



EMPLOYMENT PROJECTIONS FOR EAST DEVON

Supporting Technical Advice

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12 February 2015

Background

East Devon District Council (EDDC) requires technical economic advice to help interpret available data (published and modelled) to determine likely scenarios for future job creation in the District. This advice, amongst other outputs, will help inform the level of housing required in the Local Plan for the period from 2013 onward, potentially to 2031, or 2033. EDDC require a better understanding of future job creation in a 'policy neutral' environment and a 'policy on' scenario. The overall purpose is to support projected housing numbers in the Local Plan.

Executive Summary

The technical support required by EDDC has involved looking at available published and modelled data, and helping it interpret that data. In particular, we were asked to further analyse the projection data that has helped form the 'policy off' (or 'policy neutral) job growth scenario – largely reflecting trend based growth. We have concentrated on looking at the available data from projections provided by both Cambridge Econometrics - commissioned and published by Devon County Council as part of its wider economic development work - and Experian as part of the wider Strategic Housing Market Assessment (SHMA).

We were asked to interpret this data and understand why there was a relatively wide range in terms of job growth projections. From our assessment the original wide range can be explained as a result of mixing two different definitions of jobs. We have now presented the modelled data on a consistent basis and this shows a narrower range between the two projections and gives a clear basis for the modelling required for the Local Plan. By using the projections provided by Cambridge Econometrics and Experian we estimate that between 309 & 320 full-time equivalent (FTE) net extra new jobs could be added, per year, to the East Devon economy between 2013 & 2033. This level of job growth would be associated with above-trend growth when compared against official Office for Budget Responsibility projections.

It is fundamentally important to recognise that there is significant inherent uncertainty in any set of projections, and this uncertainty increases as the time period of analysis lengthens.

The formulation of job projections for the East Devon Local Plan also needs to recognise the focus on job growth at the core of the Exeter & East Devon Growth Point. We have considered the scale of development at the major strategic sites (explicitly the Science Park, Skypark and the Intermodal facility) in the Growth Point and estimated the potential for gross job creation using recognised employment density guidance. We estimate that just over 7,200 FTE jobs could be created over the Local Plan period, an average of circa 380 per annum.

However, a proportion of this growth may capture some of the trend-based growth reflected in the 'policy off' scenario. This is a difficult exercise, again highly uncertain, but using

published guidance based on evaluation evidence, we estimate that a total of 4,568 net extra FTE jobs could be created over the suggested Local Plan period of 2013 to 2031 (19 years inclusive), or 240 FTE jobs per annum. This could be considered in addition to the 'policy off' estimates.

We would advise that more analysis will in due course be required to the 'additionality' of the 'policy on' job creation. Though such extra work can only really start to be fully meaningful once a body of evidence on job creation over a period of time starts to occur and this can be monitored and assessed against projected levels of development and job creation and when a greater understanding of factors determining job creation patterns can be established.

'POLICY OFF' SCENARIO

Introduction

Economic forecasting is the process of attempting to predict how an economy of a given area is going to change over a given time. The change is usually measured by indicators such as gross domestic product (GDP), gross value added (GVA), or employment levels. These indicators are projected by using a set of variables included in statistical models. Largely, projections are the result of calculations and analysis based on past and current economic and demographic data and a general assumption that past trends will continue in the longer term future.

As a result, economic projections should be considered as only a 'best informed assessment' of the future conditions. There are many organisations that produce their own economic forecasts. Each of them has their own methodology and they are often revised when new data becomes available.

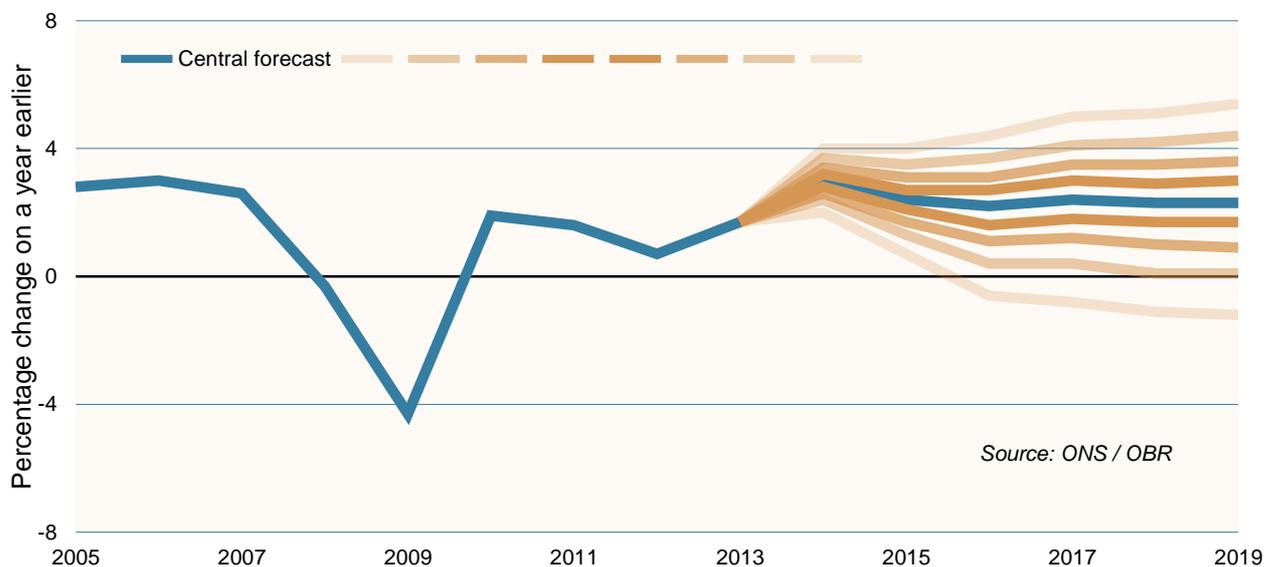
At a national level, the official forecasts for the UK economy come from the Office for Budget Responsibility (OBR), which was created in 2010 to provide independent and authoritative analysis of the UK's public finances. The OBR produce medium term forecasts for the UK economy twice a year (March and December). Given that the OBR is used by Government to help inform policy decisions/performance such as long-term fiscal planning then it is 'reasonable' to use the OBR projections as the starting point for understanding the projected medium-term growth of the UK economy. For the purposes of the timing of this work, the fact there has been an update in December 2014 has been useful.

In addition to the OBR projections, a list of external economic forecasts is also collated on a monthly basis by HM Treasury. This compares forecasts by City forecasters, non-City forecasters and those from the OBR.

National projections of growth

As stated, the most recent medium-term forecast was published in December 2014 and contains projections for the next five years 2015-2019. The chart below shows the past trend of annual change in the UK Gross Domestic Product, and the OBR medium-term projections beyond the current date. The fan chart indicates a range of considered rates, i.e. it is relatively easier to predict the rates for 2015 than it is for 2019. Therefore the range of probable rates is much wider at the end of the forecast period. The solid blue line that continues from the past to the mid of the fan chart indicates the December 2015 central forecast. The different shades of brown indicate the likelihood, so the further from the central line the less likely that the actual values of future economic growth will fall in that area.

Chart 1 – Real GDP growth fan chart



The range between possible forecast ‘outcomes’ widens considerably as the period increases. For example, in 2015 the central forecast is for annual growth of 2.4%, with the range extending from a low of 0.7% to 4.0% (a range of 3.3 percentage points). However, in 2019, the range widens to 6.6 percentage points (from a low of -1.2% to 5.4%) – representing the increasing uncertainty.

According to the December forecast the UK economy should have experienced relatively robust real economic growth in 2014, although it forecasts that growth will slow in 2015. The range of economic growth rates for 2017 is projected to be between -0.8% and 5.0% with the most likely rate at 2.4%.

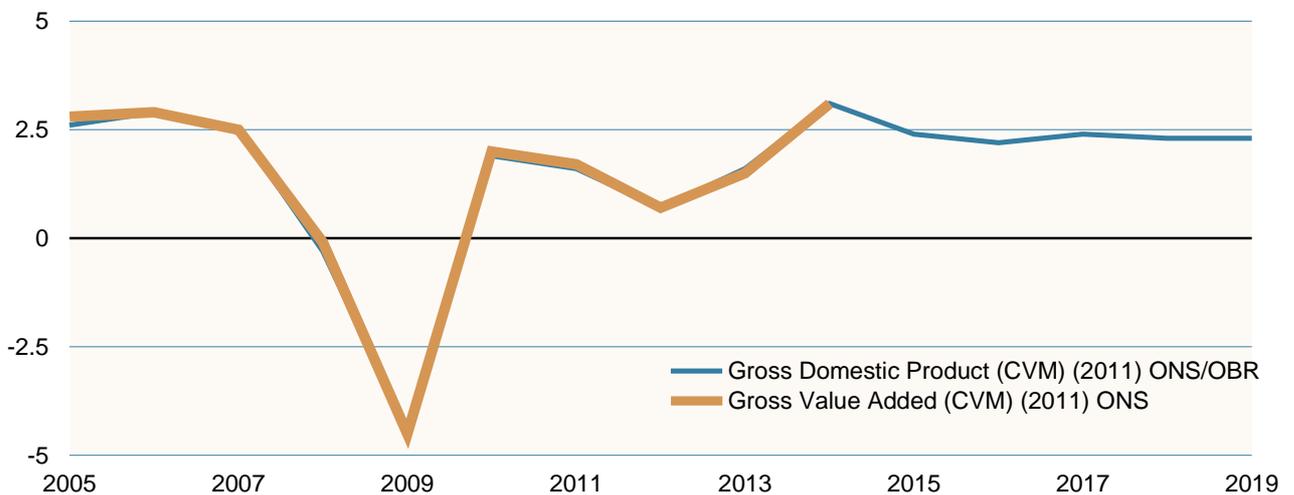
The fan chart shows very clearly that the longer the forecasting period the more difficult it is to provide a definitive line of future economic trends. This is quite an important observation. If we consider that one forecasting organisation provides a range of economic growth rates in only one set of medium-term projections, then it is easier to understand that sometimes levels of economic growth projected by different forecasters are quite different. Each of them uses

their own methodology, have their own assumptions as to past relations between different variables and sometimes even use different baseline data.

This uncertainty will only increase at a sub-national level, increasing in uncertainty as the level of geographical analysis becomes more granular. This relates to the quality of data at a sub-national level, as well as uncertainty about how demand conditions translate at a local level.

It needs to be noted that the forecasts presented in above chart are for GDP. The OBR does not provide projections for the GVA measure. The chart below presents a graphical illustration of the difference between the two measures of economic growth. The two trend lines follow a very similar pattern. Therefore it has been assumed that the projected line of the GVA CVM will follow the projected GDP CVM line¹.

Chart 2 – Comparison of GDP CVM and GVA CVM measures

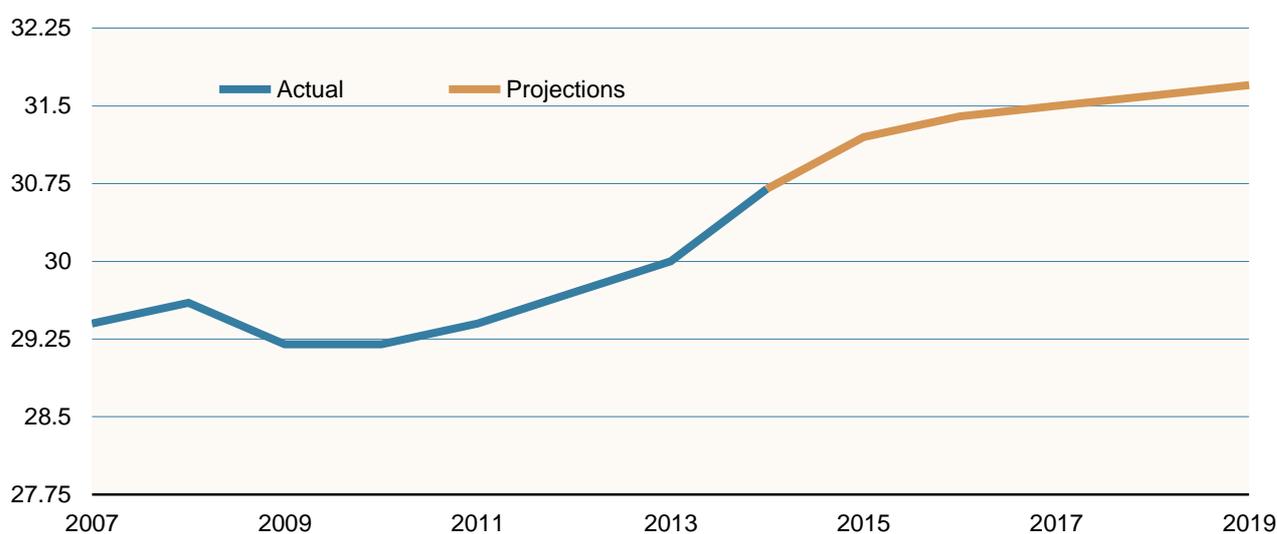


The average growth projection for the 5-year period 2015-2019 is that the UK economy will grow by 2.3% per annum. However, partly because of the output gap that still exists and also related to the fact that the employment base was not as badly affected by the contraction in output as would have been expected in historical terms, the rate of job growth is expected to be lower. Effectively this means the expectation is that workers are under-producing at the moment (shown in productivity measurements) and therefore a greater proportion of increased output will come from improving productivity, and not necessarily a commensurate increase in jobs.

¹ Put simply, GDP equates to GVA plus taxes on products minus any subsidies on those products. Both are measures of output but because the total aggregate of taxes and subsidies are only available at a whole economy level, GVA tends to be used for measuring gross domestic product at entities smaller than the national level. A chained volume series is a series of economic data from successive years, put in real (or constant) terms by computing the production volume for each year in the prices of the preceding year, and then 'chain linking' the data together to obtain a time-series of production figures from which the effects of price changes have been removed. In other words, a series is obtained which reflects only changes in production volume.

Over the period 2015-2019 the OBR expects jobs will only grow by 0.6% per annum. The growth in absolute numbers at a UK level is shown in the below chart. The chart shows that the relatively rapid growth in employment is expected to slow from 2015 onwards (red line).

Chart 3 – Actual & projected growth in UK employment (millions)



In order to understand the uncertainty that exists in projecting job growth – particularly at a District-level – we have undertaken a number of approaches to estimating job growth in East Devon. We felt it would be useful to see how each approach differs in terms of forecasts/projections for East Devon over the next Local Plan period. It is also a useful exercise to place the ‘recommended’ approach in the context of alternative ways of estimating potential growth. The three scenarios that we present are:

1. Scenario 1a: Following national employment growth projections
2. Scenario 1b: ‘Above trend’ UK employment growth projections
3. Scenario 2: Comparison of Experian and Cambridge Econometrics projections

Scenario 1a: Following national employment growth projections:

This approach assumes that employment growth in East Devon over the next 20 years follows the same long-term trend as projected for the UK. These are provided by the Office for Budgetary Responsibility (OBR), the body created by the current Government to provide independent and objective economic and fiscal forecasts for the UK economy. This scenario uses the latest trend forecasts by the OBR as our ‘baseline scenario’.

The OBR's outlook reflects underlying trends in population, technological dissemination, spare capacity in the economy (output gap), real income constraints and international trade patterns. In their current outlook (latest December 2014), these factors add up to lower employment growth and productivity potential.

The key factors that are driving its longer-term forecasts for the UK economy include:

- Spare capacity is used up by 2018 i.e. the output gap will close by that point;
- Some of the productivity lost in the downturn is recovered, but not all;
- Many of the benefits of recent technical innovation are already assimilated;
- World trade will grow at no more than 5% per annum on average (a low rate compared with the historical record and partly due to the uncertain geopolitical situation in many regions).

Overall, the OBR postulates that current constraints on productivity, real earnings and export growth will persist. Potential productivity growth climbs to only 2% per annum by 2017/18 and – importantly for this analysis – potential employment *growth* is set to decline to 0.2% per annum (not an actual decline in jobs but a slowdown in the growth rate). In the longer-term, output growth is projected at about 2.2% per annum. This is not a high rate compared with UK history or with the UK's international competitors, particularly in emerging economies. The OBR story reflects the damage of adjustment through the long downturn and analysis of 'output gaps' and productivity potential. The OBR currently concludes that ultimately, productivity driven growth in real earnings (not necessarily employment growth) is necessary to sustain the recovery.

Given the uncertainty over any longer-term forecast, the OBR presents a range of likely 'scenarios' (as indicated in Chart 1 above). In the longer-term (beyond 2015), they attach a 40% probability to the long-term central scenario' of 2.2% annual output growth.

In our approach, we assume 2.2% annual growth beyond 2020 based on the above probabilities attached to likely scenarios by the OBR. Given that the OBR projects that employment growth in the latter part of their medium-term projection period 2018/2019 ranges from 0.3%-0.4%, we assume this relationship between output and employment growth remains static in the period beyond 2020. We adopt these two figures as variants on this scenario.

Therefore, we are able to apply these assumptions to the overall approach in this scenario – estimated job growth in East Devon if it were to follow the projected trend at a UK level. This is set out in the table below. We use the current estimated number of workforce jobs (2014) as the starting point.

Table 1 – Average Annual Growth (Scenario 1a)

Assumption	Average annual growth in employment (total jobs)	Average annual growth in employment (FTEs)
Average employment growth per annum (2014-2033) – 0.4% annual long-term growth	273	191
Average employment growth per annum (2014-2033) – 0.3% annual long-term growth	232	162

On this basis, we estimate that annual job growth in East Devon to 2033 could be between 232 and 273 jobs² if it were to follow national employment growth trends. Expressed in terms of Full-Time Equivalents, this would equate to 162 and 191 FTE jobs³.

Scenario 1b: ‘Above trend’ UK employment growth projections:

The above scenario (1a) obviously assumes that East Devon would follow the same employment trend profile as projected nationally. Given that the OBR are relatively sanguine about overall long-term growth – particularly employment growth – then East Devon job growth is also projected to be relatively modest.

However, this initial approach does not take into account the fact that historically East Devon has experienced higher levels of employment growth than at a national level, particularly when overall economic conditions have been favourable. Therefore it may be appropriate to include a scenario that assumes that this ‘positive differential’ will continue to exist over the course of the Local Plan period.

This differs from the forecasts/projections provided by Experian and Cambridge Econometrics (analysed below in scenario 2), and simply takes the national-level OBR forecast and assumes that East Devon job growth will be marginally above that rate.

We concentrate on looking at the differential from an output, rather than an employment perspective, because job estimates at a local level are more volatile than those at a national level. Therefore any comparison between the two sets of data is difficult. Therefore we first concentrate on how East Devon has fared in relative terms regarding overall economic growth.

The difficulty with this approach is that published data on economic growth (GVA) at an East Devon level does not exist. Therefore we have used modelled data from the Experian work to understand historical growth (GVA) in East Devon. We have then compared this to UK GDP growth (see above Chart 2 for a comparison of historical GVA and GDP growth that gives us

² In the context of this report, jobs refer to workforce jobs which include employee jobs, self-employed jobs, government-supported trainees and members of HM armed forces.

³ This is based on a conversion rate of 1 workforce job equating to 0.7 FTE jobs. We have adopted this ratio to be consistent with the factor used in the Experian and Cambridge projections, and it is also broadly consistent with the figure used in guidance.

confidence in comparing the two measurements) to understand East Devon's relative performance.

The data actually shows that between 1998 & 2013 the average annual growth rate in East Devon was 1.5%, compared to average annual UK growth of 2%. Therefore it appears that East Devon has lagged national performance over this time. However, closer analysis of the data shows that it has been estimated that the East Devon economy was much more severely affected by the recession in 2008 & 2009, and this has influenced the relative performance considerably. If we exclude these years from our analysis then average annual growth in East Devon equates to 2.9%, compared to 2.6% at a national level – a positive 'differential' of 0.3 percentage points.

Given that the OBR is forecasting economic growth to expand in the short-to-medium term, then we feel it may be appropriate to assume that this positive differential will exist over our period of analysis. Indeed, analysis of the Experian and Cambridge model output indicate that sets of projections predict that East Devon output growth will exceed forecast national output growth over the medium term. Whilst (according to the latest December 2014 iteration) the OBR forecasts that average annual growth from 2014-2019 would equate to 2.4%, Cambridge Econometrics projects average growth of 2.5% per annum in East Devon and also Experian 2.4%. Post 2019 (to 2025), we have assumed long-run UK trend growth of 2.2% per annum, whilst Cambridge projects annual growth of 2.3% and Experian are slightly more 'bullish' with average annual growth of 2.5%. Therefore, the story over the medium-term – in the period to 2025 – is that the projections for East Devon growth will remain slightly above national trend.

It is fundamental to reiterate though that OBR forecasts only relate to the period to 2019, and beyond that any outlook is highly uncertain. We do not know whether there will be another contraction in output in the period 2019 to 2033 (*in fact given economic cycles there is a reasonable probability that one would occur*). However, for consistency of approach we refer back to our longer-term central forecast scenario that over this period average UK economic growth could equate to 2.2%.

The consequence of this is that this scenario is based – in the same way that the above trend-based scenario does – on the overriding assumption that positive (but relatively muted) economic growth will occur over the whole Local Plan period. In fact, all of the scenarios presented – including both the Experian and Cambridge projections – assume positive growth. Again, it is useful to reiterate that there is a great deal of uncertainty whether this will occur over the longer-term⁴. *There is an inherent risk associated with the assumption that growth will*

⁴ Indeed, based on recent history, it could be likely that if a recession did occur during the Local Plan period then the East Devon economy could suffer more adversely in relative terms.

occur over the whole Local Plan period – a risk that is relevant to all scenarios presented here and the projections provided by external companies.

The next step is to make an assumption about how the positive output growth differential will translate into a positive employment growth differential for East Devon. Given that more ‘aggressive’ employment growth has been projected by both Experian and Cambridge (see below) scenario, then we feel it may be more appropriate that this scenario assumes only a modest differential in East Devon. This is, of course, set in the context of the OBR forecasting relatively weak employment growth beyond 2016 and our longer-term assumption of average growth of 0.3%-0.4% beyond 2019.

We therefore assume that East Devon will have a positive employment growth differential (‘above trend’) of 0.1 percentage points over the course of the Local Plan period. This uplift appears both proportional and appropriately conservative given the longer-term uncertainty.

Therefore, we are able to apply these assumptions to the overall approach in this scenario – estimated job growth in East Devon if it were to follow an ‘above trend’ pattern. This is set out in the below table. We use the current estimated number of workforce jobs (2014) as the starting point.

Table 2 – Average Annual Growth (Scenario 1b)

Assumption	Average annual growth in employment (total jobs)	Average annual growth in employment (FTEs)
Average employment growth per annum (2014-2033) – 0.5% (0.4% + 0.1%) annual long-term growth	334	234
Average employment growth per annum (2014-2033) – 0.4% (0.3% + 0.1%) annual long-term growth	286	200

On this basis, we estimate that annual job growth in East Devon to 2033 could be between 286 and 334 jobs if it were to follow marginally above trend employment growth. Expressed in terms of Full-Time Equivalents, this would equate to 200 and 234 FTE jobs.

Scenario 2: Comparison of Experian and Cambridge Econometrics projections

As part of this technical advice, we have more closely studied economic forecast/projection data relating to East Devon provided by both Cambridge Econometrics and Experian. Experian were commissioned to assist in the development of the modelling required for the SHMA, whilst the

work from Cambridge Econometrics forms part of a wider area profile commissioned by Devon County Council⁵.

Both sets of projections provide output and employment growth modelled results, although over slightly differing periods; the Cambridge work extending to 2025 and the Experian projections going out to 2031.

Estimated job growth figures for East Devon have been extracted from both models and have been reflected in work undertaken by Edge Analytics in 2014 and 2015⁶. A key requirement from EDDC has been to look at the modelled data and to try to reconcile the different outputs.

The Edge Analytics work notes that Experian has advised of a projected job growth level of 302 net new jobs per year over the Local Plan period. The Cambridge Econometrics detailed in the Edge Analytics work recorded a future job growth figure of 437 net new jobs per year (based on the rate of projected job creation in the period 2020-2025 is extended to-2033).

Inevitably, because the modelled projections have been produced by two different companies there will be differences in the approach. These include:

- A slightly different starting point in terms of the estimated number of jobs in East Devon in 2013 i.e. actually located in East Devon and not a residence-based measure. Cambridge used a figure of 55,000, whilst Experian use a figure of 53,590. Any forward projection from, albeit marginally different, starting points will inevitably produce differing results. This difference is acceptable, particularly given that any estimates of jobs in a given area tend to be survey results and are always associated with a confidence interval.
- The models may have been run at slightly different times. Given that national forecasts are now undertaken by the OBR on a twice-yearly basis – and that most sub-national models run off national trend forecasts – then timing becomes important. As shown, forecasts tend to be revised on a regular basis and therefore may affect subsequent model runs. Given that we do not have access to the model inputs from either company, it is not clear to us what national forecasts are used by either company, but we would expect that timing would be a slight issue nevertheless.
- Looking at the data, it is clear that the two models assume slightly different growth rates in the two periods (2013-2020 & 2020-2025) for both output (GVA) and job growth in East Devon. This is to be expected given that the models will be constructed slightly differently. Interestingly, Cambridge are marginally more bullish regarding GVA growth in the period to 2020, whilst Experian are actually

⁵ <http://www.devonomics.info/sites/default/files/documents/East%20Devon%20Area%20Profile.pdf>

⁶ 'Exeter Housing Market Area – Demographic analysis and forecasts' – January 2015

more bullish about job growth over the same period. For the period 2020-2025, their relative outlook is reversed. A comparison of the two – expressed as average annual growth rates – over the two periods is shown in the table below.

All of the above factors will inevitably mean that the job growth projections for East Devon will be different between the two models.

Table 3 – Average Annual Growth rate comparison

	Cambridge Econometrics	Experian
Average annual GVA growth rate (2013-2020)	2.5%	2.4%
Average annual GVA growth rate (2020-2025)	2.3%	2.5%
Average annual job growth rate (2013-2020)	0.9%	1.2%
Average annual job growth rate (2020-2025)	0.9%	0.6%

However, we have found that the major explanation for differences in figures is due to the fact that they record differing interpretations of ‘jobs’. Put simply, the figures relating to Experian are expressed as an average (309) FTEs per annum over the period 2013-2025, whilst the numbers relating to Cambridge relate to workforce jobs (including both full-time and part-time jobs). If the Cambridge figures 441 are expressed as FTEs using the same adjustment ratio as Experian (0.73) then the two annual average figures begin to converge (320). They then form a very narrow range (309 FTEs versus 320 FTEs) for use in the development of the Local Plan.

An important point that needs noting is that both the Cambridge and Experian projections for East Devon were at least made before the last set of UK level forecasts in December 2014 (we believe that the Cambridge work was undertaken in 2013). Growth forecasts at a UK level have since been revised downwards, and it is likely that both Experian and Cambridge projections will reflect slightly more optimistic views of medium-to-long term growth. It is likely that this may affect the strength of growth within East Devon.

Given the fact that there have been downward revisions in the national-level forecasts, it is considered that the more up-to-date, lower Experian projections could carry greater weight. Even then, they will not fully reflect a ‘softening’ of output growth forecasts made by the OBR in its most recent outlook (for example growth for 2018 is now forecast to be 2.3% compared to 2.7% when the OBR made its forecast a year earlier) and therefore should be regarded at the top end of possible job growth.

Finally, the Experian projections – and the average annual figure (309) that is highlighted above – also include a high figure for projected employment growth in 2014 (1,000). It is not clear

why the growth projected for this year is significantly above all others, although it is our expectation that it reflects the strength of forecast of employment growth at a national level. We do now know what the ‘outturn’ has been in terms of job growth in 2014. What it does do though is ‘influence’ the annual average over the Local Plan period. Again, it is another reason why we think that even the Experian projections should be considered the top end of possible ‘policy off’ job growth.

A summary of the estimates relating to each of the above scenarios are presented in the table below.

Table 4 – Average Annual Growth – comparison table

	Average FTE job growth per annum
Scenario 1a: Following national employment growth projections	162 - 191
Scenario 1b: ‘Above trend’ UK employment growth projections	200 - 234
Scenario 2: Comparison of Experian and Cambridge Econometrics projections	309 - 320

‘POLICY ON’ SCENARIO

The ‘policy on’ scenario essentially represents the jobs focused agenda that is being pursued within the District, particularly through the major sites for development in the Exeter and East Devon Growth Point. The above ‘policy off’ scenarios more simply assume that historical trends will largely continue over the short-to-medium term (in that sense ‘policy neutral’ is a better phrase), and do not factor in these planned major developments.

The importance of ‘policy on’ in an East Devon context is largely connected to scale. The proposed developments in the west end of the District are substantial in relative terms, both in terms of existing employment stock and, importantly, compared to growth of that employment stock. Therefore it is necessary to factor in this development-focused growth into our consideration.

As with the ‘policy off’ scenarios, the difficulty remains the uncertainty around the assumptions made. In the ‘policy on’ context, this relates to the speed and timing of the proposed development. Because development will relate to demand, then it is difficult to predict when major elements will be brought forward. In reality, employment space in each of the major sites will come on stream in batches as the demand for that space is demonstrated. Overall, it could be argued that our estimates should be considered at the top-end of likely

scenarios because we effectively assume that each major scheme will be delivered in full over the Local Plan period.

Where information has been made available regarding a timeline of proposed development at a particular site, then we have utilised that information. However, for some sites in the Growth Point, this level of detail was not available and we have assumed a linear delivery of the overall proposed development over the period of our analysis, to 2031⁷. Obviously, this will not reflect how those developments are delivered. However, we feel that this approach is acceptable because we are interested in either the average annual, or total employment growth over the period. The assumption of a 'smooth' linear delivery of that site therefore does not make a difference – given that housing development will not match employment growth on an exact annual basis.

What we do assume is that the scale of the proposed development site is delivered in total over the Local Plan period. Whilst the greatest uncertainty relates to the timing of the development, it is also realistic to recognise that there will also be some uncertainty regarding whether the sites will be delivered fully in the Local Plan period.

Approach

In this initial report, we consider the potential employment growth at three strategic sites in the Growth Point. These are Skypark, Exeter Science Park and the Intermodal Freight Terminal. In total, these developments could equate to approximately 240,000m² of development over the next 20 years.

We have not included the Flybe Training Academy, Exeter International Airport, or the Energy Centre District Heating Network. In terms of the Training Academy and the Energy Centre that they have largely already been developed and currently there are no major further expansions planned – certainly in the context of the overall job projection numbers at an East Devon level any further development would offer modest job levels. In terms of the airport, it is our understanding that whilst the Master Plan published in 2009 set out plans for expansion, developments in the overall aviation market since then (particularly the effects of the recession) has created greater uncertainty (and job losses) regarding the growth agenda. Therefore, we have not included extra jobs (or job losses) in this analysis.

Elsewhere in the Growth Point area there are other sites that are allocated or identified for employment or job generating uses, these include those at Exeter Airport Business Park and associated with residential development at Cranbrook, Thitherbarn Green and in East Devon next to Pinhoe. Jobs at these locations are, however, accounted for as part of the 'policy-off'

⁷ Indeed, we have utilised publicly available data regarding the scale of the proposed development for some sites.

job projection and for the most part will be jobs directly related to new residential development.

Other employment sites elsewhere in the District – outside of the Growth Point - have also not been included. These tend to be much smaller scale and, would accommodate general employment growth in the District i.e. the growth assumed in the 'policy off' scenario.

Finally, we also do not include construction jobs related to the development of the sites in the Growth Point. We would consider these temporary and it could be argued there would be a risk to associate these with permanent housing demand⁸.

Our approach to estimating the number of gross jobs is largely based on combining the proposed scale of development with typical employment densities⁹. We make an adjustment to the overall development footprint to translate it into Net Internal Area (NIA) and then make an assumption regarding typical occupancy at any one time. The specific assumptions that we make for the strategic sites are noted below.

- We have made an assumption regarding possible development start dates i.e. for the Science Park we assume that employment space will largely begin to come available to prospective tenants in 2015. For the intermodal freight terminal, we recognise that there is some uncertainty since the withdrawal of Sainsbury's interest from the site, and therefore assume that no development will take place before 2018.
- For those sites that have provided a breakdown of development/building type we have used that information. For those sites where no such detail exists, we assume that the major provision will be 'office' type development.
- In terms of employment density, for this office development we use a 'General Office' employment density of 1 FTE per 12m². For industrial type development, we adopt a 'Light Industry' density of 1 FTE per 47m², and for 'other' (given knowledge of the sites) we assume this relates to large-scale warehousing which equates to 1 FTE per 80m².
- Again using recognised guidance¹⁰ we convert overall gross external area into net internal area (the lettable or usable space) using a ratio of 80% for offices and 90% for all other uses.
- We assume that there would be a typical occupancy of 70% at any one time. We understand that this will differ according to site and building, but we felt an appropriately conservative approach to recognise that it is unlikely full occupancy

⁸ We recognise that the Tym's work did include construction jobs in its consideration

⁹ 'Employment Densities Guide – 2nd Edition 2010' – OffPAT and Homes and Communities Agency

¹⁰ 'RICS Code of Measuring Practice (6th Edition)'

will be achieved at all times. It may also be appropriate to include a relatively conservative occupancy rate given that we need to consider the impact on demand given economic cycles.

- We are then able to estimate the number of gross FTE jobs that could be supported by the proposed scale of development. We then convert this to workforce jobs (i.e. full-time and part-time) using the factor used above – assuming that 1 FTE equates to 0.7 workforce job.

Our estimates of the total number of jobs in the period 2013-2031 are shown in the table below.

Table 5 – Total jobs (Policy On scenario)

Estimated total gross FTE jobs (2013-2031)	7,251
Estimated annual average gross FTE jobs (2013-2031)	382
Estimated total gross workforce jobs (2013-2031)	10,151
Estimated annual average gross workforce jobs (2013-2031)	534

The period from the start of 2013 to the end of 2031 is 19 years.

If we compare the estimates to the figures contained in the earlier Roger Tym work (see below), the estimate following our approach is marginally lower than the estimates contained in the Tym report. Over the Local Plan period, the Roger Tym work estimates that the three strategic sites could create 10,990 jobs (or 7,693 FTEs). Therefore we take some reassurance that the estimates are within a relatively narrow range.

One of the key issues is to understand what proportion of the projected ‘policy on’ job creation also represents some of the ‘policy off’ normal trend growth projections. That is, some of the jobs that will be created in the Growth Point sites in East Devon may simply be as a consequence of general favourable economic conditions and represent expansion by new or existing businesses in the district. We would assume that this growth is already captured in the ‘policy off’ projections outlined in the earlier section.

Obviously this is a very difficult question to address, and there is a large amount of uncertainty around converting these gross ‘policy on’ job projections to net ‘policy on’ estimates.

Previous work provided by Roger Tym & Partners for Exeter City Council and the Exeter and Heart of Devon Employment & Skills Board¹¹ assumed a ratio of 70% for gross-to-net job

¹¹ ‘New Growth Point – Employment and Skills Project’ – Roger Tym & Partners – June 2011

projection in the growth Point. This ratio was based on comparing overall job projection for the Exeter Travel-to-Work (TTW) area provided by Cambridge Econometrics set against estimated job creation in the Growth Point developments. Where the latter exceeded the former, it was assumed that these jobs would be simply displaced from elsewhere in the TTW area.

The assumption that we have used slightly differs from the ratio used in the Roger Tym work. Alternatively, we use published guidance taken from evidence from evaluations of economic development projects to inform the net adjustment. We have applied a ratio of 63% based on the following two sources:

- Research published by the Department of Business, Innovation & Skills (BIS) that utilised the large-scale evaluation programme looking at the impact of Regional Development Agencies¹². Based on 41 evaluations that met the required quality criteria, the average (median) level of displacement at a sub-regional level found in physical build projects was estimated to be 37%
- Additionality guidance produced by the Homes & Community Agency highlights previous evaluation evidence from the now defunct City Challenge programme. This shows that at a district-level the average level of displacement for a development project equated to 38%.

Therefore, there is some reassurance that these two sources broadly corroborate each other. We are also reassured that they also broadly fit with the ratio used in the Roger Tym work; given the uncertainty in such an exercise we feel they are in a similar range. We have adopted the larger adjustment to, again, be appropriately conservative in our approach. We do recognise the implications that this may have in any subsequent modelling work.

In effect, this exercise is identifying the number of jobs that could be created through Growth Point developments that are over and above those identified in the 'policy off' trend projections. Displacement normally refers to those existing jobs that may be displaced by activity moving into the area. In the context of this work the concept refers to the displacement of future jobs. It is important to recognise the slight difference. We reiterate that this is a highly uncertain exercise, but do recognise that many of these strategic sites are aiming to attract national/international organisations into the Exeter & East Devon area.

Based on this adjustment, we estimate the number of net jobs created through the major strategic sites in the Growth Point could equate to those contained in the below table.

Table 6 – Jobs created – Growth Point strategic sites

¹² 'Research to improve the assessment of additionality' – BIS Occasional Paper No.1 – October 2009

Estimated total net FTE jobs (2013-2031)	4,568
Estimated annual average net FTE jobs (2013-2031)	240
Estimated total net workforce jobs (2013-2031)	6,395
Estimated annual average net workforce jobs (2013-2031)	337

The period from the start of 2013 to the end of 2031 is 19 years.

Conclusion

This report sets out projected future job growth forecasts/projections in East Devon using a number of different approaches. Part of this analysis has been to interpret the job projections for East Devon that have been provided in previous work, and to place them in the context of recent changes in forecasts of growth at a national level.

We have compared the estimates from each approach to understand the possible range of outcomes (this is set out in the below table). Timing is important – given the constantly changing forecast profile at a national level – and it is for this reason why it may be appropriate to adopt the projections provided by Experian, although it is our view that these still represent the top end of possible outcomes. If a more conservative (lower risk) position was to be adopted then the ‘above trend’ OBR scenario could be considered as an alternative.

Table 7 - Average annual job growth – East Devon

	Workforce jobs	FTE jobs
Scenario 1a – Following national employment growth projections	232-273	162-191
Scenario 1b – ‘Above trend’ UK employment growth projections	286-334	200-234
Scenario 2: Comparison of Experian and Cambridge Econometrics projections	423-437	309-320
‘Policy on’ Growth Point	337	240