Influence of national and regional assumptions

- 6.5 As noted above, baseline employment forecasts produced at the local authority level can be particularly sensitive to the overriding view of the forecasting house on the national and regional outlook for growth of individual sectors. This appears to be the case in Central Lincolnshire, when comparing the rate of growth forecast in individual sectors to that envisaged by the same forecast across the East Midlands and UK.
- 6.6 Figure 6.1 overleaf shows that the Oxford Economics forecast for Central Lincolnshire is largely bound to and aligned with the rates of growth assumed nationally or regionally. There are only a small number of sectors where this area is forecast to perform better on a proportionate basis than the region or nation, most notably wholesale and retail. There are also some instances where Central Lincolnshire is forecast to see a slightly less pronounced decline in employment than forecast in the East Midlands or UK.

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<sup>53</sup> Cambridgeshire and Peterborough Independent Economic Review, final report (September 2018)

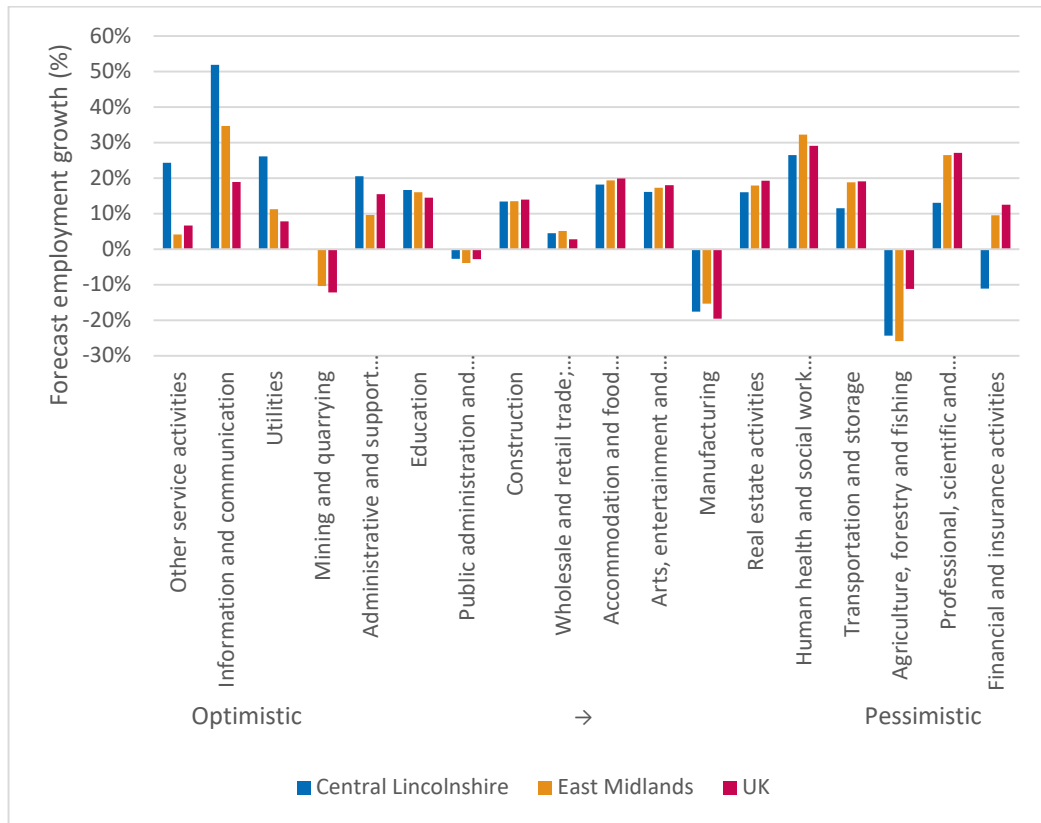
**Figure 6.1: Oxford Economics' employment forecast for Central Lincolnshire relative to East Midlands and UK forecast (2018-40)**



Source: Oxford Economics; Turley analysis

- 6.7 A similar, but slightly less rigid, pattern is apparent in the Experian forecast, as shown at Figure 6.2 overleaf. There are evidently a larger number of sectors in which Central Lincolnshire is forecast to outperform the East Midlands and UK, such as private services, information and communication. There are also instances where this area is expected to fall below the wider rate of growth, such as finance, insurance and professional or scientific services. Notably, when reviewed in the context of the earlier Figure 5.3, the sector forecast to see the strongest absolute decline in employment – specifically manufacturing – is assumed to closely follow a regional and national trend that is negative, and this is also the case in the Oxford Economics forecast shown above.

**Figure 6.2: Experian’s employment forecast for Central Lincolnshire relative to East Midlands and UK forecast (2018-40)**



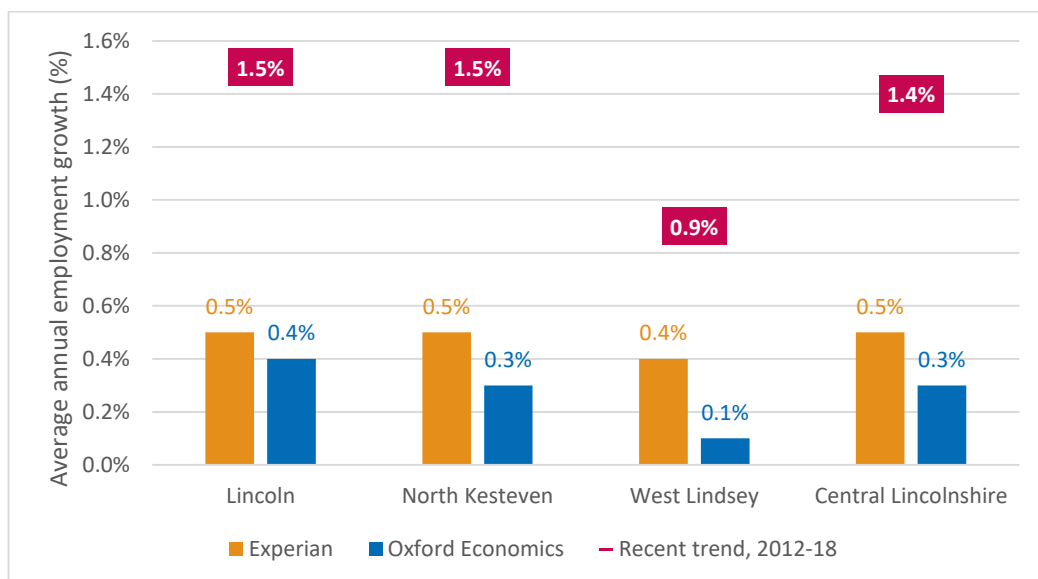
*Source: Experian; Turley analysis*

- 6.8 This local evidence of a “top-down” influence warns against the automatic acceptance of baseline forecasts as necessarily reflective or representative of trends in Central Lincolnshire specifically or the prospects of its businesses in each of these sectors. A further interrogation, in the context of past trends and local economic ambitions, is clearly necessary and justified.

### Comparison with past trends

- 6.9 Both forecasts predict continued growth in employment across Central Lincolnshire over the period to 2040. However, a comparison of the implied annual rate of growth against the recent historic picture, shown earlier at Table 4.2, suggests that where the employment growth forecast for Central Lincolnshire materialises, it would significantly slow the recent rate of job creation in this area.
- 6.10 Table 4.2 indicated that employment in Central Lincolnshire has grown by an average of 1.4% each year since 2012. Experian foresees average annual growth at little more than a third of this rate over the new plan period (0.5%), and Oxford Economics less than a quarter (0.3%). This pattern is repeated across each individual authority, as illustrated at Figure 6.3.

**Figure 6.3: Benchmarking forecast employment growth rate (2018-40) against recent trend (2012-18)**



Source: Oxford Economics; Experian; Turley analysis

- 6.11 While this report has primarily focused on short term trends within the current plan period, to critically review and update the 2015 ENA, it is also important – recognising the often cyclical nature of the economy, as acknowledged by the PPG<sup>54</sup> – to set the forecast rates of growth in the context of longer-term trends. Doing so notably confirms that the forecast rate of future employment growth in Central Lincolnshire under both forecasts also falls below that achieved over the longer term, albeit less markedly so.
- 6.12 The 2015 ENA considered trends in what was then the ‘*most recent economic growth period*’ (1998-2008) and its comparable data – drawing upon the Annual Business Inquiry (ABI) which existed at that time – suggests that employment in Central Lincolnshire grew by around 0.8% per annum in this period<sup>55</sup>. Whilst a slower rate than seen more recently, this is still close to double the rate implied under the two baseline forecasts introduced in section 5.
- 6.13 The 2015 ENA did also use available data to examine what was then a ‘*more recent and post-recessionary trend*’ (2009-12) and found that there had been a decline in employment during this period<sup>56</sup>. While not specified in that report, identical BRES data suggests that employment contracted in this time by an average of 1.4% each year. Although any forecast of employment growth would naturally appear positive in the context of this recessionary trend, it is not considered in isolation to provide a representative or reliable benchmark for growth over a long-term plan period.

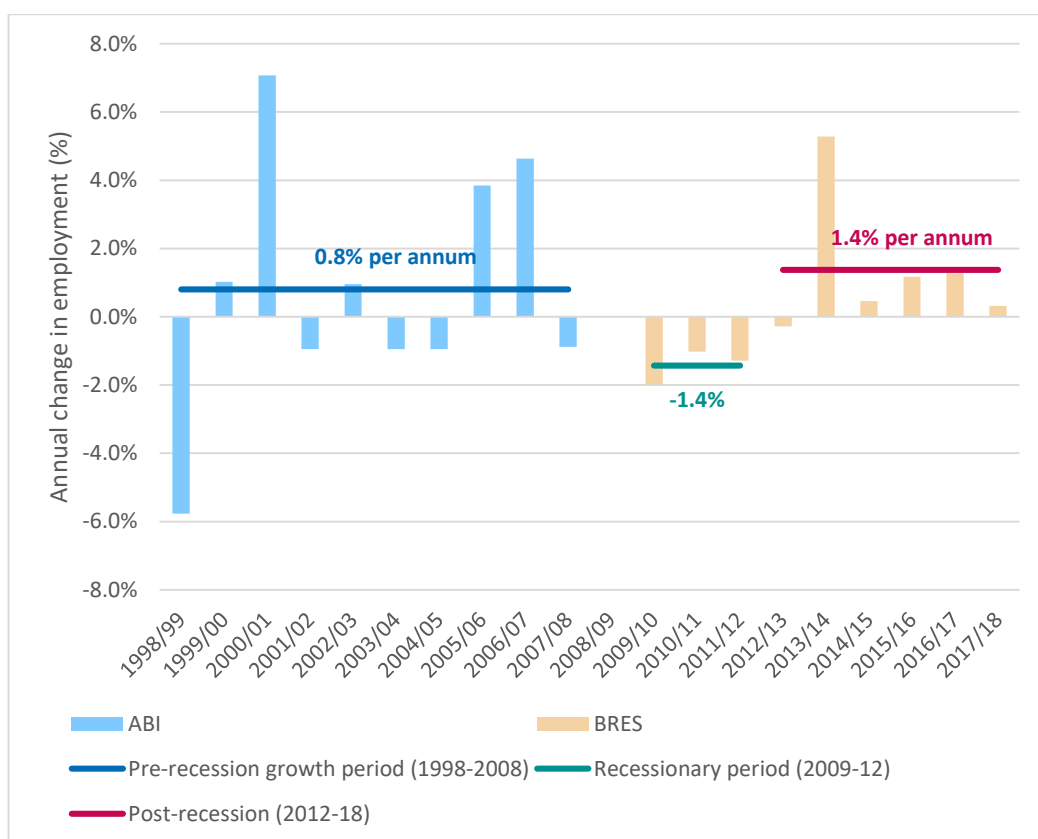
<sup>54</sup> PPG Reference ID 2a-027-20190220

<sup>55</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment, paragraphs 1.5 and 4.3; ONS (2012) Annual Business Inquiry

<sup>56</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment, paragraphs 4.14 and 4.15

- 6.14 As noted in the 2015 ENA, the transition to BRES data from 2009 onwards creates difficulties when attempting to compare data over a long-term economic cycle, incorporating both periods of growth and decline. A general pattern nonetheless emerges from Figure 6.4 when tracing and averaging annual change on a “like for like” basis over the past twenty years, excluding one year (2008/09) where reliable data is not available due to the transition to BRES. While only an indicative figure, the annual figures throughout this period average to circa 0.6% per annum which is double the growth now forecast by Oxford Economics and also marginally exceeds the rate of job creation envisaged by Experian.

**Figure 6.4: Long-term annual change in employment in Central Lincolnshire**



Source: BRES; ABI; Turley analysis

### **Appreciating local economic strategy**

- 6.15 It must be recognised that a range of economic strategies have been prepared and published over recent years, in accordance with wider national objectives established by the Government. These represent a direct attempt by the public and private sectors in Central Lincolnshire, and the wider economic area within which it is located, to facilitate greater resilience in the local economy and enable businesses to grow and invest.
- 6.16 A review of this strategic context provides no indication that it would be desirable or anticipated that such a significant slowing of local economic growth will occur in Central Lincolnshire over the longer-term. This recognises that:

- The emerging Local Industrial Strategy (LIS) for Greater Lincolnshire – currently in draft, as of November 2019 – strives to create ‘*a productive and resilient economy*’ by building from a strong base<sup>57</sup>. It is aiming to proactively address issues affecting productivity while ‘*pursuing the opportunities at hand*’<sup>58</sup>. Although underpinned by a sector-based approach considered in more detail later in this section, these interventions are intended to have a wider effect beyond those individual sectors to result in a stronger, more diverse economy overall;
- The emerging LIS, following the lead of the national Industrial Strategy, is aiming to strengthen ‘*the five foundations of productivity*’ to support ‘*all parts of the economy*’<sup>59</sup> in Greater Lincolnshire through a focus on:
  - **Ideas**, specifically growing innovation. While overall there is relatively limited innovation activity at present, pockets of innovation, research and development clearly exist with Lincoln at the forefront<sup>60</sup>. The draft LIS also explicitly recognises, like the Councils’ economic development teams and various organisations consulted to inform this report, that ‘*the University of Lincoln’s direct and indirect impact on the innovation agenda provides significant opportunities for the region to build from and crystalise*’<sup>61</sup>;
  - **People**, ensuring that suitably qualified and resilient residents are available to fill anticipated job vacancies through training and other programmes. The underlying evidence base found that one in four “hard-to-fill” vacancies throughout Greater Lincolnshire were primarily caused by a low number of applicants with the required skills<sup>62</sup>. The City of Lincoln Council’s economic development team similarly described a “skills gap” in certain sectors;
  - **Infrastructure**, which is felt to be in need of renewed investment and a strategic approach to increase connectivity with other parts of the UK while addressing challenges presented by a population that is dispersed across a large, rural area. This was widely recognised as an issue affecting Central Lincolnshire through consultation with businesses and the Councils’ economic development teams. The draft LIS acknowledges that some progress is being made, citing for example the ‘*decades-awaited*’ £29m Lincoln Transport Hub – which opened in January 2018 to integrate transport options – and suggesting that this is ‘*revitalising Lincoln city centre, benefiting residents and visitors by making the city centre more accessible via all modes of transport*’. It further confirms that ‘*this project has already secured additional private investments in adjacent areas,*

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<sup>57</sup> Greater Lincolnshire LEP (November 2019) Local Industrial Strategy – draft, p4

<sup>58</sup> *Ibid*, p5

<sup>59</sup> *Ibid*, p6

<sup>60</sup> *Ibid*, Figure 2 (p52) shows the location of Innovate UK grant applications, illustrating the relatively large number recorded in Lincoln

<sup>61</sup> *Ibid*, p54

<sup>62</sup> MetroDynamics (2019) Greater Lincolnshire LEP: Consolidated Local Industrial Strategy Evidence Base, p98

*building momentum for more jobs in the city centre*<sup>63</sup>. Connectivity with the rest of the country has also improved through the commencement of direct trains from Lincoln to London in 2019, with the draft LIS indicating that this has already led to *'local partners developing areas around the station to capitalise on the investment'*<sup>64</sup>. The draft LIS recognises, however, that more remains to be done, such as improvements to the important Lincoln-Nottingham rail corridor that forms part of the Midlands Engine Rail initiative and offers the potential for *'a step-change in rail connectivity which will support jobs growth...across the Midlands region'*<sup>65</sup>. One local business consulted to inform this study felt that improving such East-West transport links should be prioritised;

- **Business environment**, ensuring that this supports entrepreneurs, micro-businesses – particularly prevalent in parts of West Lindsey<sup>66</sup> – and small and medium enterprises to grow and become more productive and resilient. The draft LIS acknowledges that *'the provision of suitable sites and premises for business is an important precondition of economic growth'*, and while there is *'a reasonable supply of land'*, the property market is felt to be relatively weak such that few business premises are built before an occupier is found without public sector intervention<sup>67</sup>. There is, however, known to have recently been such developments on allocated strategic employment sites in Witham St Hughs in North Kesteven, both of which have been occupied, with more expected to come forward<sup>68</sup>; and
- **Place**, with the large and rural nature of Greater Lincolnshire allowing for the creation of a polycentric and productive economy in which towns become stronger by working together. The rural character of the area is felt to provide *'employment in traditional sectors such as agriculture, visitor economy and energy'* while it is also specifically emphasised in the draft LIS that *'the success of Lincoln increases the prosperity of the wider area'*<sup>69</sup>.
- The Central Lincolnshire authorities are collectively and individually pursuing economic growth. West Lindsey, for example, is felt by the Council to have an opportunity to act as *'an enabler of growth'*, beyond the level recognised in the draft LIS, due to its affordable and available land and its *'central and strategic location as a gateway to a number of important economic areas including the Humber Bank, Sheffield City Region, Nottinghamshire and Lincoln City'*<sup>70</sup>. In North Kesteven, the promotion of economic and employment growth is one of five

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<sup>63</sup> Greater Lincolnshire LEP (November 2019) Local Industrial Strategy – draft, p70

<sup>64</sup> *Ibid*, p72

<sup>65</sup> *Ibid*, p72

<sup>66</sup> *Ibid*, p79

<sup>67</sup> *Ibid*, p81

<sup>68</sup> Based on conversation with the Council's economic development team in January 2020

<sup>69</sup> Greater Lincolnshire LEP (November 2019) Local Industrial Strategy – draft, p9 and p85

<sup>70</sup> West Lindsey District Council response to draft Local Industrial Strategy, November 2019



priorities recently stated by the Council, reflected in its investment in the Sleaford Moor Enterprise Park (SMEP) for example<sup>71</sup>. A Growth Strategy and Town Investment Plan (part of the Town Deal Programme) for Lincoln is also being developed by the Council at the time of writing, with its underlying evidence base – shared in draft format to inform this report – identifying a number of opportunities for growth informed by a process of engagement with key stakeholders;

- Central Lincolnshire forms part of the Midlands Engine, which *‘the government wants...to become a growth engine for the whole UK’*<sup>72</sup>. Its strategy – funded through £392 million of investment over four years to 2021, including £29 million to Greater Lincolnshire – has focused on improving connectivity, strengthening skills, supporting enterprise and innovation, promoting the Midlands both nationally and internationally and enhancing quality of life; and
- Businesses throughout Greater Lincolnshire have recently been increasingly positive about their future growth<sup>73</sup>. While uncertainty grew ahead of the UK’s delayed departure from the European Union and the general election, businesses surveyed by the Lincolnshire Chamber of Commerce in Q4 2019 were still more likely to grow than reduce their workforce, and generally expected increased turnover and profit over the coming year. It is acknowledged that this situation is likely to have since evolved again with the outbreak of coronavirus, but this nonetheless provides an indication of the strong economic foundations in this area prior to the pandemic.

6.17 The activities above, and the existence of recent and planned investment which would be reasonably expected to impact on the comparative local performance of different sectors beyond a forecast national trend, is considered to provide an important justification for not simply or uncritically using the baseline employment forecasts as a basis for the Central Lincolnshire Local Plan. This recognises that Local Plans are required by national policy to contain *‘a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration’*<sup>74</sup>.

6.18 With the forecast level of employment growth ultimately driven by assumptions on the prospects of individual sectors, the following section interrogates these sector-level assumptions in greater detail.

### **Interrogating the outlook for individual sectors**

6.19 It is evident that the implicit departure from recent trends shown by the forecasts is particularly marked in certain sectors. This is shown at Figure 6.5, which necessarily applies a further process of aggregation resulting in 16 sectors that align with BRES

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<sup>71</sup> North Kesteven (2020) Medium Term Financial Strategy (2020/21 – 2022/23) p6 and p19

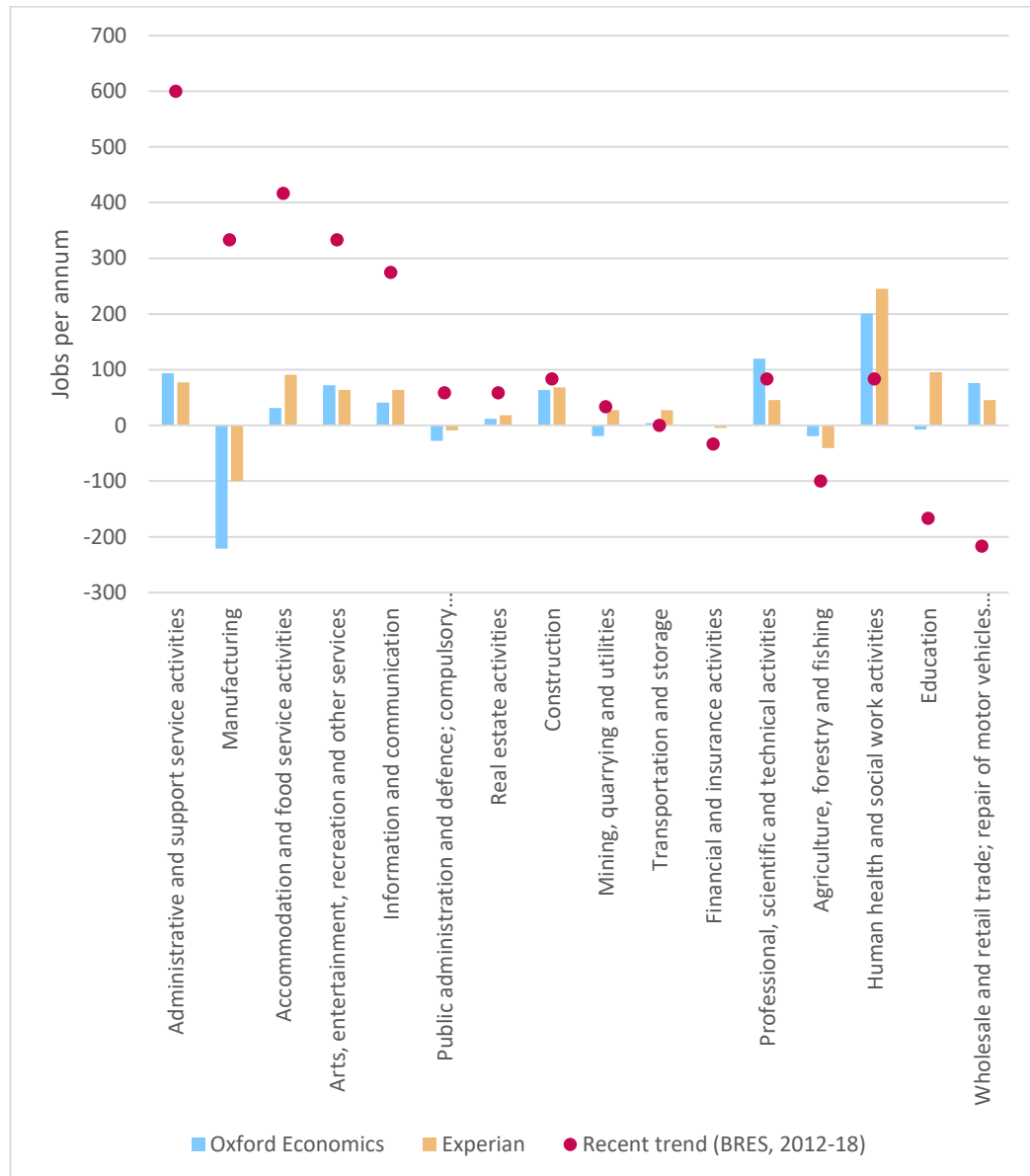
<sup>72</sup> DCLG (2017) Midlands Engine Strategy, paragraph 1.1

<sup>73</sup> Lincolnshire Chamber of Commerce (2019) Lincolnshire Quarterly Economic Survey Q4 2019

<sup>74</sup> MHCLG (2019) National Planning Policy Framework, paragraph 80

data reported in section 4 of this report<sup>75</sup> (which is itself aggregated where necessary). The chart is ordered based on the absolute scale of divergence between the forecasts and the recent trend.

**Figure 6.5: Annual employment growth forecast in Central Lincolnshire by sector relative to past trend**



Source: BRES; Experian; Oxford Economics; Turley analysis

- 6.20 There are evidently some sectors where the forecasts appear reasonably aligned with or proportionate to the recent trend in Central Lincolnshire. Construction, where the forecasts are themselves relatively aligned with each other, is the clearest example,

<sup>75</sup> Mining and quarrying has been combined with utilities; and arts, entertainment and recreation has been combined with “other service activities”

alongside transportation and storage, financial and insurance activities and professional services.

- 6.21 In a number of other sectors, however, the scale of divergence naturally raises concern. Figure 6.5 showed that realisation of the forecasts would most significantly slow the recent rate of job creation in the **administrative and support services** sector, which has already seen job growth far in excess of that envisaged by the 2015 ENA as shown earlier at Figure 4.4. This is despite the application of relatively sizeable adjustments to the baseline outlook for the sector in the 2015 ENA, shown at Figure 3.1, which reflected *inter alia* the sub-regional role of Lincoln, the existing base of office administration and support services in North Kesteven and the growing professional services sector of West Lindsey<sup>76</sup>. The more up-to-date local data again suggests a risk that the baseline forecasts are not fully capturing the continued growth of this sector in Central Lincolnshire, thus again potentially justifying an adjustment of some form.
- 6.22 The forecast decline in **manufacturing** – itself apparently influenced by regional and national assumptions, as shown earlier in this section – also markedly contrasts with the employment growth recently experienced in the sector, with this more positive performance also noted by the Councils’ economic development teams<sup>77</sup>. A similar issue was again previously identified in the 2015 ENA, which described the potential for continued growth in certain sub-sectors such as agrifood and advanced manufacturing<sup>78</sup>. Manufacturing was nonetheless (as now) still expected to see job losses in overall terms, which – while a long-term forecast – is contrary to the trend that has materialised in Central Lincolnshire over the plan period to date. It also belies the importance of manufacturing to the Greater Lincolnshire economy, as emphasised in the draft LIS which describes ‘*a diverse, strong sector*’ and a ‘*manufacturing and technical capacity...forged by world leaders in renewable energy and specialist engineering*’<sup>79</sup>. Furthermore, planning on the basis of a declining manufacturing sector threatens to forego the specific opportunity associated with the agrifood sector in this area, as identified in the draft LIS, and the new Institute of Technology (IoT) to be launched in Lincoln that will specialise in agri-tech, food manufacturing, energy, digital and engineering. When recognising these local dynamics and priorities, there appears scope for a more positive approach which supports the manufacturing sector rather than accepts or unintentionally contributes – through a lack of labour or premises – towards its decline.
- 6.23 A continuation of past trends in Central Lincolnshire would also lead to more pronounced growth than forecast in accommodation, food, recreation, information and communication. Baseline forecasts for these sectors were again found to require adjustment in the 2015 ENA, in order to reflect opportunities relating to the **visitor and**

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<sup>76</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment, paragraphs 9.8, 9.13 and 9.19

<sup>77</sup> Officers at West Lindsey District Council commented that manufacturing had been relatively steady for the past decade, with more significant expansion over the past five years. North Kesteven District Council equally felt that the sector was steady and had not contracted as much as anticipated. The industry is felt to have struggled in Lincoln during recent years, but not to the extent envisaged

<sup>78</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment, paragraphs 8.17 and 9.13

<sup>79</sup> Greater Lincolnshire LEP (November 2019) Local Industrial Strategy – draft, p3 and p79

**digital economies** that continue to feature strongly – the former as one of five designated “strategic opportunities” – in the draft LIS.

- 6.24 **Defence** also features as a strategic opportunity in the draft LIS, with a stated ambition to create ‘*a cluster of defence companies*’ to ensure that Greater Lincolnshire is the ‘*first-choice destination for defence-related industries*’<sup>80</sup>. Central Lincolnshire itself accommodates several RAF bases that are understood to be set to receive significant investment, and the Councils’ economic development teams have noted that their presence and the potential for related “spin-off” activities – such as small technology companies staffed by ex-RAF personnel, or international firms seeking geographic proximity – has grown the defence sector. This sector unfortunately cannot be isolated from public administration and social security in the forecasts obtained to inform this study, but the forecast decline in this broad sector – in contrast to the recent trend, as shown earlier at Figure 6.5 – could arguably understate the extent of this economic opportunity. Spin-off activities could, however, conceivably be attributed to other sectors, with consultation revealing digital services targeted at the industry for example, the impact of which would therefore fall in another category such as information and communication.
- 6.25 There are clearly some sectors where the forecasts would actually lead to an improvement upon past trends in job creation, or even a reversal. For example:
- Both forecasts remain relatively optimistic on the prospects of the **wholesale and retail trade** sector, which has lost around 200 jobs annually on average since the start of the plan period in Central Lincolnshire. The Councils’ economic development teams each noted the difficulties that have been faced by the sector locally in recent years when consulted to inform this report, following the national trend, albeit while noting the success of some independent shops;
  - **Education** is implied to have seen job losses in recent years, beyond the modest reduction now forecast by Oxford Economics and in contrast to the growth envisaged by Experian. This could be initially viewed as surprising, given the recognised economic role of the University of Lincoln for example, but the sector does capture all phases of education throughout Central Lincolnshire and excludes the University’s indirect impact recorded in other sectors; and
  - **Human health and social work** has to date not seen job growth of the scale now forecast over the period to 2040, albeit this is not unexpected when appreciating the long-term needs of an increasingly ageing population that is yet to have its full impact. It is noted that this ageing trend leads the draft LIS to identify health and care as a strategic economic opportunity throughout Greater Lincolnshire, building upon the presence and existing work of major employers, the Lincoln Medical School and the National Centre for Rural Health and Care for example.
- 6.26 The above indicates that the forecasts provide a reasonable outlook of the future growth of some sectors for Central Lincolnshire, but not all. A process of adjustment, as in the 2015 ENA, is therefore again considered to be justified and is explored below.

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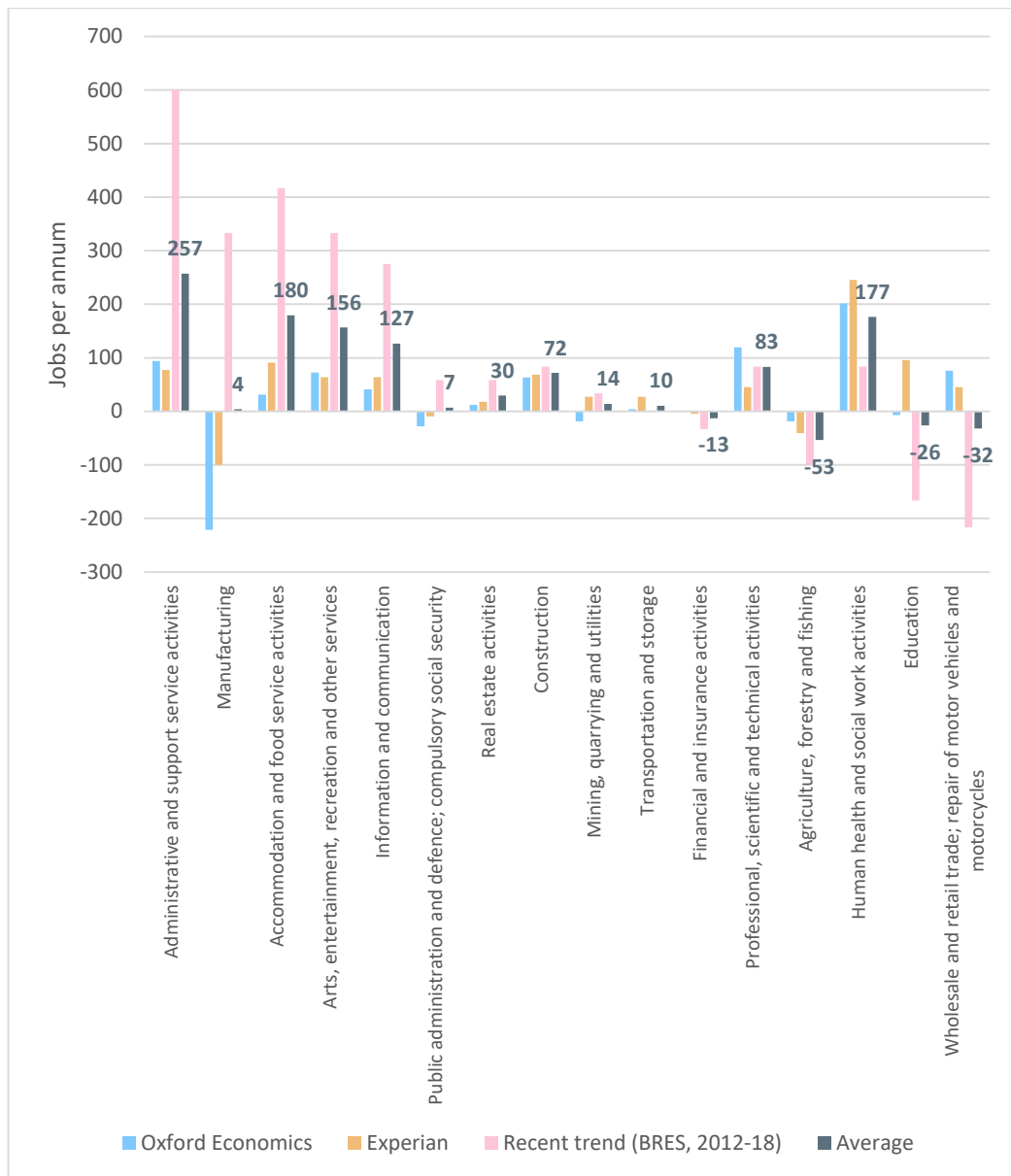
<sup>80</sup> *Ibid*, p48

## Adjusting the forecasts for Central Lincolnshire

- 6.27 The preceding sections have provided justification for adjusting the baseline forecasts sourced to inform this study, principally to reduce the scale of departure from recent local trends given that this would conflict with – and potentially limit the realisation of – economic strategies and ambitions in this area. Such adjustments also provide the opportunity to soften the “top-down” factors that are proven to be influencing the outlook for different sectors in this area, which contributes towards a divergence from trends and opportunities identified locally.
- 6.28 It is acknowledged that there are various approaches that can be taken in adjusting forecasts to ensure that they more accurately reflect the local context and factors which are less likely to have been taken into consideration in their production. The 2015 ENA used national growth rates as a benchmark in taking a more optimistic approach to certain sectors, and while this arguably remains a valid method it does not explicitly overcome the apparent disconnect with local trends which the analysis in section 4 reveals to be particularly acute in a number of sectors. It would also run the risk of continuing to limit the growth of individual sectors in this area based on the forecasting houses’ national or indeed global view, without recognising that the area may in proportionate terms outperform the national economy as has been the case in a number of sectors in Central Lincolnshire over the plan period to date (Table 4.4).
- 6.29 Alternatively, adjustments can be specifically linked to known investments and projects, where details exist on associated job creation and the specific sectors that will be affected. However, taking such an approach can prove challenging in robustly demonstrating the additionality associated with individual projects beyond in the growth already forecast in specific sectors based on historic investment. Such an approach is also limited to the consistency of detail available on a project-by-project basis, and is exposed to the risk of projects not being implemented or delivered in the manner planned; a particularly key consideration when recognising the uncertainty that exists at the time of writing. Furthermore, in the case of Central Lincolnshire, such project-specific adjustments to individual sectors would not necessarily capture the impact of the wide-ranging interventions proposed in the draft LIS, which are understood to be intended to affect the overall economy as well as isolated sectors.
- 6.30 Recognising that there is no set methodology for deriving an adjusted forecast using the local information available, this report takes an approach which differs from the 2015 ENA, and principally aims to narrow the most extreme inconsistencies between recent local trends and forecast change in each sector. It aims to do so by assuming that future employment growth in each sector will align with the average between:
- The change forecast annually in each sector by Experian over the new plan period (2018-40);
  - The change forecast annually in each sector by Oxford Economics over the new plan period (2018-40); and
  - The change annually recorded in each sector by BRES over the plan period to date (2012-18).

- 6.31 This approach naturally allows for sectors to grow beyond the level forecast where this has occurred in recent years, without assuming that this short-term historical trend will necessarily persist throughout the plan period. It would theoretically mitigate against the forecast decline of sectors that have proven more resilient, or indeed grown, in Central Lincolnshire over recent years. Such an approach means that a balance is struck between the more muted growth anticipated by both forecasting houses – driven in no small part by their view on the national, rather than local, prospects of sectors – and the local evidence of positive trends in a number of sectors. The resultant level and profile of growth can then be evaluated in the context of strategic economic interventions and investments. This is considered to adhere to the principles of national planning policy, which does not prescribe a single method of assessing future economic change.
- 6.32 The chart overleaf illustrates the average annual change in employment implied for each sector when implementing such an approach, relative to the forecasts and the past trend. Sectors are again ordered based on the scale of divergence between the forecasts and the past trend, as in the earlier Figure 6.5. While initially presented at Central Lincolnshire level, it should be noted that all adjustments have been applied at local authority level before aggregation to this scale.

**Figure 6.6: Impact of averaging forecasts with recent trend (jobs per annum)**



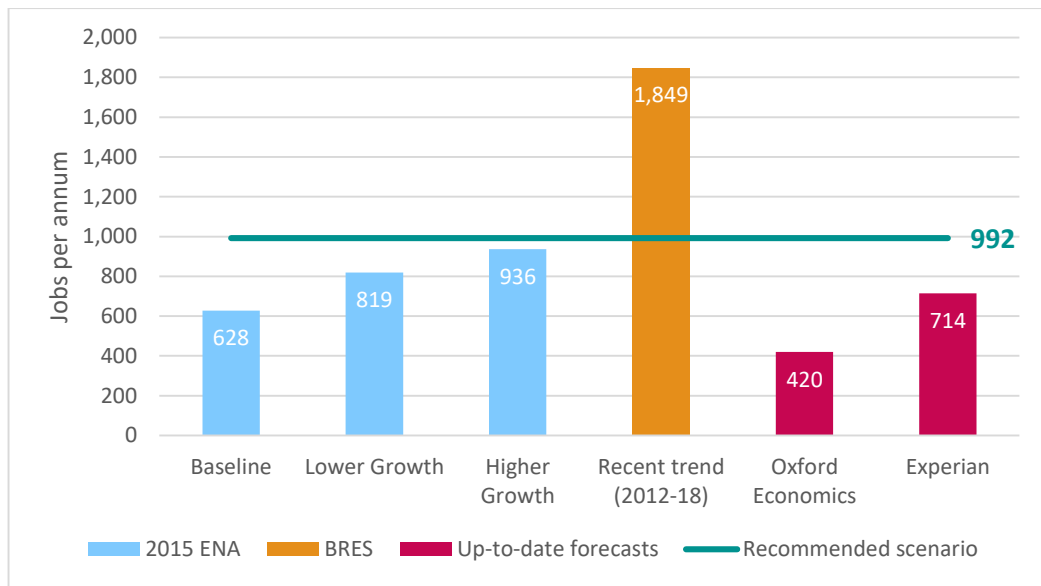
Source: Oxford Economics; Experian; BRES; Turley analysis

- 6.33 As would be expected this method has the greatest impact in sectors where there was an extreme inconsistency between recent trends and forecast growth. It allows for more pronounced growth than forecast in administrative and support services, for example, without assuming that the very strong recent growth – which has grown employment in the sector by over half since 2012, as shown earlier at Table 4.3 – continues at the same rate. It also allows for a stabilisation, rather than decline, of the manufacturing sector, which is considered to align more closely with the aspirations of local economic strategy introduced earlier in this section. Furthermore, it implicitly acknowledges, in line with national evidence, that there currently appears a limited prospect of substantial employment growth in the sector over the long-term horizons of a plan period due to a changing global market and advances in technology for example.

- 6.34 At the opposite end of the spectrum, the approach produces a more negative outlook than forecast for retail and wholesale, albeit without assuming that the recent job losses recorded locally continue at the same rate. The assumed modest loss of circa 32 jobs in the sector each year does not appear entirely unrealistic given the direction of the industry and the changes occurring at a national level. Within that context, it is noted that allowance is made for around 180 new jobs per year in accommodation and food services, a sector that is understood from consultation to be growing and often occupying vacant retail units in Central Lincolnshire.
- 6.35 The more substantive adjustments described above are clearly in the minority, however, with the outlook for most sectors seeing more modest change that remains proportionate to one or both of the forecasts. Employment in public administration and defence – which may exclude spin-off activities from the latter that are included in other categories – is assumed to remain relatively stable, for example, as broadly envisaged by Experian. The past trend in construction already aligned closely with the forecasts, naturally minimising the extent of the adjustment. The past trend in professional services also sat midway within the range implied by the forecasts, directly resulting in an assumption that this modest rate of growth continues. The outcome for health and social work does fall slightly below the forecast, albeit approaching the growth implied by Oxford Economics and still allowing for the recent rate of job creation in the sector to more than double in line with local aspirations.
- 6.36 There is clearly a great deal of uncertainty – heightened at the unprecedented time of writing – around the scale of future job growth overall or in any sector, and it is therefore generally recognised that predicting future job growth cannot and should not be an exact science. Overall, however, and without intending to justify the outcome for each individual sector, the method outlined above is considered to provide a reasonable basis for adjusting employment forecasts in the local context of Central Lincolnshire. It is considered to provide a more reliable and robust basis for local planning policy than “off the shelf” forecasts supplied by national and global forecasting houses, repeating – albeit with a different methodology – the 2015 ENA’s approach of developing what is judged a more locally representative scenario of growth.
- 6.37 The outcome of the approach taken is a forecast which implies that **circa 992 jobs will be created annually** throughout Central Lincolnshire during the new plan period. As shown at Figure 6.7 overleaf, this is a more optimistic position than suggested by the baseline forecasts, which envisaged the creation of between 420 and 714 jobs each year. It does remain proportionate to, but modestly (6%) above, the “Higher Growth” scenario developed in the 2015 ENA which indicated that 936 jobs per annum would be created over the current plan period, but increases its baseline by more than half. It clearly does not assume that job growth continues at the scale recorded locally since 2012, which is considered reasonable and sensible given the cyclical nature of the economy over the long-term even in the context of the strong levels of job growth which have been achieved since the start of the plan period.



**Figure 6.7: Benchmarking implied annual job creation in Central Lincolnshire**



Source: Turley analysis

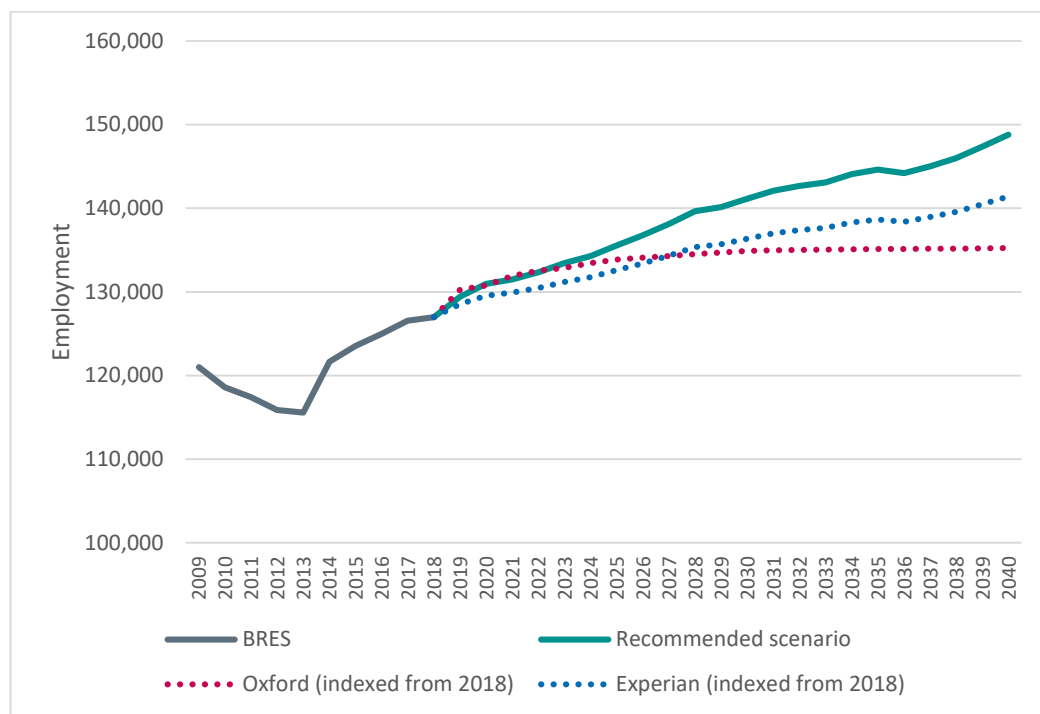
6.38 Relative to current estimates of employment sourced from BRES, the average creation of 992 jobs per annum in Central Lincolnshire would represent growth of **circa 0.7% per annum**. While admittedly halving the recent short-term annual rate of growth since 2012 (1.4%) it is clearly a more positive outcome than would result from adherence to the forecasts, and is not dissimilar to the rate of job creation annually achieved during the previous growth period<sup>81</sup> (1998-2008; 0.8% per annum). Indeed, it slightly exceeds the indicative average growth rate of 0.6% per year calculated using available data over a more comparable twenty year historic period (1998-2018) as summarised earlier at Figure 6.4. As such, it is considered to represent a proportionate and reasonable estimate of employment growth over the similarly long timeframe of 22 years to be covered by the new Local Plan, recognising the potential for cycles of growth and decline therein.

6.39 Although sector-level adjustments in the forecast have been made on the basis of average annual change, with detailed analysis of the actual timing of growth beyond the scope of this study, the resultant overall growth has been illustratively profiled over time as shown at Figure 6.8 overleaf. This has been assumed to mirror the trajectory forecast by Experian, which appeared from Figure 5.1 the more reasonable for the purposes of long-term plan-making. Consideration was also given to a trajectory which tracked the midpoint between the two forecasts, but this was not deemed appropriate because Oxford Economics' implication that growth is concentrated in the early years of the new plan period – particularly in North Kesteven and West Lindsey, as shown at Figure 5.2 – produced unreliable and unjustifiable outcomes when considered in the context of longer-term investments. It is recognised that historic precedent suggests the actual trend will realistically be more cyclical in nature, but this is not a significant concern for this report, where it is intended to inform policy development over a period to 2040. A decline in the short-term, linked to the

<sup>81</sup> See paragraph 6.12 of this report

coronavirus pandemic for example, could be conceivably offset by an equivalent period of growth at a later date. It will, however, be important for the Councils to monitor significant fluctuations and consider their implication as part of shorter-term economic strategy development.

**Figure 6.8: Trajectory of adjusted forecast for Central Lincolnshire**



Source: Oxford Economics; Experian; BRES; Turley analysis

- 6.40 While the overall approach has been devised and justified at Central Lincolnshire level, to reflect joint planning and the integrated nature of the economy in this area, the application of adjustments at authority level means that a more local breakdown of employment is also available as shown at Table 6.1. Each authority is implied to see growth beyond the level forecast but below the recent trend, when referring to Tables 5.2 and 4.2 respectively.

**Table 6.1: Breakdown of recommended employment growth scenario (2018-40)**

	Total change 2018-40	Proportionate change (%) 2018-40	Average change per annum	Average annual growth rate (%)
Lincoln	10,082	17.7%	458	0.7%
North Kesteven	7,938	19.0%	361	0.8%
West Lindsey	3,799	13.5%	173	0.6%
<b>Central Lincolnshire</b>	<b>21,818</b>	<b>17.2%</b>	<b>992</b>	<b>0.7%</b>

Source: Turley analysis

- 6.41 For completeness, Table 2.5 of **Appendix 2** contains a breakdown of employment growth in each authority by sector. Caution should, however, be exercised in interpreting sector trends within individual authorities as they have been subjected to more limited scrutiny than at Central Lincolnshire level where the overall outcome has been judged reasonable.

## Summary

- 6.42 Although referenced in the PPG alongside other datasets, it must be appreciated that baseline employment forecasts – of the type introduced in section 5 – have inherent limitations, arising particularly from their “top-down” methodologies. They can fail to fully reflect defining features of local economies or the opportunities for growth that exist therein, and have in recent years been found retrospectively to have understated actual employment growth as has already proven to be the case in Central Lincolnshire. Sense checks are therefore strongly advisable in this context.

- 6.43 This section has interrogated the assumptions made in the forecasts on this basis, concluding that:

- **Each of the forecasts appears strongly influenced by an overriding national and regional view on the growth of individual sectors.** This warns against the automatic acceptance of baseline forecasts as necessarily reflective or representative of local trends and prospects in Central Lincolnshire;
- **Each forecast would lead to a significant slowing of the recent rate of job creation in Central Lincolnshire, which – whilst forming only part of a longer-term forecast – is sufficiently different to warrant further exploration.** Experian foresees growth at little more than a third of this recent annual rate, and Oxford Economics less than a quarter. While this report has primarily focused on trends within the current plan period, each forecast would also lead to growth at a lower rate than recorded prior to the last recession or than has been indicatively estimated over the past twenty years;
- **There is at the time of writing no evidence to suggest that such a significant slowdown is desired or anticipated in this area over the long-term horizons of a plan period, based on a review of the strategic context.** The emerging Local Industrial Strategy (LIS) for Greater Lincolnshire is aiming to build upon a strong economic base in order to boost productivity and resilience, addressing issues while pursuing opportunities that can have a widespread effect. It is clear that a strengthened focus on innovation, infrastructure, people, place and the business environment can benefit Central Lincolnshire and improve its economic performance, beyond the level anticipated in any national forecast, in turn supporting the authorities in their own pursuit of economic growth; and
- **The implicit departure from past trends embedded within the forecasts is particularly pronounced in certain sectors.** The forecasts would most significantly slow the recent rate of job creation in the administrative and support services sector, which has grown even faster than the 2015 ENA anticipated following its own adjustments to a baseline forecast. A forecast decline in manufacturing, seemingly driven by an overriding national

assumption, also conflicts with the growth experienced in recent years, and appears incompatible with its strategic importance in this area. Recent growth in the digital and visitor economies, pursued further in the draft LIS, would also slow under the forecasts. While there are some sectors where the forecasts would improve upon past trends, or allow for their continuation, they cannot be reasonably claimed to provide an appropriate outlook across all sectors in the local circumstances of Central Lincolnshire.

- 6.44 A process of adjusting the forecasts, as in the 2015 ENA, is again considered to be justified by the above. This exercise is principally intended to soften the “top-down” factors influencing the forecasts and reduce the occasionally extreme departure from locally evidenced recent trends, which would conflict with – and potentially limit the realisation of – economic strategies and ambitions in this area.
- 6.45 Various approaches can be taken in adjusting forecasts, albeit each have limitations and the heightened economic uncertainty at the current point in time cautions against the treatment of any such exercise as an exact science. Reflecting the purpose of the adjustments, this report deliberately takes an alternative approach to the 2015 ENA by assuming that future employment change in each sector will align with the average between the Experian forecast, the Oxford Economics forecast and the recent trend recorded by BRES.
- 6.46 This approach supports sectors’ continued growth beyond the level forecast where this has occurred to date, without expecting a short-term trend to necessarily persist over a longer plan period. It prevents forecast decline in sectors such as manufacturing, which have proven more resilient than expected in recent years. It is openly but not unreasonably – when factoring in local insight – more negative than the forecasts on the outlook for retail and wholesale, but this more negative outlook for this sector is considered to be offset by an allowance for growth in accommodation and food services that local insight confirms are often replacing retailers in this area. Overall, it should be recognised that such substantive adjustments are in the minority, with the outlook for most sectors remaining proportionate to at least one forecast. This ensures that whilst the forecast is considered to provide a more representative outlook factoring in local datasets and intelligence, it also does not represent a fundamental departure from what are recognised as standard forecasting models which are widely used to inform plan-making.
- 6.47 The adjustments uplift the forecasts to suggest that **circa 992 jobs will be created annually** throughout Central Lincolnshire over the new plan period. This is not dissimilar to the “Higher Growth” scenario developed in the 2015 ENA, and allows for some slowing of the recent rate of job growth as would be anticipated over the long-term given the cyclical nature of the economy. The average annual rate of job growth (0.7%) is similar to that achieved over a decade pre-recession (0.8%), and slightly exceeds the estimated – though indicative, due to data limitations – annual rate of growth in this area over a more comparable twenty year period (c.0.6%).
- 6.48 This adjusted scenario is considered to provide a more reliable and robust basis for local planning policy in Central Lincolnshire than the “off the shelf” forecasts sourced to inform this study. That said, it is ultimately for the Councils to decide through their

process of plan-making the weight they give to this forecast, against other informing data market evidence, in planning to provide employment land to accommodate employment growth. The following section aims to inform these decisions by estimating the amount of floorspace and land that could be needed.

## 7. Implications for Employment Land

- 7.1 As in the 2015 ENA, having established a reasonable level of forecast employment growth for Central Lincolnshire consideration can be given to the potential implications for employment land provision over the new plan period. It should again be recognised, however, that this study – like the 2015 ENA – does not represent a full employment land review, but instead simply provides ‘*a base estimate of gross land requirements*’ for further consideration by the Councils<sup>82</sup>. It is noted for example that the overall spatial strategy of the adopted Local Plan led the Councils to allocate substantially more land than was implied to be needed by the 2015 ENA following its translation of job growth into a need for land, in an approach that was found sound by the examining Inspector<sup>83</sup>. This recognises the importance of a range of other factors alongside a forecasting of job growth in ensuring that the supply of land will be adequate and sufficiently flexible to respond to the changing needs of businesses in the area.
- 7.2 For the avoidance of doubt, this section is not intended to satisfy the requirements of the PPG in full, and in devising the approach to employment land provision the Councils may again wish to supplement this analysis with a fuller consideration of past take-up trends and/or a review of the commercial property market<sup>84</sup>.

### Introducing the methodology

- 7.3 The PPG continues to describe four key relationships that must be considered when translating employment forecasts into land requirements, as follows<sup>85</sup>:
- **Standard industrial classifications (SIC) sectors to use classes.** This requires assignment of jobs to land use categories, isolating those requiring land in B use classes;
  - **SIC sectors to types of property.** This estimates the proportion of employment that is likely to require each type of property in B use classes, namely offices (B1a/b), industrial premises (B1c/B2) and warehouses (B8);
  - **Employment to floorspace, based on employment density.** This draws upon published evidence to estimate the amount of floorspace needed by each additional employee, which is subsequently aggregated; and
  - **Floorspace to site area, using a plot ratio.** This final step considers the amount of land that may be required to accommodate new floorspace.

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<sup>82</sup> Turley and ekosgen (2015) Central Lincolnshire Economic Needs Assessment, paragraphs 10.1 and 10.2

<sup>83</sup> Planning Inspectorate (2017) Report on the Examination of the Central Lincolnshire Local Plan, paragraphs 278-279

<sup>84</sup> PPG Reference ID 2a-027-20190220

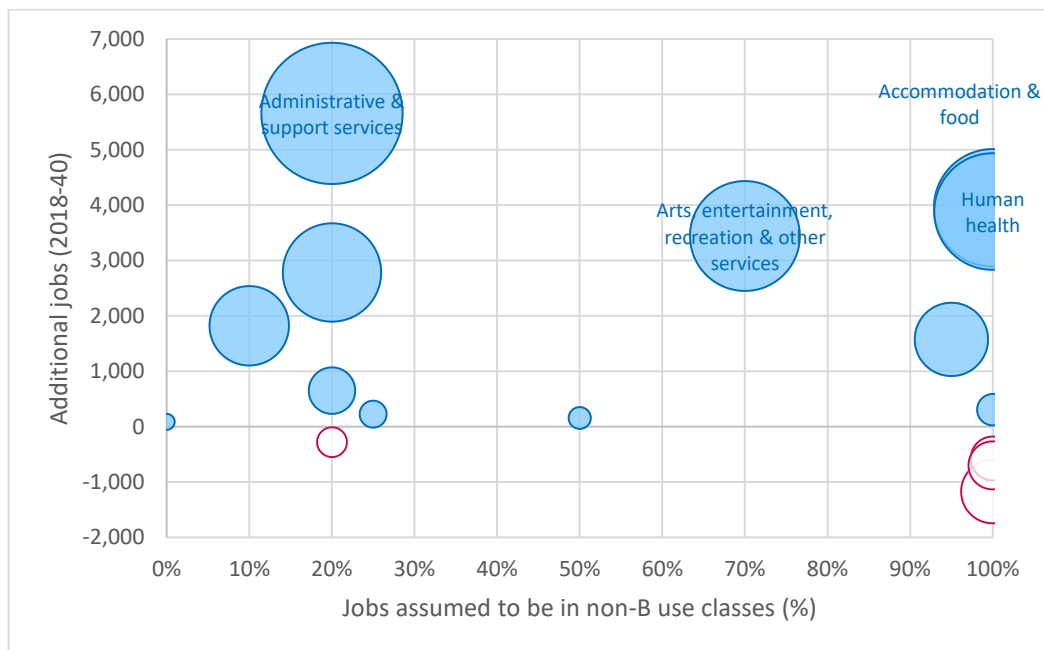
<sup>85</sup> PPG Reference ID 2a-030-20190220

- 7.4 These relationships are considered in turn below to establish the floorspace and land that may be required to accommodate the level of employment growth concluded in the previous section.

### Sectors to use classes

- 7.5 While this report has considered employment growth across all sectors, it is widely understood that only those activities requiring space in B use classes generate a need for employment land as distinct from other business premises, such as shops, hotels and community facilities. It is therefore necessary to isolate, and remove from the forecast, jobs in sectors that are unlikely to require space in B use classes.
- 7.6 **Appendix 3** details the assumptions that have been indicatively made at this stage, based on best practice and experience of similar studies.
- 7.7 Figure 7.1 broadly illustrates the outcome of these assumptions for each sector, relative to the level of job growth concluded as reasonable in section 6. It suggests that only a proportion of growth in the sectors forecast to see the greatest number of new jobs, namely administrative and support services, could require non-B space. There is, however, in contrast expected to be relatively significant growth in two sectors – accommodation and food, and human health and social work – that are assumed to wholly occupy space outside B use classes. Arts, entertainment, recreation and other services is another sector expected to see relatively strong growth, but rarely requiring employment land (with the breadth of “other services” deemed the main exception). Manufacturing is the only sector assumed to exclusively require land in B use classes, but as explained in earlier sections is expected to see limited change in employment over the plan period.

**Figure 7.1: Job growth accommodated in non-B use classes (2018-40)**



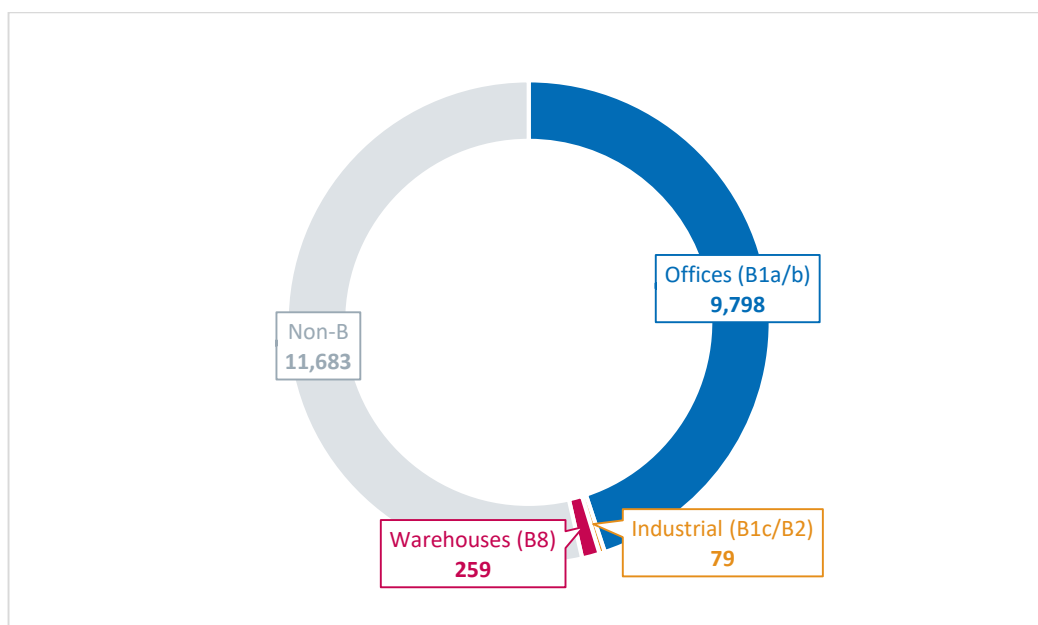
Source: Turley

- 7.8 In composite, it is assumed that circa 11,700 new jobs will be accommodated across Central Lincolnshire through space that does not fall into B use classes. This represents over half (54%) of all jobs under the recommended growth scenario. The Councils are advised to consider how such forecast change in non-B sectors can be accommodated through policies or site allocations that meet this implied need, which is necessarily excluded from the following sections of this analysis.

### Sectors to property types

- 7.9 Building upon the above, it is necessary to give consideration to the type of property in B use classes that may be required to accommodate jobs created in each sector. The assumptions applied in this regard are again based on best practice, and are detailed at **Appendix 3**.
- 7.10 These assumptions have been applied to the change envisaged in each sector, before a process of aggregation to understand the overall need for different types of property. As shown at Figure 7.2, this implies a predominant need for offices, which are assumed to accommodate almost 9,800 additional jobs over the plan period. Fewer jobs are assumed to require warehouses, predominantly in the transportation and storage and construction sectors. Still fewer jobs are expected to require industrial premises, all within a manufacturing sector that is assumed to see little growth in employment over the plan period.

**Figure 7.2: Assumed distribution of employment growth by premises (2018-40)**



Source: Turley

### Employment to floorspace

- 7.11 The next stage considers the amount of floorspace needed to accommodate each additional employee.



- 7.12 Published national evidence on employment densities is widely used in such calculations, as in the 2015 ENA, although updated evidence has been produced by the former Homes and Communities Agency (HCA) in the intervening period<sup>86</sup>. This sought to reflect ‘*the latest industry ‘norms’ of how space is planned, developed and utilised*’ as of 2015, particularly considering the implications of recent technological advancements, the evolution of new forms of workspace, changing trading formats and sectorial activity<sup>87</sup>.
- 7.13 In order to convert the job growth summarised at Figure 7.2 into floorspace in B use classes, the varying densities published for different types of offices, industrial and warehousing premises have been respectively averaged as follows:
- **Office** – general office (corporate; professional services; public sector; technology; media and telecoms; finance and insurance) and call centres;
  - **Industrial** – light industrial, industrial and manufacturing; and
  - **Warehouse** – national distribution centre, regional distribution centre and “final mile” distribution centre.
- 7.14 While published densities relate to different metrics of floorspace, they have been independently converted such that they consistently relate to the gross external area<sup>88</sup> (GEA). This is considered to provide the most appropriate basis for calculating employment land requirements, and produces employment densities summarised at Table 7.1 below.

**Table 7.1: Employment densities (sqm GEA per full time equivalent employee)**

Office	Industrial	Warehouse
13.3sqm	44.8sqm	73.5sqm

Source: HCA, 2015; Turley analysis

- 7.15 It is important to note that employment densities are applied on the basis of full time equivalent (FTE) jobs, rather than *all* jobs as has been the focus of much of this report. This requires a further process of conversion that has drawn upon the Experian forecasts introduced in section 5, which report on the basis of both workforce and FTE jobs. In summary, the *total* employment growth considered reasonable for Central Lincolnshire, following adjustments in section 6, has been converted based on the ratio between workforce and FTE jobs implied for each sector by Experian in 2018 and 2040, with an average taken from these two years to allow for forecast change.

<sup>86</sup> HCA (November 2015) Employment Density Guide, third edition

<sup>87</sup> *Ibid*, paragraphs 1.3 and 3.5

<sup>88</sup> For offices, 15% uplift to convert net internal area (NIA) to gross internal area (GIA), and further 5% uplift to convert GIA to gross external area (GEA). For industrial, 5% uplift to convert NIA to GIA, and a further 5% uplift to convert GIA to GEA. No conversion is necessary for warehouses given the publication of an employment density on the basis of GEA

- 7.16 Applying employment densities to these estimates of future change in FTE employment provides an indication of the amount of additional employment floorspace that could be required to support future job growth in Central Lincolnshire. As shown in the following table, this suggests that circa 97,500sqm of additional office space will be required to accommodate forecast job growth, with a smaller need for around 17,000sqm of warehousing space. The implied need for additional industrial space is more modest, equating to circa 3,500sqm.

**Table 7.2: Implied need for employment space in B use classes<sup>89</sup> (2018-40)**

	Additional jobs	Additional FTE jobs	Additional floorspace, GEA
Office (B1a/b)	9,798	7,340	97,491sqm
Industrial (B1c/B2)	79	78	3,483sqm
Warehouse (B8)	259	232	17,061sqm
<b>Total B</b>	<b>11,683</b>	<b>7,650</b>	<b>118,035sqm</b>

*Source: HCA; Experian; Turley analysis*

### Floorspace to site area

- 7.17 Finally, the amount of land that could be required to accommodate additional floorspace can be estimated. Unlike employment densities, there remains no official guidance on plot ratios which should be used in such calculations, with the default assumption typically – as in the 2015 ENA – that industrial and warehouse premises are single storey units occupying 40% of their plots.
- 7.18 While the 2015 ENA previously applied a similarly low plot ratio of 35% for office premises, based on relatively dated guidance and evidence that primarily envisaged the development of business parks<sup>90</sup>, it is now considered reasonable to assume – as in similar studies – a more intensive use of available plots for office development, recognising that some office schemes can be expected in higher density urban areas. In the absence of official guidance, a ratio of 150% is considered a reasonable assumption in this context, generally allowing for configuration over multiple storeys with a two storey office filling three quarters of its plot or a three storey office occupying half of its plot for example. The Councils should, however, be aware that a greater quantum of land would be needed to accommodate new floorspace where lower density development prevails.
- 7.19 As shown at Table 7.3, this suggests that circa 11.6ha of additional land in B use classes could be needed to accommodate a forecast demand for new floorspace. This land is predominantly required to accommodate new office space, with a smaller implied need for land suitable for warehouses and a substantially lower need for industrial land, recognising the limited growth assumed. It should be recognised that this simply

<sup>89</sup> Unrounded figures have been used in the conversion of FTE jobs to floorspace

<sup>90</sup> Office of the Deputy Prime Minister (2004) Employment Land Reviews: guidance note

estimates the land that could be needed to physically accommodate new jobs, and does not seek to incorporate any additional flexibility or margin of choice.

**Table 7.3: Implied need for additional land in B use classes (2018-40)**

	Additional jobs	Additional FTE jobs	Additional floorspace, GEA	Additional land
Office (B1a/b)	9,798	7,340	97,491sqm	6.5ha
Industrial (B1c/B2)	79	78	3,483sqm	0.9ha
Warehouse (B8)	259	232	17,061sqm	4.3ha
<b>Total B</b>	<b>11,683</b>	<b>7,650</b>	<b>118,035sqm</b>	<b>11.6ha</b>

*Source: Turley analysis*

- 7.20 While calculated over a different period of time, the above suggests a notably smaller need for land than calculated in the 2015 ENA. This is due to a combination of factors, including the implicit allowance for higher density office development and the less optimistic outlook for the retail and wholesale sector which was assumed in that report to grow and generate a need for additional warehousing space.
- 7.21 As in the 2015 ENA, and as noted at the beginning of this section, it must be recognised that **these estimates are purely illustrative**, necessarily making evidence-based but broad assumptions about the sectors forecast to grow and the type and amount of floorspace that they require. The Councils may wish to test these estimates against trends in the past take-up of employment land and the profile of schemes in the pipeline, where robust data is available, and should also seek to allow choice and flexibility to businesses and developers. The need to replace losses, or indeed lower quality stock, will also be relevant considerations which would elevate the requirements implied above and have an impact on the overall approach taken to plan for new employment land in the emerging Local Plan.

## Summary

- 7.22 As in the 2015 ENA, consideration has been given to the implications of future job growth for employment land provision, albeit without undertaking a full employment land review or attempting to satisfy the requirements of the PPG in full.
- 7.23 The analysis has indicated that certain sectors forecast to see significant job growth – including accommodation, food, health and social work – are unlikely to require space in the B use classes widely focused on when discussing employment land. It is assumed that some 11,700 new jobs throughout Central Lincolnshire will not require such space, representing more than half (54%) of all jobs envisaged in the previous section, and the Councils are advised to consider how this change can be accommodated through policies or site allocations which fully recognises the needs of these sectors.

- 7.24 The vast majority of remaining jobs (c.9,800) are expected to require office premises, with substantially fewer jobs thought to require warehouses (c.260) and still fewer needing industrial premises (c.80).
- 7.25 As a result, when applying widely used employment densities – updated since the 2015 ENA – it is estimated that around 97,500sqm of office space would be needed over the new plan period to accommodate forecast job growth, exceeding the smaller implied need for warehouses (17,000sqm) and industrial premises (3,500sqm).
- 7.26 In terms of land, this could require approximately 6.5ha suitable for offices – reasonably assumed to be delivered at a higher density than in the 2015 ENA – with a further 4.3ha of land suitable for warehouses and a more modest need for 0.9ha of industrial land. The implied overall need for 11.6ha is notably smaller than calculated in the 2015 ENA, principally due to the allowance for higher density office development and the less optimistic outlook for the retail and wholesale sector which was then thought likely to grow and generate a demand for additional warehousing space.
- 7.27 It must, however, be emphasised that these estimates are purely illustrative, necessarily making evidence-based but broad assumptions with no allowance for market choice or flexibility. The Councils may wish to consider these findings in the context of commercial market evidence, for example, and test these estimates against the past take-up of employment land.

## 8. Summary and Conclusions

- 8.1 Turley has been commissioned by the Central Lincolnshire authorities of Lincoln, North Kesteven and West Lindsey plus Lincolnshire County Council to update the Economic Needs Assessment (ENA) formerly produced in June 2015 to inform the joint Local Plan, as part of its emerging review.

### Revisiting the earlier evidence base

- 8.2 This update has considered the recent economic performance of Central Lincolnshire, relative to the employment growth that was envisaged in the 2015 ENA based on data available at that time.
- 8.3 The 2015 ENA eventually favoured a baseline forecast that would have seen a total of 628 jobs created on average each year throughout Central Lincolnshire over the current plan period (2012-36). It did, however, also apply adjustments to this baseline where necessary to fully reflect local circumstances and avoid understating the potential for growth, producing a “High Growth” scenario alongside a “Lower Growth” scenario that respectively envisaged the creation of between 819 and 936 jobs throughout Central Lincolnshire each year.
- 8.4 While acknowledged to be long-term forecasts that indirectly allow for economic cycles and are rarely accurate by their nature, the passage of time allows the assumptions made in these forecasts to be critically tested against local trends reported over the initial six years of the plan period to 2018, for which data is available. This has revealed that:
- **Around 1,850 jobs per annum have been created on average in Central Lincolnshire over the plan period to date**, far exceeding – on an average annual basis – the growth anticipated within the range of scenarios presented in the 2015 ENA. Whilst evidently significant in scale, this rate of growth does not appear exceptional in the context of positive regional and national trends in this time;
  - **The departure from the forecasts has been particularly pronounced in certain sectors.** The business administration and support sector has seen job growth substantially beyond that envisaged in the 2015 ENA, even when allowing for its optimistic adjustment to the baseline. Accommodation and food services have also seen stronger job growth than was anticipated, while manufacturing has seen job growth rather than the envisaged decline. Some sectors, most notably retail and wholesale, have also experienced job losses to date rather than the growth that was forecast in the ENA;
  - **Growth has not been uniform below local authority level reflecting the varying performance of individual businesses**, albeit most areas – notably in parts of Lincoln and North Hykeham – have seen increased employment. Job losses seen in a minority of statistical areas have generally been less pronounced than the gains experienced elsewhere;

- **There has been only a modest shift in the occupational structure of the workforce**, with no evidence of a significant move towards roles that typically attract higher or lower salaries albeit with the average earnings of those working in Central Lincolnshire having nonetheless risen in recent years;
- **There has been an increasing supply of floorspace within commercial properties which has created additional capacity to support employment growth.** The overall stock of floorspace has grown over the plan period, and vacancy has reduced, although the latent capacity provided by businesses' occupation of vacant space now appears to have been largely exhausted. On this basis, a further growth in employment will likely need to be supported by additional floorspace or a more intensive use of existing space; and
- **Reduced unemployment amongst residents is likely to have supported job growth to date.** The latest available data to 2018 indicates that the rate of unemployment has fallen from the recessionary high recorded at the start of the plan period to a notably low level. The economically active population has also increased in size, but the *rate* of economic activity is largely unchanged due principally to an ageing population and a general fall in the participation of students in the labour force. This suggests that Central Lincolnshire has a relatively tight labour market with potentially limited latent capacity to service future demands generated by the growth of local businesses.

8.5 The apparent divergence from the forecasts of the 2015 ENA is considered to justify a reassessment of the potential scale and profile of future job growth in Central Lincolnshire over the period to be covered by the new Local Plan (2018-40). This will ensure that the review of policies is informed by up-to-date evidence, as required by the National Planning Policy Framework<sup>91</sup> (NPPF).

### Up-to-date forecasts of future employment growth

- 8.6 Planning Practice Guidance (PPG) continues to endorse the use of employment forecasts when assessing potential future growth, alongside other datasets. The latest available forecasts have therefore been obtained, as in the 2015 ENA, from two of the three leading providers in Experian and Oxford Economics. They have unfortunately but unavoidably been produced at an exceptionally uncertain time, and also predate the coronavirus pandemic that is ongoing at the time of writing, but local authorities have nonetheless been encouraged to take a positive outlook and plan for the recovery.
- 8.7 Experian is the more optimistic of the two forecasts, envisaging the creation of circa 714 jobs per year compared to around 420 jobs per annum under the Oxford Economics forecast which notably assumes that growth will markedly slow beyond the coming decade. Experian has generally made more positive assumptions on the growth of individual sectors, with some exceptions, albeit there are also instances where the forecasting houses are in broad agreement.

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<sup>91</sup> MHCLG (2019) National Planning Policy Framework, paragraph 31

8.8 It must, however, be appreciated that any such baseline forecast prepared at any time has inherent limitations arising particularly from their “top-down” methodologies which can result in a failure to fully account for defining features of local economies, or the opportunities for growth that exist therein. Sense checks are therefore strongly advisable, and an interrogation of the assumptions made in the forecasts within this context has found that:

- **Each of the forecasts appears strongly influenced by an overriding national and regional view on the growth of individual sectors**, which is recognised by the forecasting houses themselves as a limitation. It warns against an automatic acceptance of their outlook as necessarily reflective or representative of local trends in Central Lincolnshire;
- **Each forecast, while long-term, would lead to a significant departure from recent rates of job creation in Central Lincolnshire.** Experian foresees job growth at little more than a third of the rate recorded to date in the current plan period, and Oxford Economics less than a quarter. Whilst it is appreciated that they are intended to provide a longer-term perspective, the implied rate of growth also appears low in the context of longer-term local trends;
- **Such a significant forecast slowdown does not align with views of key stakeholders for the long-term prospects of the local economy or the aspirations and investment plans documented in economic strategies.** An emerging Local Industrial Strategy (LIS) for Greater Lincolnshire is aiming to boost productivity and resilience from a strong economic base, addressing identified issues while pursuing opportunities that can have a widespread impact. A strengthened focus on innovation, infrastructure, people, place and the business environment can conceivably benefit Central Lincolnshire and improve its economic performance, beyond the level that could be anticipated in any national forecast, in turn supporting the authorities’ own pursuit of economic growth;
- **The implicit departure from past trends embedded within the local forecasts is particularly pronounced in certain sectors.** Recent growth in the administrative and support services sector would most significantly slow under the forecasts. Recent employment growth in the manufacturing sector is assumed to reverse, apparently due to an overriding national assumption but in conflict with its strategic importance in this area. The assumed slowing of growth in the digital and visitor economies similarly contrasts with the opportunities identified in the draft LIS.

8.9 Taking the above into account, it is considered that there is sufficient justification to adjust the baseline forecasts, as in the 2015 ENA, to ensure that they provide a more locally representative outlook for Central Lincolnshire.

### **Adjusting the forecasts for Central Lincolnshire**

8.10 Where the above again justifies the application of adjustments to the forecasts, this report deliberately takes a different approach to the 2015 ENA and principally aims to:

- Soften the “top-down” factors influencing the forecasts for Central Lincolnshire; and
  - Reduce the occasionally extreme departures from locally evidenced trends, which result in conflict with strategic economic plans.
- 8.11 This report does so by blending the job growth forecast in each sector by Oxford Economics and Experian with the recent local trend in that sector.
- 8.12 This approach supports local sectors’ continued growth beyond the level forecast where this has occurred to date, without expecting a short-term growth trend to necessarily persist. It prevents forecast decline in local sectors such as manufacturing, which have proven resilient in recent years, but is admittedly more negative – with local justification – on the outlook for a small number of sectors such as retail and wholesale. Substantive adjustments are, however, in the minority, with the outlook for most sectors remaining proportionate to at least one forecast while factoring in local evidence and intelligence.
- 8.13 The adjustments elevate the forecasts to suggest that **circa 992 jobs will be created annually throughout Central Lincolnshire** over the new plan period (2018-40). This is not dissimilar to the “Higher Growth” scenario developed in the 2015 ENA. It allows for some slowing of the recent rate of job growth, as would be anticipated over the long-term given the cyclical nature of the economy, but remains proportionate to local trends over a similarly long-term period. It is considered to provide a more reliable and robust basis for local planning policy in Central Lincolnshire than the “off the shelf” forecasts sourced to inform this study. This report does, however, simply provide informing evidence, with the level of employment growth to be pursued through the Local Plan and its policies ultimately a judgement to be made by the Councils.

### Understanding the implications of employment growth

- 8.14 While this report, like the 2015 ENA, is not intended to represent an employment land review, nor satisfy the associated requirements of the PPG in full, consideration has nonetheless been given to the practical implications of such a level and profile of job growth over the new plan period. This report has focused on the implications for employment land provision, with the related Housing Needs Assessment (HNA) considering the housing that could be needed to sustainably accommodate required growth in the resident labour force.
- 8.15 It is suggested that over half of all new jobs will not be within premises that align with B use classes, with the residual largely orientated towards offices such that around **97,500sqm of new office space** – or an estimated **6.5ha of land** – could be needed to accommodate job growth anticipated over the plan period. Substantially fewer jobs can be expected to require **warehouses**, requiring an estimated **17,000sqm of floorspace on 4.3ha of land**, while the implied need for **industrial** land is still more modest (**3,500sqm; 0.9ha**).
- 8.16 These estimates are however **purely illustrative**, and necessarily based on evidence-based but broad assumptions. In devising their approach to employment land provision, the Councils are encouraged to supplement this analysis with a fuller



consideration of past take-up trends and commercial market evidence, providing further flexibility and choice to the market where justified.

### **Monitoring and review**

- 8.17 This report takes a long-term view guided by a variety of evidence relating to a reasonable period of time, but has clearly been produced at a time of **exceptional economic volatility**. Reporting has coincided with the UK's delayed departure from the EU, a general election and the more recent outbreak of coronavirus, which has led to an unprecedented shutdown of economic activity that continues at the time of writing. While this is yet to have been fully reflected in official local data drawn upon to inform this report, and is unlikely to be for some time given the usual time lag, it clearly increases the level of uncertainty when considering – as required by national planning policy – the prospect of future economic growth in Central Lincolnshire over the long-term.
- 8.18 With this report intended to inform the production of a new Local Plan, **the Councils are strongly advised to closely monitor wider and local economic trends** during its preparation – particularly as the economy recovers from the coronavirus pandemic – and review the continued applicability of any conclusions drawn at this uncertain time.

## Appendix 1: Overview of Stakeholder Consultation

Consultation with stakeholders from a range of public and private sector organisations, across different industries, was conducted over a period of three months between January and March 2020. All consultation was conducted by telephone. Consultees are sincerely thanked for their time and for their knowledge and expertise, which contributed to this study.

**Table 1.1 Stakeholder Consultation Schedule**

Consultee organisation	Consultee role at organisation	Date of Consultation	Nature of Discussion
West Lindsey District Council	Senior Growth and Projects Officer	09/01/2020	Past and potential future economic development trends and investments in West Lindsey.
North Kesteven District Council	Economic Development Manager	16/01/2020	Past and potential future economic development trends and investments in North Kesteven.
City of Lincoln Council	Assistant Director – Growth	23/01/2020	Past and potential future economic development trends and investments in Lincoln.
Siemens	Managing Director	05/02/2020	Past and potential future trends in the engineering and manufacturing sectors in Central Lincolnshire. Perspectives on growth prospects, opportunities and constraints.
Lincoln Science & Innovation Park	Director	06/02/2020	Past and potential future trends in the innovation and digital sectors in Central Lincolnshire. Perspectives on factors affecting businesses in the Park and comparative health / prospects.
Lincoln College	Group Managing Director (Education & Training Delivery)	18/02/2020	Past and potential future trends in the education sector in Central Lincolnshire and drivers of change Views on changing student admissions and forecasts. Perspectives on links to local businesses.
Bishop Grosseteste University	Deputy Vice-Chancellor (Academic Affairs)	18/02/2020	Past and potential future trends in the education sector in Central Lincolnshire and drivers of change.

			Views on changing student admissions and forecasts. Perspectives on links to local businesses.
NutraPharma	CEO	02/03/2020	Past and potential future trends in the health, and innovation/education sectors in Central Lincolnshire. Perspectives on growth prospects, investment plans, adequacy of existing premises and recruitment.
University of Lincoln	Senior Research Fellow (International Business School)	04/03/2020	Past and potential future trends in Central Lincolnshire and drivers of change. Links to local businesses.
Lindum Construction	Business Development Director	04/03/2020	Past and potential future trends in the construction sector in Central Lincolnshire. Perspectives on recent growth, barriers to investment and changing nature of work.
CleanTech	HR Manager	06/03/2020	Past and potential future trends in the engineering and manufacturing sectors in Central Lincolnshire. Perspectives on recruitment.
RAF Waddington	Operations Command Base Support	10/03/2020	Past and potential future trends in the defence sector in Central Lincolnshire. Insights into future plans for expansion and implications of changing employee numbers.

## Appendix 2: Additional Data Tables

This appendix provides comparable tables to those presented in section 4, broken down to local authority level.

### Change in employment by sector (Table 4.3)

**Table 2.1** Change in employment in Lincoln by sector, 2012 – 2018

	2012		2018		2012-18	
	Total	%	Total	%	Change ▼	% change
Business admin & support services	4,000	8%	6,000	11%	<b>2,000</b>	50%
Accommodation & food services	3,500	7%	5,000	9%	<b>1,500</b>	43%
Health	10,000	19%	11,000	19%	<b>1,000</b>	10%
Manufacturing	3,500	7%	4,000	7%	<b>500</b>	14%
Information & communication	1,000	2%	1,500	3%	<b>500</b>	50%
Property	400	1%	700	1%	<b>300</b>	75%
Mining, quarrying & utilities	1,000	2%	1,250	2%	<b>250</b>	25%
Transport & storage (inc. postal)	1,250	2%	1,500	3%	<b>250</b>	20%
Arts, entertainment, recreation & other services	2,250	4%	2,500	4%	<b>250</b>	11%
Motor trades	1,500	3%	1,500	3%	<b>0</b>	0%
Professional, scientific & technical	3,000	6%	3,000	5%	<b>0</b>	0%
Public administration & defence	3,500	7%	3,500	6%	<b>0</b>	0%
Education	6,000	12%	6,000	11%	<b>0</b>	0%
Agriculture, forestry & fishing	100	0%	0	0%	<b>-100</b>	-100%
Financial & insurance	900	2%	800	1%	<b>-100</b>	-11%
Construction	1,750	3%	1,500	3%	<b>-250</b>	-14%
Wholesale	1,500	3%	1,250	2%	<b>-250</b>	-17%
Retail	8,000	15%	7,000	12%	<b>-1,000</b>	-13%
<b>All sectors total</b>	<b>52,000</b>	<b>100%</b>	<b>57,000</b>	<b>100%</b>	<b>5,000</b>	<b>10%</b>

Source: BRES; Turley analysis

**Table 2.2 Change in employment in North Kesteven by sector, 2012 – 2018**

	2012		2018		2012-18	
	Total	%	Total	%	Change ▼	% change
Arts, entertainment, recreation & other services	1,000	3%	2,250	5%	<b>1,250</b>	125%
Manufacturing	5,000	13%	6,000	14%	<b>1,000</b>	20%
Business admin & support services	2,000	5%	3,000	7%	<b>1,000</b>	50%
Information & communication	600	2%	1,500	4%	<b>900</b>	150%
Construction	2,500	7%	3,000	7%	<b>500</b>	20%
Wholesale	2,000	5%	2,500	6%	<b>500</b>	25%
Accommodation & food services	2,250	6%	2,500	6%	<b>250</b>	11%
Professional, scientific & technical	2,000	5%	2,250	5%	<b>250</b>	13%
Property	250	1%	400	1%	<b>150</b>	60%
Motor trades	1,250	3%	1,250	3%	<b>0</b>	0%
Public administration & defence	1,750	5%	1,750	4%	<b>0</b>	0%
Health	5,000	13%	5,000	12%	<b>0</b>	0%
Financial & insurance	200	1%	175	0%	<b>-25</b>	-13%
Mining, quarrying & utilities	500	1%	450	1%	<b>-50</b>	-10%
Transport & storage (inc. postal)	1,750	5%	1,500	4%	<b>-250</b>	-14%
Agriculture, forestry & fishing	2,500	7%	2,000	5%	<b>-500</b>	-20%
Retail	3,500	9%	3,000	7%	<b>-500</b>	-14%
Education	3,500	9%	3,000	7%	<b>-500</b>	-14%
<b>All sectors total</b>	<b>38,000</b>	<b>100%</b>	<b>42,000</b>	<b>100%</b>	<b>4,000</b>	<b>11%</b>

Source: BRES; Turley analysis

**Table 2.3 Change in employment in West Lindsey by sector 2012 – 2018**

	2012		2018		2012-18	
	Total	%	Total	%	Change ▼	% change
Accommodation & food services	1,250	5%	2,000	7%	750	60%
Business admin & support services	900	3%	1,500	5%	600	67%
Manufacturing	3,000	12%	3,500	13%	500	17%
Arts, entertainment, recreation & other services	1,000	4%	1,500	5%	500	50%
Public administration & defence	900	3%	1,250	4%	350	39%
Construction	2,000	8%	2,250	8%	250	13%
Information & communication	200	1%	450	2%	250	125%
Professional, scientific & technical	1,250	5%	1,500	5%	250	20%
Motor trades	600	2%	800	3%	200	33%
Agriculture, forestry & fishing	2,250	9%	2,250	8%	0	0%
Mining, quarrying & utilities	500	2%	500	2%	0	0%
Wholesale	1,250	5%	1,250	4%	0	0%
Transport & storage (inc. postal)	1,000	4%	1,000	4%	0	0%
Financial & insurance	200	1%	125	0%	-75	-38%
Property	800	3%	700	3%	-100	-13%
Retail	2,500	10%	2,250	8%	-250	-10%
Education	3,000	12%	2,500	9%	-500	-17%
Health	3,000	12%	2,500	9%	-500	-17%
<b>All sectors total</b>	<b>26,000</b>	<b>100%</b>	<b>28,000</b>	<b>100%</b>	<b>2,000</b>	<b>8%</b>

Source: BRES; Turley analysis

## Proportionate change in employment by sector (Table 4.4)

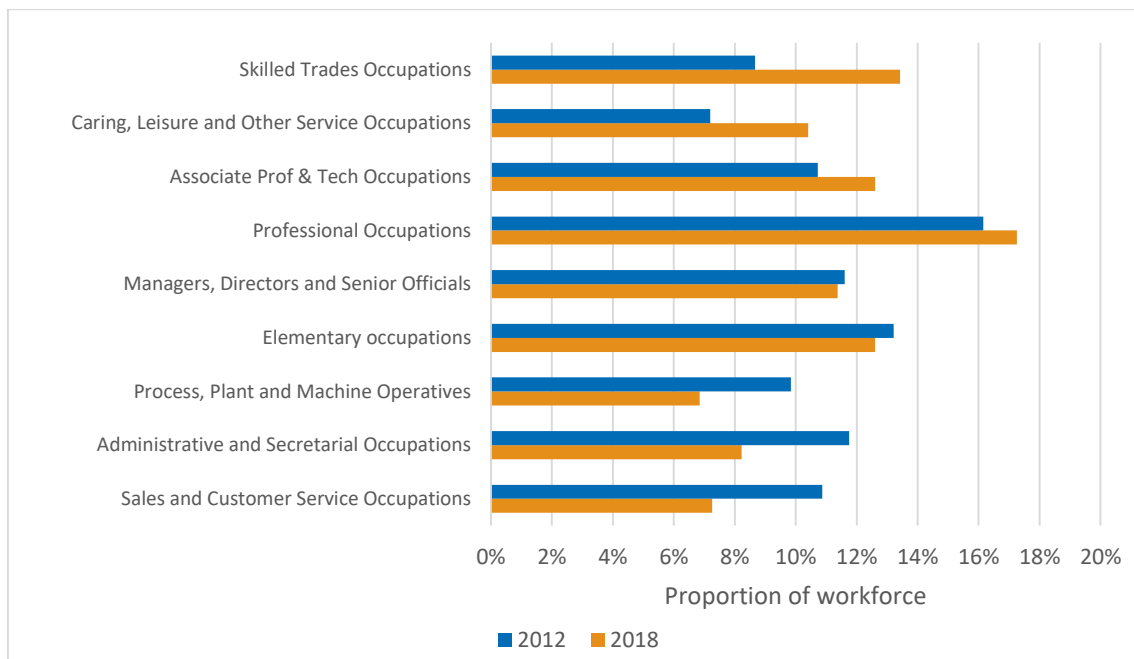
**Table 2.4** Change in employment in Central Lincolnshire authorities by sector, 2012 – 2018

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire ▼
Information & communication	50%	150%	125%	<b>92%</b>
Business admin & support services	50%	50%	67%	<b>52%</b>
Arts, entertainment, recreation & other services	11%	125%	50%	<b>47%</b>
Accommodation & food services	43%	11%	60%	<b>36%</b>
Property	75%	60%	-13%	<b>24%</b>
Manufacturing	14%	20%	17%	<b>17%</b>
Mining, quarrying & utilities	25%	-10%	0%	<b>10%</b>
Construction	-14%	20%	13%	<b>8%</b>
Professional, scientific & technical	0%	13%	20%	<b>8%</b>
Motor trades	0%	0%	33%	<b>6%</b>
Public administration & defence	0%	0%	39%	<b>6%</b>
Wholesale	-17%	25%	0%	<b>5%</b>
Health	10%	0%	-17%	<b>3%</b>
Transport & storage (inc. postal)	20%	-14%	0%	<b>0%</b>
Education	0%	-14%	-17%	<b>-8%</b>
Agriculture, forestry & fishing	-100%	-20%	0%	<b>-12%</b>
Retail	-13%	-14%	-10%	<b>-13%</b>
Financial & insurance	-11%	-13%	-38%	<b>-15%</b>
<b>All sectors total</b>	<b>10%</b>	<b>11%</b>	<b>8%</b>	<b>9%</b>

Source: BRES; Turley analysis

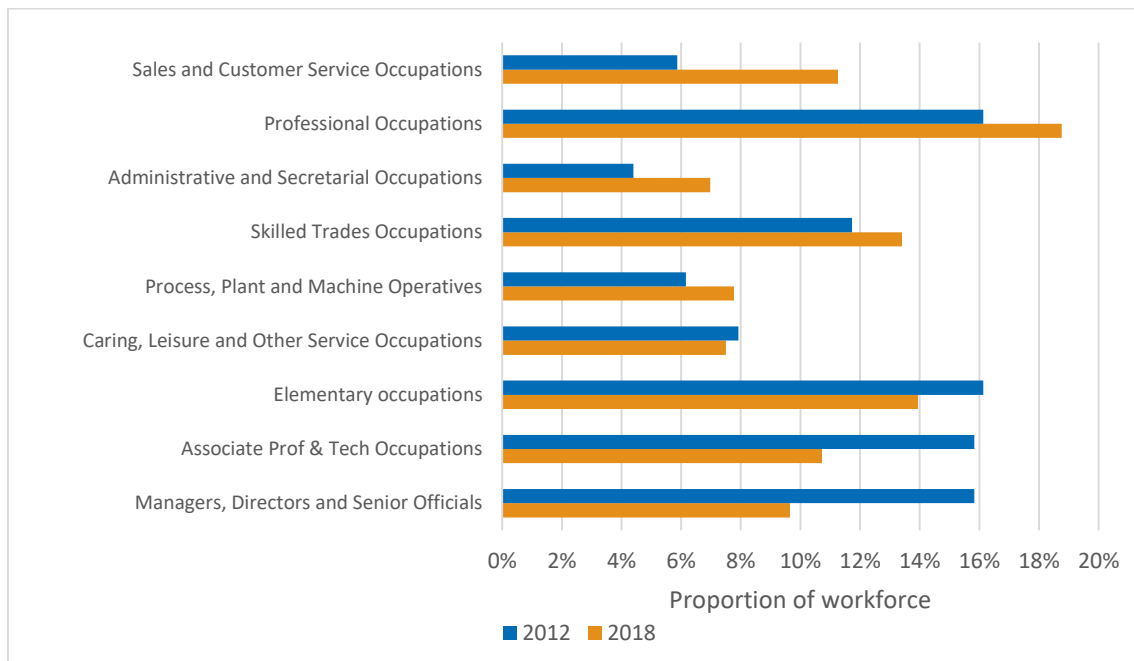
## Change in occupational structure (Figure 4.6)

**Figure 2.1** Change in employment by occupation in Lincoln, 2012 – 2018



Source: APS; Turley analysis

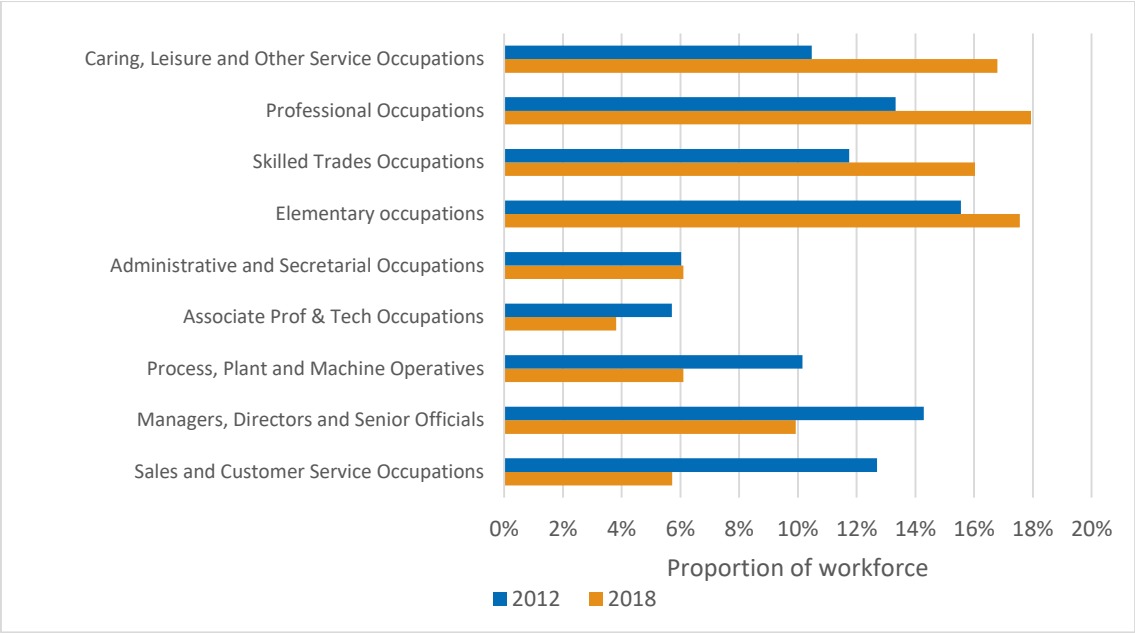
**Figure 2.2** Change in employment by occupation in North Kesteven, 2012 – 2018



Source: APS; Turley analysis



**Figure 2.3      Change in employment by occupation in West Lindsey, 2012 – 2018**



*Source: APS; Turley analysis*

## Adjusted employment growth scenario by sector (Figure 6.6)

**Table 2.5 Adjusted forecast of employment growth by sector, 2018-40**

	Lincoln	North Kesteven	West Lindsey	Central Lincolnshire
Administrative & support services	143	73	42	257
Accommodation & food services	108	23	48	180
Human health & social work	142	43	-8	177
Arts, entertainment, recreation & other services	35	86	35	156
Information & communication	38	71	18	127
Professional, scientific & technical	21	36	25	83
Construction	-8	54	27	72
Real estate activities	19	11	0	30
Mining, quarrying & utilities	13	2	0	14
Transportation & storage	11	1	-2	10
Public administration & defence	-8	-2	17	7
Manufacturing	-1	3	2	4
Financial & insurance activities	-5	-3	-4	-13
Education	11	-13	-23	-26
Wholesale & retail trade	-53	17	5	-32
Agriculture, forestry & fishing	-6	-40	-8	-53
<b>Total per annum</b>	<b>458</b>	<b>361</b>	<b>173</b>	<b>992</b>
Total 2018-40	10,082	7,938	3,799	21,818

## Appendix 3: Sector to Use Class Matrix

	Offices B1a/b	Industrial B1c/B2	Warehouse B8	Non-B
Accommodation & food service activities	0%	0%	0%	100%
Administrative & support service activities	80%	0%	0%	20%
Agriculture, forestry & fishing	0%	0%	0%	100%
Arts, entertainment, recreation & other services	30%	0%	0%	70%
Construction	0%	0%	5%	95%
Education	0%	0%	0%	100%
Mining, quarrying & utilities	0%	0%	0%	100%
Financial & insurance activities	80%	0%	0%	20%
Human health & social work activities	0%	0%	0%	100%
Information & communication	80%	0%	0%	20%
Manufacturing	0%	90%	10%	0%
Professional, scientific & technical activities	90%	0%	0%	10%
Public administration & defence	50%	0%	0%	50%
Real estate activities	80%	0%	0%	20%
Transportation & storage	0%	0%	75%	25%
Wholesale & retail trade; motor vehicles <sup>92</sup>	0%	0%	0%	100%

<sup>92</sup> While the wholesale sector can be reasonably expected to generate a need for warehousing (B8) the implied lack of job growth in the sector in the locally generated forecast is not considered in this case to necessitate apportionment of job growth to this use class for the illustrative purpose of this calculation

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