



Construction by numbers

October 2019

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Foreword

Constructing Excellence Wales, which came into being to bring about positive change in the Welsh construction industry. The construction agenda remains challenging and requires a change of heart and minds to deliver improvement. Challenging the way in which the Construction Industry and other bodies in Wales currently behave - collaboration and innovation are key.

If we are to see improvement in the Construction Industry, then accurate data will be key to monitoring change. How else will we know if change has delivered improvement? Indeed, taking a step back, how do we know the areas needing change if there is no evidence?

With Brexit looming, it is timely to take stock of the current situation as it will also allow future comparison and analysis on the impact of Brexit and other initiatives.

The data sets used here are those publicly available and published by the Office of National Statistics (ONS)¹, primarily between 2009 and 2019 (but some are to early dates). There are a surprising number of data sets, with slightly differing methodology or approach. Our aim is to simplify them so as to make them meaningful to the industry.

Don't be surprised if some of the values don't add up exactly, in order to protect against disclosure of personal information ONS slightly amend some of the information. Additionally, many tables round figures and have caveats; exceptions and methodology changes, which we have tried to work through to present a balanced report. This information is of a general nature and does not consider the specific objectives, commercial situation or particular needs of any particular group or person. Please take into account your specific needs before acting on this information. No representation or warranty is given as to the accuracy or completeness of this information. Consequently, any person acting on it does so entirely at their own risk.

Please also note that any views and opinions expressed may be changed without an update.

We welcome your views and comments, please feel free to send them by email to info@CEWales.org.uk, with the phrase 'Construction by numbers' as the header.

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Summary

Economy



UK GDP has contracted in Q2 2019 and the services sector slowed to its lowest rate in three years. In July 2019 construction output fell in the same period at negative 1.3%.



The youth unemployment rate in Wales was 14.2%, above the UK rate of 11.5%.

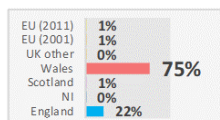


Wales has the second lowest earnings in the UK.



The 2018 gender pay gap on a median weekly full-time basis in Wales was 11.1% in Wales and 13.7% in the GB. Since 2009 in Wales the gap has decreased by 6.3 percentage points while GB has decreased by 2.6 percentage points. But the Welsh average for males (512) is 88% of their GB counterparts (586), while Welsh females (456) are 91% of their GB counterparts (501).

Population



The population of Wales is 4.9% of GB (5.6% of Wales and England). Only 75% of Welsh residents were born in Wales, and 51% of the population are female. 71% of the Welsh population live in the Cardiff Capital or Swansea Bay City Regions.

Construction



Construction is the 5th largest industry in Wales with 8.2% of the Welsh population directly employed within the construction industry, which is above the GB rate of 7.7%.



While the Welsh per capita output value has increased slightly from 2009 the per capita output for all construction in Wales is now 40% of the equivalent GB value. The gap appears to be increasing.



Of the 83,012 in full time employment in Welsh construction, only 6,393 (7.7%) are female.



99% of Welsh contractors can be categorised as SME's. 96% of them employ less than 13 people. In 2017 55% are sole contractors (or employ 1 person).

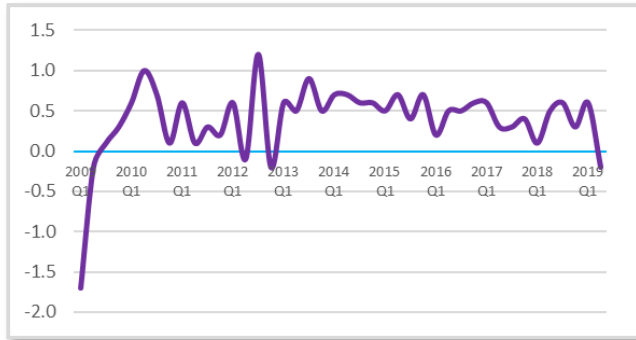


Data is not available as to how many Welsh contractors were directly employed for Welsh projects.

The national context

GDP

Gross Domestic Price (GDP) index measures both the economy's total income and total expenditure on goods and services. GDP therefore informs on the income and expenditure of the average person in the economy and is deemed a measure of the economic well-being of the average individual. It's not perfect, but it is a measure. Here is the quarterly GDP (as issued by ONS) between 2009 and 2019.



August 2019.

These are extracts from the most recent ONS update.

Monthly gross domestic product (GDP) growth was negative 0.1% in August 2019, following growth in both June and July 2019.

4. GDP fell by 0.1% in August 2019

Table 2: Breakdown of GDP and its components' growth rates by month

	June 2019	July 2019	August 2019
GDP	0.1	0.4	-0.1
Index of Services	0.2	0.3	0.0
Index of Production	0.1	0.1	-0.6
Manufacturing	-0.3	0.4	-0.7
Construction	-1.1	1.8	0.2
Agriculture	0	0	-0.1

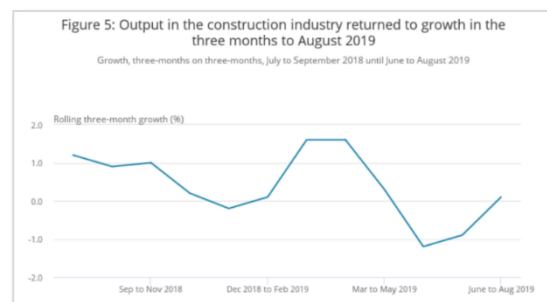
Source: Office for National Statistics – GDP monthly estimate

The monthly growth rate for GDP is volatile and so it should be used with caution and alongside other measures, such as the three-month growth rate, when looking for an indicator of the longer-term trend of the economy. However, it is useful in highlighting one-off changes that can be masked by three-month growth rates.

Rolling three-month growth in the construction sector was 0.1% in August 2019, following a fall of 0.9% in July. This growth was driven by private new housing, public housing repair and maintenance, and private commercial.

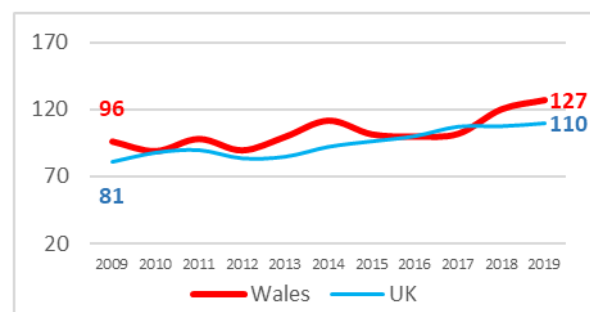
Month-on-month growth in construction was 0.2% in August 2019, following growth of 1.8% in July.

The largest positive contributor to monthly growth was non-housing repair and maintenance, private commercial and public new housing.



Construction Index

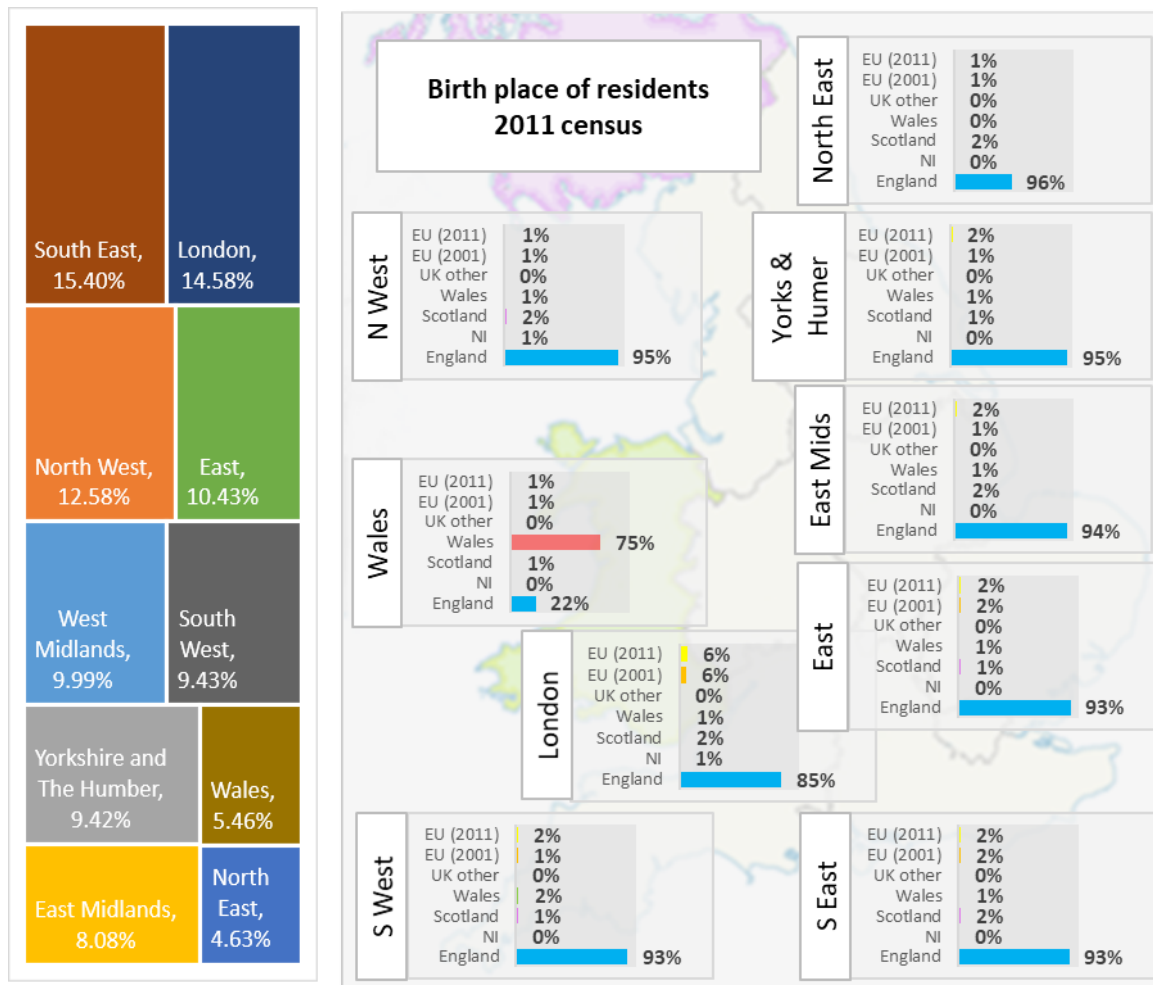
The Index of Construction graph shows the short-term movements in the output the construction sector (Section F) within Wales and the UK. The Index of Construction for Wales account for approximately 8 per cent of the Welsh economy - 2016 is 100.



Population

Birthplace of residents - 2011 census

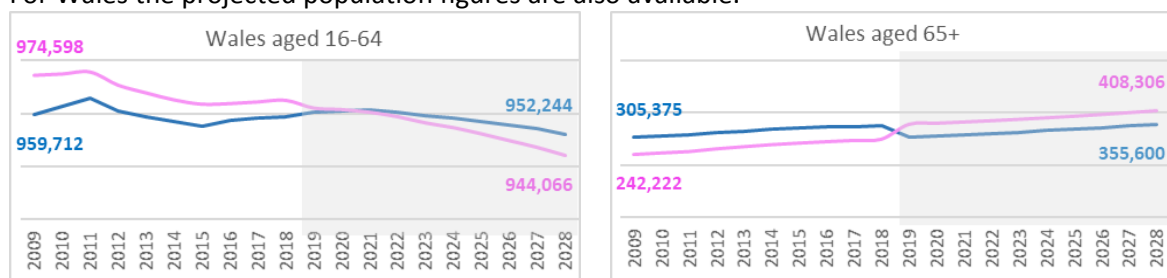
These graphics show the population share in England and Wales (total of 56,075,912) as of the 2011 census, and the birthplace of residents.



In 2011 the highest presence of European residence is in London with 12%, while in Wales it was only 2% of the population. Interestingly only 75% of Welsh residence were born in Wales.

Current population by age and gender

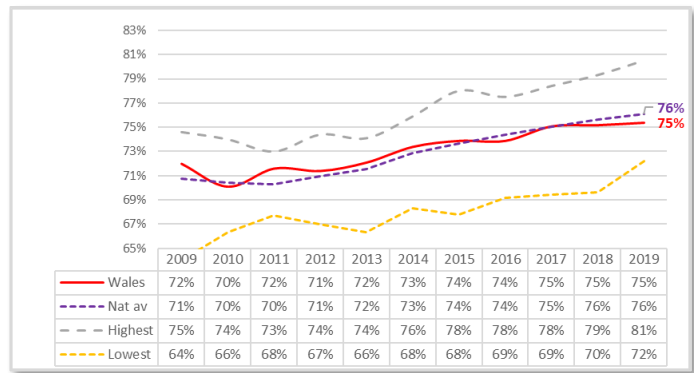
For Wales the projected population figures are also available.



Employment rate

This graph looks at the employment rate of the population in Wales, it also shows the GB national average, the current highest (South East) and the current lowest (Scotland).

Generally, over the period, the employment figures in Wales closely follows the national average.

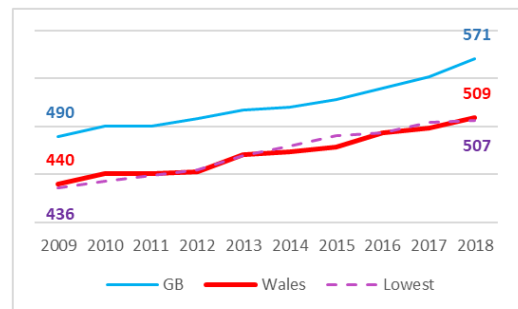


Weekly earnings

GB and Wales

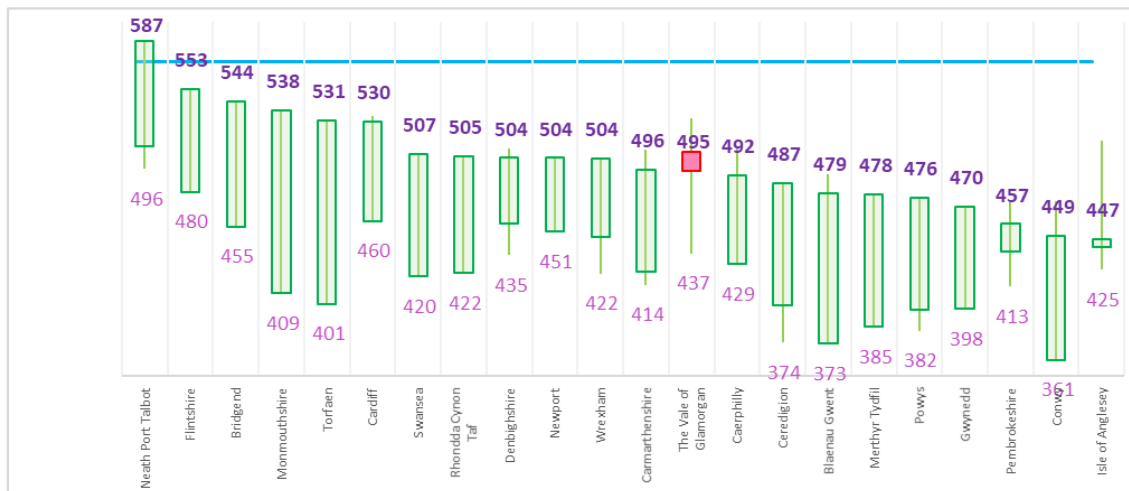
This graph shows the median gross weekly earnings for all sectors within Wales, it also shows the Great Britain average and the current lowest region (North East). At various times since 2009 Wales has been the lowest.

Currently Wales has the second lowest earnings in GB



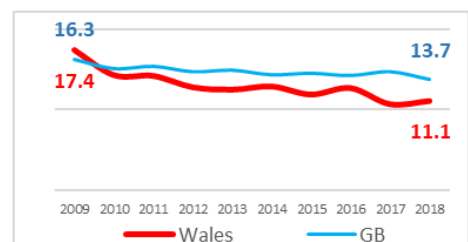
Weekly earnings in Wales

In Wales (as of 2018) Neath and Port Talbot has the highest weekly earnings (all sectors) and is the only county higher than the GB average (571). The Vale of Glamorgan is the only county to have a current value less than their 2009 value.



Gender pay gap

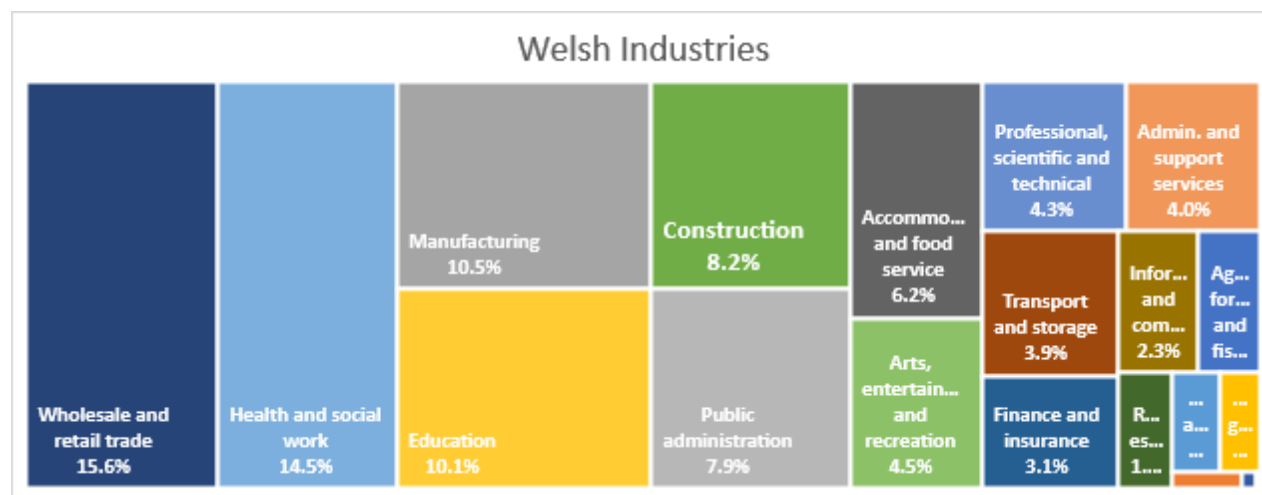
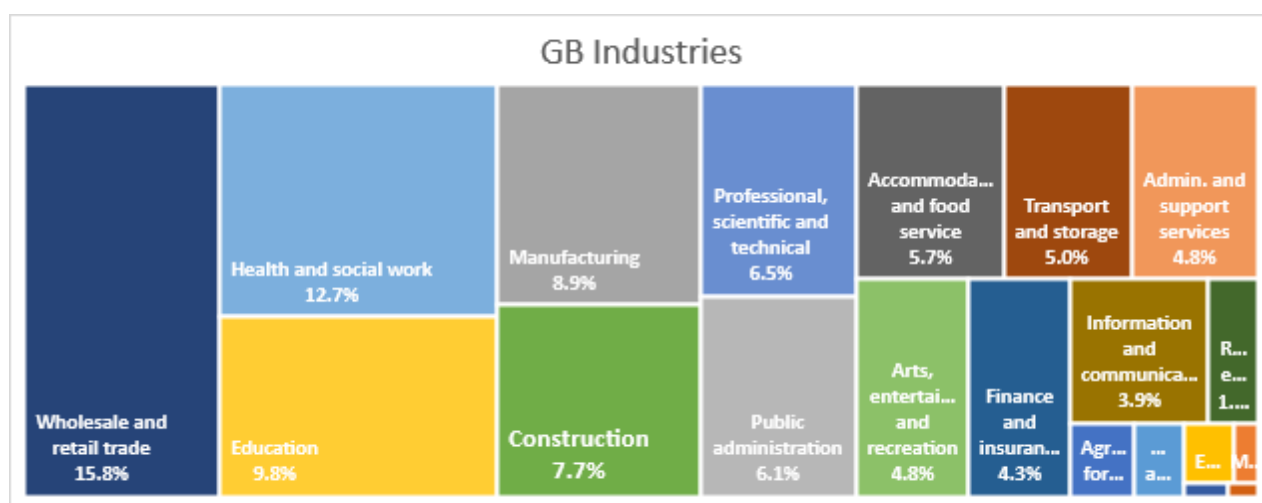
The 2018 gender pay gap in Wales, across all sectors is **11.1%** while in Great Britain it's now at 13.7%. Wales has been better than the rest of GB since 2009.



Industry sector distribution

The 2011 census data classified residents aged between 16 and 74, in employment. In GB **7.7%** are directly employed in construction. As many other sectors depend on construction manufacturing; public administration and professionals, the impact of construction is considerably higher. The ONS state:

Construction is a naturally volatile industry and is responsive to fluctuations in both consumer and business confidence, as well as economic variables, such as interest and exchange rates. The construction industry accounted for 6% of gross domestic product (GDP) in 2017, and influenced some of the main economic indicators, including inflation, employment and GDP itself.

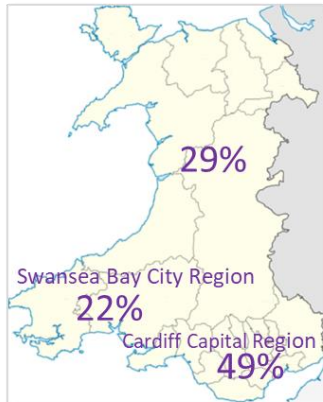


The picture in Wales is slightly different with **8.2%** of the working population in construction.

1.7% of the Welsh population are employed in agriculture (which now includes fishing).

Additional Welsh data

This section contains some extracts from the recent Welsh Government Annual Population Survey



Population

- **71%** of the Welsh population live in South Wales, in the Cardiff Capital and Swansea Bay City Regions.

Employment

- The employment rate for the population aged 16 to 64 in Wales was 73.2% compared with 75.5% in the UK.
- Since 2001, the employment rate increased by 6.1 percentage points in Wales and by 3.2 percentage points in the UK.
- The highest estimated employment rates were in Vale of Glamorgan (78.6%), Monmouthshire (78.0%) and Flintshire (77.0%).
- The lowest estimated employment rates were in Ceredigion (66.8%), Swansea (68.3%) and Rhondda Cynon Taf (69.5%).

Unemployment

- The unemployment rate for the population aged 16 and over in Wales was 4.2%, compared with 4.0% in the UK.
- Since 2001, the unemployment rate fell by 1.2 percentage points in Wales and by 1.0 percentage points in the UK.
- The lowest estimated unemployment rates were in Denbighshire (2.3%), Monmouthshire (2.3%) and Powys (2.6%).
- The highest estimated unemployment rates were in Rhondda Cynon Taf (6.8%), Merthyr Tydfil (5.7%) and Caerphilly (5.6%).

Youth unemployment

- The youth unemployment rate in Wales was **12.6%**, above the UK rate of 11.6%.
- Since 2001, the youth unemployment rate fell by 1.6 percentage points in Wales and by 0.2 percentage points in the UK.

Long term unemployment

27.2% of unemployed people in Wales had been unemployed for 12 months or more. This compares with 25.2% in the UK.

Economic inactivity

- The economic inactivity rate for the population aged 16 to 64 in Wales was 23.5% compared with 21.3% in the UK.
- Since 2001, the economic inactivity rate fell by 5.5 percentage points in Wales and by 2.6 percentage points in the UK.
- The lowest estimated economic inactivity rates were in Vale of Glamorgan (18.1%), Wrexham (20.0%) and Isle of Anglesey (20.0%).
- The highest estimated economic inactivity rates were in Ceredigion (31.0%), Swansea (28.0%) and Blaenau Gwent (26.1%).

Construction in Wales

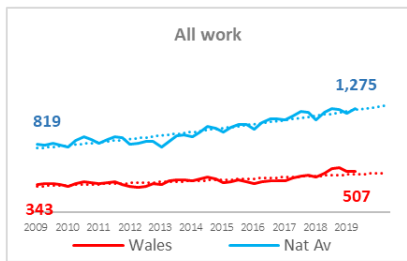
Key outputs in Wales

In looking at the various data sets published by ONS we have considered a new indicator that describes the financial output in relation to the population i.e. per capita. This approach offers a more balanced view than reporting the cash value alone.

Output is defined as the amount chargeable to customers for building and civil engineering work done in the relevant period, excluding Value Added Tax and payments to subcontractors. The category types are described in Appendices

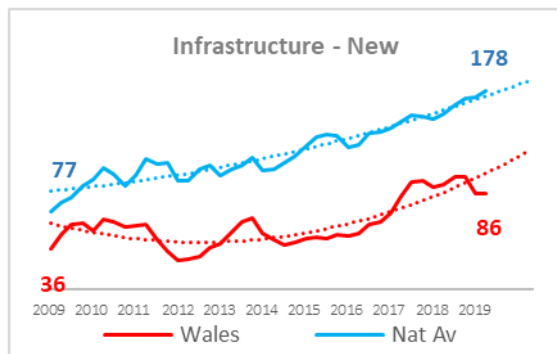
Appendix A – Definitions; Type of Work.

Construction output is an important economic indicator and is used in the compilation of the output measure of gross domestic product (GDP). Here is a selection of some of the key per capita output data for Wales (Quarter up to August 2019) with the national average to provide a baseline comparison.



While the overall per capita output for all construction work in Wales has increased slightly from 2009 it is 40% of the equivalent GB value. The trend line suggests the gap appears to be widening.

Infrastructure per capita

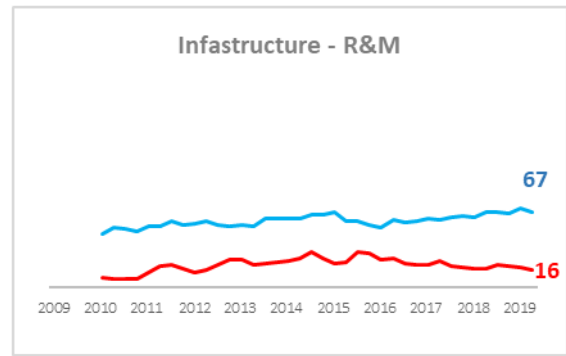


	2009	2019
London	135	352
East Midlands	56	263
Scotland	132	248
West Midlands	54	229
North West	87	198
South East	76	184
East	59	115
South West	41	109
Yorkshire and Humber	75	108
Wales	36	86
North East	13	68

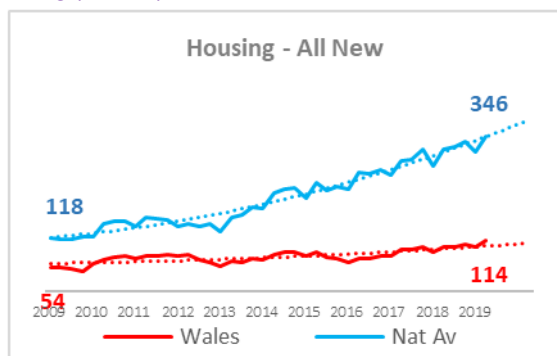
The highest output per capita in Welsh new infrastructure work was in 2018.



2010 was the first year that Infrastructure repairs and maintenance records were made available. Infrastructure R&M per capita has been steadily declining since 2014 – when it was nearly twice the current value.



Housing per capita



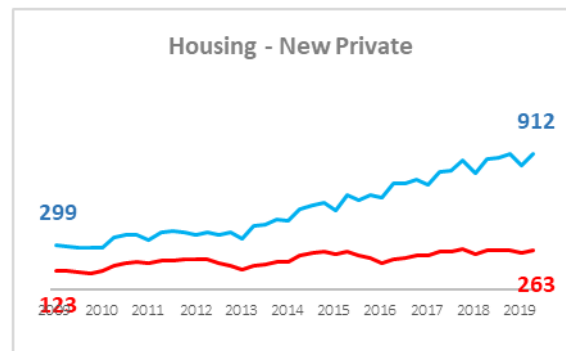
	2009	2019
London	161	825
North West	135	499
South East	203	478
East	128	347
Scotland	172	318
West Midlands	101	314
South West	128	302
Yorkshire and Humber	93	283
East Midlands	89	171
North East	59	155
Wales	54	114

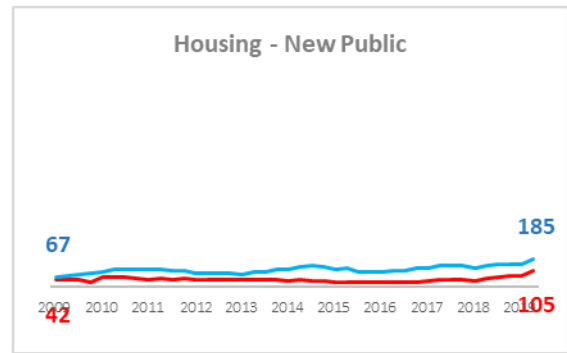
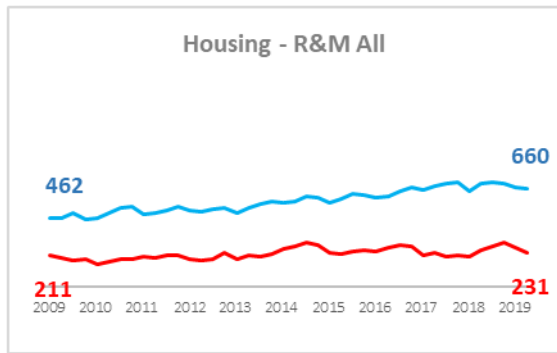
While there is a steady increase in new house building nationally, the per capita rate of increase in Wales is considerably slower. The trend lines indicate the gap is growing.

New housing developments in Wales remain the lowest in GB, but this quarter sees the highest output in new Housing in Wales.



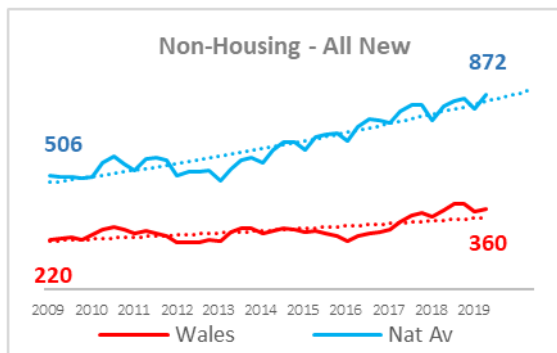
Private schemes are still the major contributor.





Non-Housing per capita

For clarity, Non-Housing excludes Housing and Infrastructure outputs.



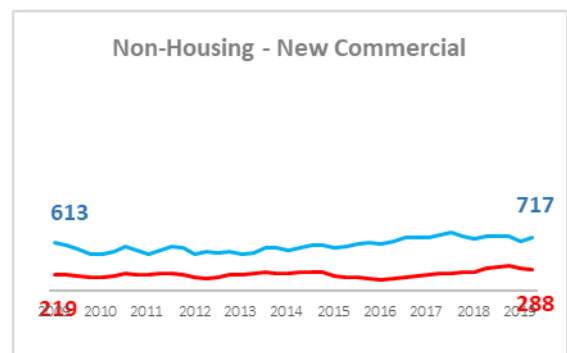
	2009	2019
London	1093	2,071
South East	813	1,174
North West	598	1,103
West Midlands	415	861
Scotland	569	843
East	449	774
South West	450	698
East Midlands	337	679
Yorkshire and Humber	459	661
North East	234	370
Wales	220	360

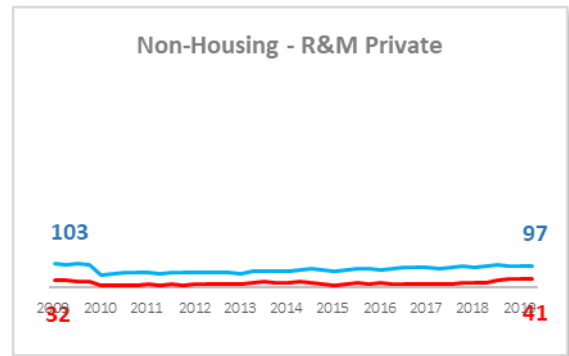
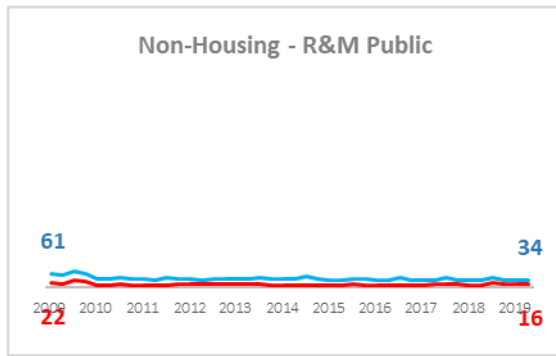
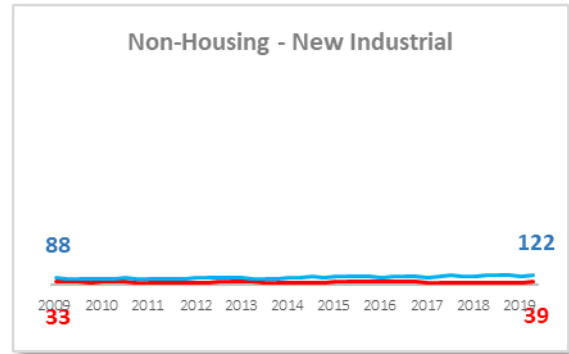
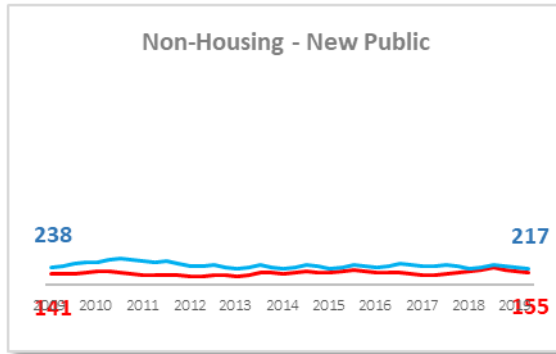
Non-Housing per capita output in Wales remains the lowest in GB.

While there has been a slow increase in new per capita non-Housing outputs in Wales it is still well below the national average. The trend line shows that the gap is increasing.

The highest value was in 2018.

The major contributor to this output is currently new commercial properties.

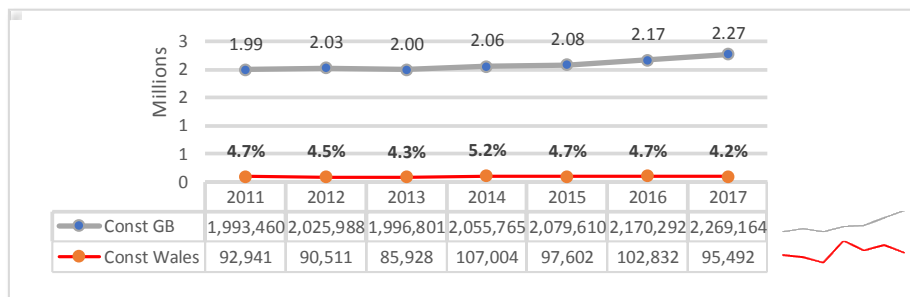




Construction jobs

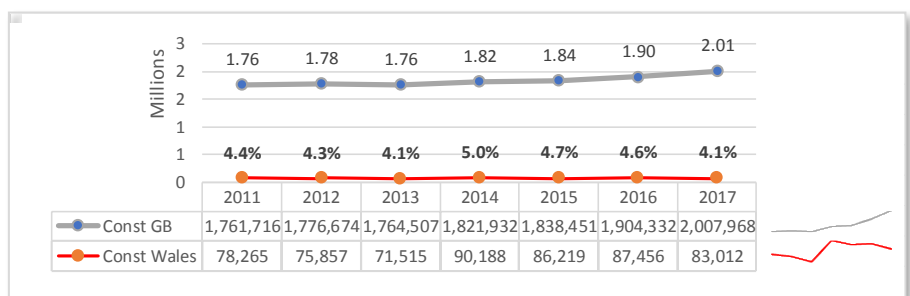
How many construction jobs are there?

The workforce jobs data is the number of jobs by industry sector.



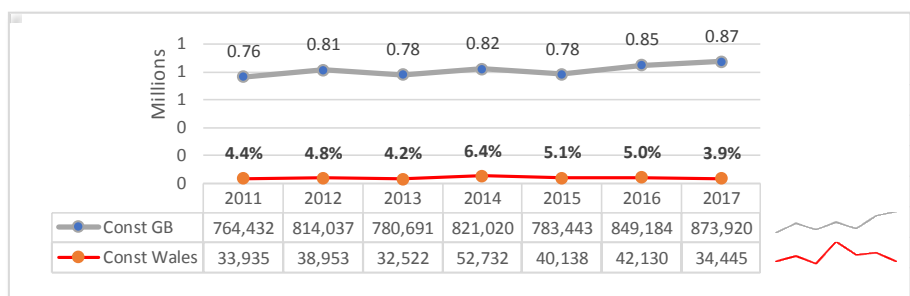
While there has been a steady **14%** increase in the GB construction industry since 2011, in Wales it peaked in 2014 and is now in a slow decline, only **3%** up on the 2011 figures and is **4.2%** of the GB figures.

How many construction jobs are full time?



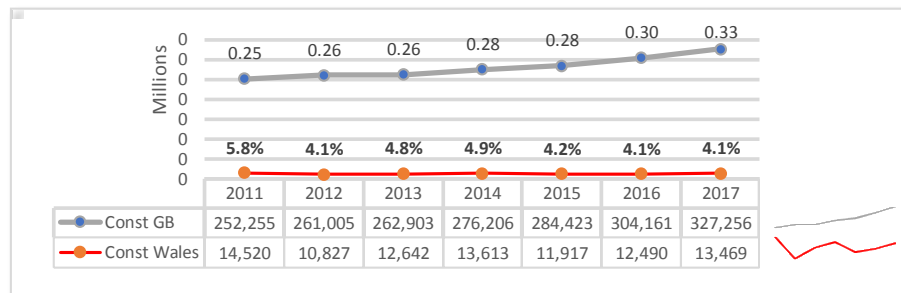
Again, the pattern is that there is a general increase in the national figures, but in Wales it is now in a decline.

How many are self employed?



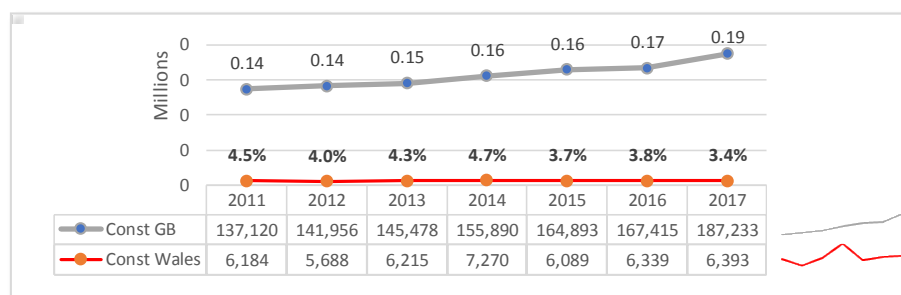
A similar trend can be seen with the GB self employed figures, increasing by **14%** while the Welsh figures are reducing significantly. Again peaking in 2014, the number of self employed workforce jobs in 2017 was only **3.9%** of the GB level.

How many women are in construction?



A steady and significant increase in the GB numbers - **30%** over the period while in Wales the numbers have fluctuated considerably and in 2017 was only 13,469 **4.1%** of the GB total.

How many women are full time in construction?



Nationally, the percentage of women in full-time employment in construction in the GB has increased by **37%** between 2011 and 2017, however in Wales it is only marginally increased by **3%** and represents only **3.4%** of the national figure.

Reference

- Gross Domestic Product: Quarter on Quarter growth: CVM SA % - Sept 2019
- Index of Construction (2016=100) by year and area – ONS & Welsh Government
- Output in the Construction Industry: subnational and sub sector: Quarterly non-seasonal adjusted type of works and current prices, Great Britain – released 10 Oct 2019
- GDP first quarterly update UK: April to June 2019 from ONS – full report [here](#)
- GDP monthly estimate, UK: June 2019 from ONS – full report [here](#)
- Population data from table KS204EW - Country of birth, from Nomis (ONS).
- Average (median) gross weekly earnings by UK country - English region and year (£) [here](#)
- Gender share data from table KS101UK - Usual resident population, from Nomis (ONS).
- Gender pay difference in Wales by year (median weekly earnings full-time employees excluding overtime) (£) – Stats Wales [here](#)
- Population estimates – National population estimates (by age and gender) from Nomis (ONS)
- Industry distribution data from table QS605UK – Industry, from Nomis (ONS).
- Size of contractor data from Construction Annual Tables (2018) by ONS.
- Employment rate from CDID -LF24 - Employment rate (aged 16 to 64, seasonally adjusted)
- Median weekly earnings – Welsh Gov Statistics (Annual Survey of Hours and Earnings: 2018)
- Annual Population Survey: July 2018 to June 2019 by Welsh Government [here](#)

Appendices

Appendix A – Definitions; Type of Work

Infrastructure

Water

Reservoirs; purification plants; dams (except hydroelectric schemes); aqueducts; wells; conduits; water works; pumping stations; water mains; hydraulic works.

Sewerage

Sewerage disposal works; laying of sewers and surface drains.

Electricity

All buildings and civil engineering work for electrical undertakings – e.g. power stations, dams (and other works on hydroelectric schemes), substations, laying of cables, and the erection of overhead lines.

Gas

Gas works; gas mains; gas storage.

Communications

Post offices; sorting offices; telephone exchanges; switching centres; cables.

Air transport

Air terminals; runways; hangars; reception halls; radar installations; perimeter fencing, etc. for use in connection with airfields.

Railways

Permanent way; tunnels; bridges; cuttings; stations; engine sheds; electrification of surface and underground railways.

Harbours (including waterways)

All works, and buildings directly connected with: harbours; wharves; docks; piers; jetties (including oil jetties); canals and waterways; dredging; sea walls; embankments; water defences.

Roads

Roads; pavements; bridges; footpaths; lighting; tunnels; flyovers; fencing.

Public Sector Housing

Local authority housing schemes; hostels (except youth hostels); married quarters for the services and police; old peoples' homes; orphanages and childrens' remand homes; the provision within housing sites of roads and services for gas, water, electricity, sewage, and drainage.

Private Sector Housing

All privately owned buildings for residential use – e.g. houses, flats and maisonettes, bungalows, cottages, vicarages – and the provision of services to new developments.

Non-housing excluding infrastructure

Factories

Factories; shipyards; breweries; chemical works; coke ovens and furnaces (other than those at steelworks); skill centres; laundries; refineries (other than oil); workshops; Royal Mint (in public sector).

Warehouses

Warehouses; wholesale depots.

Oil

Oil installations, including, refineries; distribution pipelines and terminals; production platforms (but not modules or rigs).

Steel

Furnaces, coke ovens, and other buildings directly concerned with the production of steel (excludes offices and constructional steelwork).

Coal

All new coal mine construction, such as: sinking shafts; tunnelling; works and buildings at the pithead which are for use in connection with the pit. Open cast coal extraction is excluded.

Schools and colleges

Schools or colleges, including technical colleges and institutes of agriculture, but excluding medical schools and junior special schools (which are classified under 'Health'). Schools and colleges in the private sector are considered to be those financed wholly from private funds, such as some religious colleges, and their halls of residence.

Universities

Universities (including halls of residence); research establishments.

Health

Hospitals (including medical schools); clinics; surgeries (unless part of a house); medical research stations (except when part of a factory, school, or university); welfare centres; centres for the handicapped and for rehabilitation; adult training centres and junior special schools.

Offices

Office buildings; banks; embassies. Local and central government offices (including town halls) are assigned to the public sector, as are police headquarters.

Entertainment

Theatres; concert halls; cinemas; film studios; bowling alleys; clubs; hotels; public houses; restaurants; cafés; holiday camps; yacht marinas; dance halls; swimming pools; works and buildings at sports grounds, stadiums, and other places of sport or recreation and for commercial television; betting shops; youth hostels and centres. Service areas on motorways are also classified in this category, as the garage is usually only a small part of the complex which includes cafés and restaurants.

Garages

Buildings for storage, repair, and maintenance of road vehicles; transport workshops; bus depots; road goods transport depots; car parks.

Shops

All buildings for retail distribution – e.g. shops, department stores, retail markets, showrooms.

Agriculture

All buildings and work on: farms; market gardens; horticultural establishments such as barns; animal houses; stores; greenhouses; boiler houses; agricultural and fen drainage; veterinary clinics; and fencing for the above. Does not include buildings solely or mainly for retail sales (which are included under 'Shops'), or houses.

Miscellaneous

All work not clearly covered by any other heading. This includes: fire stations; barracks for the forces (except married quarters, which are classified under 'Housing',); naval dockyards; RAF airfields; police stations; prisons; reformatories; remand homes; borstals; civil defence work; UK Atomic Energy Authority work; council depots; public conveniences; museums; conference centres; crematoria; libraries; caravan sites, except those at holiday resorts; exhibitions; wholesale markets; Royal Ordnance factories.

Repair and Maintenance

This concerns work which involves either repairing something which is broken or maintaining it to an existing standard. For housing output, this includes, repairs; maintenance; improvements; conversions (e.g. from a house to multiple flats); extensions; alterations; and redecoration. For other output, this includes, repairs; maintenance; and redecoration.