



EEFM special run for Luton using the Borough's own population & migration estimates



August 2012



Overview

- Oxford Economics have been approached by Luton Borough Council to produce a special run of the East of England Forecasting Model (EEFM), which uses the Council's own population estimates.
- The reason for this is that the Council does not concur with the 2001 Census population estimates, believing that there was a significant undercount of usually resident population estimates. Low response rates to the Census are part of the reason for this divergence from reality.
- In addition, the Council believes that since the 2001 Census, shifts in ethnic proportions (particularly from the EU) mean that the ONS mid-year population estimates for Luton - which in themselves are consistent with the 2001 Census and which are used in the EEFM - no longer provide a realistic picture of the demographic profile of the Borough.
- The following report provides some headline comparisons for the Luton economy between ONS mid-year population estimates with the data provided by the Council. All analysis is conducted from 2002 onwards which is the first year of data provided by the Council.

Overview (continued)

- It draws out comparisons between the EEFM baseline and the Luton ‘special run’ baseline both historically and over the future.
- Oxford Economics have also been asked to provide revised outlooks for each of the two scenarios provided within the EEFM contract (lost decade and high migration scenarios). We have not provided any commentary in relation to these scenarios. However summary charts are provided in the Annex showing the impacts under each scenario.
- A full dataset for each scenario (including the revised baseline) has been provided to the Council alongside this report.
- For further details of UK and regional assumptions which underpin the forecasts, please see the EEFM main report.

Assumptions undertaken in this analysis

Baseline assumptions

- The key changes which Oxford Economics have been asked to make have been to simply use the Council's own estimates of population and migration in this 'special run' of the Model.
- Population (total, working age, young and elderly) has been adjusted over the period 2002-10 using the Council's own data. Migration and natural increase estimates during the same period have also been used in this analysis.
- Since no other alternative data has been provided, Oxford Economics have retained all other indicators as per the existing data sources used in the model. For example, workplace based employment estimates are still derived from BRES data, unemployment estimates are still derived from Claimant Count, etc.
- It is worth noting, that resident employment levels continue to be adjusted to 2001 Census estimates, despite the Council's reservations around the accuracy of the 2001 Census population data. Resident employment levels are estimated by taking LFS employment rates (adjusted to the Census in 2001) and applying this to the population of all people aged 16-74 (for which we have an alternative estimate from the Council). As population levels are higher under this revised EEFM baseline, resident employment rates are consequently lower with the same level of resident based jobs.

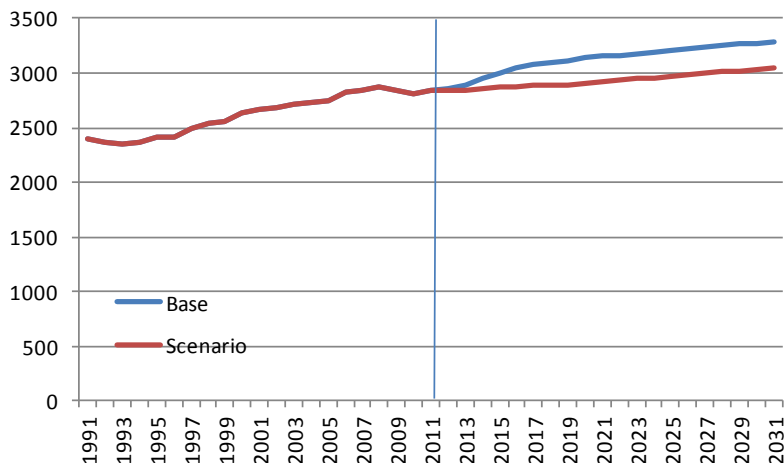
Recap of 'lost decade' scenario assumptions

Annual average GVA growth in East and UK, 2012-17

	East	UK
Base	2.7%	2.4%
Scenario	1.7%	1.4%

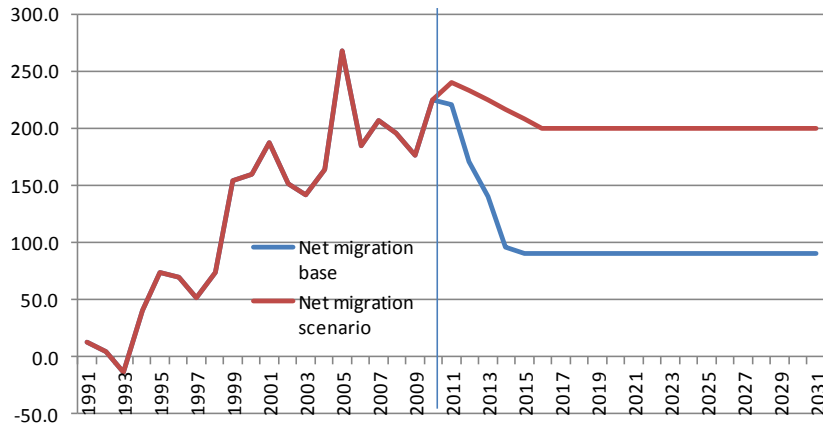
- The core assumption which underpins the lost decade scenario is that the UK economy will endure continued sluggish economic growth over the next 5 years.
- The rationale for this assumption is a deeper impact from the public spending cuts and a more drawn out recovery as a result of the knock-on impacts from the struggling economies in the Eurozone.
- In particular, we have assumed that economic growth in the UK over the period 2012-17 will be 1.4% per annum. This compares with baseline growth of 2.4% per annum.
- Consequently, jobs growth is slower under the lost decade scenario.
- Over the period 2011-31, we estimate that total jobs growth in the East of around 203,500 jobs in the lost decade scenario, compared with 445,800 jobs growth in the baseline outlook.
- Further details about the assumptions applied in the scenario may be found the EEFM Main Report.

East employment growth, base & scenario

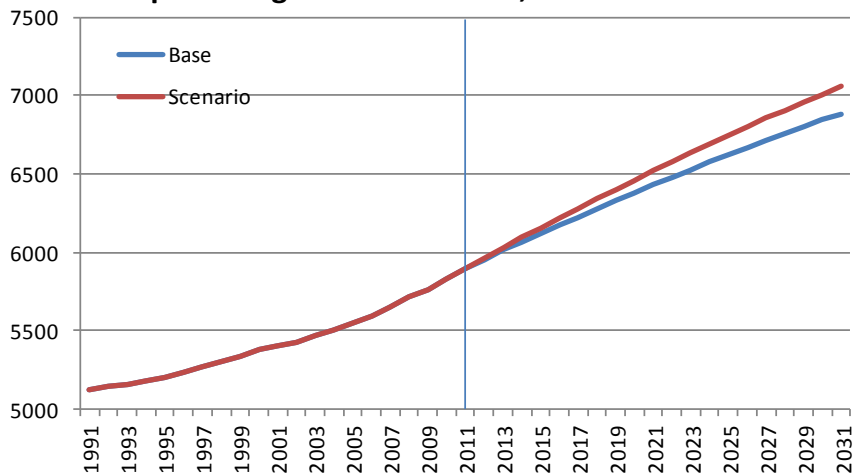


Recap of 'high migration' scenario assumptions

Net migration UK, base & scenario



Population growth in the East, base & scenario

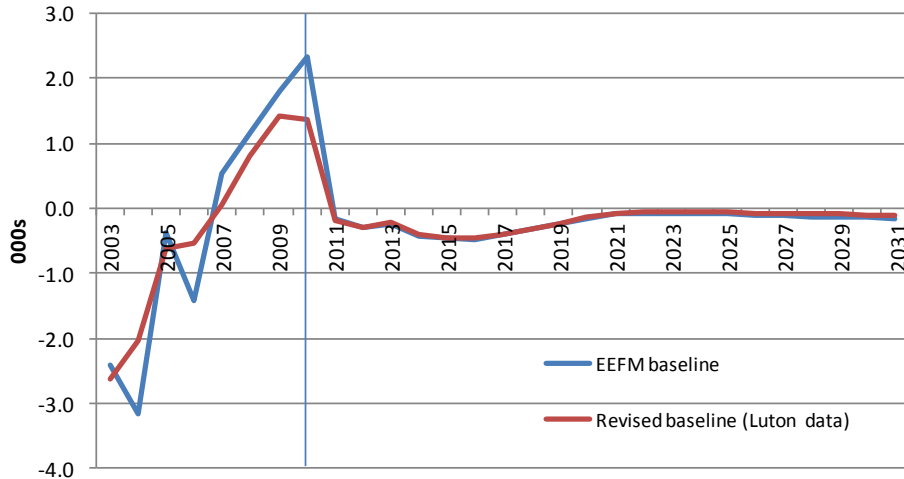


- The core assumption which underpins the migration scenario is that the number of net migration inflows into the UK will match that of the ONS 2010 based official projections.
- Specifically, this means that net migration from 2016 onwards will be 200,000 net inflows per annum in contrast with the OE baseline assumption of 90,000 net inflow per annum.
- Consequently, the level of population in the UK, and therefore the East region will be higher throughout the forecast period.
- Consequently, population in the East is higher than the baseline by 174,000 by 2031. This represents around 8.1% of the additional population in the UK in this scenario.
- Further details about the assumptions applied in the scenario may be found the EEFM Main Report.

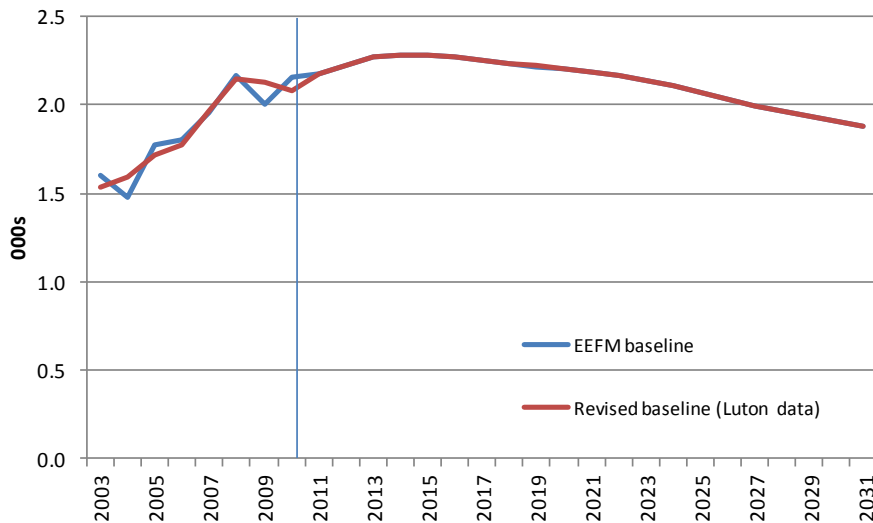
Comparing the outlooks: EEFM baseline vs. EEFM Luton 'special run'

Demographic impacts – migration & natural increase

Net migration, Luton



Natural increase, Luton



- Over the period 2002-10, the Council's estimates of net migration and natural increase were broadly consistent with the ONS estimates. Despite lower migration levels since 2007, this is balanced out by higher levels in earlier years.
- Consequently, our forecast of annual net migration in Luton remains similar to the EEFM baseline.
- Migration is forecast to remain low because of higher unemployment rates in Luton relative to the wider region, which deters migrants from moving in (because of fewer jobs opportunities). Further pressures from high house prices will also suppress migration over the future.
- In 2010, natural increase in Luton is lower than the ONS estimate by around 100 people (prior to this Council estimates were close to the ONS data).
- Natural increase forecasts are linked to the official projections produced by the ONS, and therefore assume similar trends in birth and death rates. As such, natural increase remains the same as it was in the EEFM baseline.

Demographic impacts – population

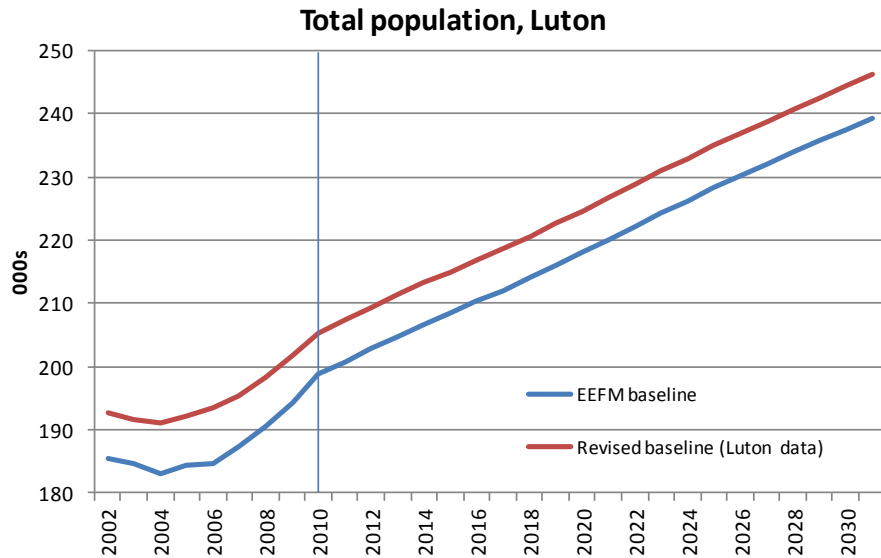


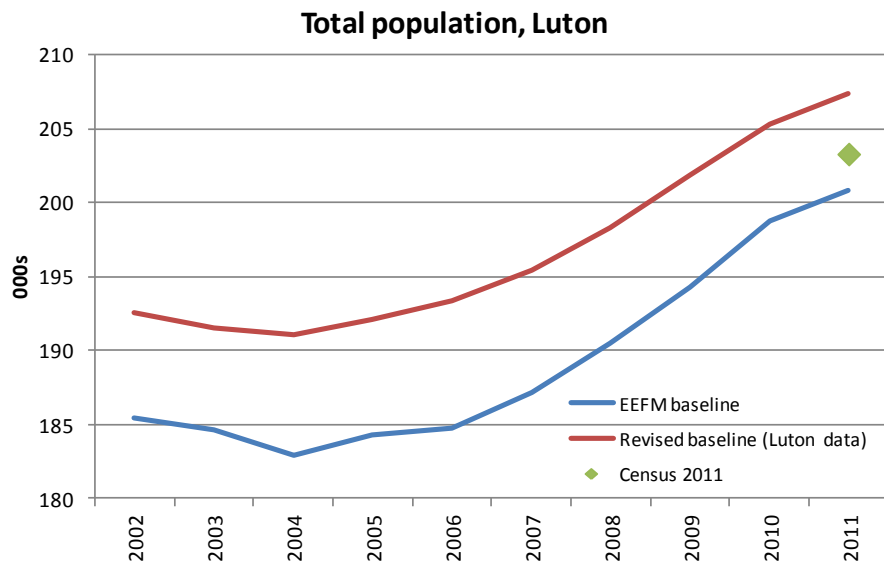
Table: Summary of population differences, 2010

	ONS (000s)	Luton Borough (000s)	Difference (000s)
Population total	198.8	205.3	6.5
Young	44.2	46.3	2.1
Working age	126.2	135.6	9.4
Elderly	28.5	23.4	-5.1
Migration (avg 2002-10)	-0.4	-0.5	-0.1
Natural increase (avg 2002-10)	1.8	1.8	0.0

Source: ONS, Luton Borough Council

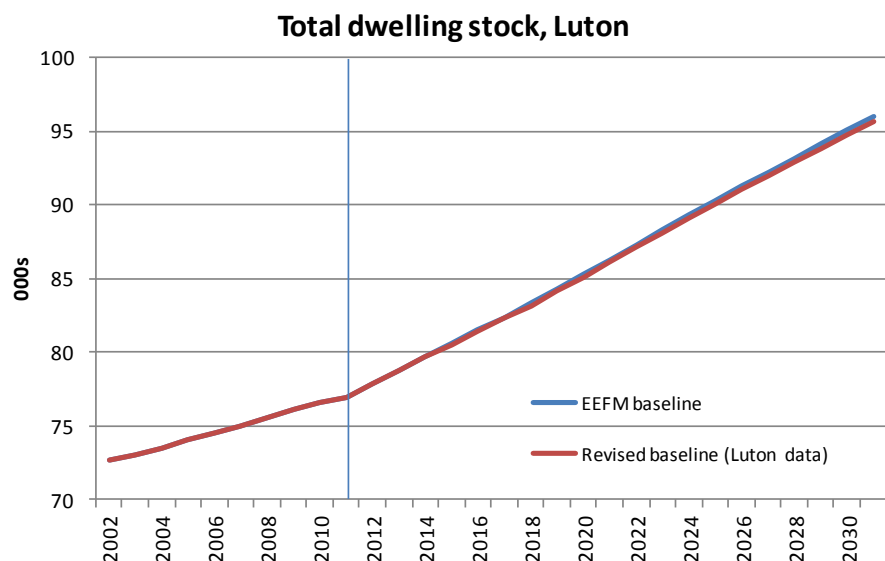
- The key factor which underpins this analysis is that total population in Luton was higher than estimated in the 2001 Census. Since then, the Council has produced its own estimates of population which have been consistently higher than the ONS mid-year population estimates, which in themselves are aligned with the 2001 Census.
- By 2010, the Council estimates that the total level of population in Luton was 205,300 people, some 6,500 people higher than the ONS mid-year estimate.
- As migration and natural increase levels are projected at similar levels to the EEFM baseline, the total level of population remains consistently higher throughout the forecast period. By 2031, total population is higher than the EEFM baseline by 7,000 people.

Where the 2011 Census estimate fits in with this analysis



- The 2011 Census was published on the 16th July 2012, showing that the total level of population in Luton was 203,200 people.
- Overall, the Council is happier with this estimate, recognising that there was a better response rate of 93%, compared with an 86% response rate in the 2001 Census.
- This new level of population sits somewhere in between the estimated level of population in 2011 in the EEFM baseline and this 'special run' which incorporated the Council data.
- We have not made any further assumptions which incorporate the 2011 Census results

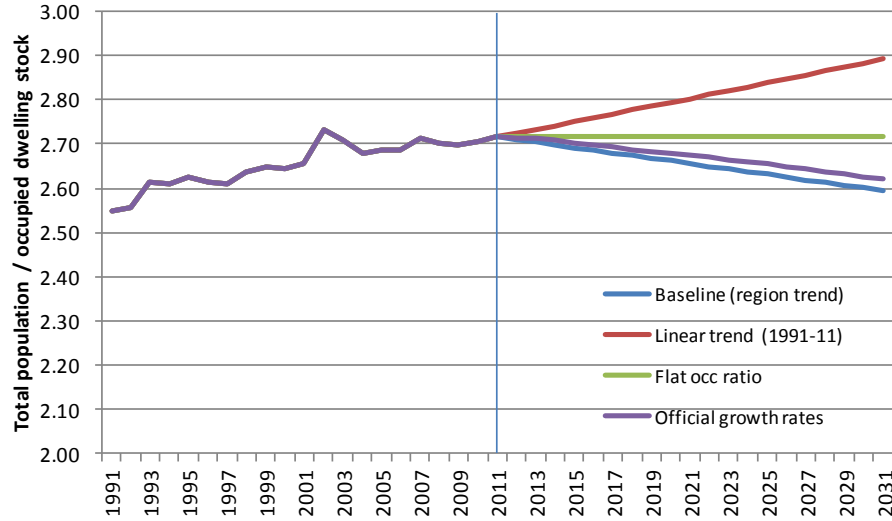
Housing impacts – dwelling stock



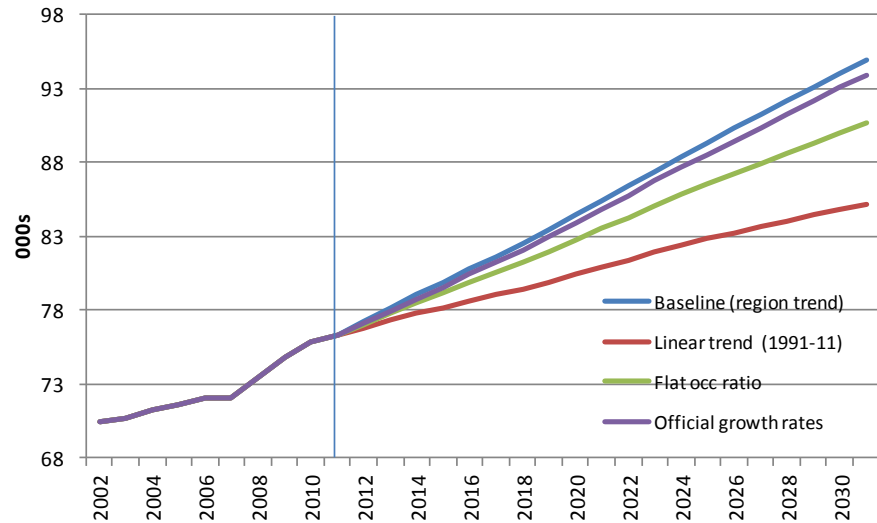
- In the EEFM, occupied dwellings and vacant dwellings are forecast separately and aggregated to give a total dwelling stock forecast.
- Vacant dwellings are projected using vacancy rates, whilst occupied stock is forecast using occupancy ratios and total population.
- As total population is higher than the EEFM baseline in this Luton ‘special run’ baseline, the total level of dwelling stock is therefore lower throughout the forecast period.
- We estimate using Luton figures that total dwelling stock will be lower than the EEFM baseline by 300 dwellings by 2031.

Housing impacts – variant occupancy ratios

Potential variant occupancy ratios, Luton

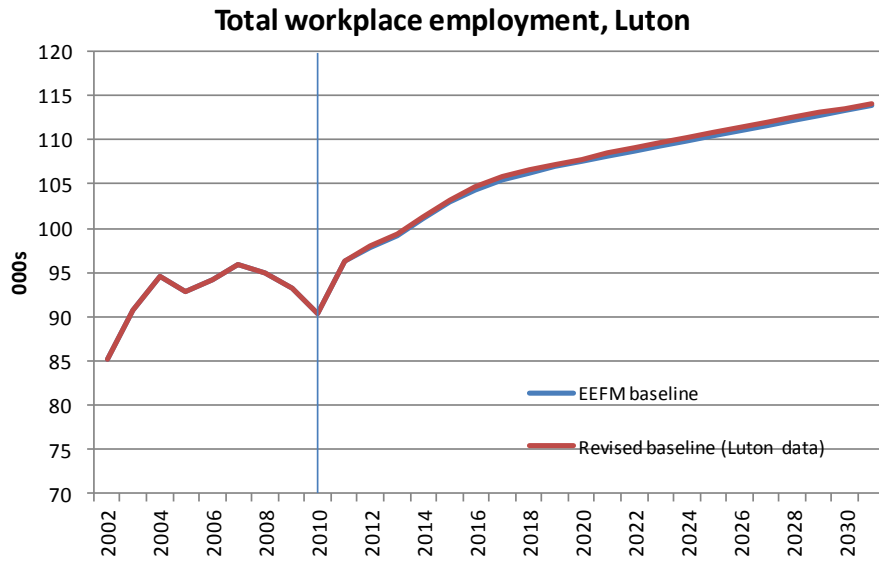


Alternative occupied dwelling stock forecasts, Luton



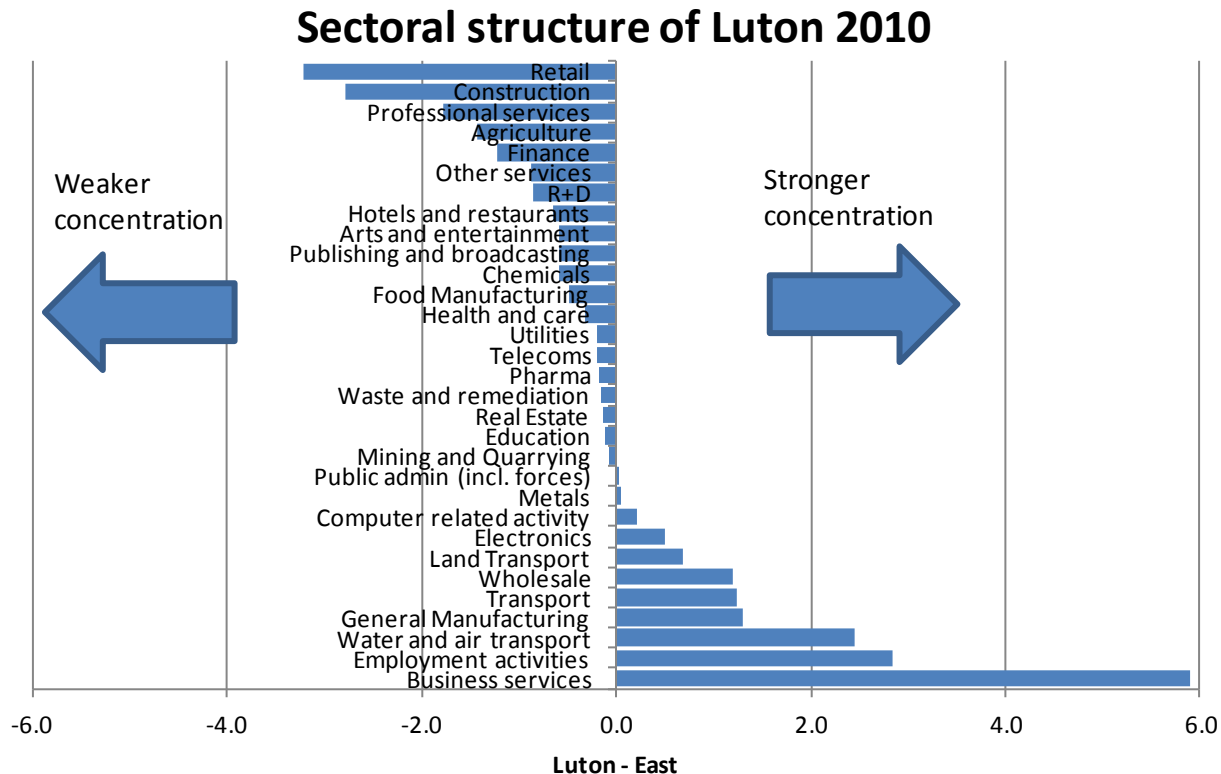
- The EEFM baseline, projects that the occupancy ratios for Luton will fall over the future in line with the wider regional pattern, which has been falling steadily since the early 1990s. In contrast, within the Luton Borough, occupancy ratios have been rising.
- In particular, occupancy ratios have risen rapidly since 2004, which coincides with a period when net in-migration has also increased. Empirical evidence suggests that ethnic migrants tend to live at higher densities. Therefore, recent trends in both occupancy ratios and migration levels support this theory.
- It is worth noting that occupancy ratios are extremely complex and can be difficult to forecast. It is therefore useful to look at variant occupancy ratios which provides a range of potential outcomes for housing demand over the future in Luton.
- In this analysis, we have looked at 4 different occupancy ratio projections – the EEFM baseline which is consistent with the wider regional pattern; a linear trend based on the published data over the period 1991-11; a flat occupancy ratio; and mirroring the growth in the DCLG / ONS official projections.
- These ratios have been applied to the projected population estimate using the Council's population data giving 4 potential alternate outcomes of dwelling stock growth.

Labour market impacts – workplace employment



- As no alternative employment data has been provided by the Council, Oxford Economics have assumed that jobs levels are the same as the EEFM baseline projections.
- Therefore, workplace based jobs estimates are derived from data published in the BRES.
- As population growth between 2011 and 2031 is similar between both runs of the model, the demand for jobs remains broadly similar.
- Subsequently, we forecast jobs growth of 17,800 additional jobs over the period 2011-31, compared with 17,600 jobs estimated in the EEFM baseline.

Labour market impacts – sectoral structure



- The labour market in Luton is sectorally diverse, putting it in a strong position for growth over the future, particularly at a time when UK policy is driven towards export led growth.
- Key sectoral strengths for Luton include business services and employment activities, which are amongst the key growth sectors in the outlook for the UK economy. However, on the downside it has a relatively low concentration of professional services, another one of the key growth sectors for the UK meaning that the Borough will receive proportionately lower growth in this sector.
- Public sector concentrations are broadly on par with the wider region. Whilst the Borough is likely to experience the ramifications of the public spending cuts, it is not likely to be more or less impacted relative to the East region as a whole.

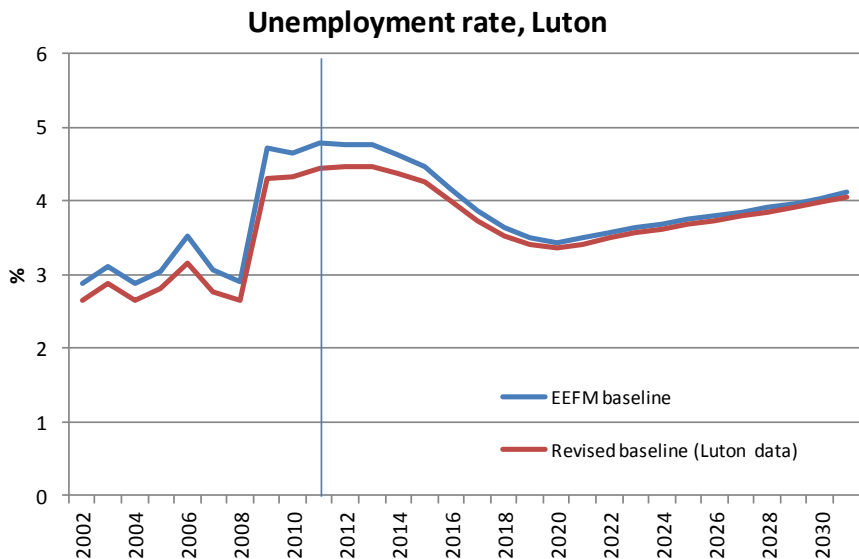
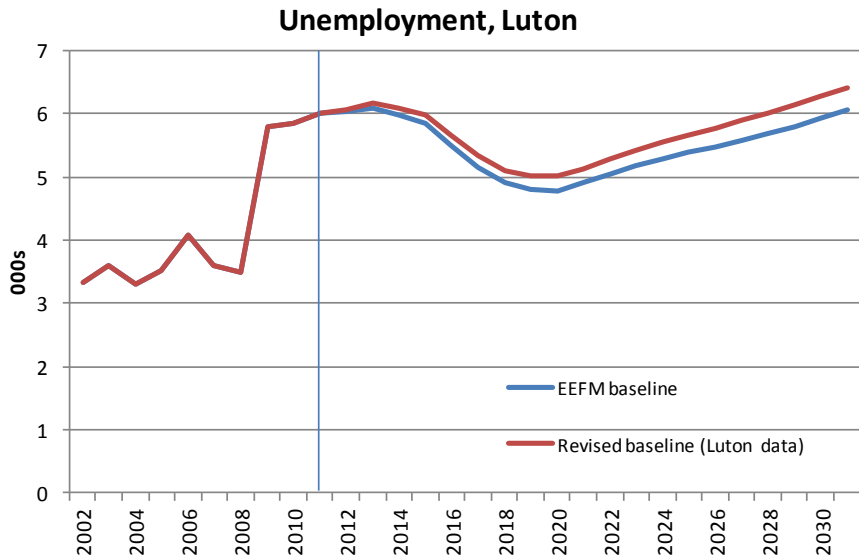
Labour market impacts – sectoral outlook

Table: Sectoral employment growth, 2011-31 (000s)

	EEFM baseline	Revised baseline (Luton data)
Agriculture	0.0	0.0
Mining and Quarrying	0.0	0.0
Food Manufacturing	-0.2	-0.2
General Manufacturing	-1.1	-1.1
Chemicals	-0.2	-0.2
Pharma	0.0	0.0
Metals	-0.3	-0.3
Transport	-1.2	-1.2
Electronics	-0.7	-0.7
Utilities	-0.1	-0.1
Waste and remediation	0.0	0.0
Construction	1.8	1.9
Wholesale	1.0	1.0
Retail	1.6	1.6
Land Transport	2.7	2.7
Water and air transport	0.5	0.5
Hotels and restaurants	0.8	0.8
Publishing and broadcasting	0.0	0.0
Telecoms	0.0	0.0
Computer related activity	0.0	0.0
Finance	0.2	0.2
Real Estate	1.0	1.0
Professional services	3.2	3.3
R+D	0.0	0.0
Business services	4.2	4.3
Employment activities	1.4	1.4
Public admin (incl. forces)	-0.3	-0.3
Education	0.1	0.1
Health and care	1.7	1.8
Arts and entertainment	1.1	1.1
Other services	0.3	0.3
Total	17.6	17.8

- As overall jobs growth remains the same between both runs of the EEFM, the key growth sectors in the outlook for Luton are also similar between runs.
- We forecast that employment activities, professional services, and land transport will be the key sources of growth over the next two decades within the Borough. This is based upon the export-led recovery for the UK economy as a whole.
- The public sector is expected to endure more sluggish growth compared to the previous decade as public sector cuts will take effect. The health sector is still forecast to enjoy growth as elements of the NHS will be protected under the spending cuts agenda. Furthermore, there are elements of this sector which are privately provided (e.g. nursing homes, private dental care, etc). Indeed, there is scope for a shift from publicly provided health services becoming private services in the same way that elements of the manufacturing sector where outsourced to business services (e.g. accounting) during the 1990s.

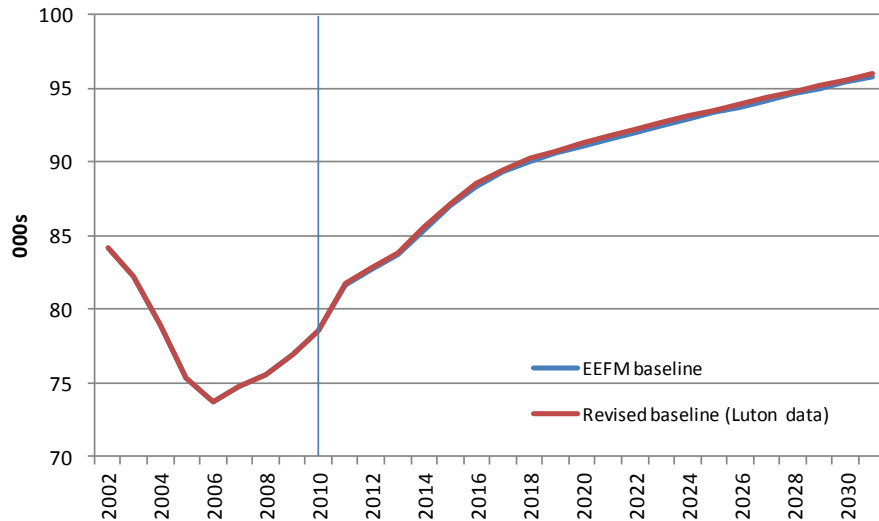
Labour market impacts – unemployment



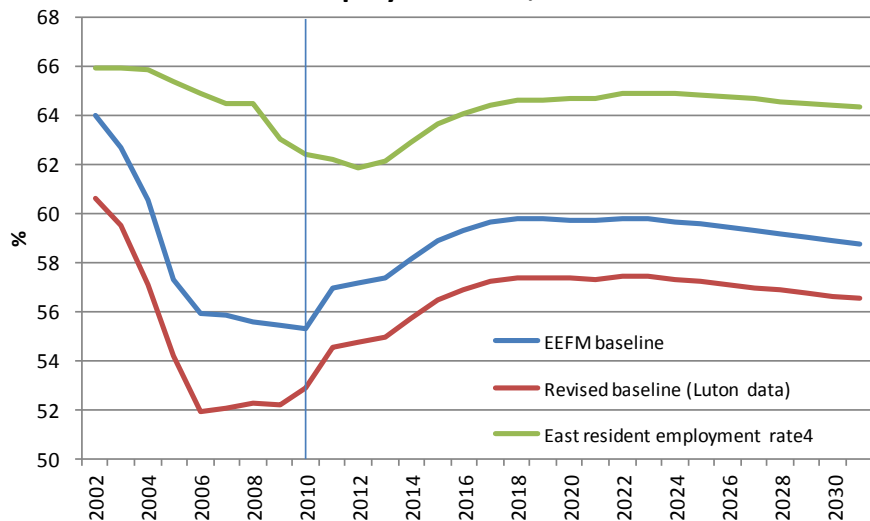
- Unemployment data used in the EEFM continues to be sourced from the Claimant Count as it was in the EEFM baseline and is therefore unchanged.
- However, with higher population levels in this ‘special run’ of the model, the unemployment rate is lower than reported in the EEFM baseline.
- Unemployment levels in Luton increased during the recession, as was the case throughout the UK. By 2011, unemployment increased to a level last observed in 1996.
- We forecast that unemployment will continue to rise and remain higher over the next few years as the UK economy struggles to enter a period of sustained recovery. This is due to the continued impact of the public spending cuts, and to a greater extent the knock-on impacts from the struggling Eurozone which the UK has strong trade linkages with.
- By 2014/15, we forecast unemployment levels to start to fall as the recovery gathers pace. However we do not expect that unemployment will return to its historic lows, and indeed we expect it to rise again beyond 2020 as population growth outpaces jobs growth.

Labour market impacts – resident employment

Resident employment, Luton

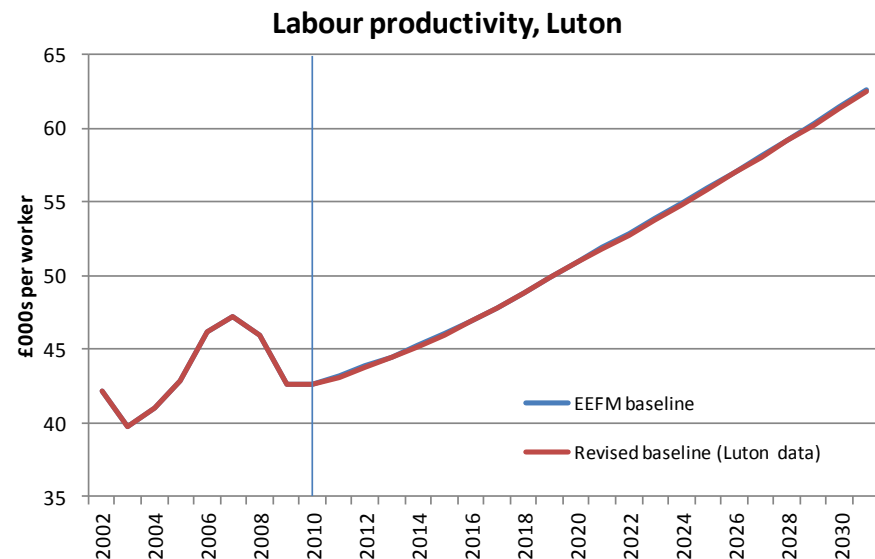
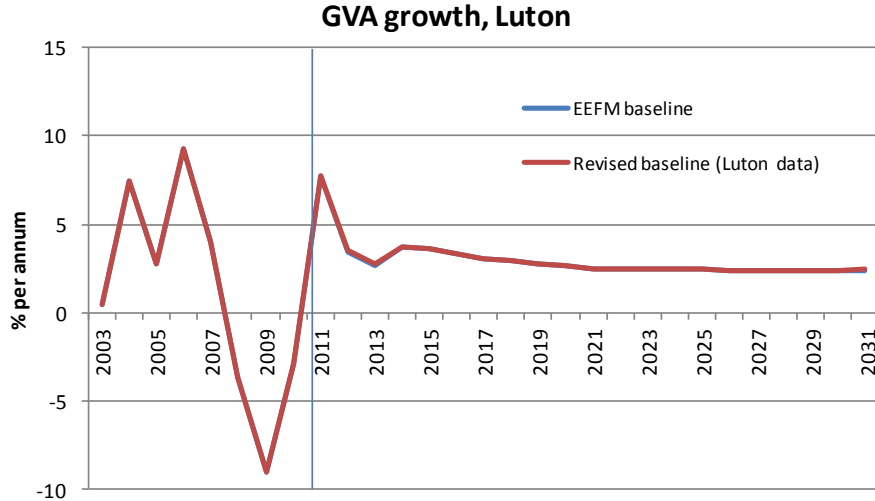


Resident employment rate, Luton & East



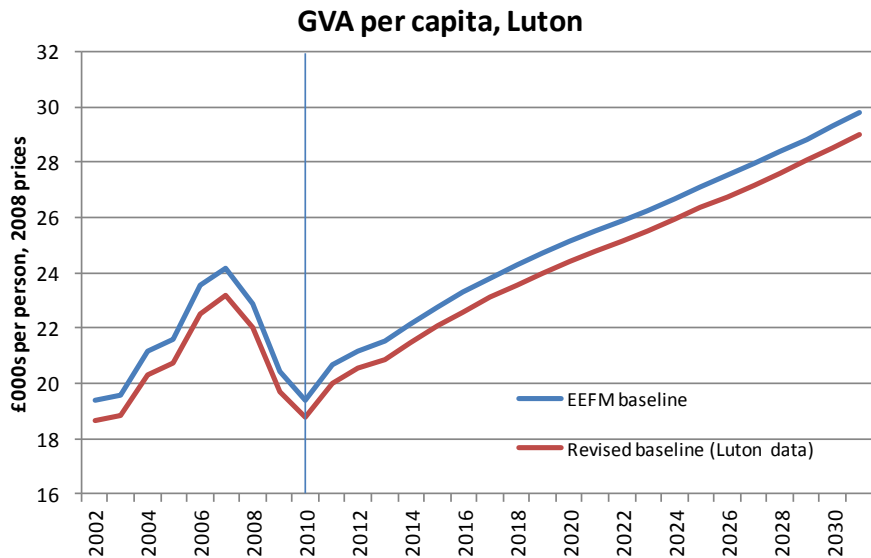
- Resident employment levels in the EEFM are consistent with 2001 Census estimates. Luton Borough Council do not hold any alternate views on resident employment levels in the same way as for population. As such the number of Luton residents which are employed remains the same in the EEFM baseline and the Luton ‘special run’ of the Model.
- As population is assumed to be higher, this pushes resident employment levels down. In 2002, the revised resident employment rate is 3.4 percentage points lower than the EEFM baseline, narrowing to a gap of 2.4 percentage points by 2010.
- We forecast resident employment rates to rise over the next decade, falling marginally post 2022 as population continues to grow at a faster rate than jobs creation.

Economic impacts – GVA growth & productivity



- Since jobs growth remains relatively similar to the EEFM baseline, the overall impact on GVA is virtually unchanged between both model runs (growth rates will differ by a couple of hundredths of a percent).
- Since there is no published data for GVA for local authorities, this is estimated by Oxford Economics. We estimate that the Luton economy contracted by 9% in 2009, followed by a fall in 2010 of 2.9%. These estimates are based upon local labour market changes by sector and in the wider regional sectoral growth patterns.
- Productivity is projected to enjoy strong growth throughout the forecast. Subsequently, economic growth is forecast to remain positive throughout the forecast in Luton with average annual GVA growth of 2.7% per annum over the period 2011-31.

Economic impacts – GVA per capita



- GVA per capita (or per head of the population) is a commonly used indicator of wealth.
- It is worth noting that GVA is a workplace based measure, whilst population is a residence based measure. As such, this indicator should be interpreted with caution.
- As population levels are higher according to the Council data, GVA per capita is therefore lower both historically and throughout the forecast.
- In 2010, we estimate GVA per capita in Luton to be £18,800 per person, in 2008 constant prices. This compares with £19,400 per person in the EEFM baseline.
- We forecast this disparity to remain constant throughout the forecast. By 2031, GVA per capita is estimated to be £29,000 per person in this 'special run' of the EEFM.

Conclusions

Conclusions

- The key focus of this study was to replace ONS population data with estimates produced by Luton Borough Council.
- Overall, population levels are estimated to be higher than the EEFM baseline by around 6,500 in 2010. However, higher unemployment rates and house prices in the Borough mean that migration levels over the future are projected to remain low. We forecast that population will grow by 38,900 people over the period 2011-31. The associated demand for dwellings from the additional population is for 18,700 additional dwellings.
- In addition, workplace based employment is forecast to increase by 17,800 jobs with the majority of jobs focussed within the employment activities, professional services and land transport sectors.
- Furthermore, we estimate that economic growth in GVA in Luton at an average rate of 2.7% per annum over the period 2011-31.

Contact information

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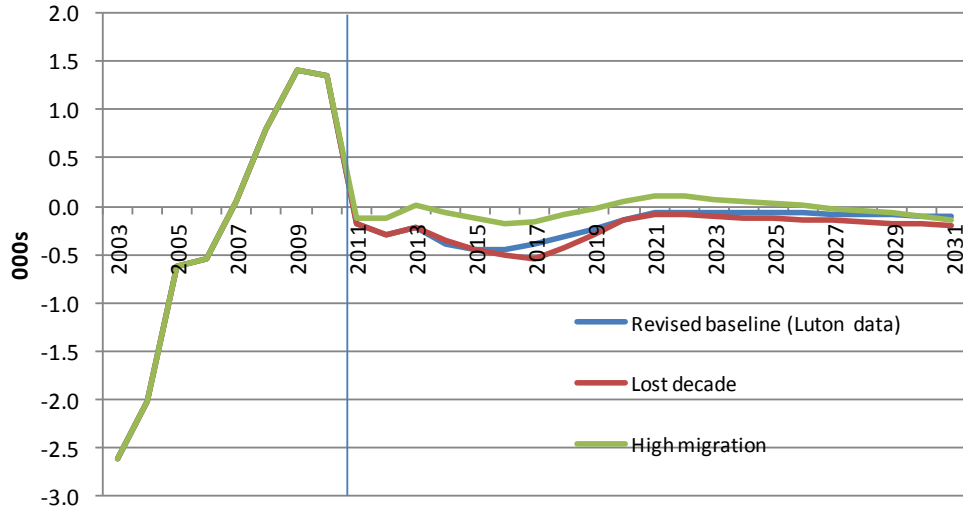
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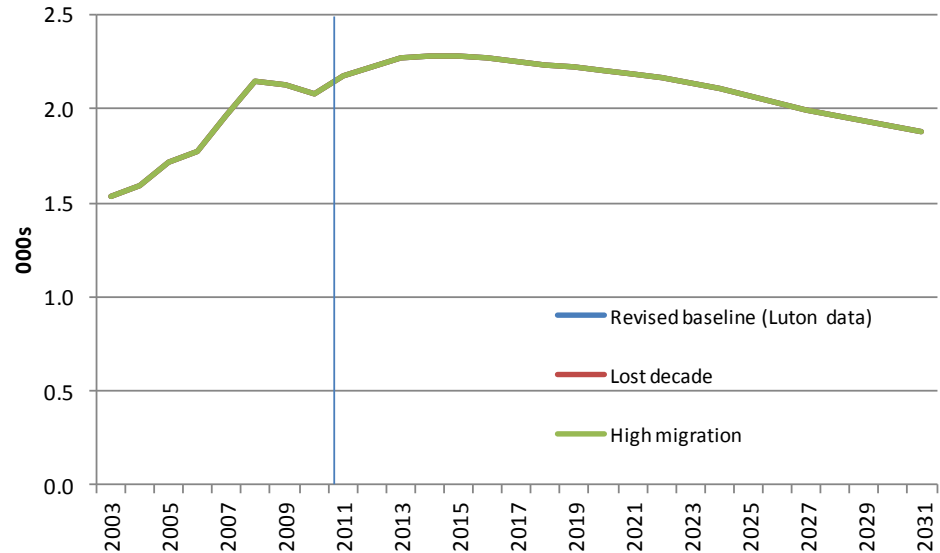
Annex A: Summary scenario charts

Demography – migration & natural increase

Net migration, Luton

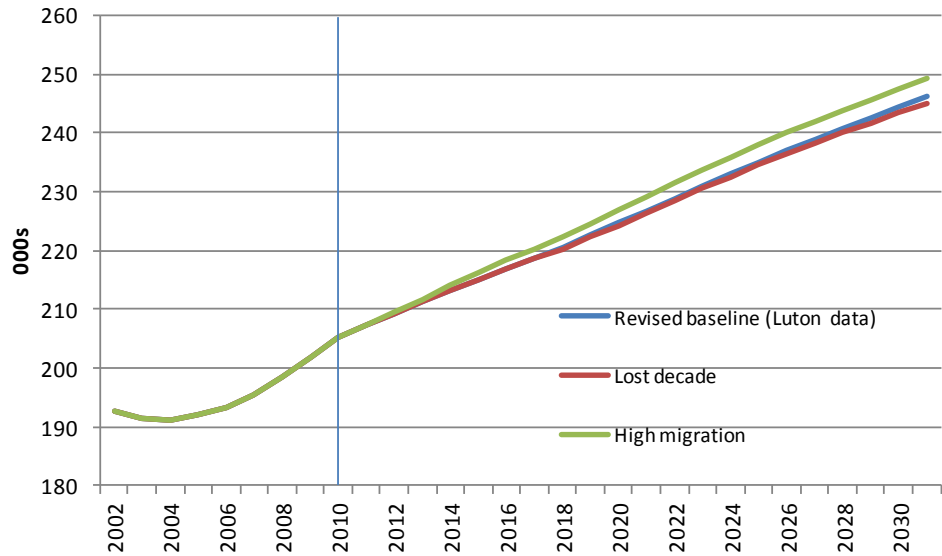


Natural increase, Luton

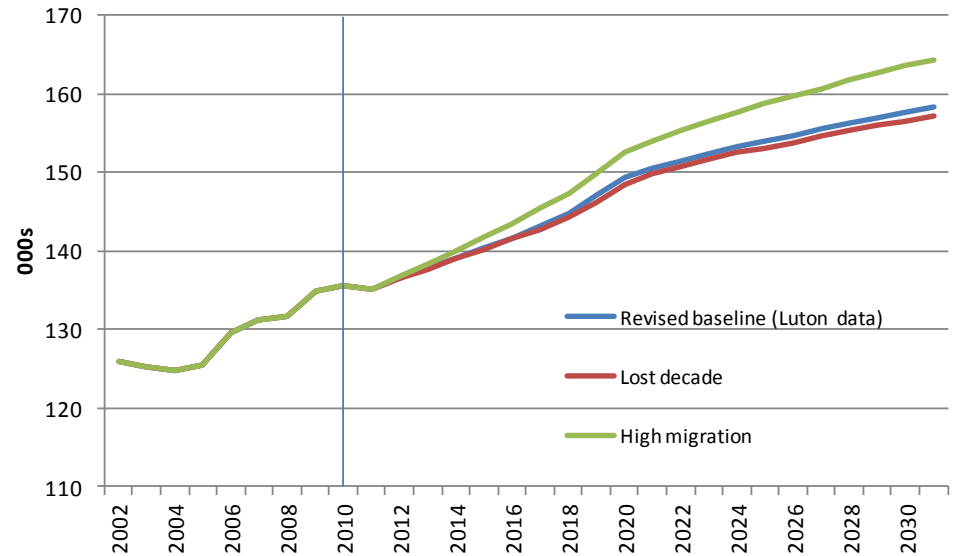


Demography – population (total & working age)

Total population, Luton

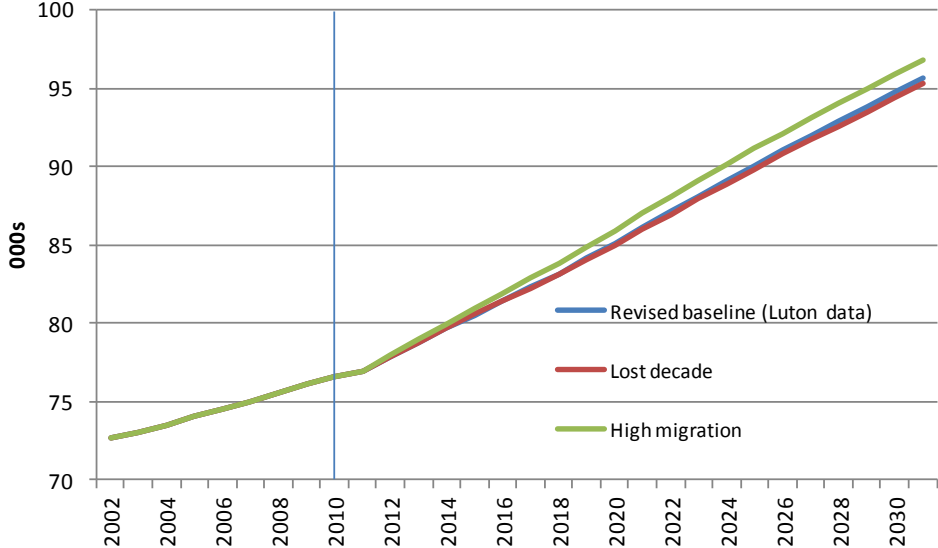


Working age population, Luton

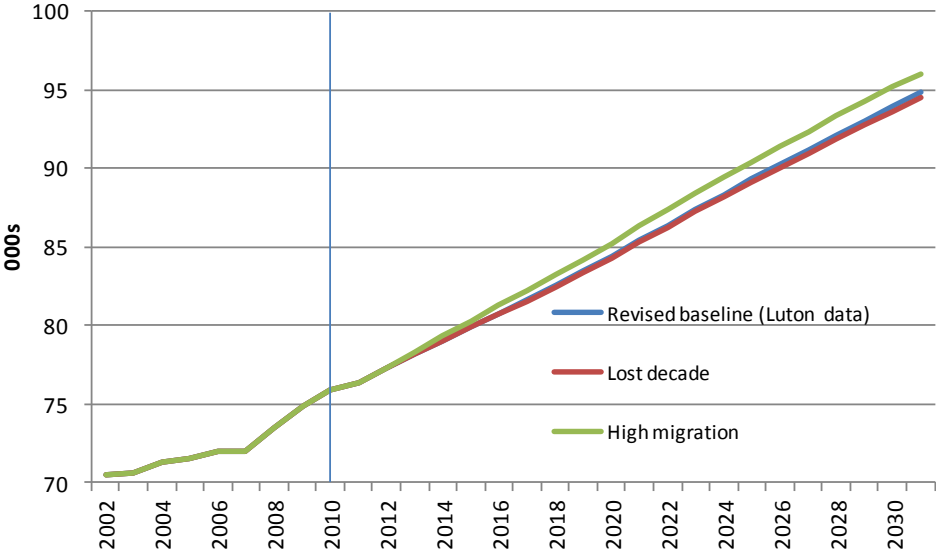


Housing – dwelling stock (total & occupied)

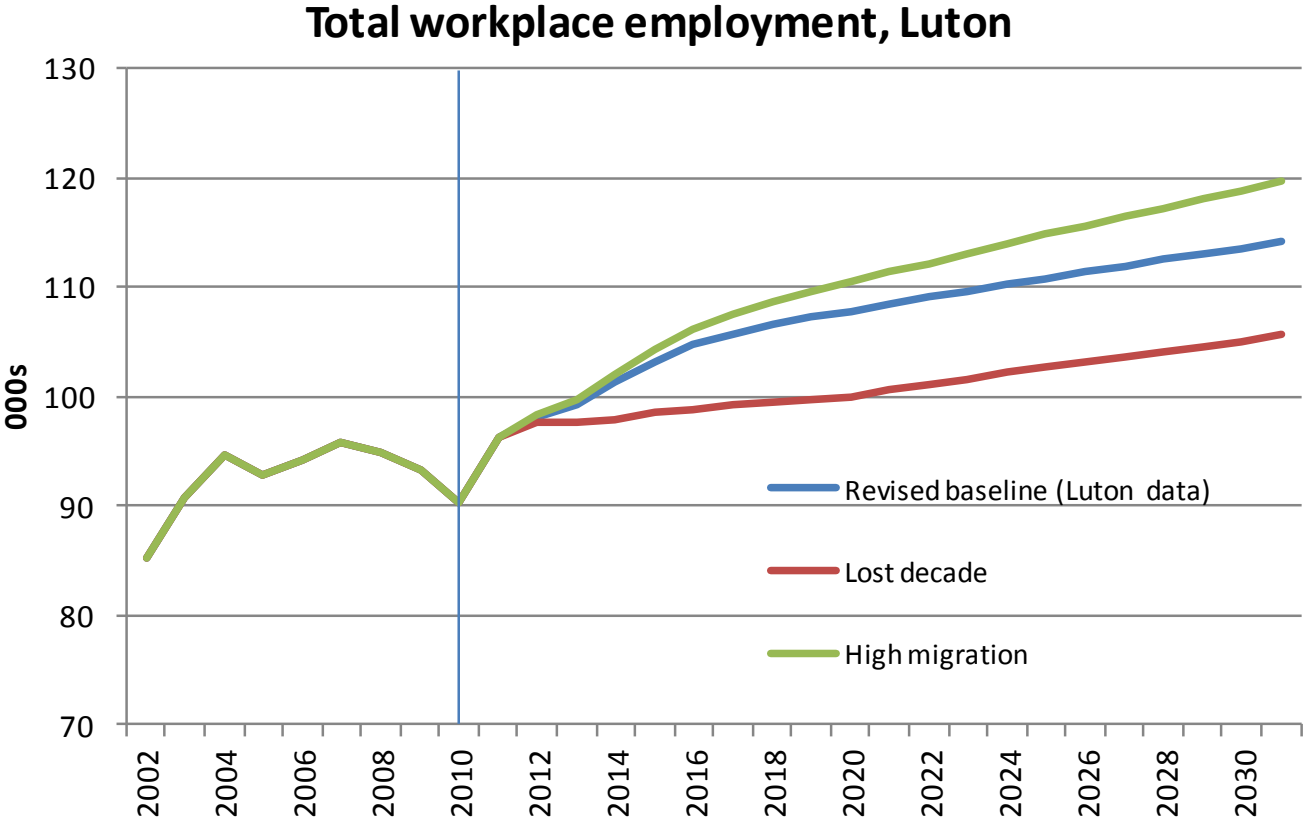
Total dwelling stock, Luton



Occupied dwelling stock, Luton



Labour market – total workplace employment



Labour market – sectoral employment

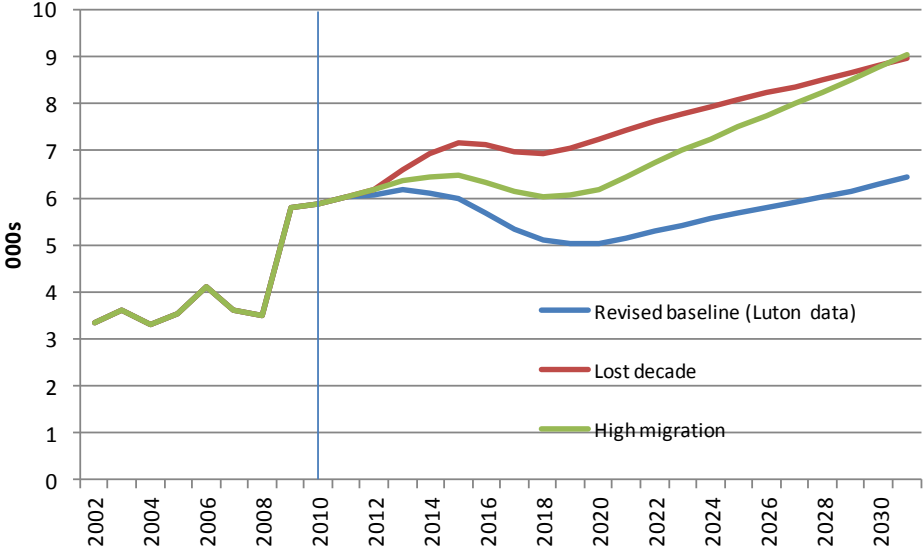
Table: Sectoral employment growth, 2011-31 (000s)

	EEFM baseline	Revised baseline (Luton data)	Lost decade	High migration
Agriculture	0.0	0.0	0.0	0.0
Mining and Quarrying	0.0	0.0	0.0	0.0
Food Manufacturing	-0.2	-0.2	-0.2	-0.2
General Manufacturing	-1.1	-1.1	-1.2	-1.0
Chemicals	-0.2	-0.2	-0.2	-0.2
Pharma	0.0	0.0	0.0	0.0
Metals	-0.3	-0.3	-0.4	-0.3
Transport	-1.2	-1.2	-1.4	-1.1
Electronics	-0.7	-0.7	-0.8	-0.6
Utilities	-0.1	-0.1	-0.1	-0.1
Waste and remediation	0.0	0.0	0.0	0.0
Construction	1.8	1.9	1.4	2.2
Wholesale	1.0	1.0	0.4	1.4
Retail	1.6	1.6	0.8	2.2
Land Transport	2.7	2.7	2.1	3.1
Water and air transport	0.5	0.5	0.3	0.7
Hotels and restaurants	0.8	0.8	0.4	1.1
Publishing and broadcasting	0.0	0.0	0.0	0.0
Telecoms	0.0	0.0	0.0	0.1
Computer related activity	0.0	0.0	-0.1	0.1
Finance	0.2	0.2	0.1	0.3
Real Estate	1.0	1.0	0.8	1.1
Professional services	3.2	3.3	2.6	3.7
R+D	0.0	0.0	0.0	0.0
Business services	4.2	4.3	3.3	4.9
Employment activities	1.4	1.4	1.1	1.6
Public admin (incl. forces)	-0.3	-0.3	-0.5	-0.1
Education	0.1	0.1	-0.6	0.5
Health and care	1.7	1.8	0.7	2.4
Arts and entertainment	1.1	1.1	0.8	1.3
Other services	0.3	0.3	0.1	0.4
Total	17.6	17.8	9.2	23.4

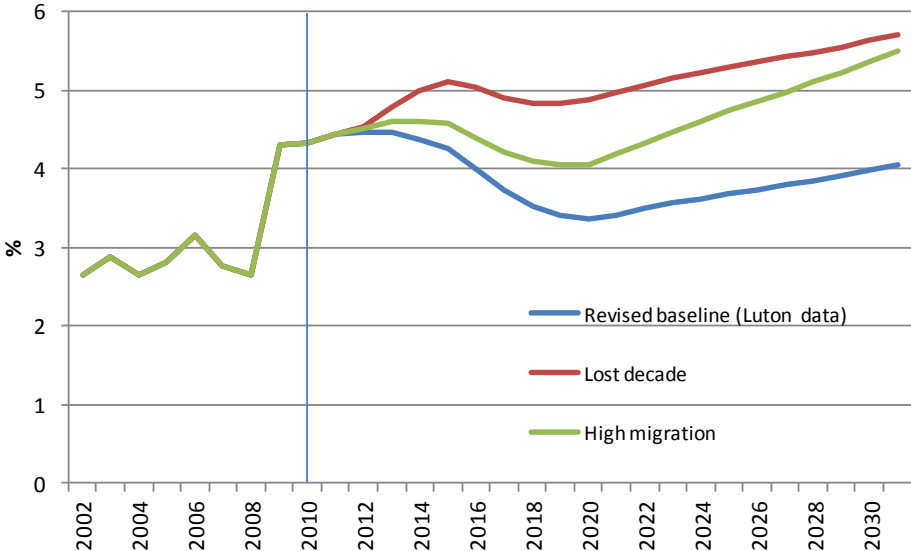
Source: EEFM, Oxford Economics

Labour market - unemployment

Unemployment, Luton

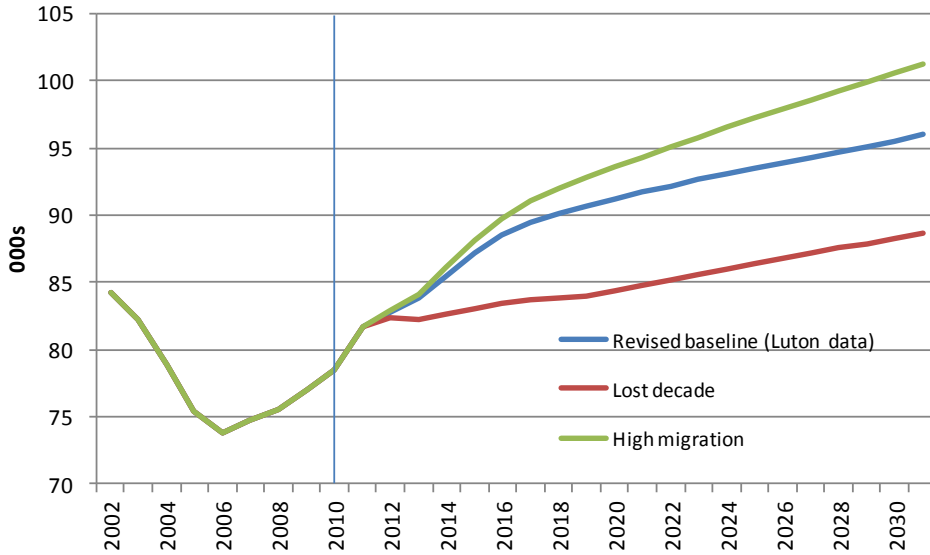


Unemployment rate, Luton

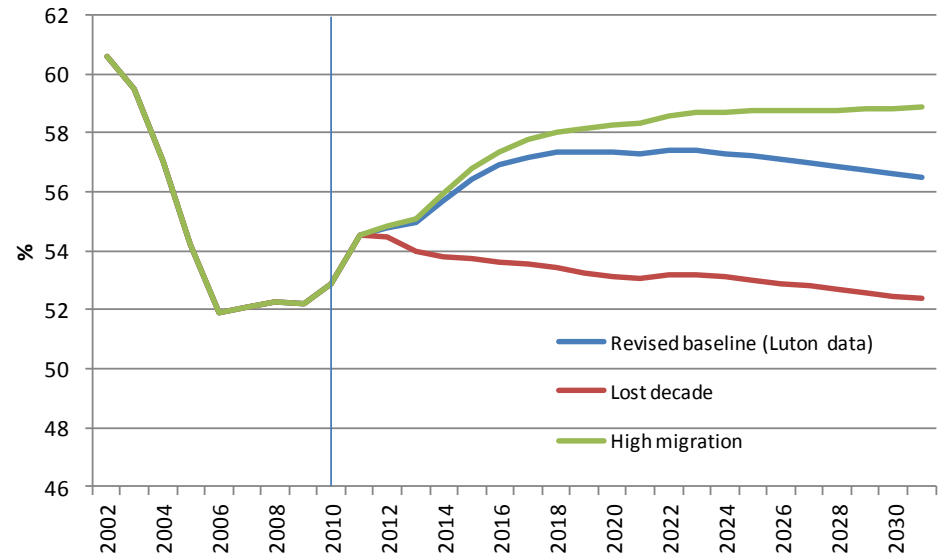


Labour market – resident employment

Resident employment, Luton

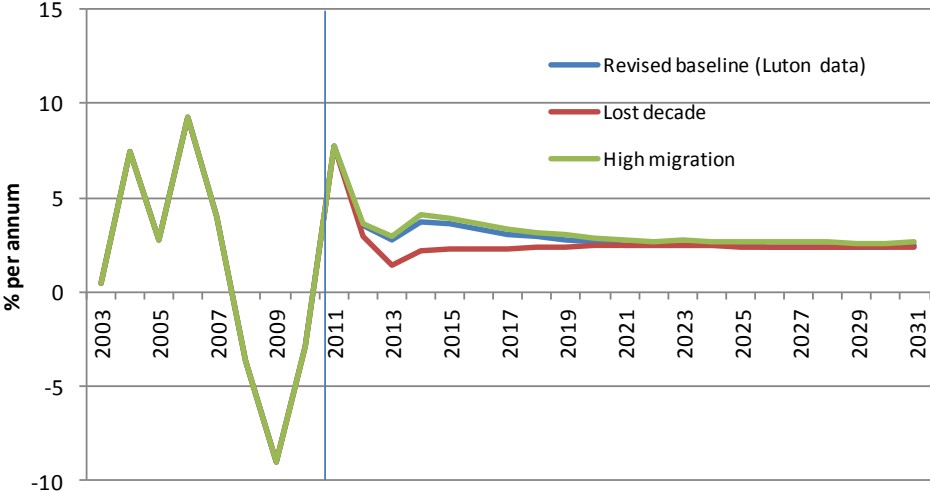


Resident employment rate, Luton



Labour market – GVA

GVA growth, Luton



GVA per capita, Luton

