

**Carmarthenshire Revised Local Development Plan 2018 – 2033**

# **Population and Household Forecasts**

## **Briefing Paper**

## **1. Introduction**

1.1 As part of the evidence base for the revised Local Development Plan 2018 - 2033, Edge Analytics have been commissioned to develop a range of demographic forecasts for the Authority. These demographic forecasts are considered from a range of evidence and demographic factors to provide an outlook on population, housing and economic growth within Carmarthenshire for the 2018-2033 period. The results of the population and household forecasts allows a set of varying options to be considered and inform the future strategic growth strategy within the LDP.

1.2 This report will outline at the following:

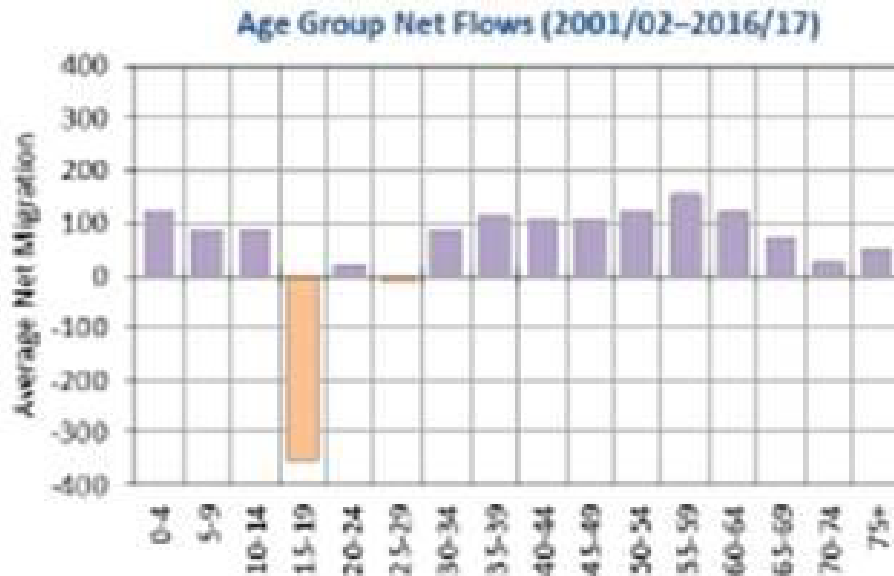
- Carmarthenshire's profile and historic demographic evidence;
- A summary of the various household scenarios and the options to be considered; and
- Consideration of the County's economic strategies to support growth options.

## **2. Carmarthenshire's Profile**

2.1 Carmarthenshire is home to approximately 6% of Wales' total population with 186,452 people. Since 2001, the population has grown by 12,800 people within the county, a 7.4% increase in 16 years. Higher annual population growth was recorded pre-2008, with notably lower annual growth recorded thereafter. Carmarthenshire's growth is consistent with the national rate of growth, but remains lower than the neighbouring authorities of Swansea and Pembrokeshire.

2.2 A net inflow of internal migration has been the dominant driver of population change since 2001/2002, whilst international migration has had a smaller but positive impact on population. Conversely natural change has had a negative impact on population change, with the number of deaths exceeding births in all years.

2.3 The age profile of migration patterns within Carmarthenshire has seen a large net outflow at ages 15-19 and this is associated with the student migration out of Carmarthenshire for higher education opportunities, while there is a small return flow in the 20-24 age group. The net inflow of the 30-44 young family age group is mirrored by the growth in the 0-14 year age as people move into Carmarthenshire to either have children or move with their families. A net inflow is recorded in the older age cohort (65+) which contributes to Carmarthenshire's ageing population. This is set out within the figure below.



2.4 The WG 2006 and 2008-based projections were formulated during a time of high net migration (internal and international) which considered significant growth for Carmarthenshire. The 2011 and 2014-based projections was considered at a time post-recession and less in-migration which resulted in a much lower anticipated household growth requirement for Carmarthenshire.

2.5 For the 2018-2033 plan period, the WG 2014-based household projection estimates a decline in average household size for Carmarthenshire from 2.26 to 2.20, resulting in less household growth than considered in the early projections of 2006 and 2008.

### 3. Demographic Scenarios

3.1 There is no single definitive view on the likely growth expected in Carmarthenshire. Ultimately, a mix of demographic, economic and local policy issues will determine the speed and scale of change.

3.2 In addition to the WG-based principle scenario, Edge Analytics have provided four additional demographic scenarios to be considered:

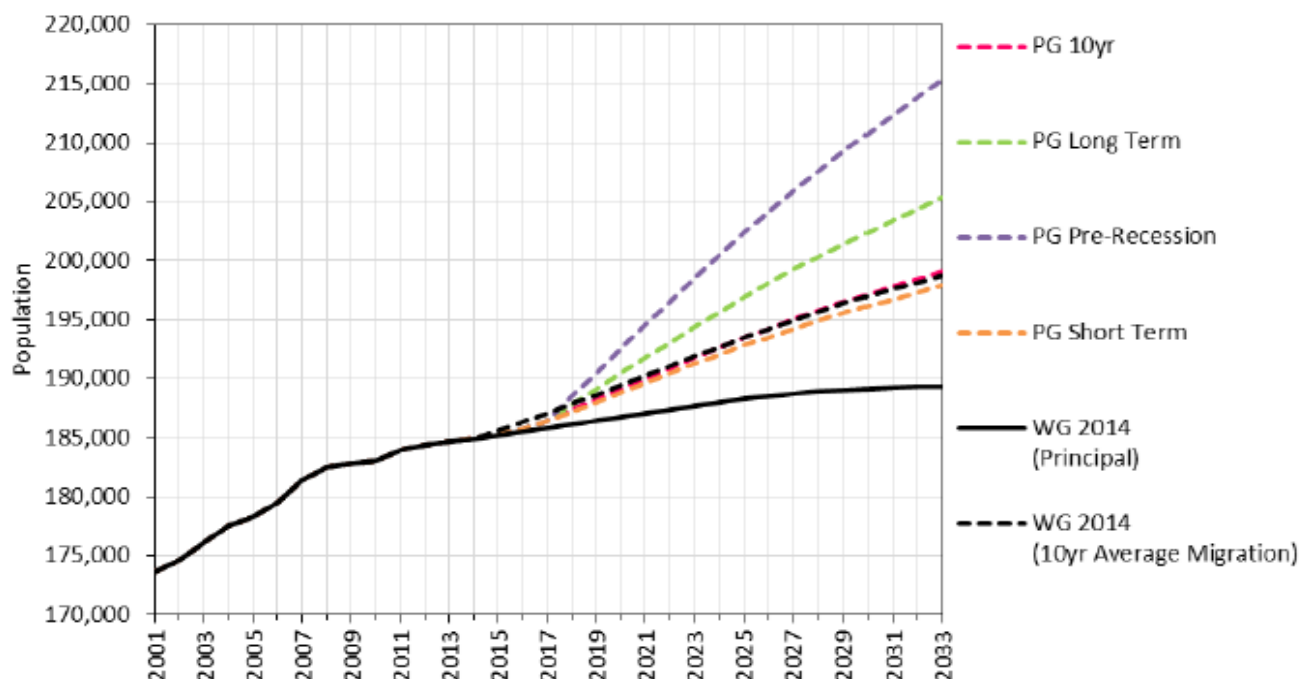
- **WG 2014-based:** this replicates the WG 2014-based population projection.

- **WG 2014-based (10yr Average Migration):** replicates the WG 2014-based 10yr average migration variant population projection. Migration assumptions are based on the ten year period prior to 2014 (i.e. 2004/05–2013/14)
- **PG Short Term:** Internal migration rates and international migration flow assumptions are based on a six-year historical period (2011/12–2016/17). This is a similar time period to the WG projection (i.e. 5–6 years), but includes the latest three years of data.
- **PG 10 year:** utilises the migration trend of the previous 10 years, which takes into account the first couple of years of the pre-recession period, but with the majority of the migration data being from the post-recession era.
- **PG Long Term:** Internal migration rates and international migration flow assumptions are based on the full sixteen-year historical period (2001/02–2016/17).
- **PG Pre-Recession:** Internal migration rates and international migration flow assumptions are based on the period pre-2008 recession (2001/02–2007/08), in which higher in-migration flows to Carmarthenshire were recorded.

3.3 The demographic trend scenarios incorporate mid-year population, migration, births and deaths statistics for 2001–2017 (i.e. three additional years of historical data to the WG projection). Household and dwelling growth under the demographic scenarios has been estimated using assumptions from the WG 2014-based household projection model in conjunction with a 2011 Census vacancy rate of 6.3%.

3.4 In utilising the demographic scenarios above, Edge Analytics have considered the demographic data in conjunction with a variant vacancy rate of 3.4%, which is borne from Empty Property records from the Local Housing Authority. This lowers (albeit not fundamentally) the housing requirement within each scenario.

## Carmarthenshire Population Change 2001-2033



## Carmarthenshire IA Demographic Scenario Outcomes 2001-2033

Scenario	Change 2018-2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (ALT. VR)
	Population Change	Population Change %	Household Change	Household Change %	Net Migration	Dwellings (Census VR)	Dwellings (ALT. VR)		
PG Pre-Recession	26,811	14.2%	13,616	16.6%	2,028	969	939	14,529	14,090
PG Long Term	17,567	9.4%	9,555	11.7%	1,423	680	659	10,195	9,887
PG 10 year	11,755	6.3%	6,992	8.6%	1,043	497	482	7,461	7,236
PG Short Term	10,691	5.7%	6,807	8.4%	997	484	470	7,263	7,044
(WG 2014 (10yr Average Migration)	10,842	5.8%	6,322	7.7%	921	450	436	6,746	6,542
WG 2014 based	3,207	1.7%	3,254	4.0%	546	231	224	3,472	3,367

3.5 The **WG 2014-based** scenario bases its migration assumptions on the five-year 2009/10–2013/14 period, which recorded notably lower net in-migration to Carmarthenshire. As deaths exceed births within the historic yearly data, the household change under the 2014-based projections is low at **231** dwellings per year. This equates to **3,372** dwellings over the

revised LDP period. Utilising the lower vacancy rate, this would result in 224 dwellings per year, or 3,367 dwellings over the revised LDP period.

3.6 Of all the alternative demographic trend based scenarios, the **PG Short Term** results in the lowest population change (5.7%) over the plan period, capturing the lower net migration flows evident in 2011/12–2013/14. The estimated population growth would support approximately **484** dwellings per annum, or a total of **7,263** dwellings over the plan period. Utilising the lower vacancy rate would result in 470 dwellings per year, or 7,044 dwellings over the revised LDP period.

3.7. The **WG 2014-based (10 year average migration)** projection utilises the WG 2014-based natural change assumptions but also considers the 10 year migration period between 2003/2004 and 2012/13. This trend uses a migration period prior to, and post-recession, which would see a population and household change of 5.8% and 7.7% respectively during the plan period of 2018-2033. The housing requirement within this scenario (2011 Census vacancy rate) would equate to 450 dwellings per year, which would be less than that currently being built within Carmarthenshire on an average yearly basis. This equates to 6,746 dwellings over the LDP period 2018-2033. In considering this projection against the variant vacancy rate of 3.4%, the dwelling requirement within this scenario reduces to 436 dwellings per year. This equates to 6,542 dwellings over the LDP period 2018-2033.

3.8 **The PG 10 year** projections utilises the migration trend of the previous 10 years, which takes into account the first couple of years of the pre-recession period, but with the majority of the migration data since 2008. This trend offers a slightly more positive outlook than that considered in the 10yr migration data from the WG 2014 based projection, and similar to the PG Short term Scenario.

3.9 By utilising the 2011 Census vacancy, this scenario would, require 497 dwellings per annum within the revised LDP period 2018-2033, with the variant vacancy rate highlighting a provision of 482 dwellings per year. This equates to 7,461 dwellings and 7,236 dwellings over the revised LDP period respectively. Both variant scenario would show a requirement that is similar to the 10 year average build rates 2007-2017, but less than the average build rates from 2015 onwards.

3.10 Under the **PG Long Term** scenario, higher net migration flows are estimated (averaging +1,423 people per year), resulting in population change (9.4%) and subsequent dwelling growth

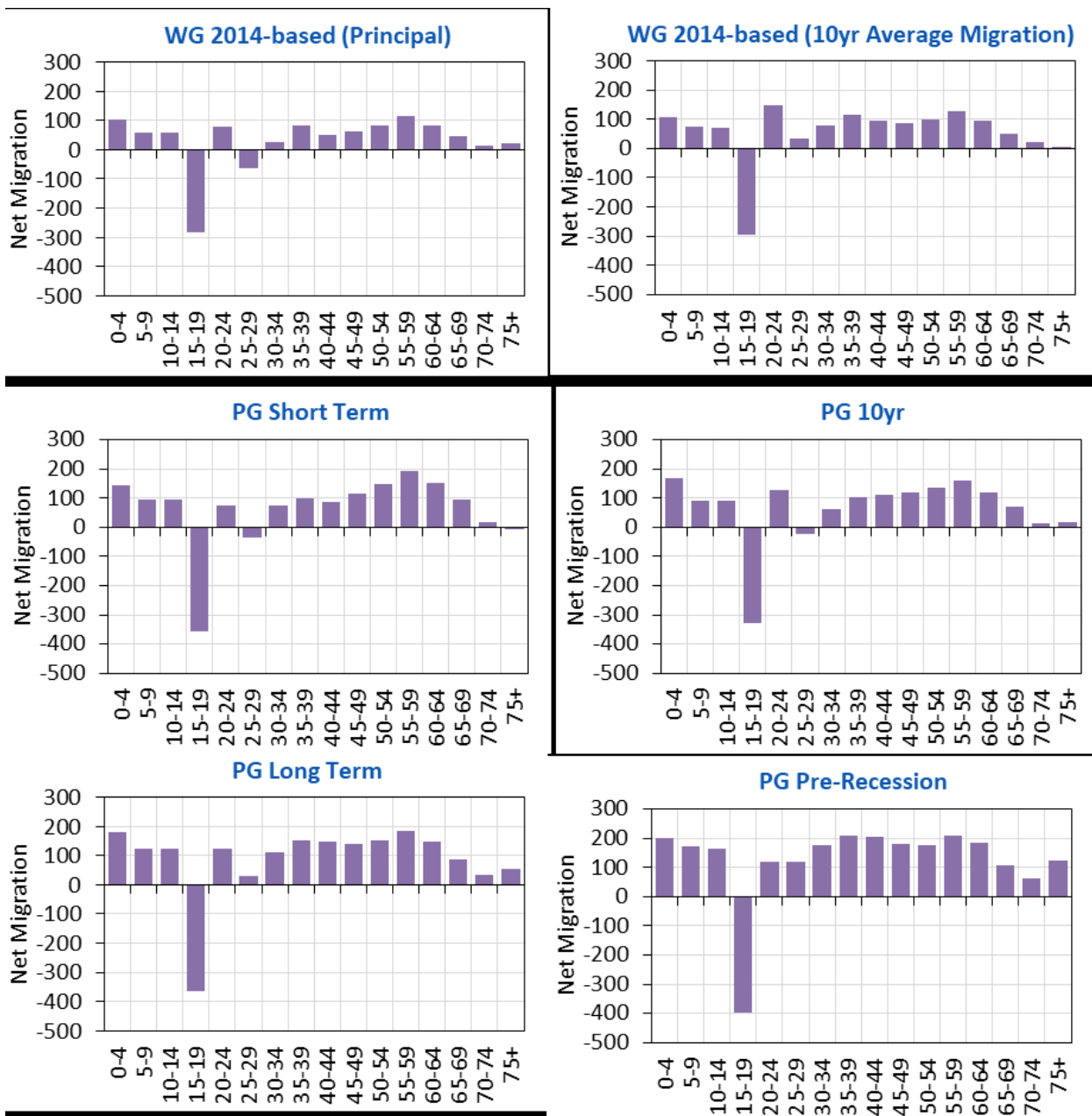
of 680 dwellings per year (2011 Census vacancy rate) or 659 dwellings per year (variant vacancy rate). This equates to 10,195 dwellings and 9,887 dwellings over the revised LDP period respectively. Both scenarios are higher than estimated under the PG Short Term and WG 2014-based scenarios.

3.11 The **PG Pre-Recession** scenario draws its migration assumptions from the 2001/02–2007/08 period, capturing the period of high net migration to Carmarthenshire. Consequently, future estimation of net migration is highest under the **PG Pre-Recession** scenario (averaging +2,028 per year), resulting in population change of 14.2% and an average annual dwelling growth of **969** per year over the 2018–2033 plan period.

### **Future Age structure under the Demographic Scenarios**

3.12 In all demographic scenarios, the number of 15-19 years leaving the county continues to be high, whilst the number of migrants to Carmarthenshire over 65+ is higher than that in the 2014 based projection

3.13 In terms of the working age population, the five variant scenarios show that the migration levels into Carmarthenshire are higher than the principal WG 2014-based projection. This would provide a more optimistic outlook in seeking to achieve the targets outlined in Carmarthenshire's *Strategic Regeneration Plan*. Increased net migration inflows to Carmarthenshire in the young adult age groups would support higher economic growth and have a positive impact on the ageing population profile of the Unitary Authority.



3.14 Migration profiles will drive changes to Carmarthenshire’s population age structure. Over the 2018–2033 plan period, there is substantial population growth projected in the 65+ age groups under all scenarios driven by the gradual ageing of the birth cohorts from the 1940s, 50s and 60s, plus the additional impact of net in-migration. As recognised in the *Hywel Dda Health Transformation Agenda*, Carmarthenshire’s ageing population provides a real challenge for the future delivery of health and social care services.



## 4. Economic Growth

4.1 The demographic scenarios presented provide an indication of the potential impact of a continuation of past migration trends upon future population change and housing growth in Carmarthenshire. It is evident that historical migration trends in Carmarthenshire have been influenced by economic factors, resulting in lower net migration to the UA over the recessionary period.

4.2 The Edge Analytics report considers the future housing requirement in Carmarthenshire based on the Council's various economic strategies and publications. These strategies include

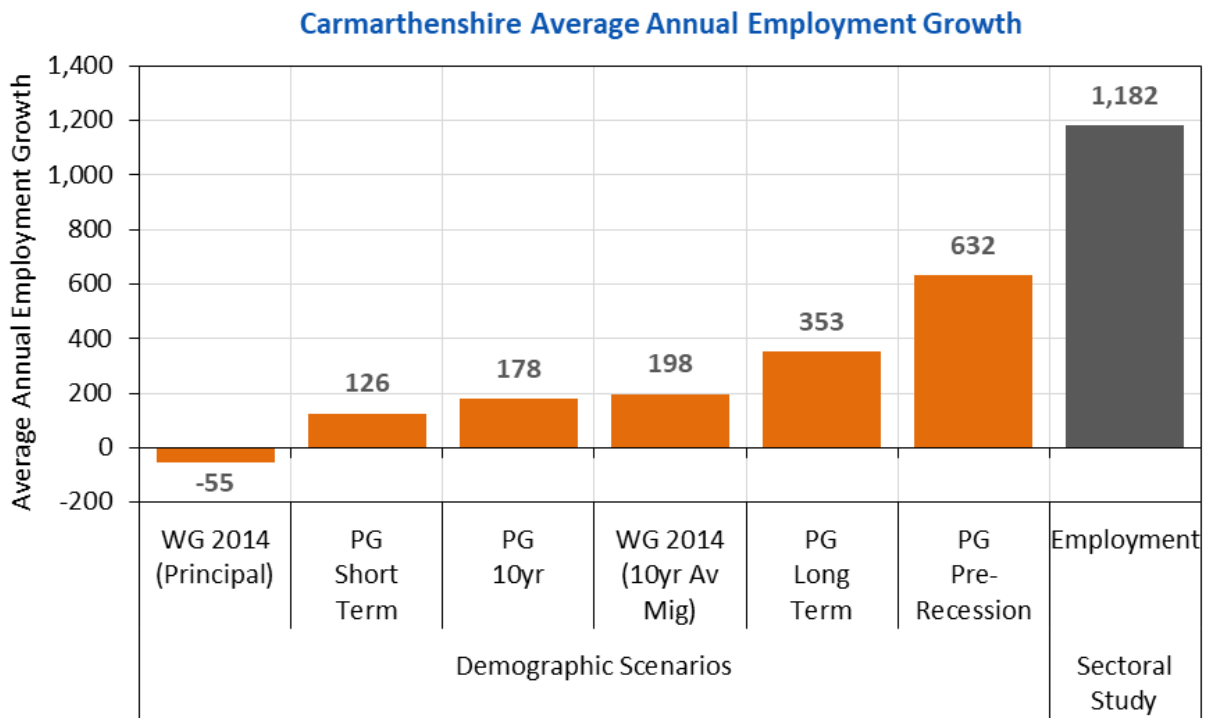
- **Swansea Bay City Deal** - and the projected creation of approximately 2,500 jobs within Carmarthenshire.
- **Carmarthenshire County Council Strategic Regeneration Plan** identifies a jobs growth target of 5,000 units over the 2015-2030 period, which includes those captured in the Swansea Bay City Deal.
- **The Employment Sectoral Study** – The study makes recommendations for target interventions and actions to develop a proactive land acquisition programme of employment sites and to support the growth of economic activity. For this to take place it assumes a fixed annual growth rate for key employment sectors. To fulfil its potential, the Employment Sectoral Study estimated an average annual jobs growth in nine priority sectors of +1,245 jobs per year over the 2017–2032 period, taking account of the Swansea Bay City Deal and six transformational projects.

4.3 The methodology of the Edge Analytics report considers the potential impact of employment growth upon population and housing growth in Carmarthenshire. POPGROUP quantifies the demographic impact of an economic growth trajectory by measuring the relationship between employment growth and the changing size of the resident population and its labour force.

4.4 The Edge Analytics report considers the Employment Sectoral Study as the basis for the employment led-scenario as it reflects the content of other economic and regeneration studies (as highlighted above).

## Demographic scenarios and jobs growth

4.5 If the six demographic scenarios were considered, the table below indicates the number of new jobs the increase in population could support.



4.6 It is estimated that the population growth rate range of 1.7% to 14.2% (**WG 2014-based** to **PG Pre-Recession** respectively) could support an average annual employment change of -55 to +632 per annum over the 2018–2033 plan period.

4.7 The decline in employment change estimated under the **WG 2014-based** scenario, reflects the estimated decline in the labour force over the plan period, driven by population ageing and lower migration. The **PG Pre-Recession** records higher employment growth over the plan period, driven by higher migration and the maintenance of a more youthful population.

4.8 However, even the **PG Pre-Recession** scenario suggests a lower employment growth outcome than the 1,182 per year total from the *Employment Sectoral Study*. This suggests a higher population growth is required to support this level of employment growth, possibly in combination with future change in Carmarthenshire’s commuting balance and its underpinning economic activity rates. A balanced view is however required in assessing the level of growth suggested in the PG Pre-Recession scenario and the Employment Led scenarios below.

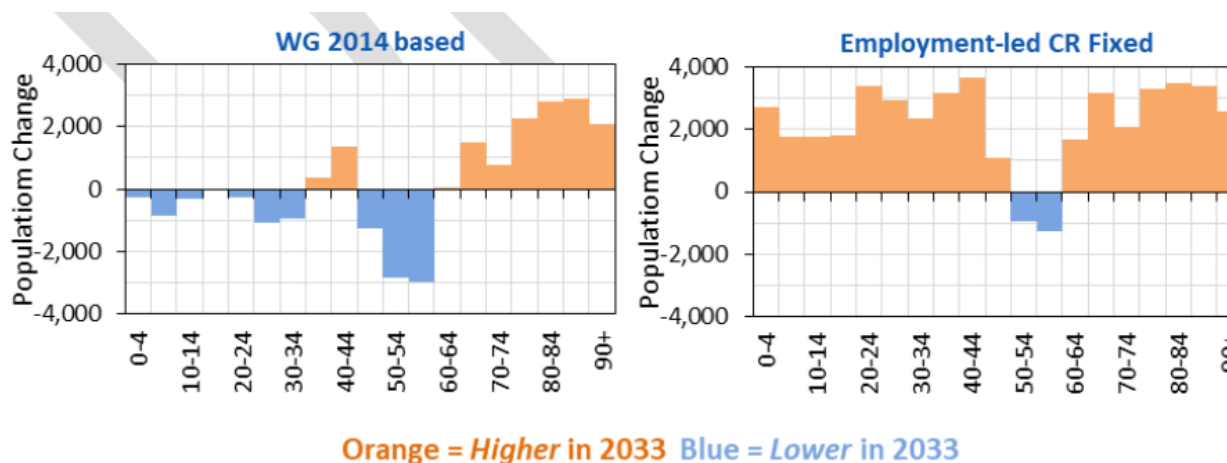
## 5. Employment Led Scenario and Population Growth

5.1 Using an employment-led formulation of the POPGROUP model, the required population and housing growth to meet the 1,182 per annum employment trajectory is estimated in the table below.

Employment-led Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
CR Fixed	42,050	22.2%	19,027	23.2%	2,814	1,354	1,313	20,303	19,690
CR Reducing	36,481	19.3%	16,810	20.5%	2,483	1,196	1,160	17,938	17,396

Note: Employment growth, economic activity rate and unemployment rate assumptions are consistent for each, only the commuting ratio differs.

5.2 To support an average employment growth of +1,182 per year, the required estimated population change ranges from 19.3% to 22.2% over the plan period. This is notably higher than estimated under each of the demographic scenarios, driven by higher net in-migration flows to Carmarthenshire to support the defined economic growth. A younger migration profile is estimated under the employment-led scenarios (driven by larger growth in the working age groups), which in turn results in a younger population age profile than estimated under the demographic scenarios. For comparison, the difference in the make-up of the population change between the WG-based projection and the employment led projection is below.



5.3 To consider this in context of the adopted Local Development Plan 2006-2021, the LDP currently has a housing requirement of 1,013 dwellings per annum. Secondly, build rates for the previous 10 years has been at an average of approximately 500 dwellings per year. The employment-led scenario highlighted in the table above indicates over twice as many houses are required than what has historically been delivered.

## **6. Summary of the Growth Options for the Revised LDP**

6.1 The Edge Analytics Report provides various demographic and employment led scenarios to consider as part of the revised LDP process. Each of the scenarios will be considered against other factors which influence the LDP, culminating in a favoured growth option.

- The WG 2014-based projections offers very low household growth due to the low migration levels for the period it considers. For economic aspirations, the 2014-based projection support an average employment change of -55 jobs.
- The WG 2014-based (10 yr average migration) using both vacancy rates considers a net increase of 450 or 436 dwellings per year. This equates to a total of 6,746 and 6,542 over the revised LDP period. For economic aspirations, this scenario supports an employment change of 198 additional jobs per year, or 2,970 jobs over the life of the revised LDP.
- The PG short term (using both vacancy rates) considers a net increase of 484 or 470 dwellings per year, resulting in a total of 7,263 or 7,044 dwellings over the plan period. For economic aspirations, PG Short Term supports an average employment change of 126 jobs per year, or 1,890 jobs over the life of the revised LDP.
- The PG 10 Year (using both vacancy rates) scenario outlines a net increase of 497 or 482 dwellings per year, this has a resultant requirement of 7,461 or 7,236 dwellings over the plan period. It delivers only a relatively marginal increase in job creation to that of the PG short term, falling short of the 5000 jobs figure identified in the Council's Regeneration Strategy.
- The PG Long term scenario (using both vacancy rates) considers a net increase of 680 or 659 dwellings per year, resulting in 10,195 or 9,887 dwellings over the plan period. For economic aspirations, PG Long term supports an average employment change of 353 jobs per year, or 5,295 jobs over the life of the revised LDP.

- The PG pre-recession scenario (using both vacancy rates) consider a net increase of 969 or 939 dwellings, resulting in 14,529 or 14,090 dwellings over the plan period. For the economic aspirations, PG pre-recession supports and average employment change of 632 jobs per year, or 9,480 jobs over the life of the revised LDP.
- In considering the employment led scenarios considered from the data within the Employment Sectoral Study, the number of dwellings required to support the employment growth is as follows:
  - Based on a fixed commuting ratio for the Plan period, the requirement would be 1,354 or 1,313 dwellings per year. This equates to 20,303 or 19,960 dwellings over the revised LDP period.
  - Based on the CR reducing ratio for the Plan period the requirement would be 1,196 or 1,160 dwellings per year. This equates to 17,938 or 17,396 dwellings over the revised LDP period.
  - In terms of the Commuting Reducing Ratio, it means that as the Plan progresses through the 15 years, there will be less need for the labour force to out-commute as the jobs will be available within the county.