



# North West Regional Retrofit Skills Plan

ANNEXES TO MAIN REPORT

June 2024

think...



This report has been prepared by Think Trinity Ltd and published by the **North West Net Zero Hub** supported with funding from the **Department of Energy Security and Net Zero**.

The report is provided for the purposes of knowledge transfer across the public sector. It aims to raise awareness of good practice approaches to delivering projects that support the net zero agenda. The **North West Net Zero Hub** is not liable for any decisions adopted by organisations based on the recommendations contained in this report.

Funded by:



In support of:



Published by:



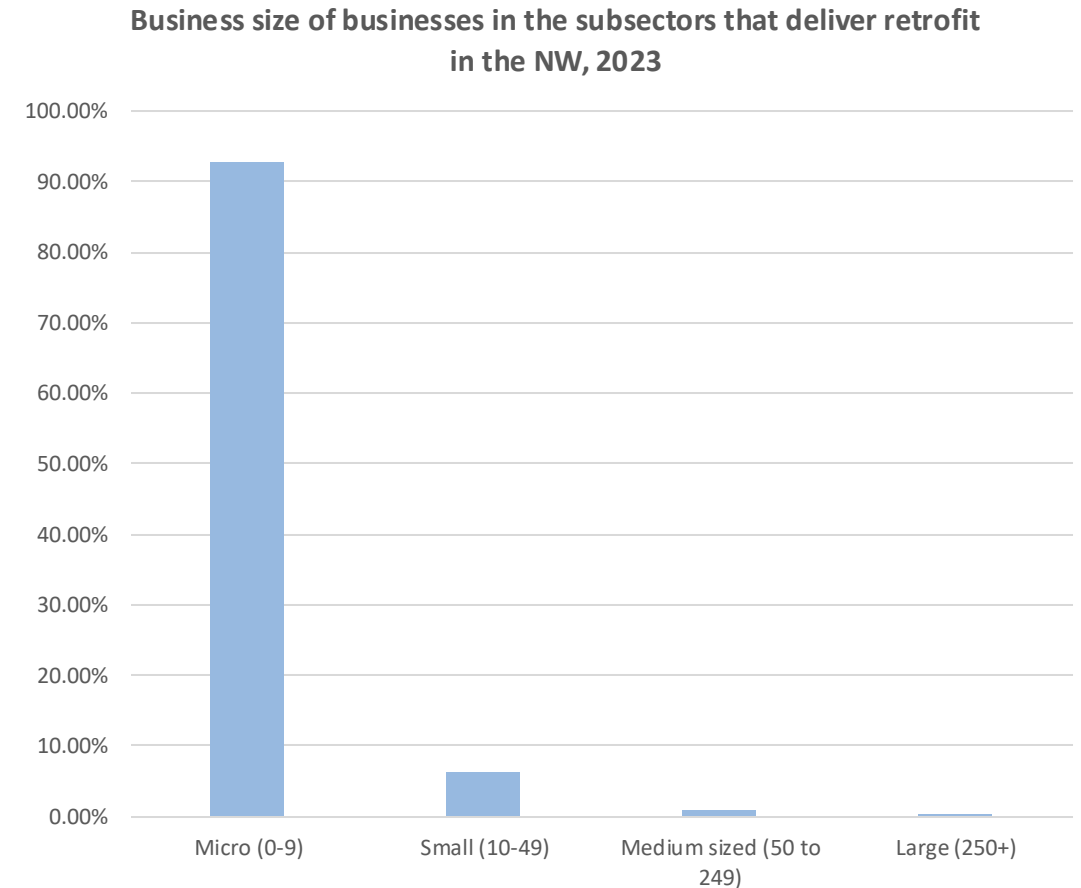
# Annex 3: Retrofit in the NW

Key context data

# **Current labour market and business context**

There are c19k businesses in the North West active in the subsectors that will be responsible for delivering domestic retrofit. The subsectors with the highest business counts are 'Electrical installation' and 'Plumbing, heat and air-conditioning installation'. 93% of these businesses are micro (ie employ 0-9).

Sectors that deliver domestic retrofit in the Northwest, Business counts, 2023						
	Cheshire & Warrington	Cumbria	GM	Lancs	LCR	Total
4321 : Electrical installation	615	365	1,645	1,115	935	4,675
4322 : Plumbing, heat and air-conditioning installation	465	345	1,525	915	750	4,000
4329 : Other construction installation	145	65	460	245	200	1,115
4331 : Plastering	65	80	275	215	125	760
4332 : Joinery installation	350	310	995	740	450	2,845
4333 : Floor and wall covering	110	60	370	190	165	895
4334 : Painting and glazing	185	150	520	330	295	1,480
4391 : Roofing activities	115	125	400	255	250	1,145
4399 : Other specialised construction activities n.e.c.	295	240	800	545	405	2,285
<b>Total</b>	<b>2,345</b>	<b>1,740</b>	<b>6,995</b>	<b>4,550</b>	<b>3,570</b>	<b>19,200</b>
Source: NOMIS, UK Business Counts						



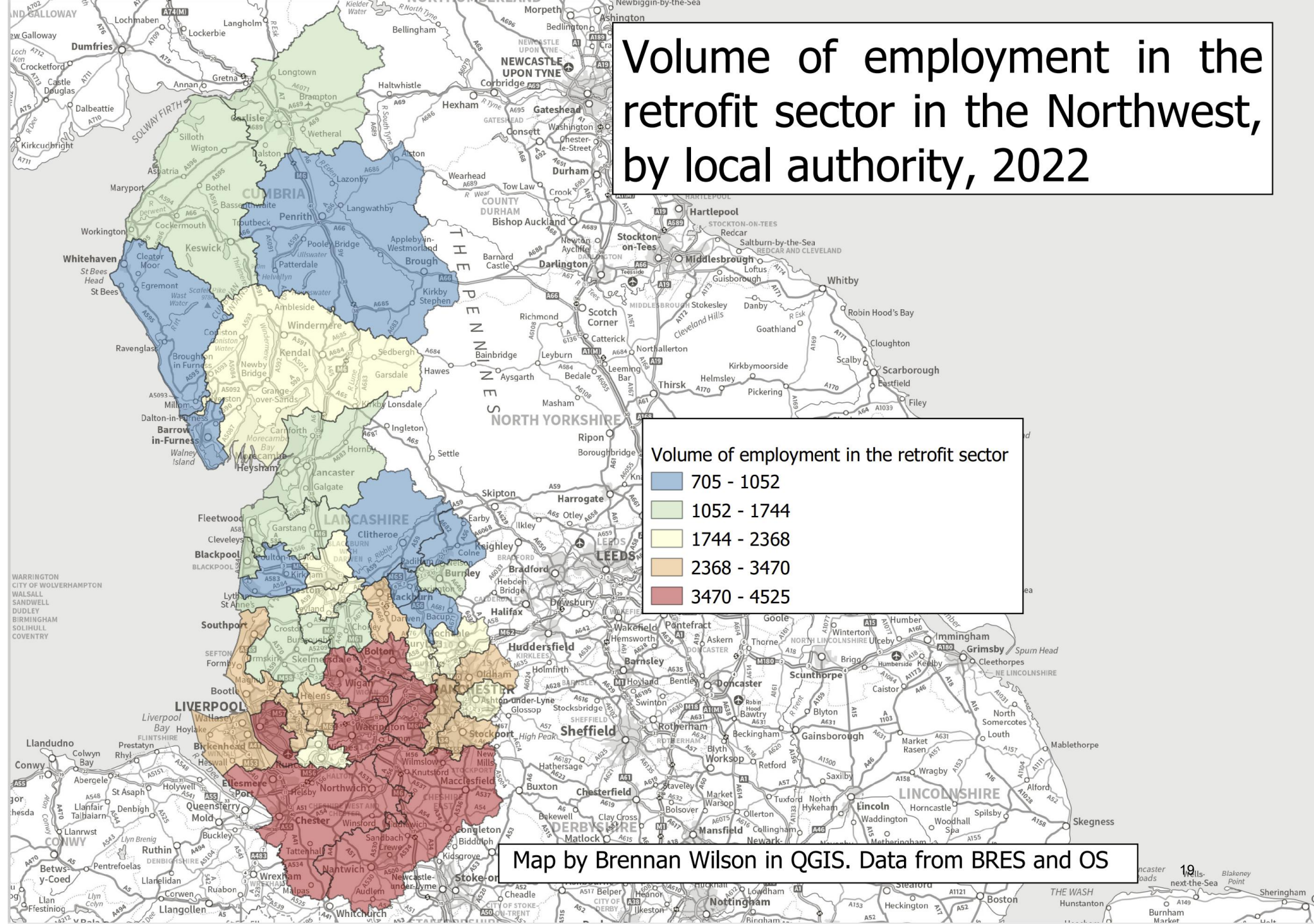
These subsectors employ c89k in the North West, with the highest volumes of employment being in the ‘Electrical installation’ and ‘Plumbing, heat and air-conditioning installation’ subsectors.

<b>Sectors that deliver domestic retrofit in the Northwest, Employment, 2022</b>						
<b>Industry</b>	<b>Cheshire &amp; Warrington</b>	<b>Cumbria</b>	<b>GM</b>	<b>Lancs</b>	<b>LCR</b>	<b>Total</b>
<b>4321 : Electrical installation</b>	4,000	1,500	9,000	6,000	4,500	25,000
<b>4322 : Plumbing, heat and air-conditioning installation</b>	2,000	1,000	6,000	3,500	4,500	17,000
<b>4329 : Other construction installation</b>	800	600	1,500	1,000	1,000	4,900
<b>4331 : Plastering</b>	100	200	600	400	250	1,550
<b>4332 : Joinery installation</b>	1,000	1,000	3,500	2,500	1,750	9,750
<b>4333 : Floor and wall covering</b>	500	200	1,250	600	500	3,050
<b>4334 : Painting and glazing</b>	800	800	2,250	1,250	1,250	6,350
<b>4391 : Roofing activities</b>	600	600	2,000	900	1,500	5,600
<b>4399 : Other specialised construction activities n.e.c.</b>	2,250	1,250	6,000	3,500	2,500	15,500
<b>Total</b>	12,050	7,150	32,100	19,650	17,750	88,700
<i>Source: NOMIS, BRES</i>						

Unsurprisingly, the largest volumes of employment in the industrial subsectors that deliver domestic retrofit are generally in the largest local authorities (population size), which are concentrated in the southern half of the region.

The local authority with the highest volume of employment is Liverpool (4,525), and that with the lowest is Rossendale (705).

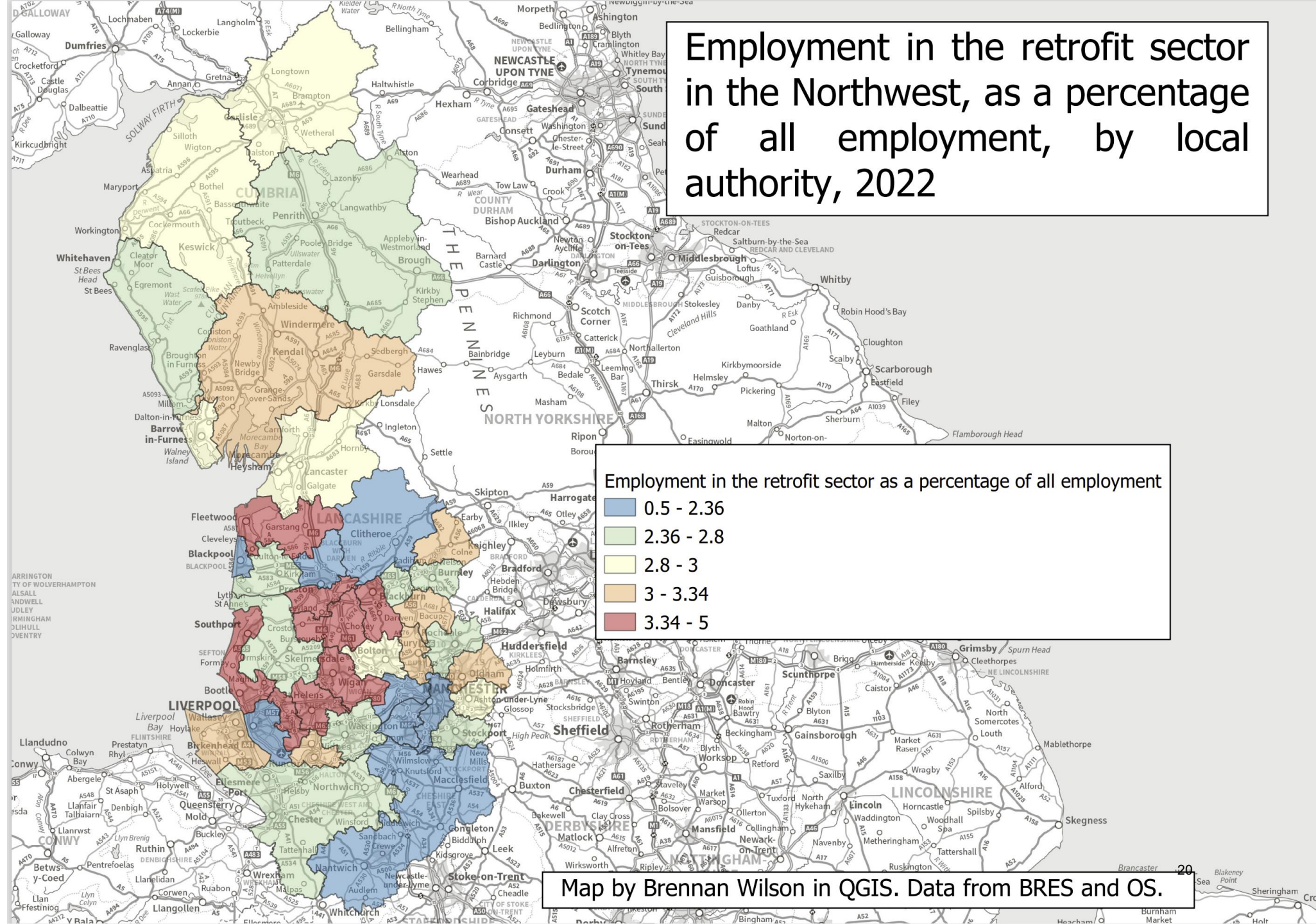
# Volume of employment in the retrofit sector in the Northwest, by local authority, 2022



Map by Brennan Wilson in QGIS. Data from BRES and OS

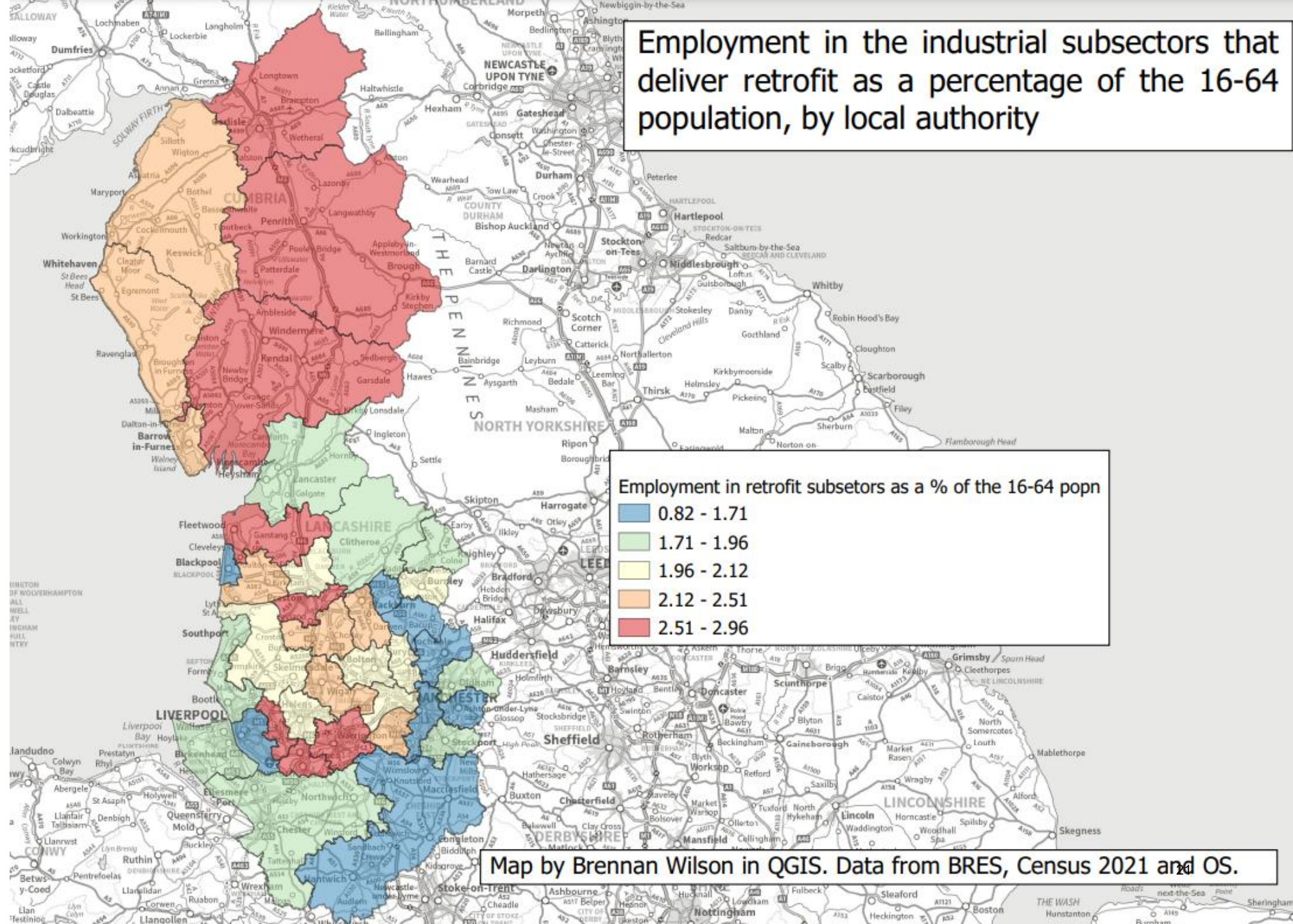
When employment in the subsectors that deliver domestic retrofit is considered as a percentage of all employment by local authority, a different picture emerges, with these sectors comprising 5% of the total workforce in Wyre, but only 0.5% in Manchester.

Employment in the retrofit sector in the Northwest, as a percentage of all employment, by local authority, 2022



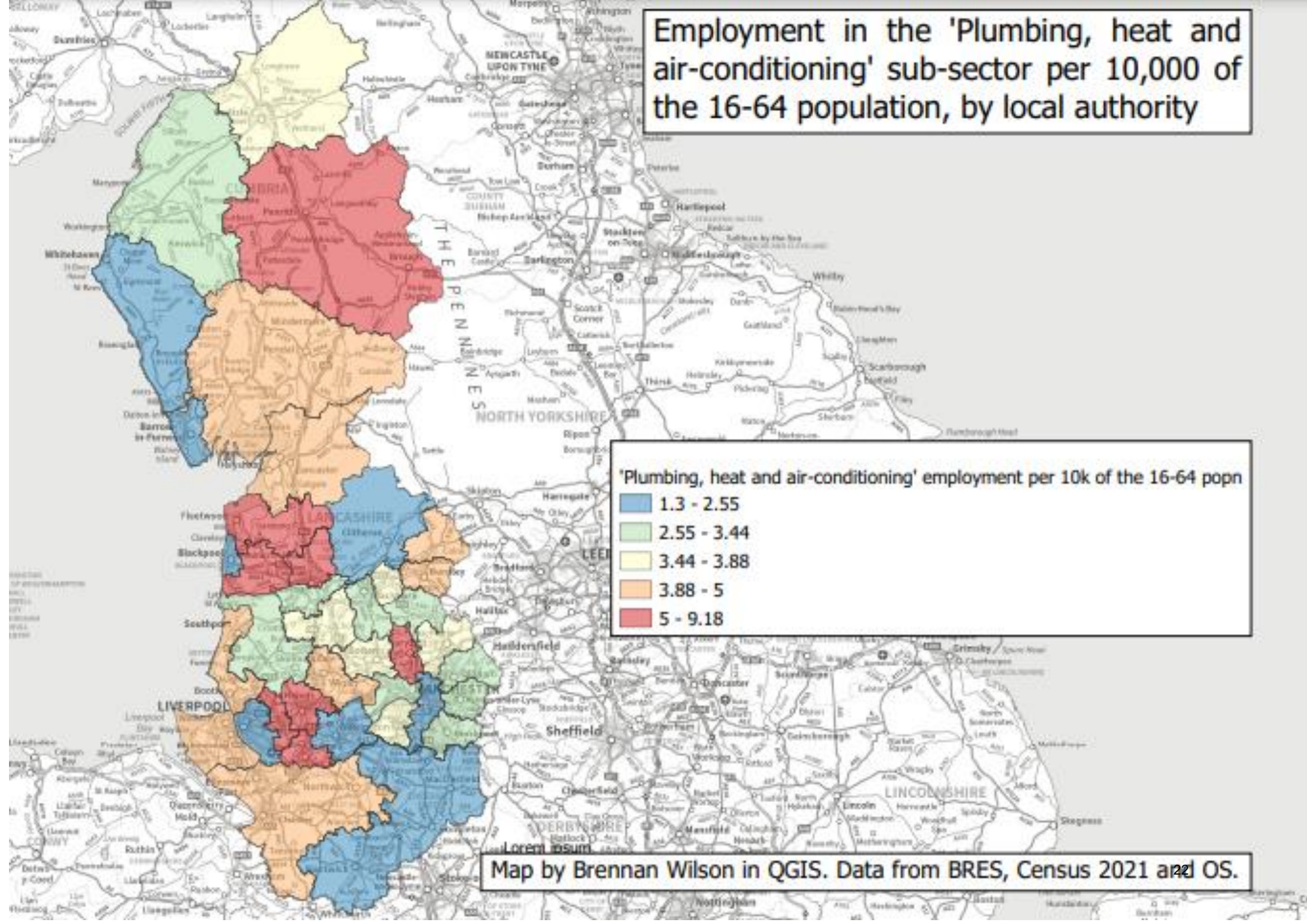


When employment in the subsectors that deliver domestic retrofit is considered as a percentage of the 16-64 population by local authority, it ranges from 2.96% in Warrington to 0.82% in Manchester. At sub-regional level there is a narrower distribution ranging from 1.6% in Greater Manchester to 2.5% in Cumbria.

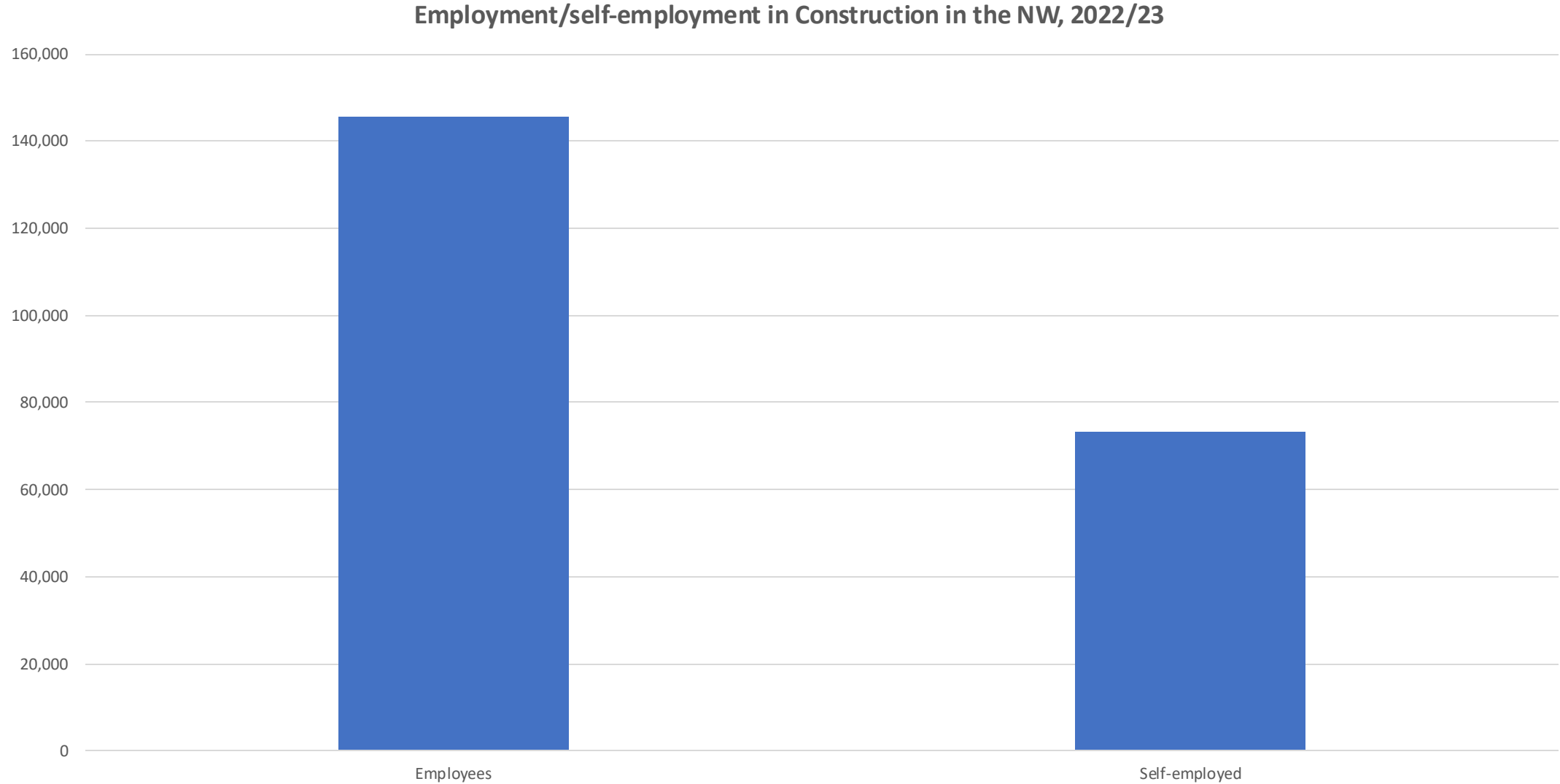


When employment in the 'Plumbing, heat and air-conditioning' subsector is considered per 10,000 of the 16-64 population by local authority, it ranges from 9.18 in Knowsley to 1.3 in Manchester.

Every sub-region has a local authority that features in the top-quintile for this measure, except for Cheshire and Warrington; although Cheshire West and Chester has above average employment in this sub-sector.



**The construction sector in the North West has a very high level of self-employment, with over a third of all employment in the sector being self-employment (33.4%)**



**Five key occupational sectors: Construction and building trades; Production managers and directors; Building finishing trades; Electrical and electronic trades; and, Elementary construction occupations account for almost 60% of all employment in the Construction sector in the NW.**

Key occupations in the Construction Sector in the North West and its Sub-regions, volumes						
	C&W	Cumbria	GM	Lancs	LCR	NW
531 Construction and building trades	7560	6477	25797	15661	13507	69002
112 Production managers and directors	4884	2179	10517	5915	5188	28683
532 Building finishing trades	2330	1953	9254	5137	5099	23773
524 Electrical and electronic trades	2019	1428	6334	3653	3716	17150
912 Elementary construction occupations	1622	1416	6007	3427	3310	15782
<i>Source: Census 2021</i>						

Key occupations in the Construction Sector in the Northwest and its Sub-regions, % employed						
	C&W	Cumbria	GM	Lancashire	LCR	NW
531 Construction and building trades	22%	28%	25%	28%	25%	26%
112 Production managers and directors	15%	10%	10%	11%	10%	11%
532 Building finishing trades	7%	9%	9%	9%	10%	9%
524 Electrical and electronic trades	6%	6%	6%	7%	7%	6%
912 Elementary construction occupations	5%	6%	6%	6%	6%	6%
<i>Source: Census 2021</i>						

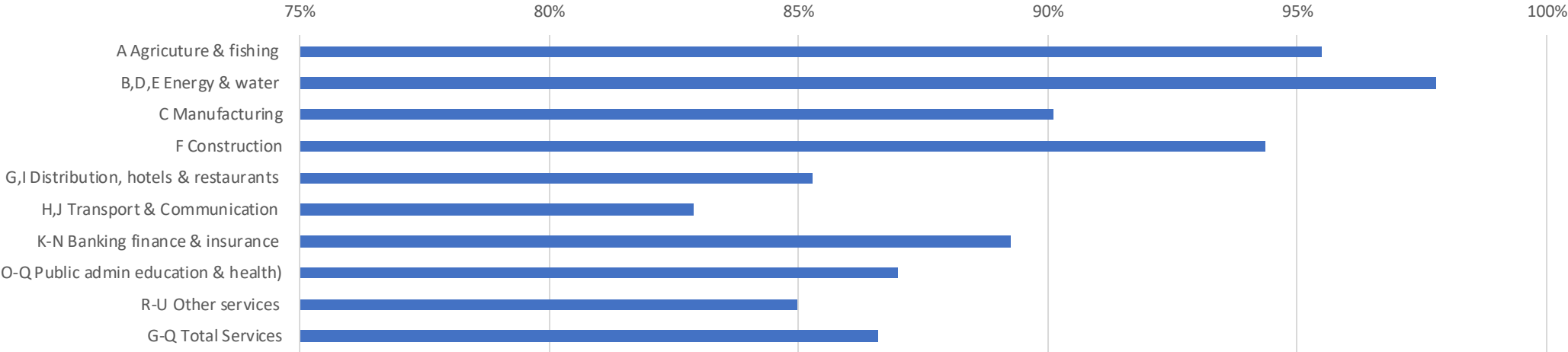
**Four of the five top occupations employed in the sub-sectors that deliver retrofit are in trades: Electricians and Electrical Fitters; Plumbers and Heating and Ventilating Engineers; Carpenters and Joiners; and Painters and Decorators. 40% of the jobs in the ‘Plumbing, heat and air-conditioning’ subsector are plumbers and heating and ventilating engineers.**

<b>Main occupations employed in the sub-sectors that deliver retrofit, North West, 2022</b>			
SOC	Description	Employed in Industry Group (2022)	% of Total Jobs in Industry Group (2022)
5241	Electricians and Electrical Fitters	7,085	8.7%
5315	Plumbers and Heating and Ventilating Engineers	7,012	8.6%
5316	Carpenters and Joiners	3,910	4.8%
4159	Other Administrative Occupations n.e.c.	2,331	2.9%
5323	Painters and Decorators	2,229	2.7%
<b>Source: Lightcast analyst</b>			

<b>Main occupations employed in Plumbing, heat and air-conditioning in the NW, 2022</b>			
SOC	Description	Employed in Industry	% of Total Jobs in Industry
5315	Plumbers and Heating and Ventilating Engineers	6,631	40.3%
2129	Engineering Professionals n.e.c.	861	5.2%
5225	Air-conditioning and Refrigeration Installers and Repairers	644	3.9%
4159	Other Administrative Occupations n.e.c.	595	3.6%
4141	Office Managers	402	2.4%
<b>Source: Lightcast analyst</b>			

The construction sector is one of the least diverse sectors. 94% of employees in the North West identify as white (85% of the population), 84% of the sector nationally is male.

Percentage in employment identifying as White in NW, by Sector



National Industry Gender Breakdown



Gender	2021 Jobs
Males	83.6%
Females	16.4%

# Construction in the North West: overview of employee education levels and qualification choices

Data for employees aged 25-30 in sustained employment in the 2018-19 tax year

**4.3%**  
Proportion of employees aged 25-30 in the North West that work in construction

**£26,400**  
Annual average earnings of employees aged 25-30 in the North West that work in construction

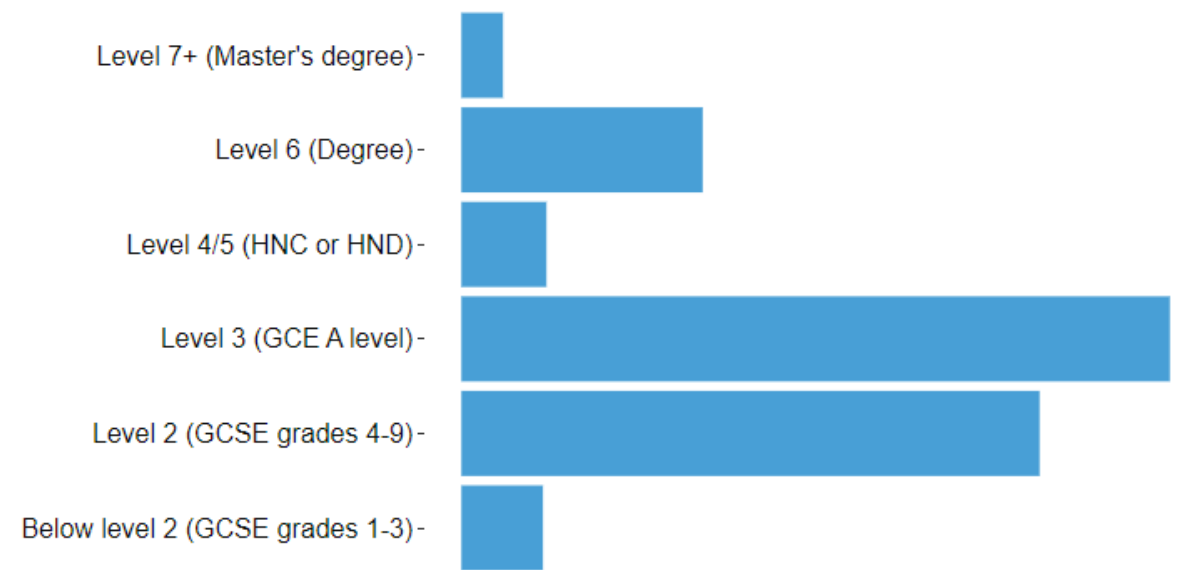
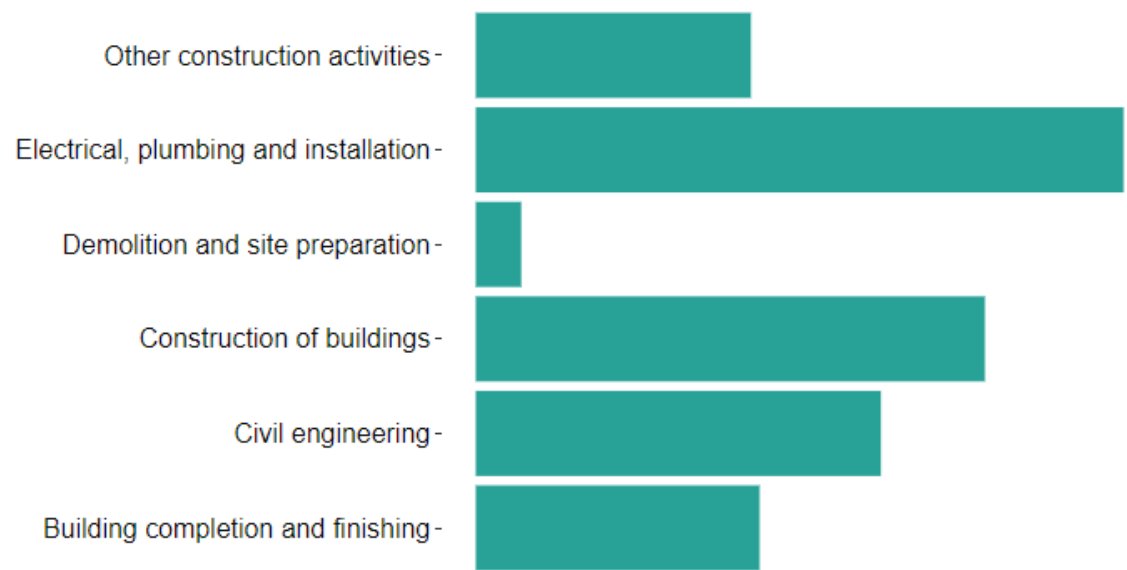
**0.1%**  
Projected annual growth in employment in construction in the North West up to 2027 (Working Futures)

Sub-sector and level

Subject and qualification

[How to read these tabs](#)

## Distribution of employees by industry sub-sector and highest level of education



**7% (1,374) of the businesses in the subsectors that deliver retrofit in the North West were registered with Trustmark to deliver services in 2021.**

TRUSTMARK REGISTERED BUSINESSES BASED IN LEP AREAS	Cheshire and Warrington Total	Cumbria Total	Greater Manchester Total	Lancashire Total	Liverpool City Region Total	TOTAL
ASSESSMENT AND DELIVERY	18	3	73	49	65	208
BUILDING FABRIC MEASURES	19	1	260	292	141	713
BUILDING SERVICES ELECTRICAL	1	2	8	18	7	36
BUILDING SERVICES MECHANICAL	6	10	80	70	52	218
RENEWABLE ENERGY	23	42	46	58	30	199
	67	58	467	487	295	1374



The tables below provide a further disaggregation of this Trustmark data by the nature of services offered and the sub-regional location of the business.

North West businesses registered with Trustmark for Renewable Energy, 2021					
	C&W	Cumbria	GM	Lancashire	LCR
<b>Total</b>	23	42	46	58	30
Air Source Heat Pump Installers [MCS]	7	12	17	19	10
Biomass Boiler Installers [MCS]	1	7	3	4	2
Ground Source Heat Pump Installers [MCS]	6	8	7	11	5
Ground Source Heat Pumps	0	0	0	1	0
Solar Panel Installers (PV)	5	9	14	15	8
Solar Panel Installers (Thermal) [MCS]	4	6	5	8	5

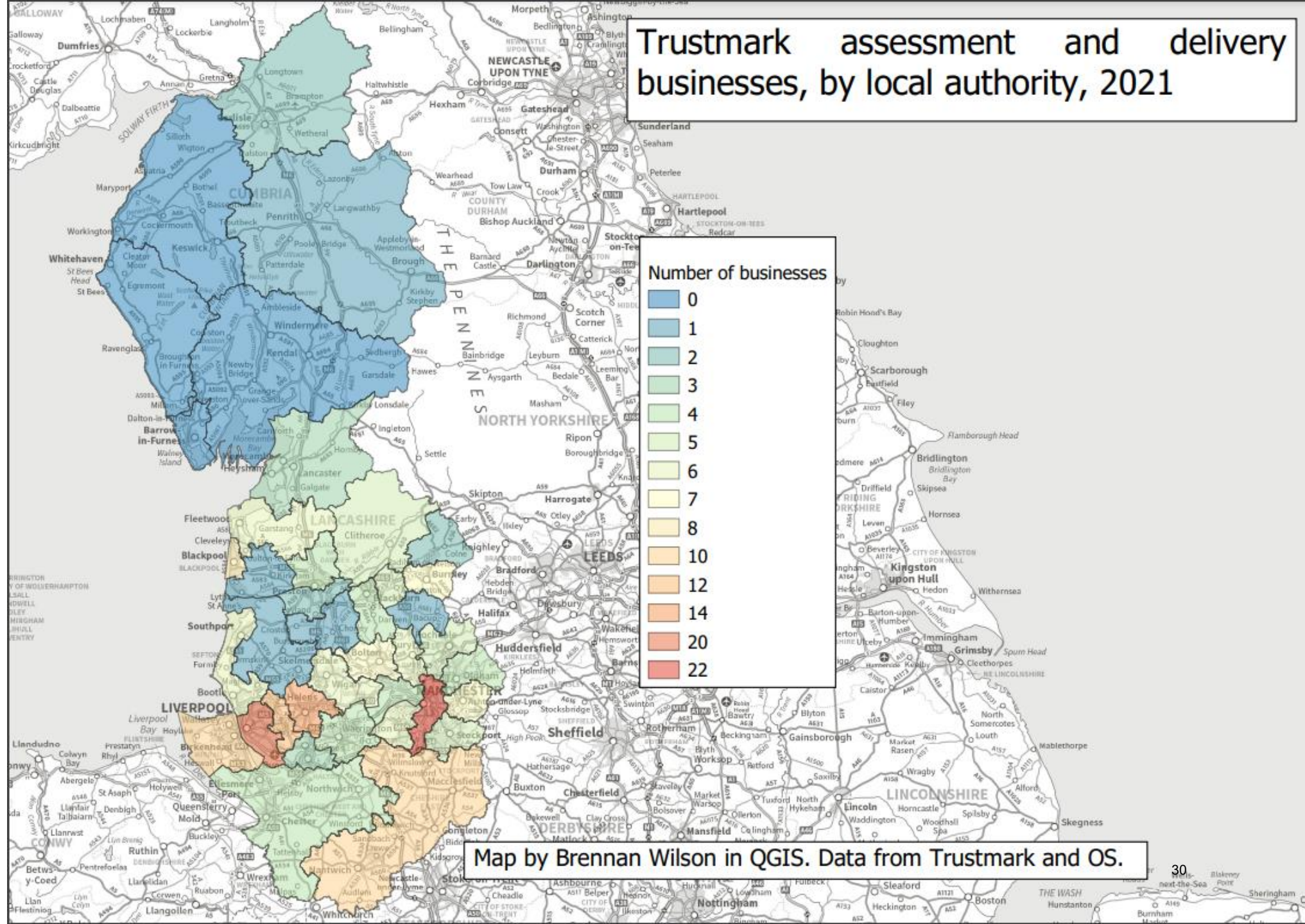
North West businesses registered with Trustmark for Building Services Electrical, 2021					
	C&W	Cumbria	GM	Lancashire	LCR
<b>Total</b>	1	2	8	18	7
Battery Storage Systems	0	0	0	1	0
Electric Storage Heaters [D1 - 2017]	0	1	6	9	4
Electric Storage Heaters [D1 - 2019]	0	0	2	7	1
Energy Efficient Lighting [D2 - 2017]	0	1	0	1	2
Mechanical Ventilation with Heat Recovery	1	0	0	0	0

North West businesses registered with Trustmark for Building Services Mechanical, 2021					
	C&W	Cumbria	GM	Lancashire	LCR
<b>Total</b>	6	10	80	70	52
Flue Gas Heat Recovery [C4 - 2017]	0	1	1	0	0
Heating & Hot Water Controls [C5 - 2019]	1	0	21	15	9
Heating & Hot Water Controls [C6 - 2017 - V]	0	0	3	3	4
Heating & Hot Water Controls [C6 - 2017]	2	1	30	25	19
Heating Engineers	3	7	14	21	13
Heating System Insulation [C4 - 2019]	0	0	2	0	0
Heating System Insulation [C5 - 2017 - V]	0	0	0	1	1
Heating System Insulation [C5 - 2017]	0	0	4	4	3
Hot Water Systems [C7 - 2017]	0	0	2	0	1
Underfloor Heating - Wet [C10 - 2017]	0	1	3	1	2

North West businesses registered with Trustmark for Assessment and Delivery, 2021					
	C&W	Cumbria	GM	Lancashire	LCR
<b>Total</b>	18	3	73	49	65
Domestic Energy Assessors	0	0	4	0	0
Energy Efficiency Retrofit Inspectors	0	0	0	1	0
Retrofit Assessor	15	3	57	40	53
Retrofit Co-Ordinator	3	0	12	8	12

In 2021, there were 202 businesses in the North West registered to deliver 'Assessment and Delivery' services with Trustmark, with the highest concentrations being in Manchester (22) and Liverpool (20).

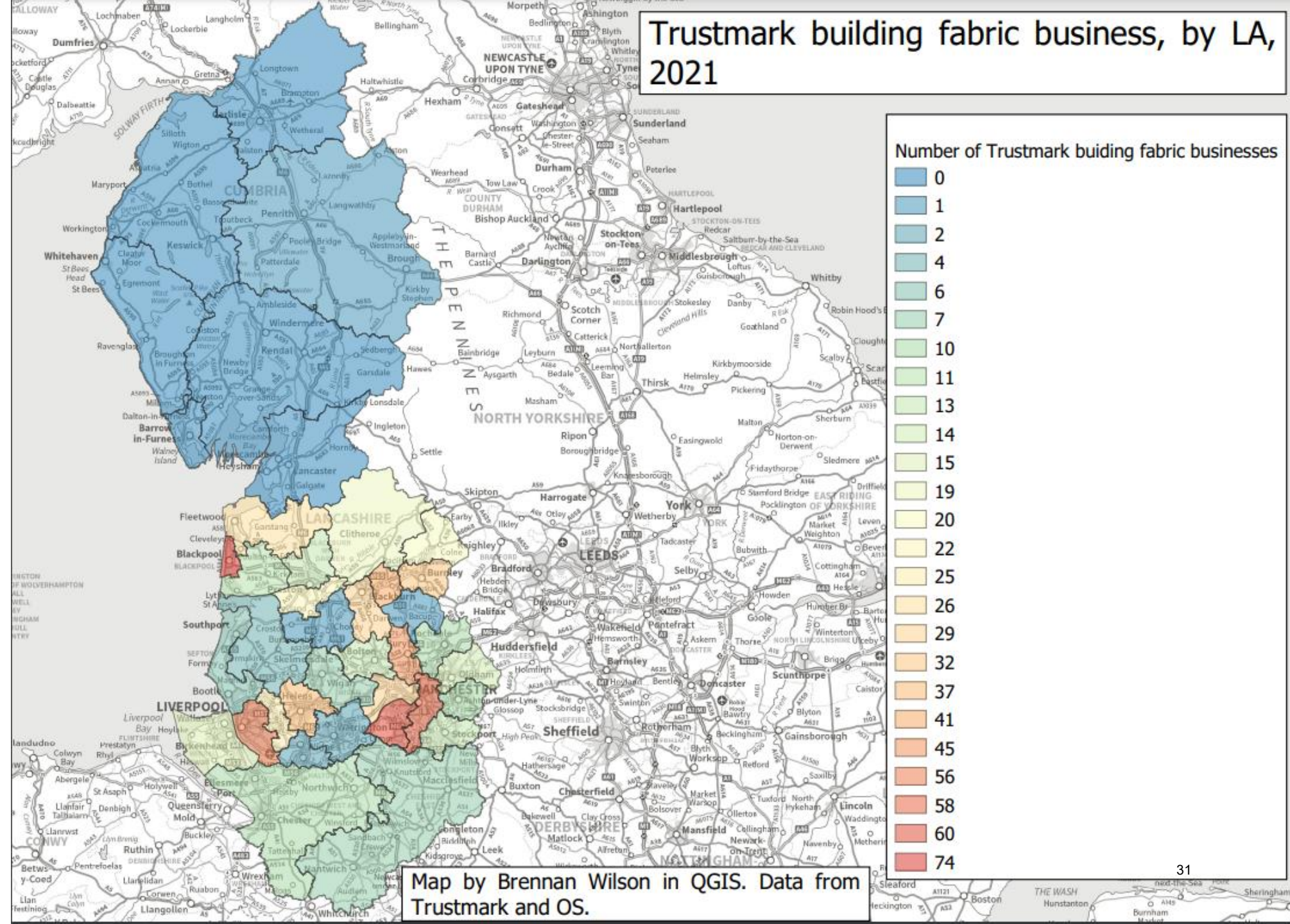
By contrast the six Districts of Cumbria had 3 registered businesses between them.



In 2021, there were 713 businesses in the North West registered to deliver 'Building Fabric' services with Trustmark, with the highest concentrations being in Blackpool (74) and Trafford (60).

By contrast the six Districts of Cumbria had 1 registered business between them.

# Trustmark building fabric business, by LA, 2021

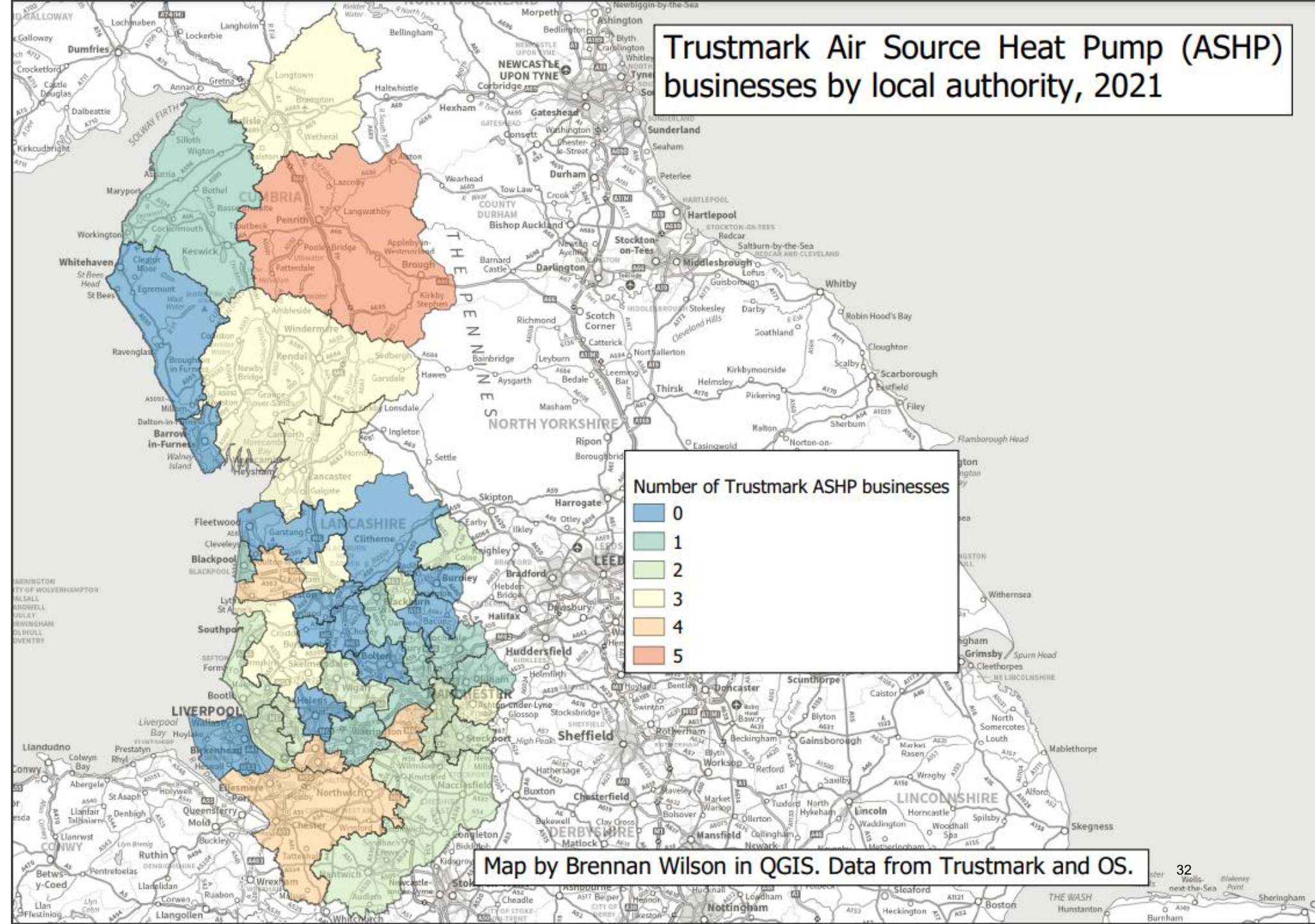


Map by Brennan Wilson in QGIS. Data from Trustmark and OS.

In 2021, there were only 65 businesses in the North West registered with Trustmark to install Air Source Heat Pumps. Eden was the local authority with the highest number of registrations (5).

Eleven local authorities had no registrations for ASHP installers:

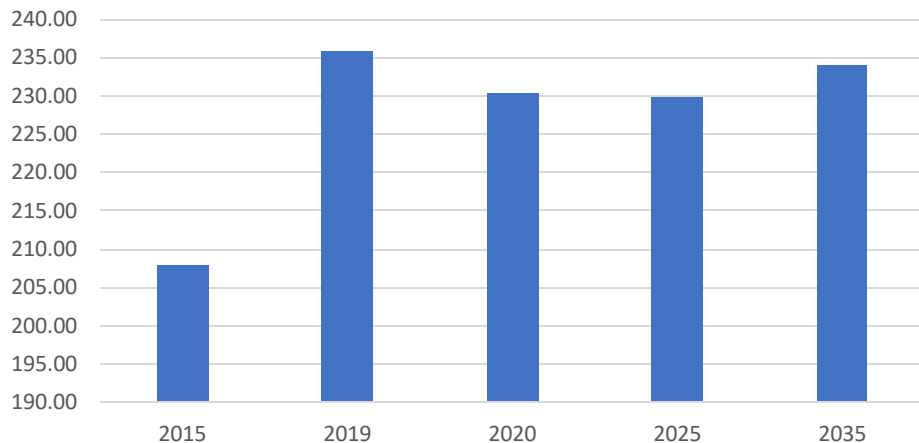
- St. Helens
- Burnley
- Wyre
- South Ribble
- Ribble Valley
- Wirral
- Bolton
- Chorley
- Rossendale
- Barrow-in-Furness
- Copeland



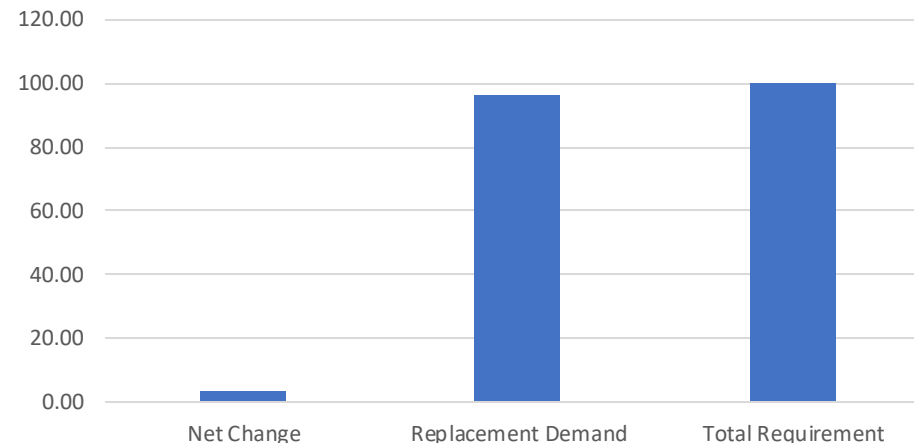
# Labour market forecasts

**The Institute of Employment Research forecasts that employment levels in Construction in the NW will remain stable to 2035 although demand for higher skills will increase. The main driver of demand will be replacement demand (almost 100k). The net requirement for skilled trades is expected to decrease although there will still be large levels of replacement demand.**

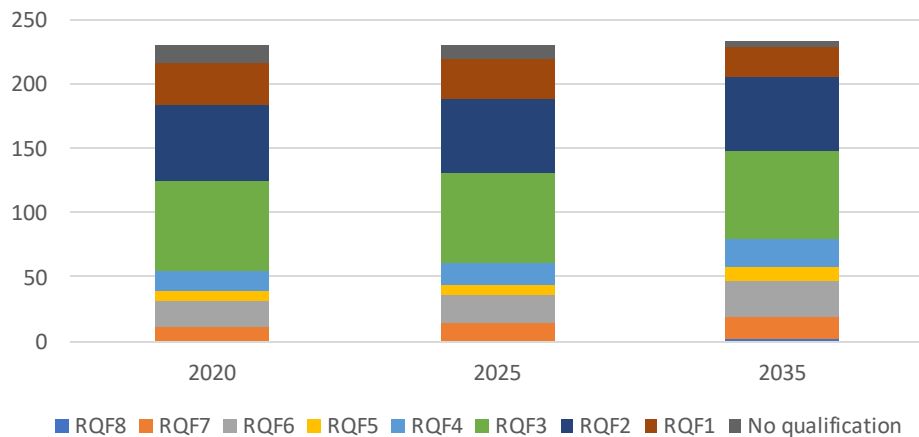
Forecast employment in the Construction sector in the NW, 2020-2035



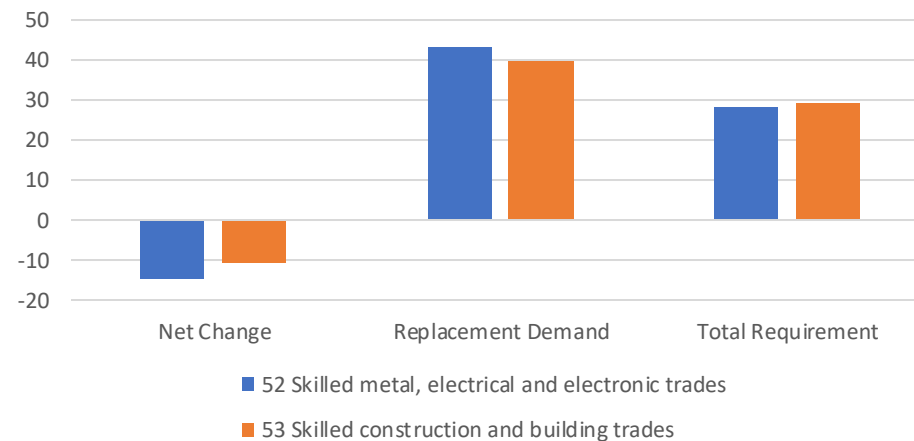
Forecast employment growth and replacement demand in the Construction sector in the NW, 2020-2035



Forecast employment and skills demand in all Construction in the NW 2020-2035

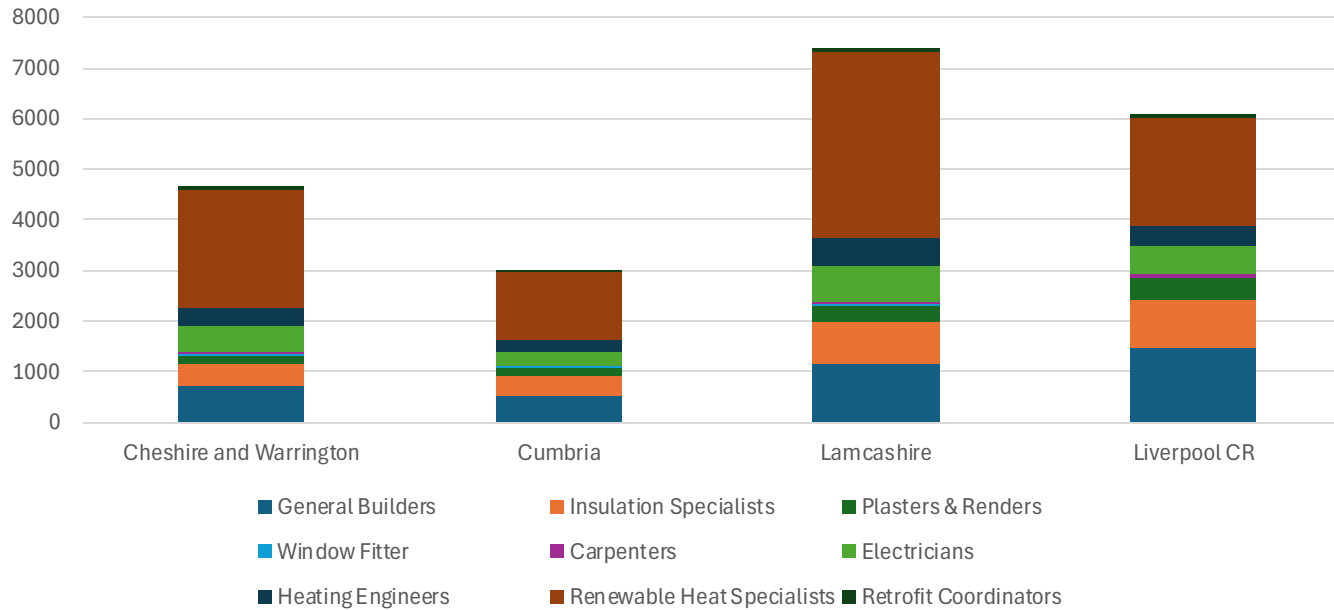


Net change and replacement demand for skilled trades in the NW, 2020-2035

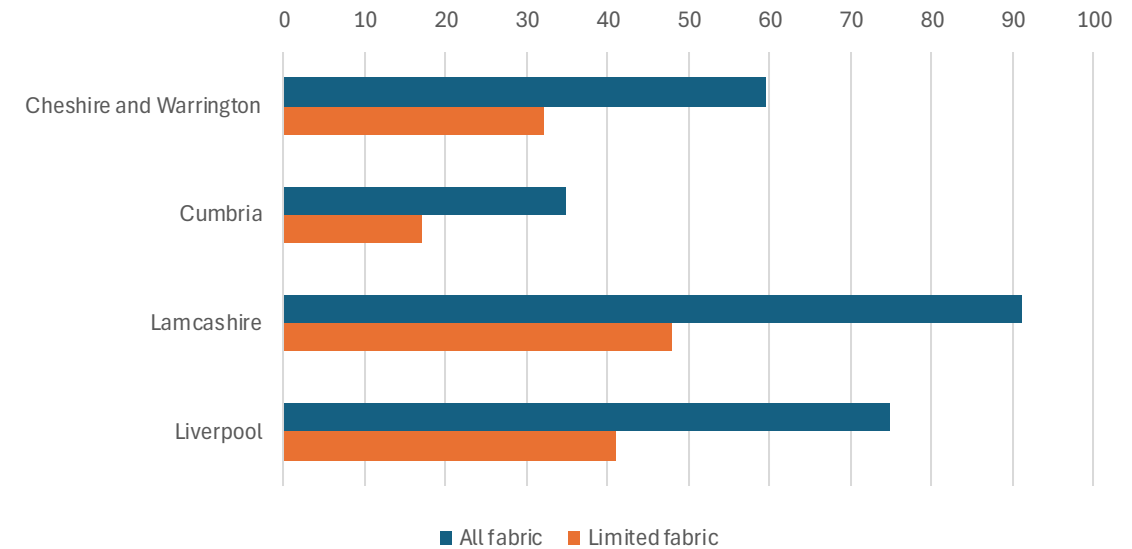


**The labour market pressures created by delivering housing retrofit by 2040, and even by 2050, will be particularly acute in the Plumbing, heat and air-conditioning installation subsector; and particularly so in Cheshire and Warrington, Cumbria and Lancashire. There will also be a requirement for a Retrofit Coordinator workforce of c400 in the North West.**

**Retrofit workforce demand by subregion (2040 target, all fabric scenario)**



**Retrofit coordinator requirement by sub-region (2040 target) both scenarios**



**Current subregional employment in key subsectors compared to Parity estimates of annual retrofit labour requirement (all fabric scenario, 2040 Target).**

	Insulation specialists	Plumbing and heating	Current employment in the other construction installation subsector	Current employment in the Plumbing, heat and air-conditioning installation subsector
C&W	438	2711	800	2,000
Cumbria	406	1571	600	1,000
Lancs	825	4218	1,000	3,500
LCR	953	2514	1,000	4,500

**Current subregional employment in key subsectors compared to Parity estimates of annual retrofit labour requirement (limited fabric scenario 2040 target).**

	Insulation specialists (2040 Target)	Plumbing and heating (2040 target)	Current employment in the other construction installation subsector	Current employment in the Plumbing, heat and air-conditioning installation subsector
C&W	88	1657	800	2,000
Cumbria	63	953	600	1,000
Lancs	177	2569	1,000	3,500 <sup>35</sup>
LCR	479	1436	1,000	4,500

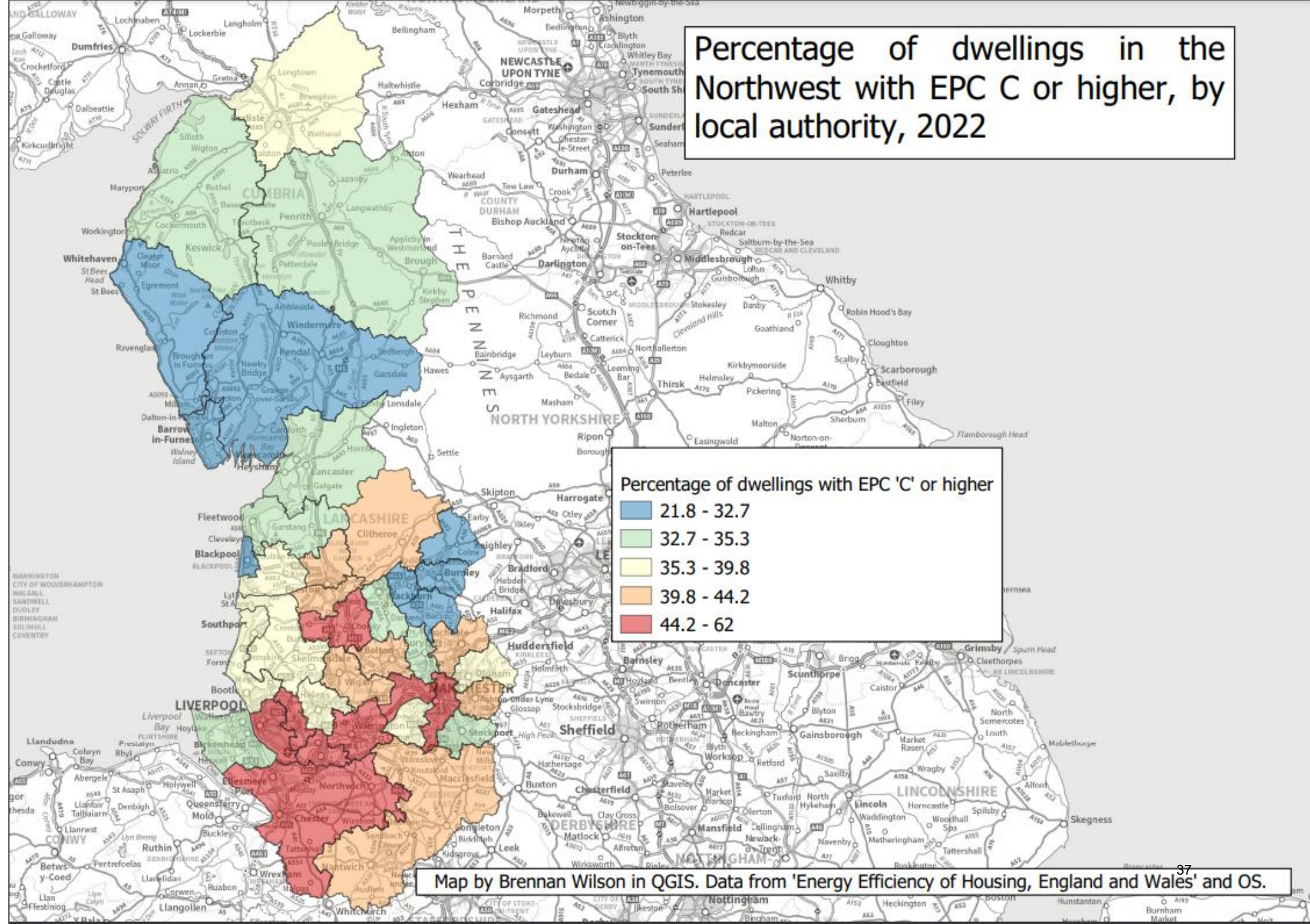
Sources: Parity projects and BRES (ONS)

# Housing and energy context



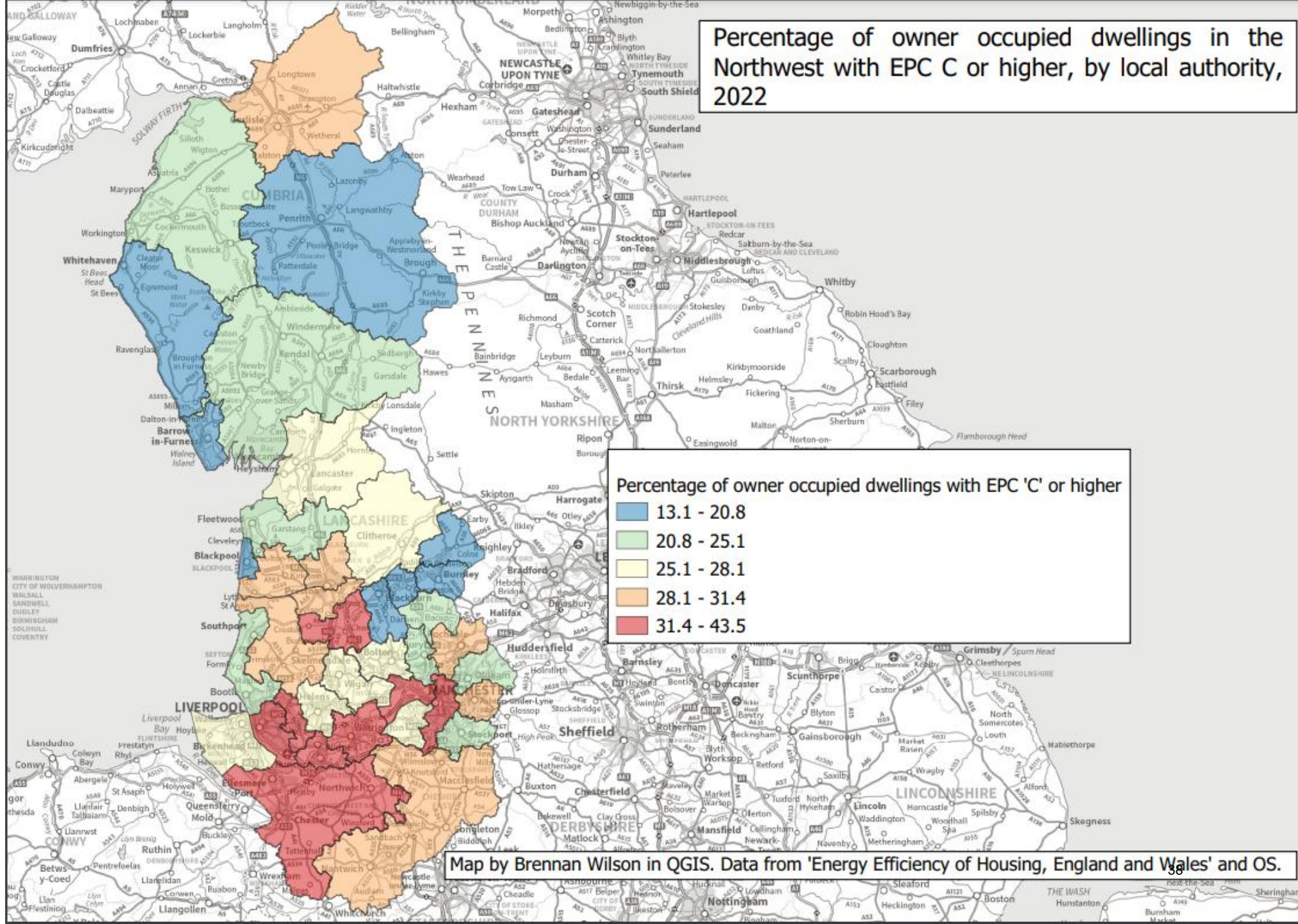
Up to 2023, the median energy efficiency score of all dwellings in the North West was 67 (68 for England).

There was a significant variation in the percentage of dwellings with EPC C or higher in local authorities in the North West, with 21.8% in Pendle to 62% in Salford.



In general, the energy efficiency of owner-occupied dwellings in the North West tends to be lower than that for all dwellings.

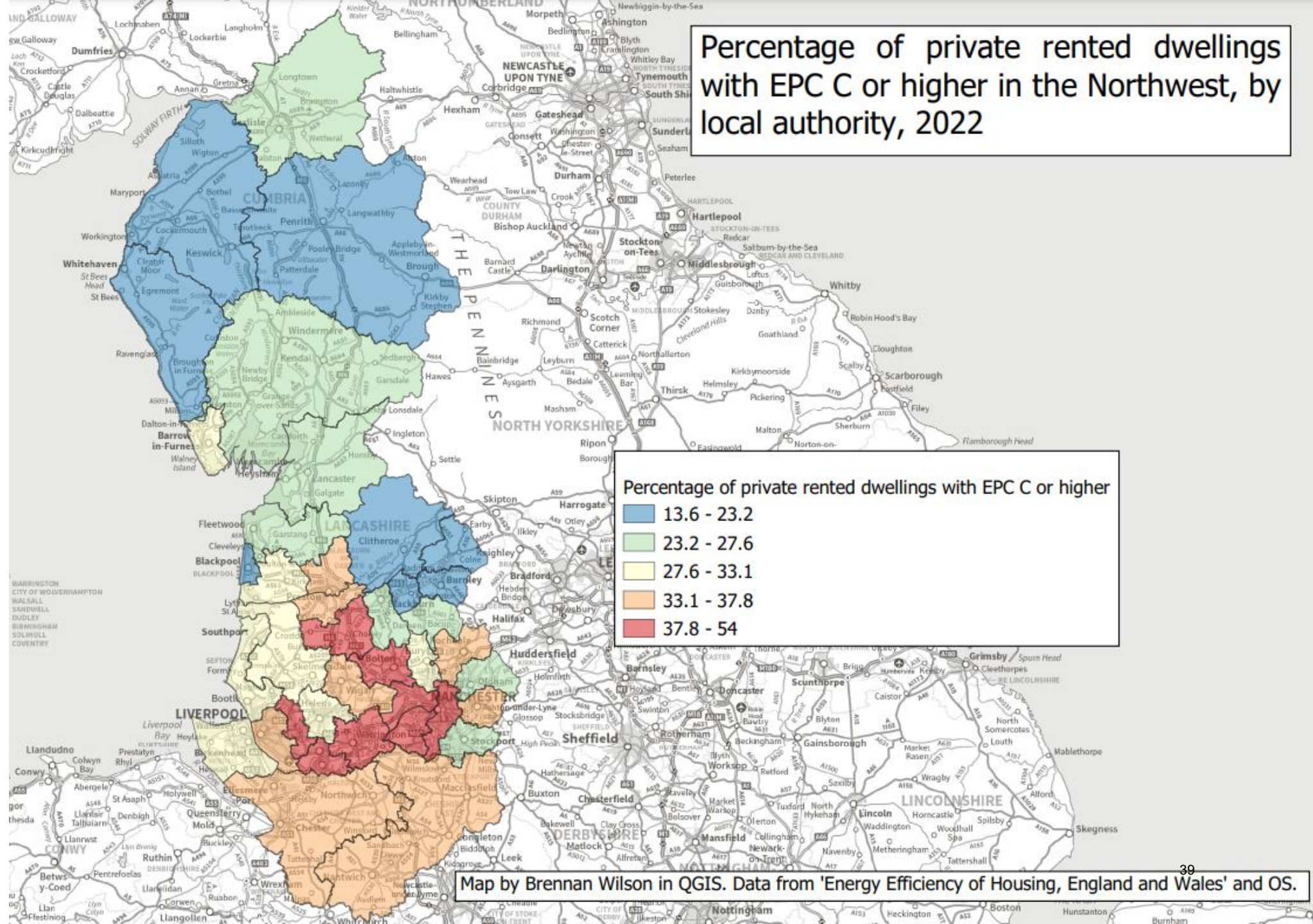
The percentage of owner-occupied dwellings with an EPC C in the North West ranged from 13% in Pendle to 43% in Salford.



Percentage of owner occupied dwellings in the Northwest with EPC C or higher, by local authority, 2022

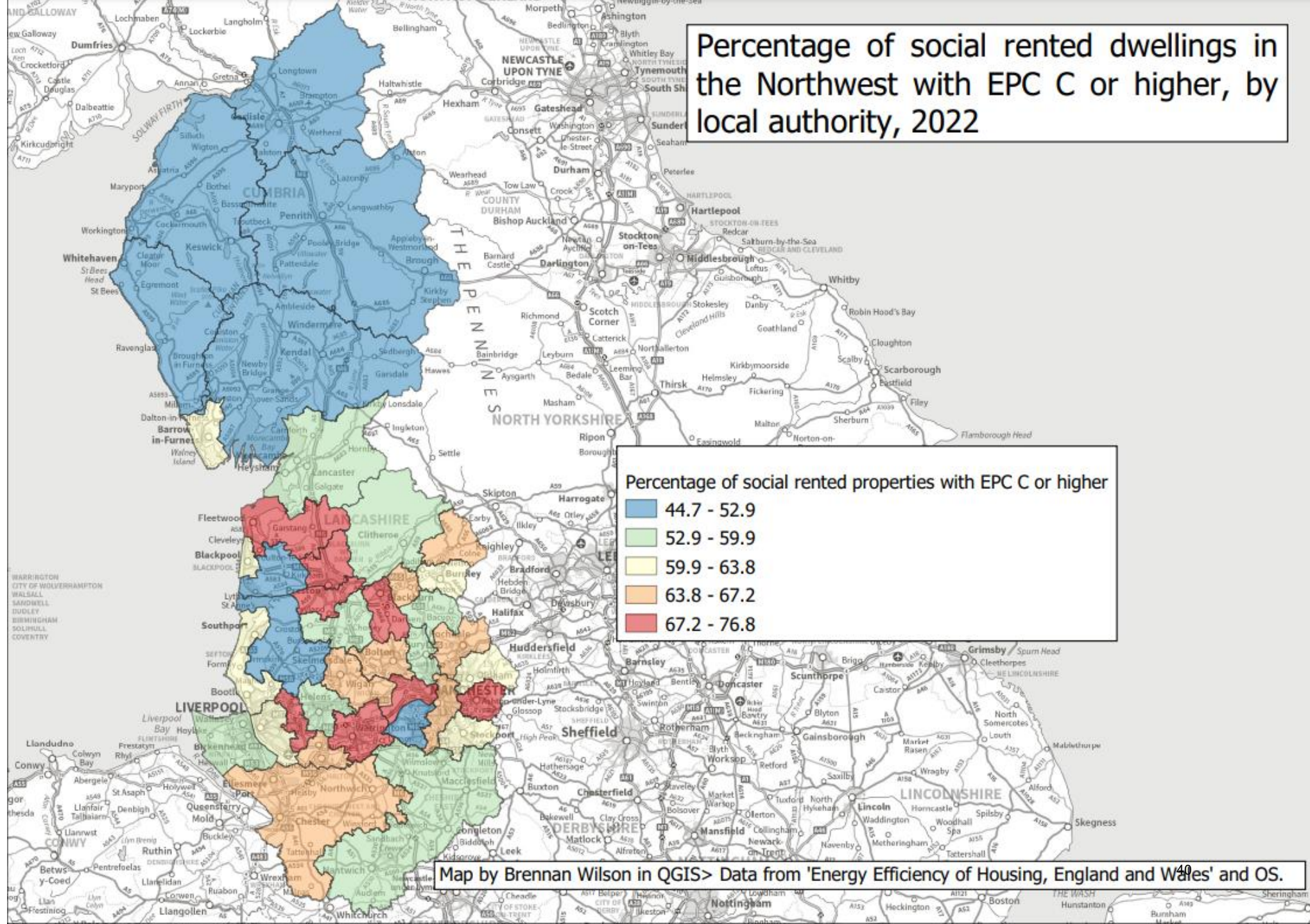
Similarly, the percentage of private rented dwellings with EPC C in the North West also tended to be lower than that for all dwellings in the region.

Once again, Pendle had the lowest percentage with 13.6% and Salford the highest with 54%.



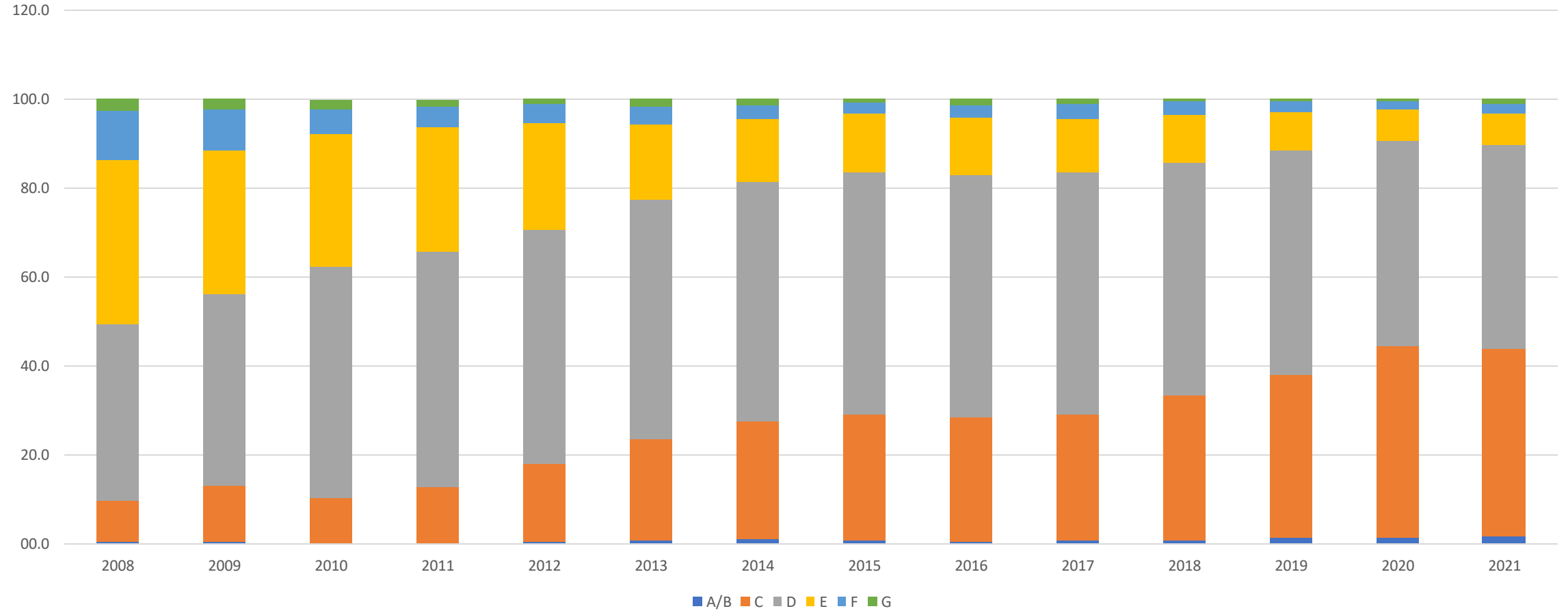
By contrast, the percentage of social housing that ranks at C or above tends to be higher than that for all dwellings in the North West.

The local authority with the lowest percentage of social rented at EPC C or above was Allerdale District and the local authority with the highest percentage for social housing was Salford.

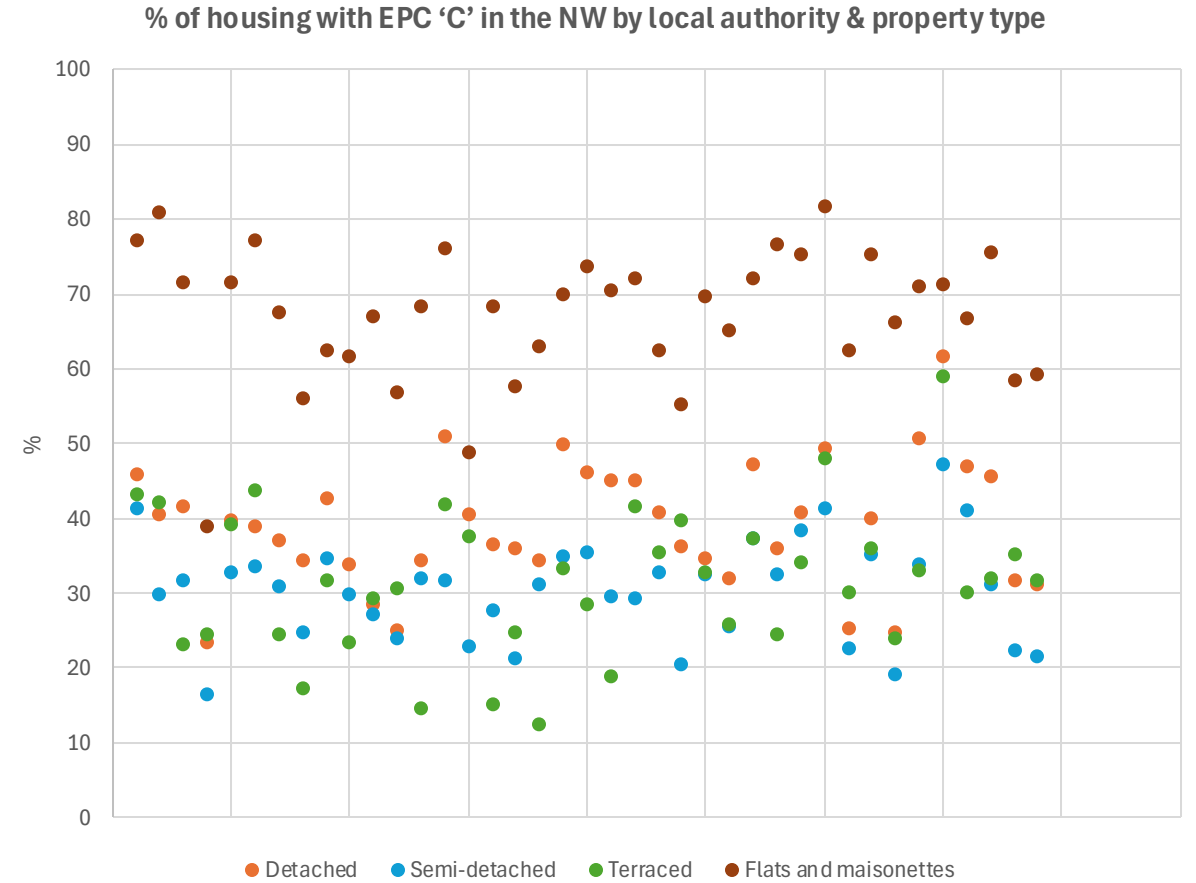
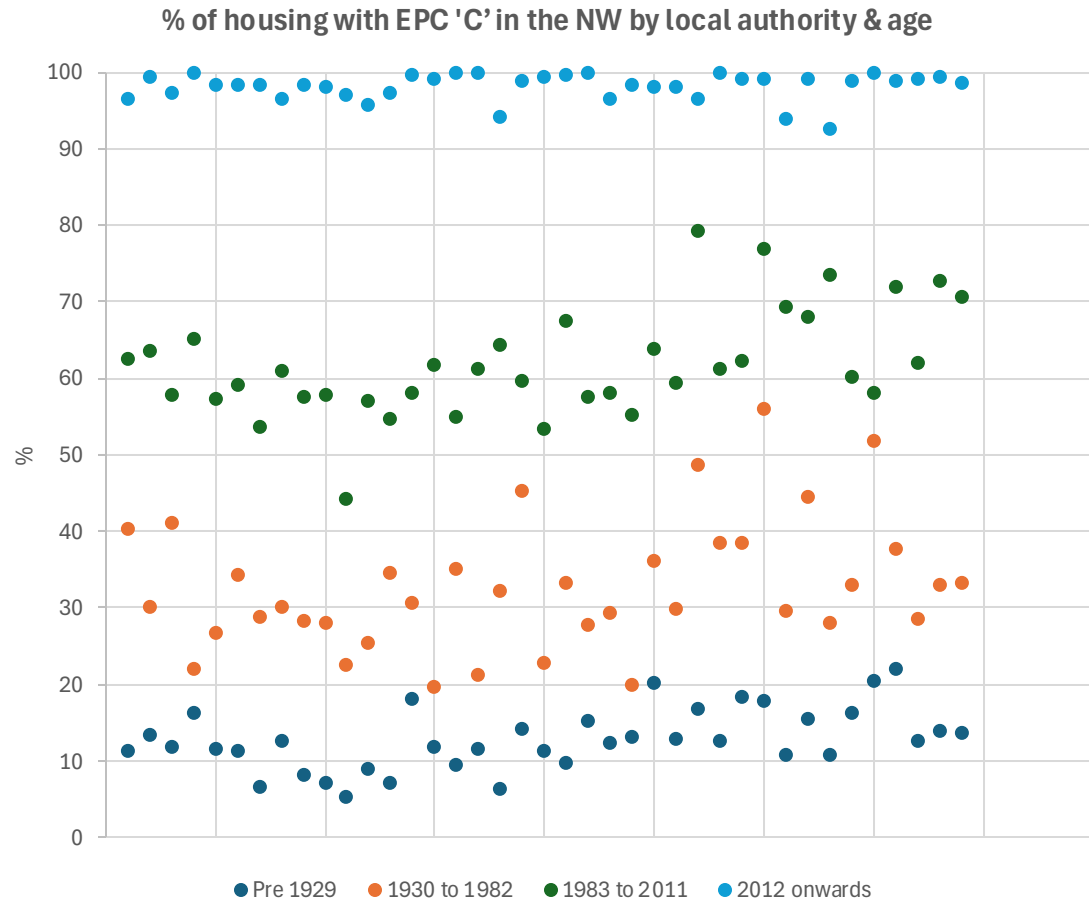


The proportion of all households that are graded at EPC C or higher in the North West (North) has increased from 9.6% in 2008 to 44.5% in 2020. This represents an annual increase of 2.9ppt in the percentage of stock graded at EPC C or higher. If the rate of increase in the percentage of housing stock achieving EPC C continues, it will take c20 years to achieve full coverage at this level.

Housing energy efficiency in the NW(North), 2008-2021

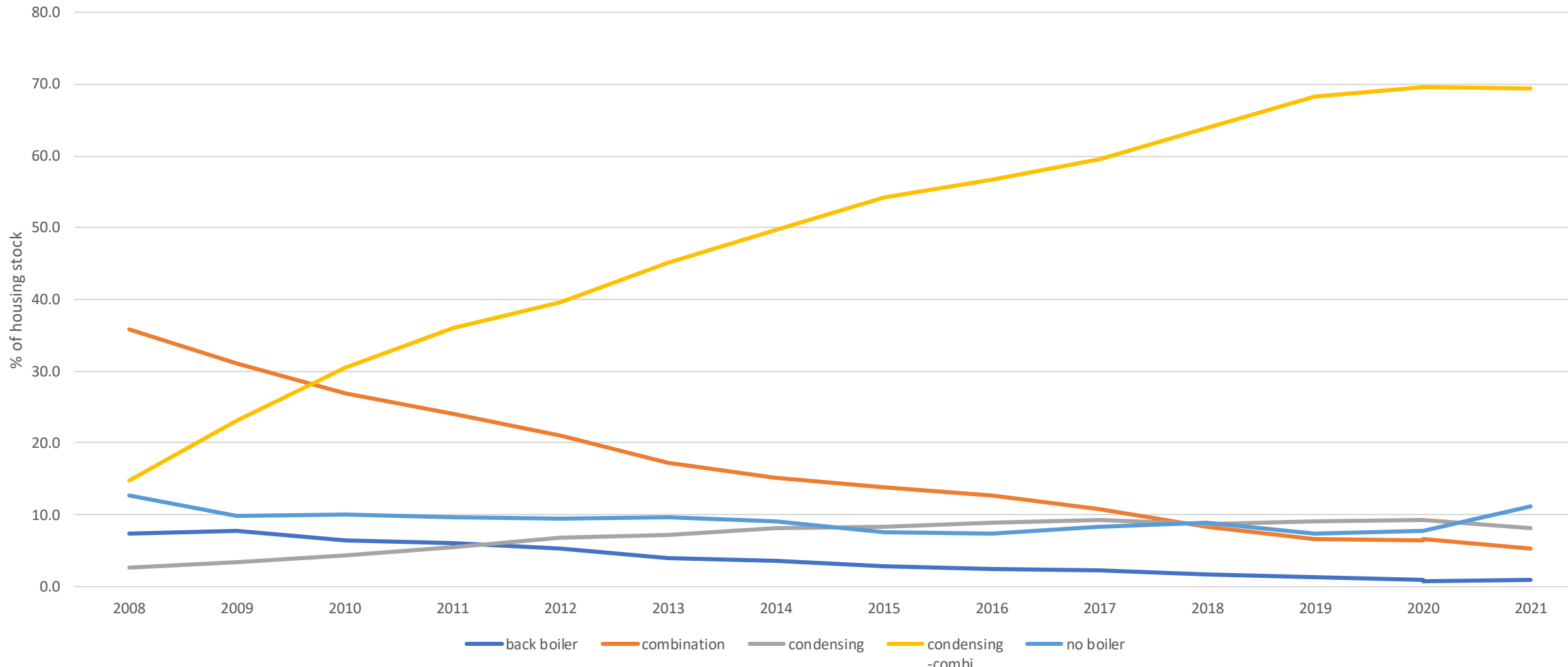


The older a property is the less likely that it will be grade as EPC 'C'. Flats and detached houses are generally more likely to be graded at EPC 'C' than terraced and semi-detached houses.



The percentage of housing stock heated by condensing-combi boiler has seen a year-on-year increase from 2008 to the pandemic in 2020, increasing from 14.8% to 69.6%. This represents an average ppt increase of 4.6% pa. If ASHP take up were to happen at the same rate it would take c19 years for full roll out.

Housing boiler types in the NW/North (all dwellings), 2008-2021

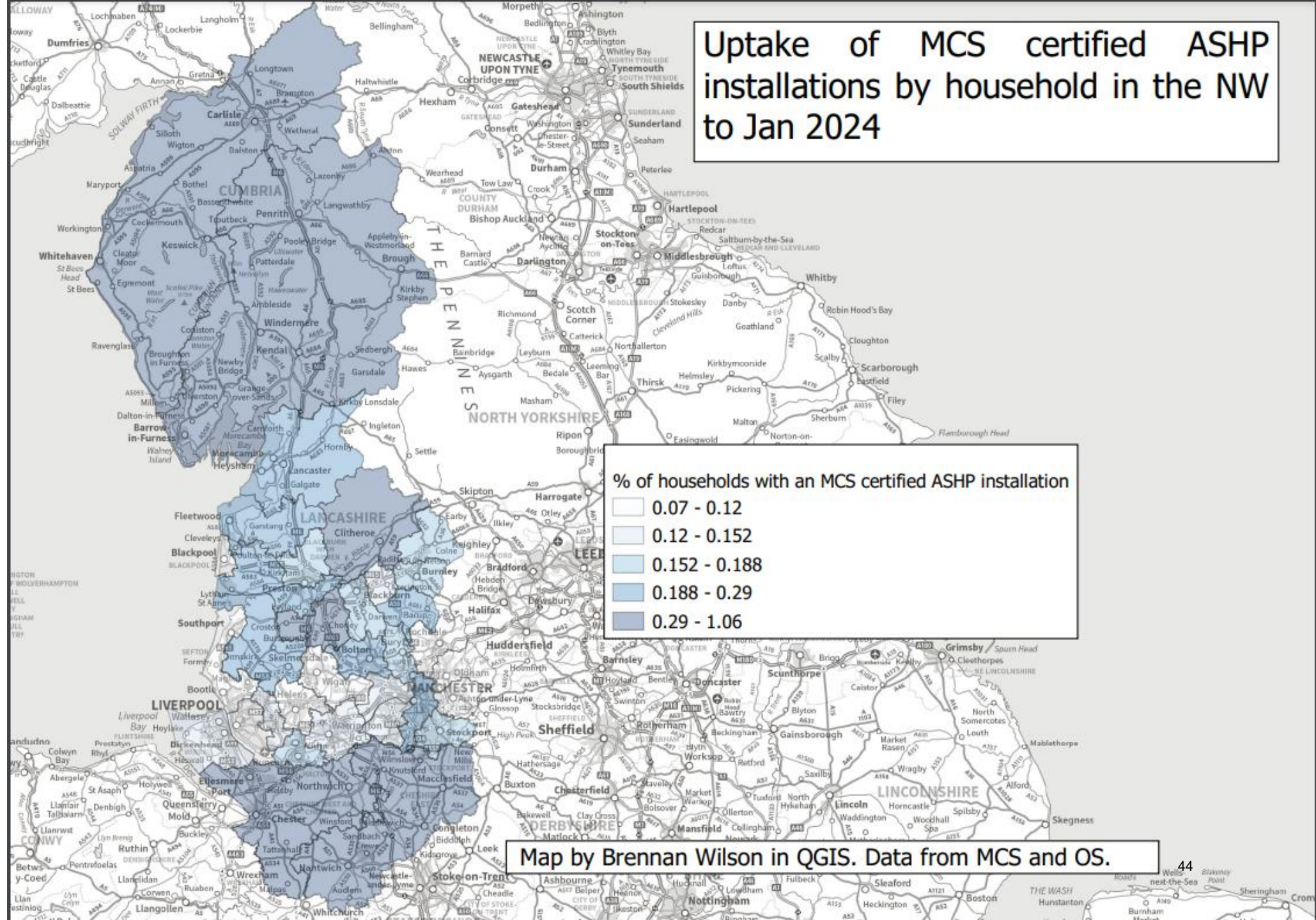


Source: English Housing Survey, data to 2019 is for the whole of the North

Very low numbers have converted to ASHP so far.

The proportion of households with and MCS certified ASHP installation is 1% or below in every local authority in the North West.

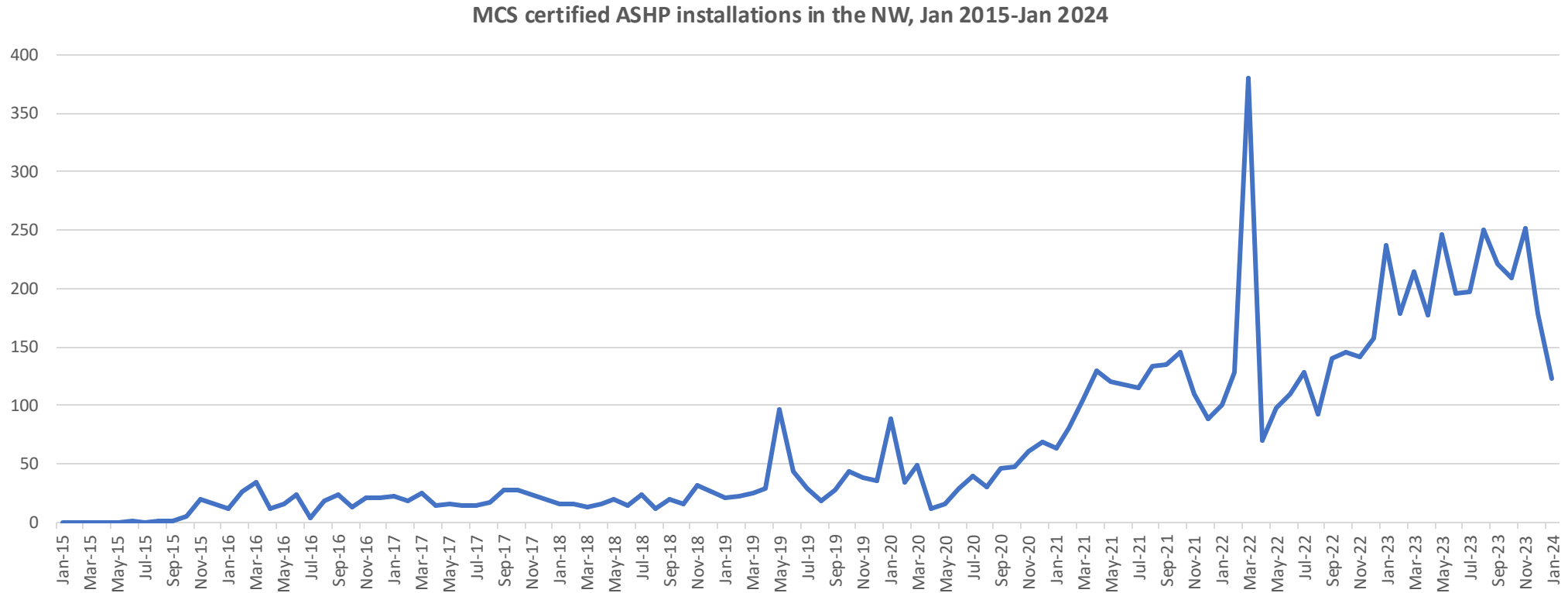
Uptake of MCS certified ASHP installations by household in the NW to Jan 2024



Map by Brennan Wilson in QGIS. Data from MCS and OS.

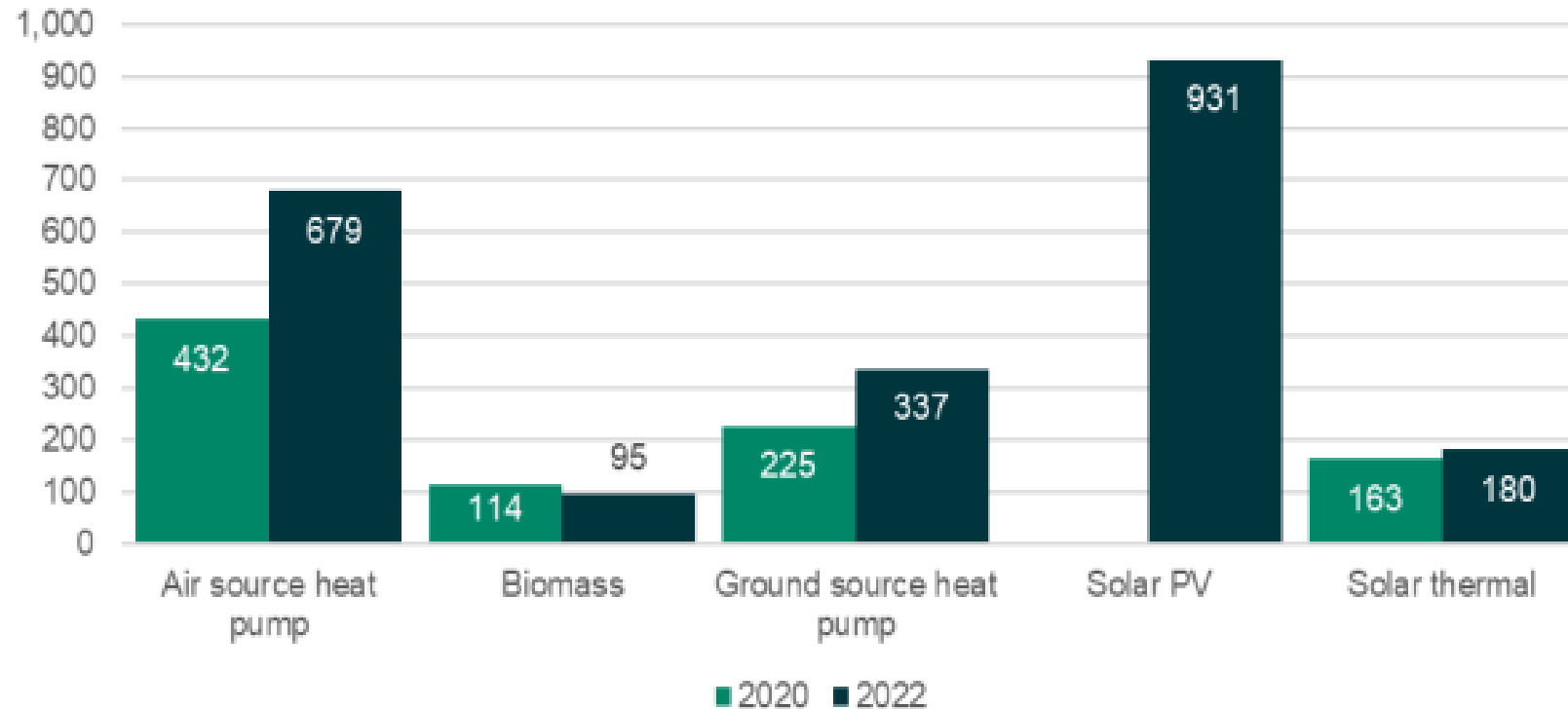


The 162 MCS certified contractors in the North West are slowly ramping up delivery of ASHP installations. The high point for monthly installations was in March 2022, which saw 380. If monthly delivery continued at this peak, it would take about 700 years to roll out ASHPs in the North West.



The chart below is taken from the evaluation of the North West Housing Retrofit Programme, published in July 2023. The evaluation found that the growth in MCS installers for ASHP could, in part, be attributed to LAD 2

Figure 18 – MCS installers pre-programme and post-LAD 2



# **Learning and Skills Delivery**

# Skills Funding eligibility

**MCS specify the qualifications required to become an MCS certified Air Source Heat Pump installer. More than half of these (colour-coded green) are fundable by the ESFA. Other than the apprenticeship qualifications (L3 Diplomas from C&G and BPEC), current ESFA-funded delivery of these learning aims in the North West is negligible.**

Course type	Course title	Approved by
Heat Pumps	<a href="#">Air Source Heat Pump Installer Course</a>	BESA
Heat Pumps	<a href="#">Level 3 Award in Air Source Heat Pump Systems (Non-refrigerant Circuits)</a>	BPEC 1
Heat Pumps	<a href="#">BPEC Level 3 Award in the Installation and Maintenance of Heat Pump Systems (Non-refrigerant Circuits)</a>	BPEC 0
Heat Pumps	<a href="#">Level 3 NVQ Dip in Domestic Plumbing &amp; Heating 600/6863/2 - EN2 (Heat Pumps)</a>	BPEC
Heat Pumps	<a href="#">Heat pump system - air source/ground source heat pump</a>	BPEC
Heat Pumps	<a href="#">Level 3 Diploma in Plumbing and Domestic Heating (9189-04/05/06/07)</a>	City & Guilds
Heat Pumps	<a href="#">Level 3 Award in the Installation and Maintenance of Heat Pump Systems (Non-refrigerant Circuits)</a>	EAL
Heat Pumps	<a href="#">Level 3 Award in the Installation and Maintenance of Air Source Heat Pump Systems (Non-refrigerant Circuits)</a>	LCL
Heat Pumps	<a href="#">Level 3 Award in the Installation and Maintenance of Heat Pump Systems (Non-refrigerant Circuits)</a>	LCL
Heat Pumps	<a href="#">Heat Pump qualification</a>	NICEIC
Heat Pumps	<a href="#">Installation, commissioning and servicing of air source heat pumps (OFT21-504A)</a>	OFTEC
Heat Pumps	<a href="#">Design of heat pump systems (OFT21-504D)</a>	OFTEC

# **Construction in Apprenticeships (all age)**

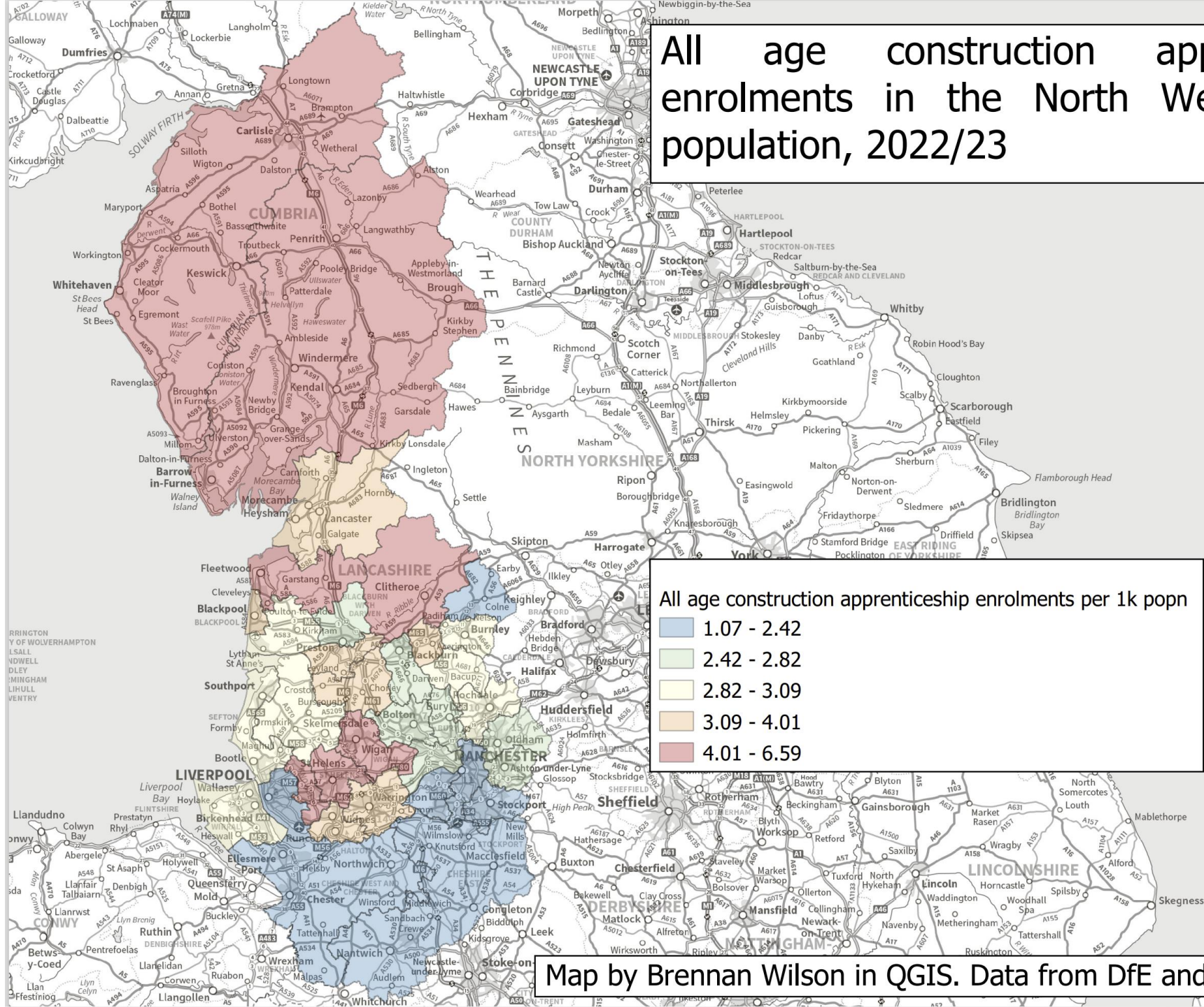
In 2022/23, there was 4,668 apprenticeship starts in Construction in the North West. If the national achievement rate for apprenticeships (53%) were to be delivered in the sector in the region, this would amount to 2,474 achievements.

<b>Construction Apprenticeship starts in the North West, 2022/23</b>				
	Advanced Apprenticeship	Higher Apprenticeship	Intermediate Apprenticeship	Total Starts
Cheshire and Warrington	132	73	192	397
Cumbria	220	62	230	512
Greater Manchester	372	232	864	1468
Lancashire	268	132	508	908
Liverpool City Region	780	358	245	1383
North West	1772	857	2039	4668
<b>Source: ESFA datacube (residency)</b>				

The variation in the number of (all age) enrolments on construction apprenticeships by local authority is quite wide with the number of enrolments per 1k population being lower in the South of the region and higher in Cumbria.

The local authority with the highest rate of enrolment is Cumberland, with an enrolment rate almost six time higher than the authority with the lowest enrolment rate, which is Manchester.

All age construction apprenticeship enrolments in the North West per 1k population, 2022/23



Map by Brennan Wilson in QGIS. Data from DfE and Census 2021.

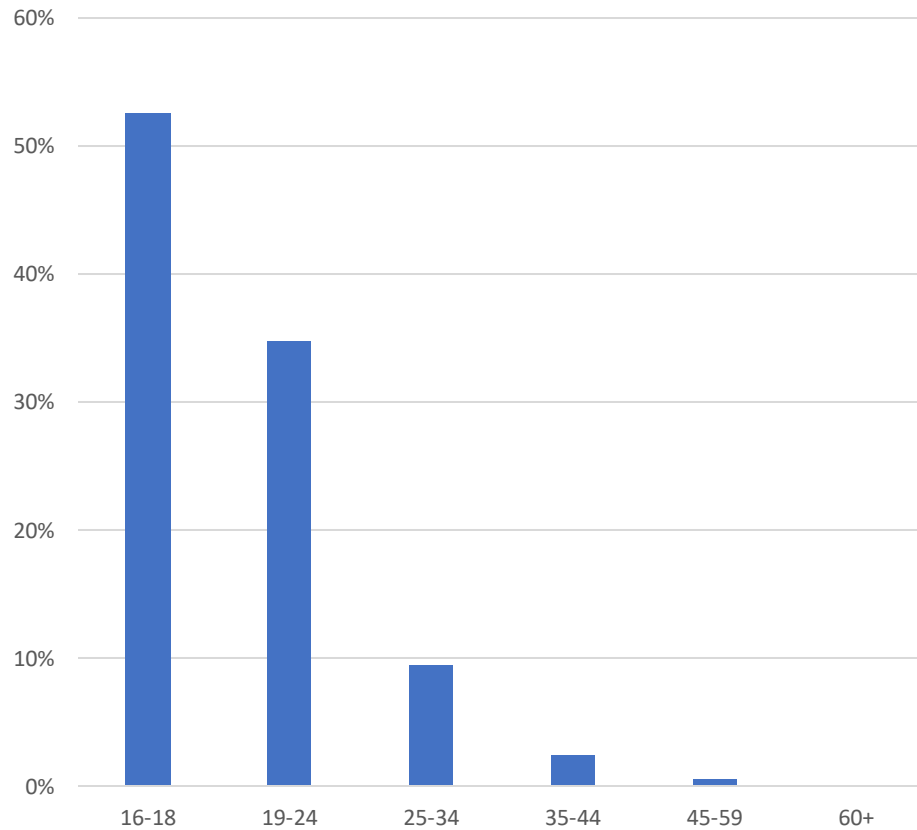


**The main providers of construction apprenticeships (all ages) in the North West tend to be colleges, with some locally significant ITPs (Gen2, Growth Company and Total People) also in the mix.**

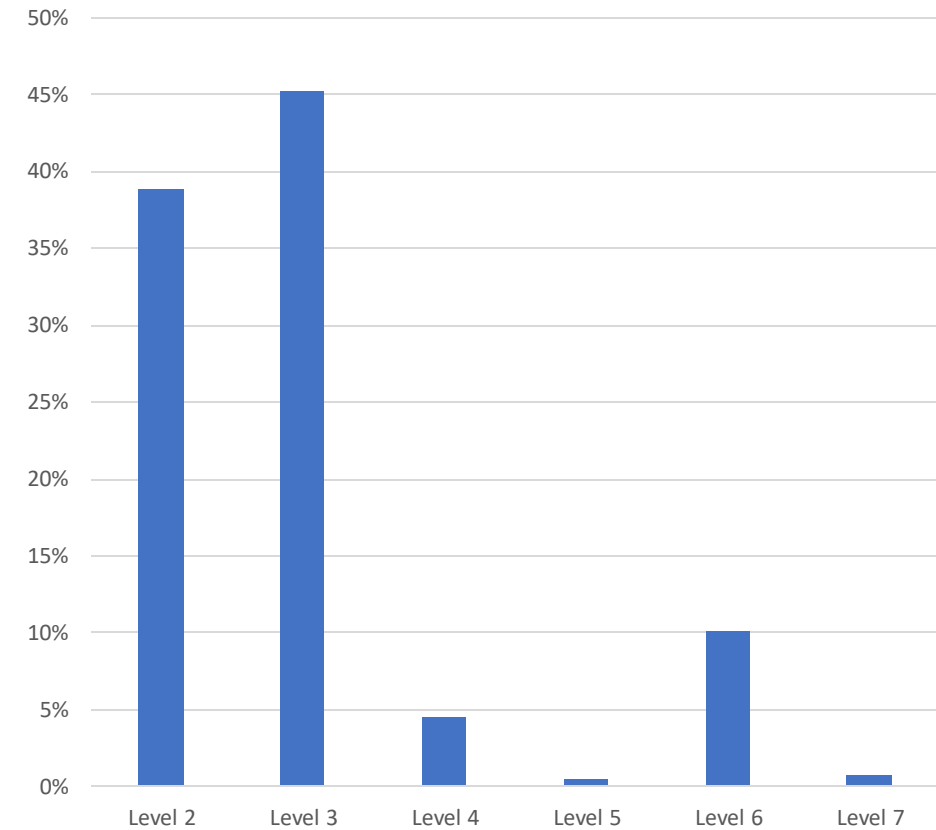
<b>Main Construction apprenticeship providers in the NW</b>
Wigan and Leigh College
The City of Liverpool College
St Helens College
Salford City College
Preston College
The Growth Company Ltd
Liverpool John Moores University
Blackpool and The Fylde College
Warrington & Vale Royal College
Bolton College
Genii Engineering & Technology Training Ltd
Lakes College West Cumbria
Hopwood Hall College
NCG
Burnley College
University of Salford
Wirral Metropolitan College
Total People Ltd
Cheshire College South and West
<b>Source: DfE</b>

**Almost 90% of enrolments on apprenticeships in Construction in the North West are by people aged 24 and below. 45% of these enrolments are at Level 3 with a further 39% being at Level 2**

Construction apprenticeship enrolments in the NW by age band, 2022/23

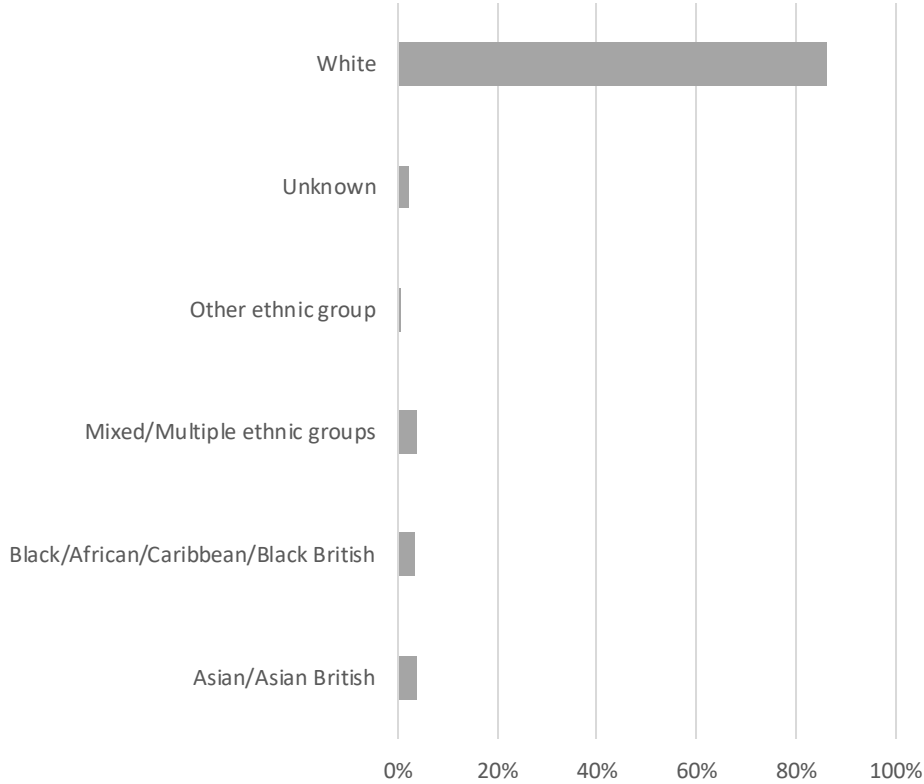


Construction apprenticeship enrolments by Level, NW, 2022/23

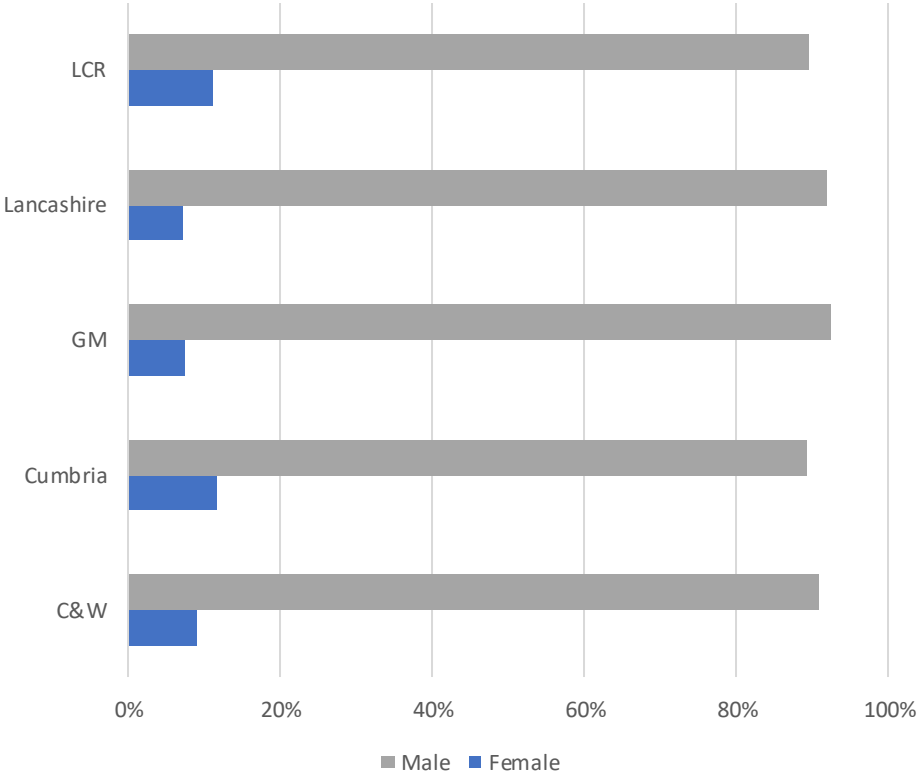


The ethnicity of apprenticeship enrolments in Construction is not published for the NW but it is known that the number of BAME apprentices in the NW is very low. There are very significant gender disparities in construction apprenticeship enrolments ranging from 7% female enrolments (Lancashire and GM) to 12% (Cumbria).

Ethnicity of construction apprenticeship starts, national, 2022/23



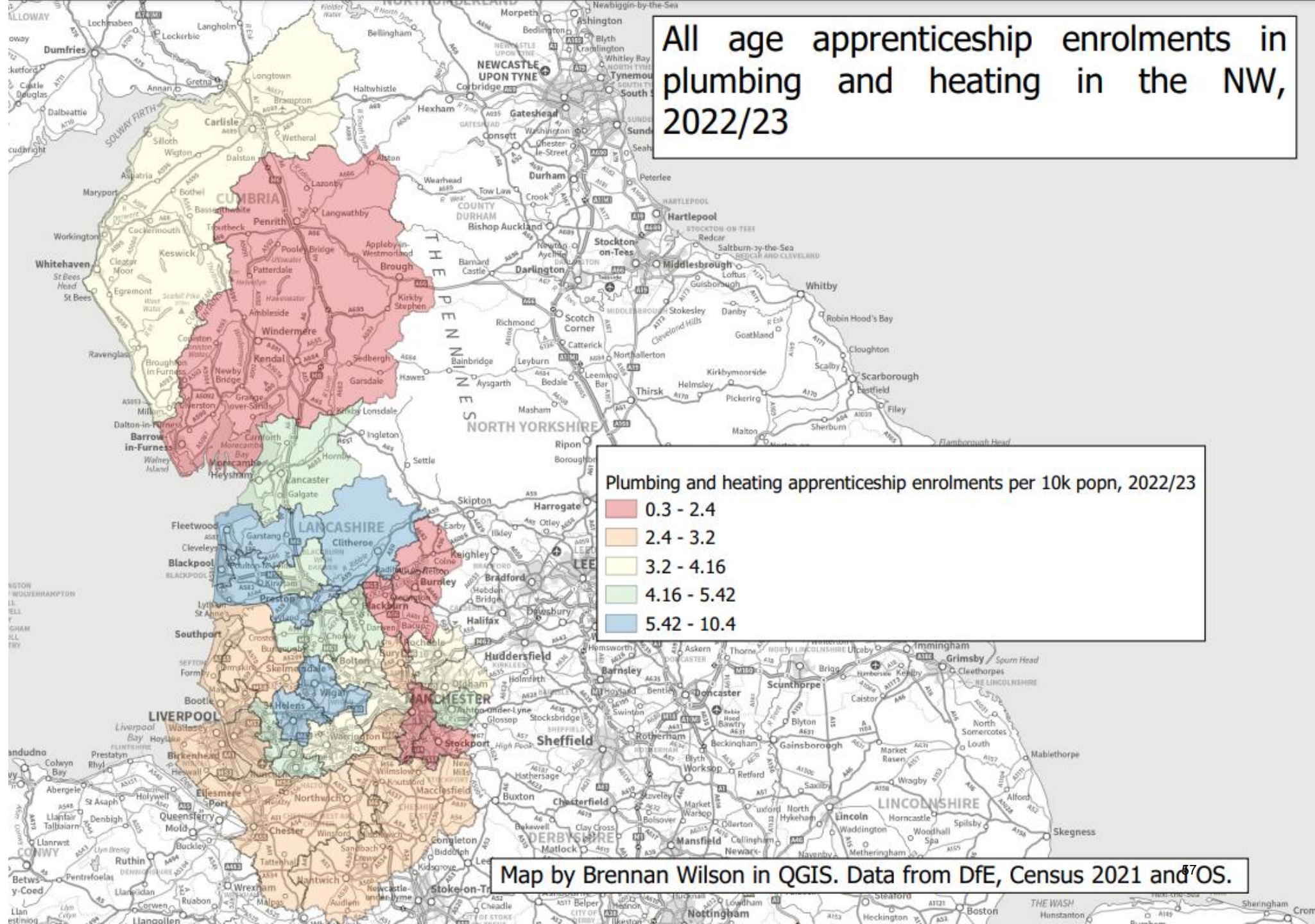
Gender of apprenticeship starts, in the NW, by sub-region, 2022/23



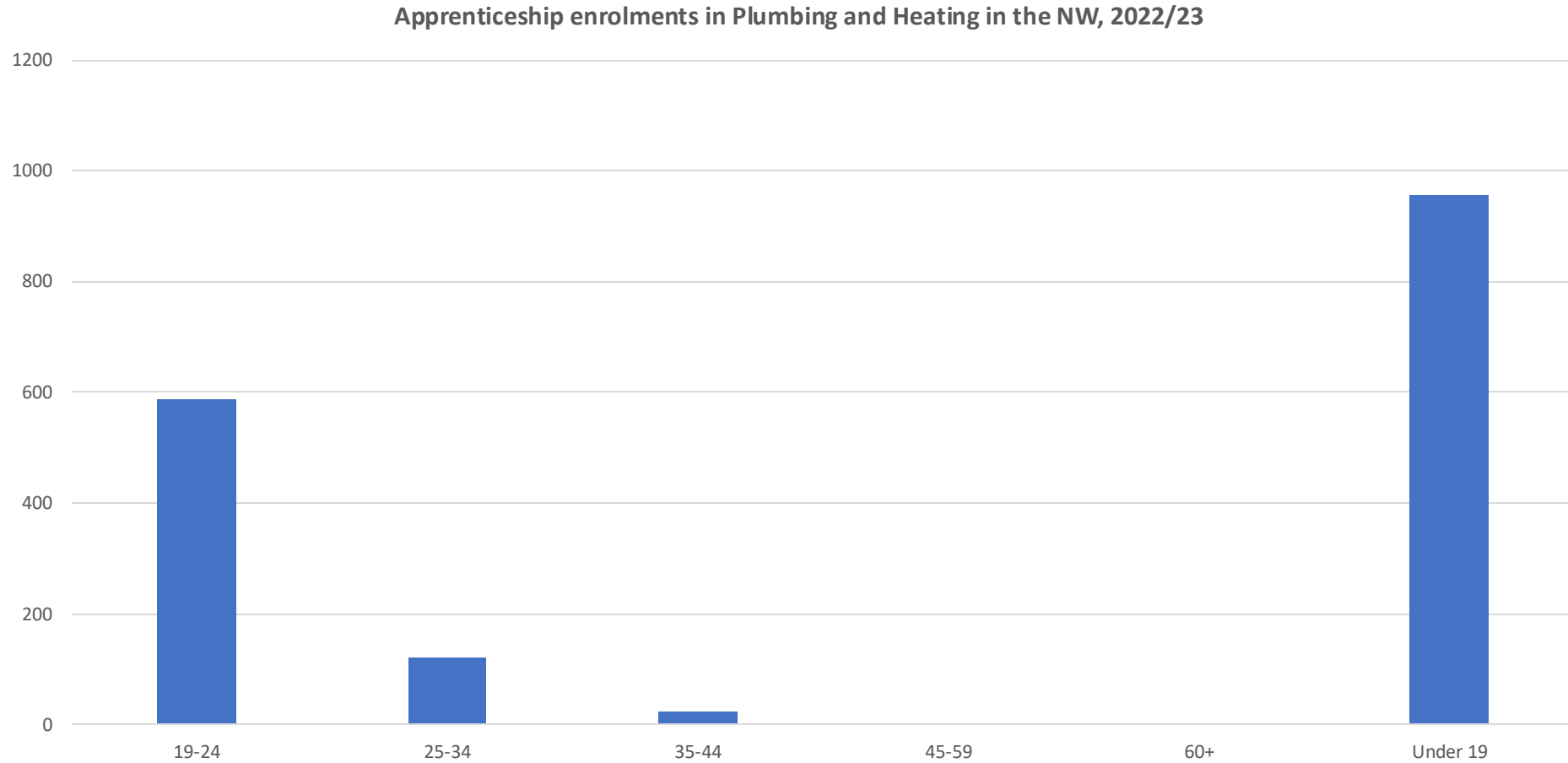
# **Plumbing and Heat Engineering in Apprenticeships (all age)**

There is a very large variation in the number of apprenticeship enrolments in plumbing and heating per 10k of the 16-64 population.

The lowest is 0.3 enrolments per 10k population in Pendle which is 35 times lower than the 10.4 per 10k that is seen in Wigan.



**In 2023 the total number of apprenticeship enrolments in plumbing and heating in the NW (all ages) was c1.7k, with 56% of those being by learners aged under 19, and a further 35% being aged 19-24**



**Almost two thirds of the plumbing and heating apprenticeship enrolments in the North West were in the Level 3 Diploma in Plumbing and Domestic Heating. There is an option within this qualification to take a unit in Air Source Heat Pump Systems but there is no data available on take up of this in the NW.**

<b>Apprenticeship learning aim enrolments in Plumbing and Heating in the NW, 2022/23</b>	
	<b>Enrolments</b>
Total	1694
Diploma in Plumbing and Domestic Heating	1072
Diploma in Refrigeration, Air-Conditioning and Heat Pump Systems	303
Heating and Ventilating Craftsperson Qualification (Industrial and Commercial)	122
NVQ Diploma in Domestic Plumbing and Heating (Gas Fired Water and Central Heating Appliances)	49
NVQ Diploma in Plumbing and Heating	40
NVQ Diploma in Installing, Testing and Maintaining Air Conditioning and Heat Pump Systems	38
Heating and Ventilating Installer Qualification (Industrial and Commercial)	36
NVQ Diploma in Domestic Plumbing and Heating	13
NVQ Diploma in Heating and Ventilating Industrial and Commercial Installation	11
NVQ Diploma in Domestic Heating	3
NVQ Diploma in Planned and Reactive Maintenance on Heating and Ventilating Systems	3
Technical Certificate in Plumbing	2
Diploma in Gas Utilisation Installation and Maintenance: Cookers, Tumble Dryers, Leisure, Domestic Space Heating, Water Heating and Wet Central Heating	1
NVQ Diploma in Domestic Heating (Gas Fired Water and Central Heating Appliances)	1
<b>Source: DfE</b>	

Apprenticeship learning aim enrolments in plumbing and heating are mostly delivered by local colleges, although JTL, The Growth Company and Total People also deliver significant volumes, with JTL having the highest volume overall.

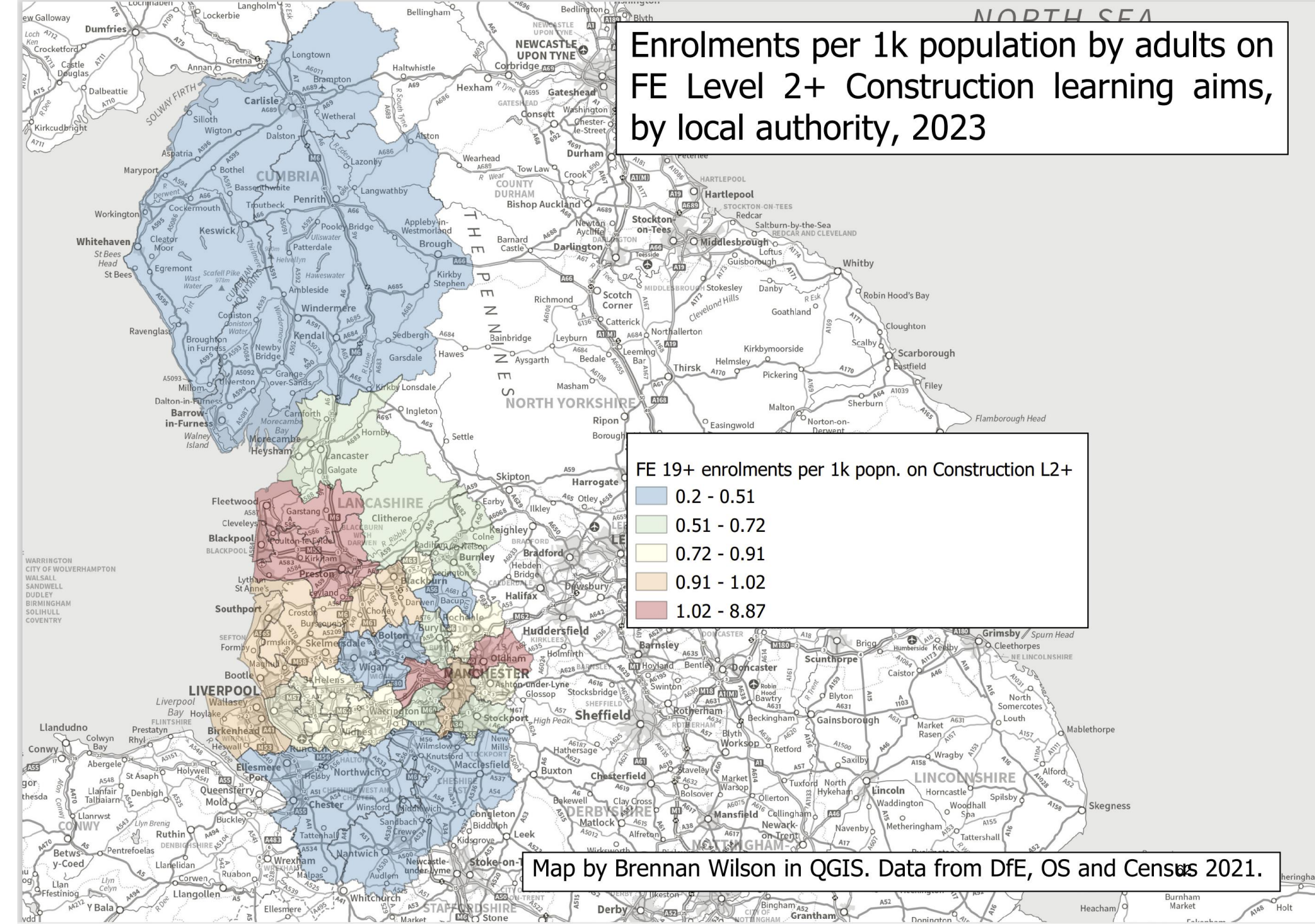
<b>All age apprenticeship learning aim enrolments (&gt;10) in Plumbing and Heating in the NW, by provider, 2022/23</b>	
	Enrolments
Total	1694
JTL	202
The City of Liverpool College	189
Wigan and Leigh College	157
The Growth Company Limited	157
Salford City College	147
St Helens College	100
Warrington & Vale Royal College	83
Blackpool and the Fylde College	73
Bolton College	68
Cheshire College South and West	64
NCG	63
Total People Limited	60
Blackburn College	55
The Trafford College Group	54
Lancaster and Morecambe College	49
Tameside College	43
The Oldham College	39
Hopwood Hall College	33
Leeds College of Building	17
<b>Source: DfE</b>	



# Construction in 19+ FE

In the North West there were 4,485 19+ FE learning aim enrolments in construction in 2022/23. There was significant variation in the proportion of adults in different local authority areas enrolling.

Levels of enrolment per 1k population were lowest in Cheshire and Cumbria, with the lowest being in Westmorland and Furness at 0.2 enrolments per 1k population. Blackpool was an outlier at the other end of the scale with 8.87 enrolments per 1k population.



Over a third of all adult FE enrolments in the NW in Construction at Level 2 or above are delivered by two colleges - Blackpool and the Fylde College and Preston College. A handful of the providers with the highest enrolments are ITPs, including Peopleplus group, BCTG Ltd and Mantra Learning.

19+ FE enrolments on Construction learning aims at L2+, North West, 2022/23	
Total	4485
Blackpool and the Fylde College	1029
Preston College	521
LTE Group	284
Peopleplus Group Ltd	264
The City of Liverpool College	183
BCTG Limited	172
Mantra Learning Limited	165
The Oldham College	159
The Growth Company Limited	152
Wirral Metropolitan College	152
Warrington & Vale Royal College	150
NCG	106
Salford City College	101
Tameside College	93
Hugh Baird College	86
Southport College	86
Burnley College	83
Hopwood Hall College	83
The Trafford College Group	75
<b>Source: DfE</b>	

**When the delivery of individual learning aims in construction at L2+ to 19+ residents in each sub-region is considered, the span of construction specialisms supported by this learning is quite broad. Many of these learning aims are designed to prepare learners for joining the industry. Some are directly work-related, targeting those already employed in the sector.**

19+ FE learning aim enrolments in Construction, C&W, 2022/23	
Total	258
Diploma in Electrical Installations (Buildings and Structures)	56
Advanced Technical Diploma in Electrical Installation (450)	32
Diploma in Bricklaying	16
Diploma in Site Carpentry	16
Diploma in Plumbing Studies	15
NVQ Diploma in Cladding Occupations (Construction)	14
Diploma in Plumbing Foundation	12
NVQ Diploma in Construction Contracting Operations	12
NVQ Diploma in Wood Occupations (Construction)	12
NVQ Diploma in Plant Operations (Construction)	9
<i>Source: DfE</i>	

19+ FE learning aim enrolments in Construction, GM, 2022/23	
Total	1452
Diploma in Electrical Installations (Buildings and Structures)	251
Diploma in Site Carpentry	147
Diploma in Plumbing Studies	117
NVQ Diploma in Occupational Work Supervision (Construction)	116
Advanced Technical Diploma in Electrical Installation (450)	100
NVQ Diploma in Interior Systems	86
Diploma in Plastering	53
Technical Certificate in Electrical Installation	51
Diploma in Painting and Decorating	44
NVQ Diploma in Cladding Occupations (Construction)	38
NVQ Diploma in Wood Occupations (Construction)	34
<i>Source: DfE</i>	

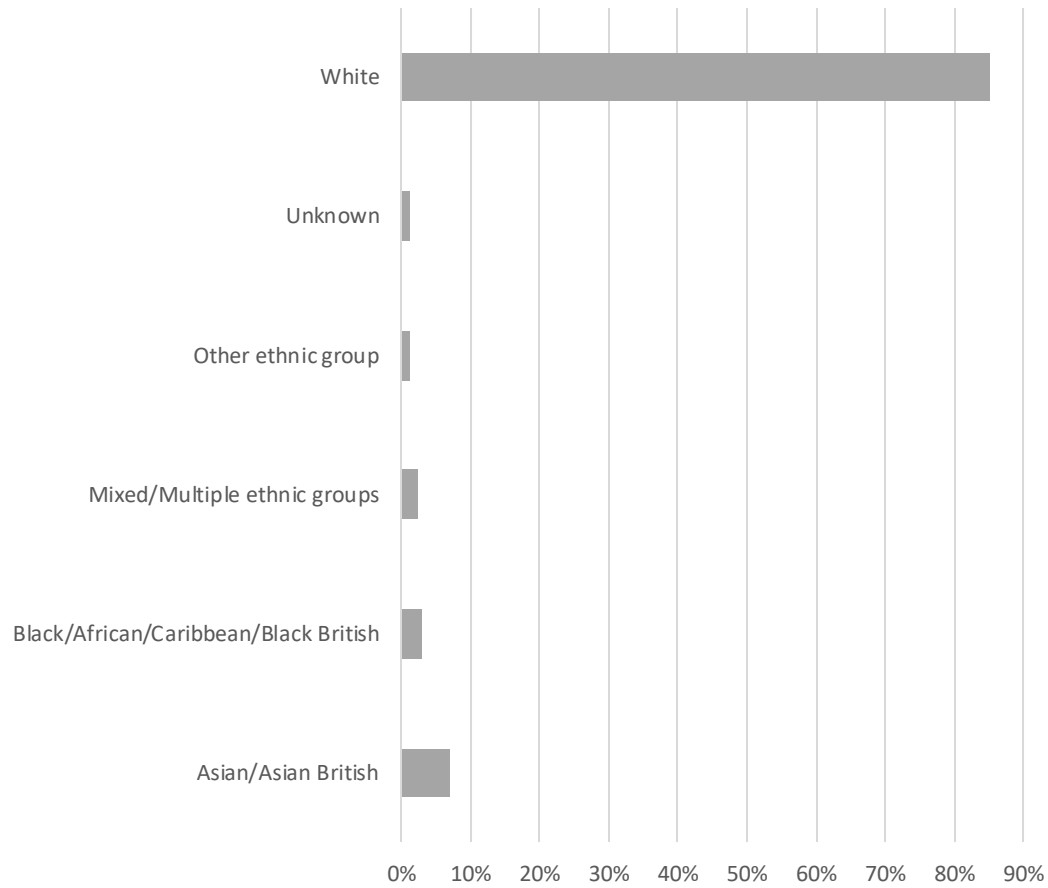
19+ FE learning aim enrolments in Construction, Lancashire, 2022/23	
Total	1873
Award in Understanding Domestic Retrofit	272
Non regulated provision, Level 3, Building and Construction	89
Performing dry lining operations	77
Performing tiling operations	76
Performing trowel operations	76
Award in Skills for Employment in the Construction Industries	75
Performing plastering operations	73
Carry out Practical Operations in Wall Tiling	70
Carry out Practical Operations in Fencing	67
Carry out Practical Operations in Dry Lining	65
<i>Source: DfE</i>	

19+ FE learning aim enrolments in Construction, Cumbria, 2022/23	
Total	95
Non regulated provision, Level 3, Building and Construction	30
NVQ Diploma in Occupational Work Supervision (Construction)	13
Diploma in Bench Joinery	6
Diploma in Bricklaying	5
Diploma in Electrical Installations (Buildings and Structures)	5
Diploma in Painting and Decorating	5
Diploma in Site Carpentry	5
NVQ Diploma in Decorative Finishing - Painting and Decorating (Construction)	5
<i>Source: DfE</i>	

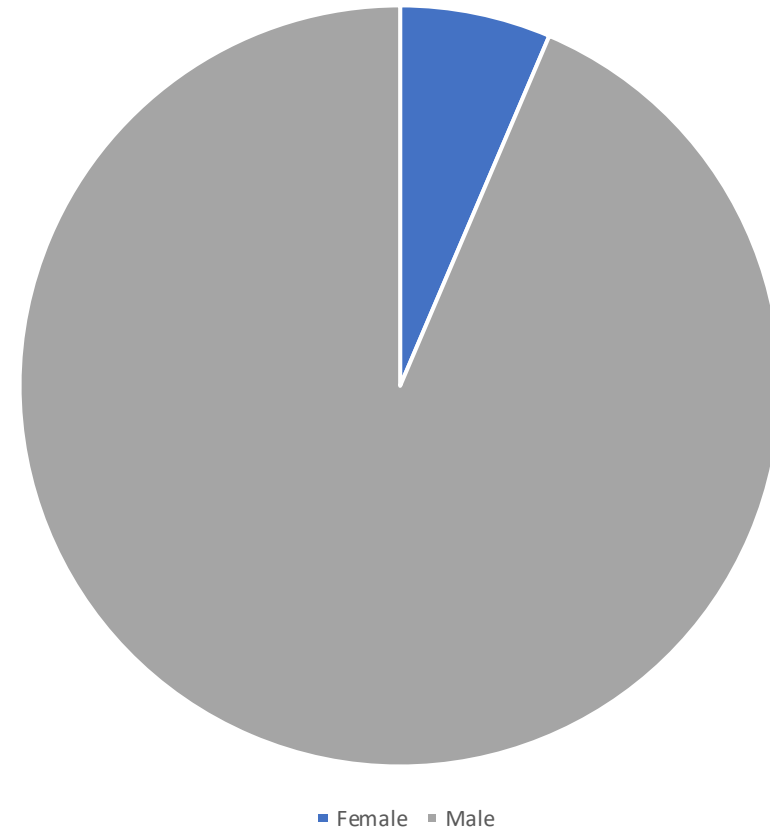
19+ FE learning aim enrolments in Construction, LCR, 2022/23	
Grand Total	807
Diploma in Electrical Installations (Buildings and Structures)	118
Advanced Technical Diploma in Electrical Installation (450)	92
Diploma in Plumbing Studies	75
Non regulated SFA formula funded provision, Level 2, Building and Construction, 45 to 68 hrs, PW C	56
Diploma in Site Carpentry	33
NVQ Diploma in Cladding Occupations (Construction)	28
Non regulated provision, Level 3, Building and Construction	27
NVQ Diploma in Plumbing and Heating	22
Diploma in Bricklaying	21
Diploma in Plastering	21
<i>Source: DfE</i>	

**The participation of ethnic minorities in Construction Level 2 19+ FE broadly reflects the composition of the wider population in the North West. There is a very stark gender disparity however, with only 6% of learners being female.**

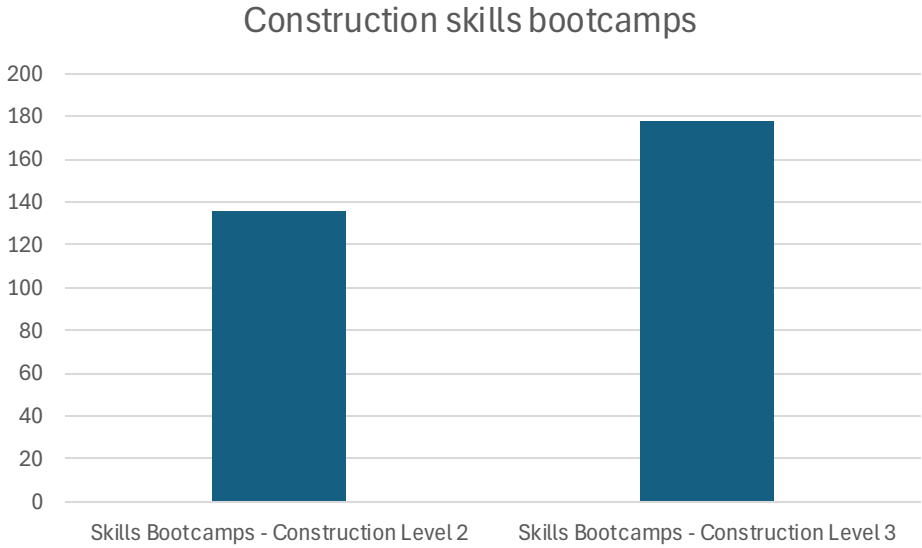
**Ethnicity of FE 19+ Construction L2+ learners**



**Gender of 19+ Construction FE learners in the NWE, 2022/23**



In 2022/23 there were 314 enrolments onto construction Skills Bootcamps, 178 of which were at Level 3, the remainder at Level 2. Delivery was by independent private providers. No colleges in the NW delivered construction Skills Bootcamps in this year.



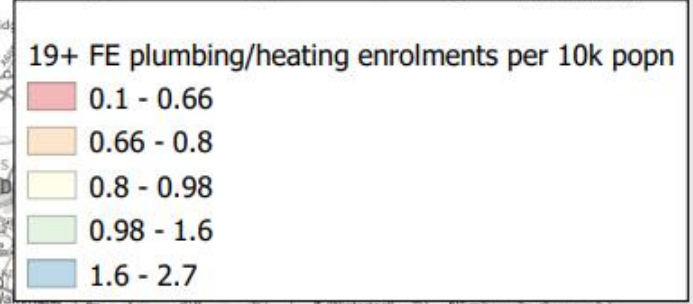
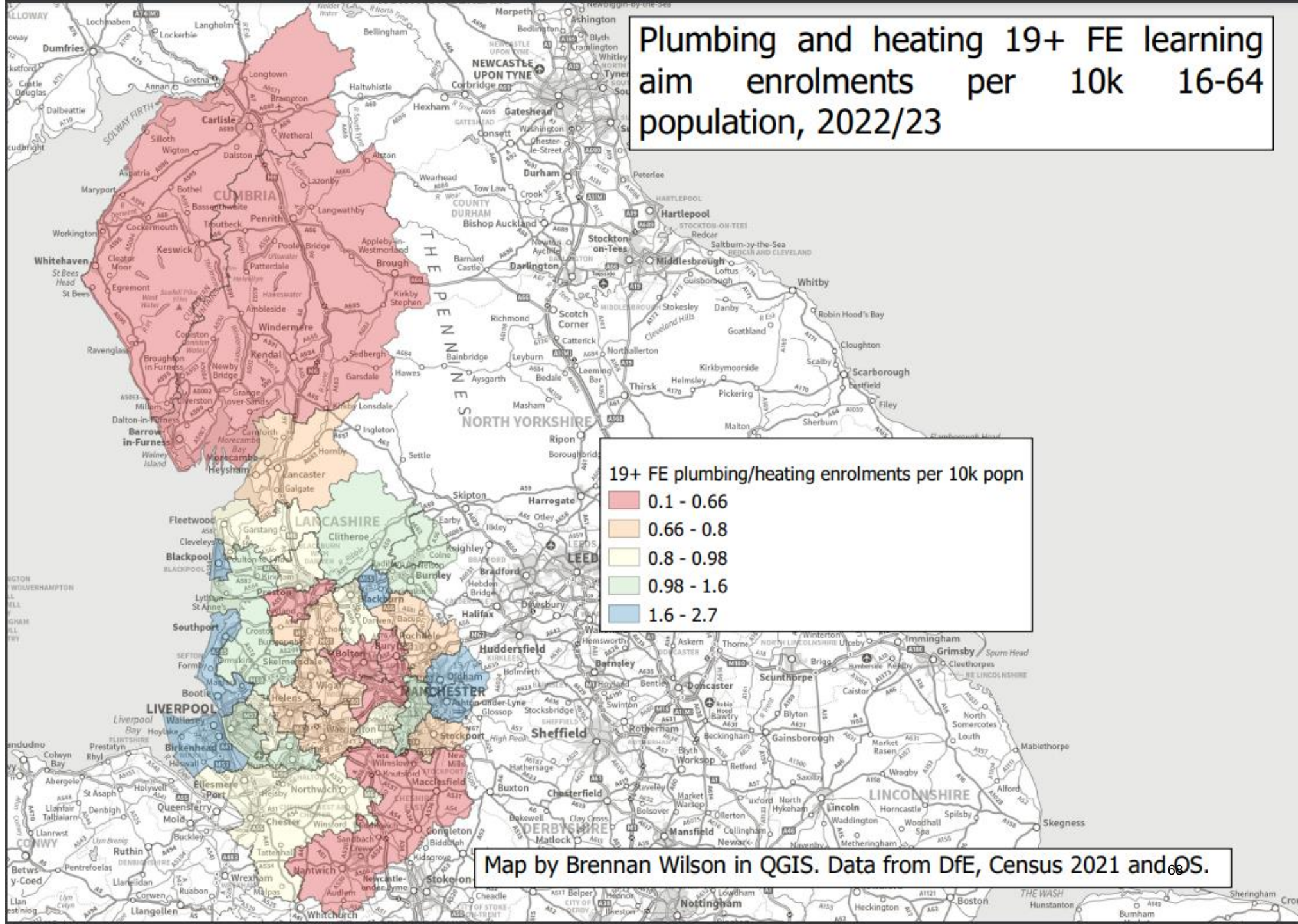
Construction Skills Bootcamps enrolments in the NW, 2022/23	
<b>DfE Skills Bootcamps - Construction Level 2</b>	
P. Flannery Plant Hire (Oval) Limited	33
The Construction Skills People Ltd	81
The Growth Company Limited	22
<b>DfE Skills Bootcamps - Construction Level 3</b>	
1st2 Achieve Training Limited	92
Challenge-TRG Skills Limited	2
Diamond People (NE) Limited	4
Intertrain UK Ltd.	26
The Growth Company Limited	54
<b>Grand Total</b>	<b>314</b>
<b>Source: DfE</b>	

# **Plumbing and Heat Engineering in 19+ FE**

There is a significant spatial variation in the delivery of plumbing and heat engineering learning aims in 19+ FE in the North West.

The highest level of 19+ enrolments per head of 16-64 population is in the Wirral. The lowest is Cumberland.

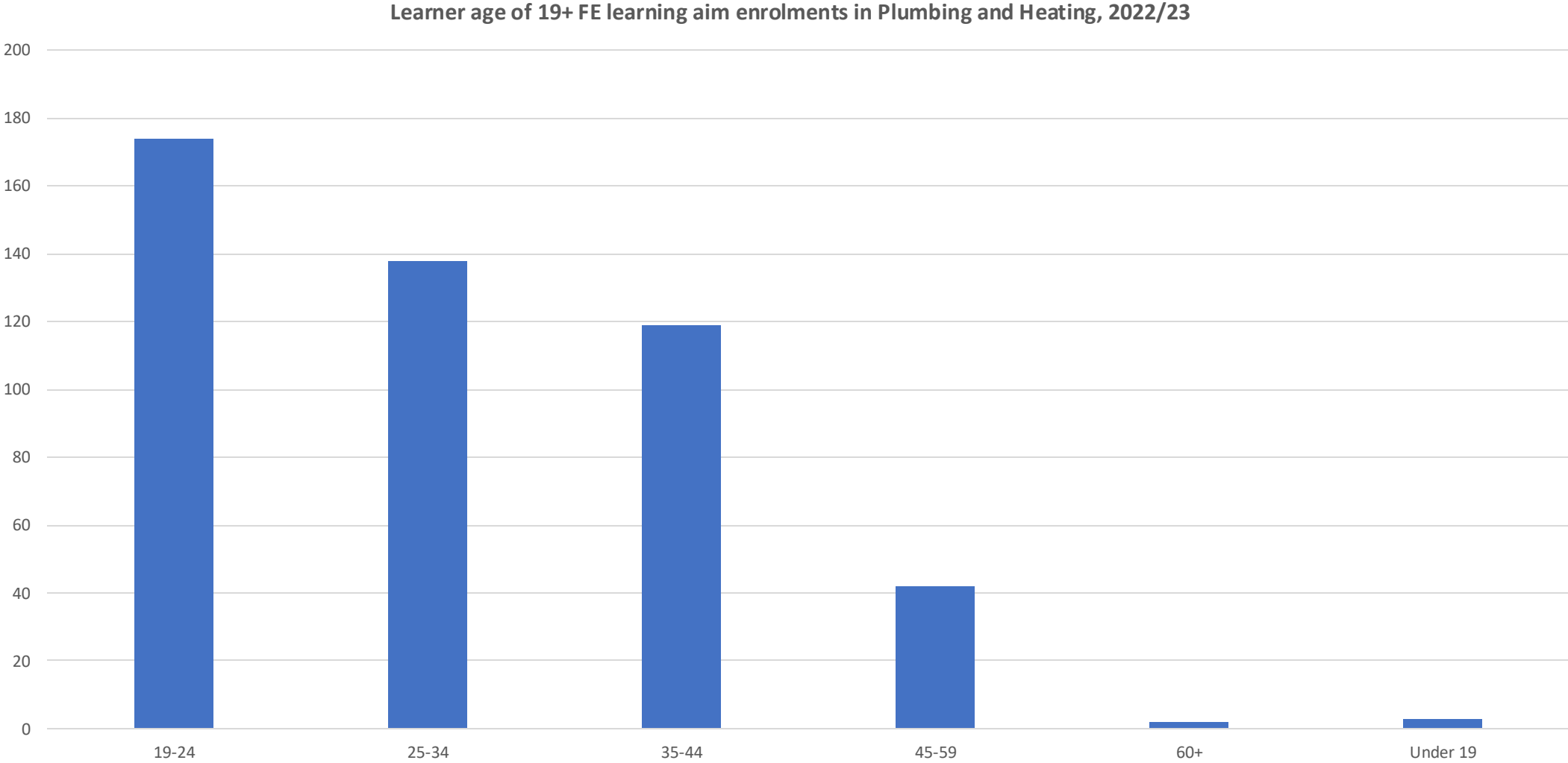
Plumbing and heating 19+ FE learning aim enrolments per 10k 16-64 population, 2022/23



Map by Brennan Wilson in QGIS. Data from DfE, Census 2021 and OS.



The delivery of this type of learning aim is skewed to the 19-24 age group. This is probably because the 19-24 participation data will also include infill by some learners on 16-18 programmes.



The Diploma in Plumbing studies accounts for almost half of all 19+ FE learning aim enrolments in plumbing and heating in the NW. This is a Level 2 programme designed to deliver the basic skills and knowledge necessary to enter the plumbing industry as an Improver/Plumber's Mate, although the data suggests that less than 15% of learners do this.

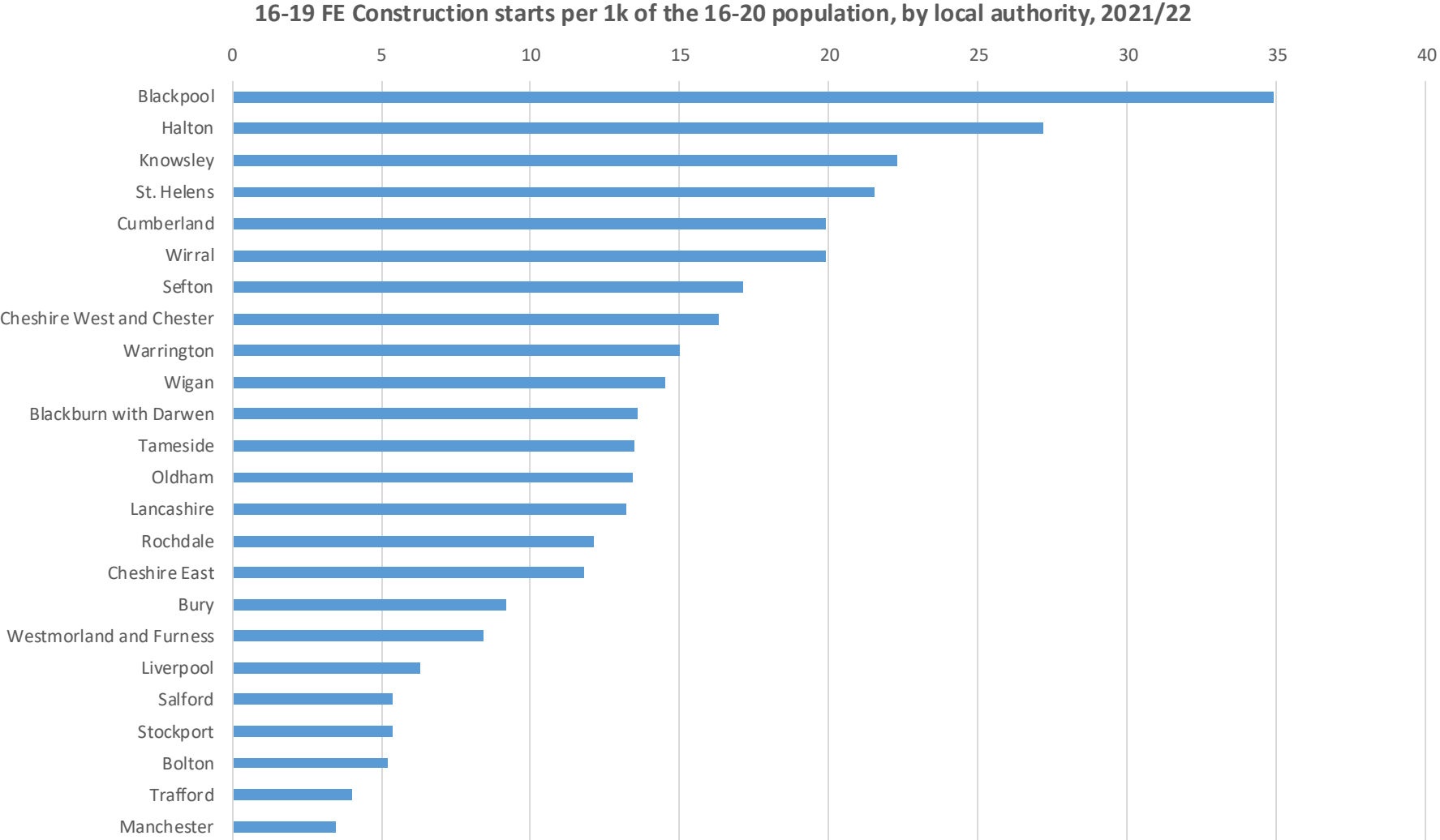
19+ FE L2+ learning aim enrolments (>5) in Plumbing and Heating in the NW, 2022/23	
	Enrolments
Total	478
Diploma in Plumbing Studies	234
Technical Certificate in Plumbing	64
Advanced Technical Diploma in Plumbing (450)	60
Diploma in Plumbing Foundation	57
NVQ Diploma in Plumbing and Heating	31
Advanced Diploma in Plumbing	14
Central Heating and Water Heaters	7
Skills Bootcamp: Heat Pump and Mental Health Awareness (Wave 4) (TC)	5
<b>Source: DfE</b>	

**Adult FE enrolments in plumbing and heating learning aims are mostly delivered by colleges, with the highest volume being by the LTE group.**

<b>19+ FE L2+ learning aim enrolments (&gt;10) in Plumbing and Heating in the NW, by provider, 2022/23</b>	
Total	478
LTE Group	72
Wirral Metropolitan College	64
The Oldham College	34
Hugh Baird College	29
Blackburn College	27
Blackpool and The Fylde College	26
Tameside College	24
The City of Liverpool College	23
Warrington & Vale Royal College	23
Burnley College	21
Preston College	17
Riverside College	16
Wigan and Leigh College	15
NCG	13
Hopwood Hall College	13
Southport College	13
Cheshire College South and West	10
<b>Source: DfE</b>	

# **Construction in 16-19 FE**

**In 2021/22, there were 5,088 starts on construction learning aims at Level 2 and above by young people age 16-19. There is considerable variation in the number of 16-19 L2+ FE construction starts per 1k of the 16-20 population by local authority with the highest rate of 34.9 in Blackpool being ten times higher than the lowest rate of 3.5 in Manchester. Overall, about 10% of these learners go on to work in the industry.**

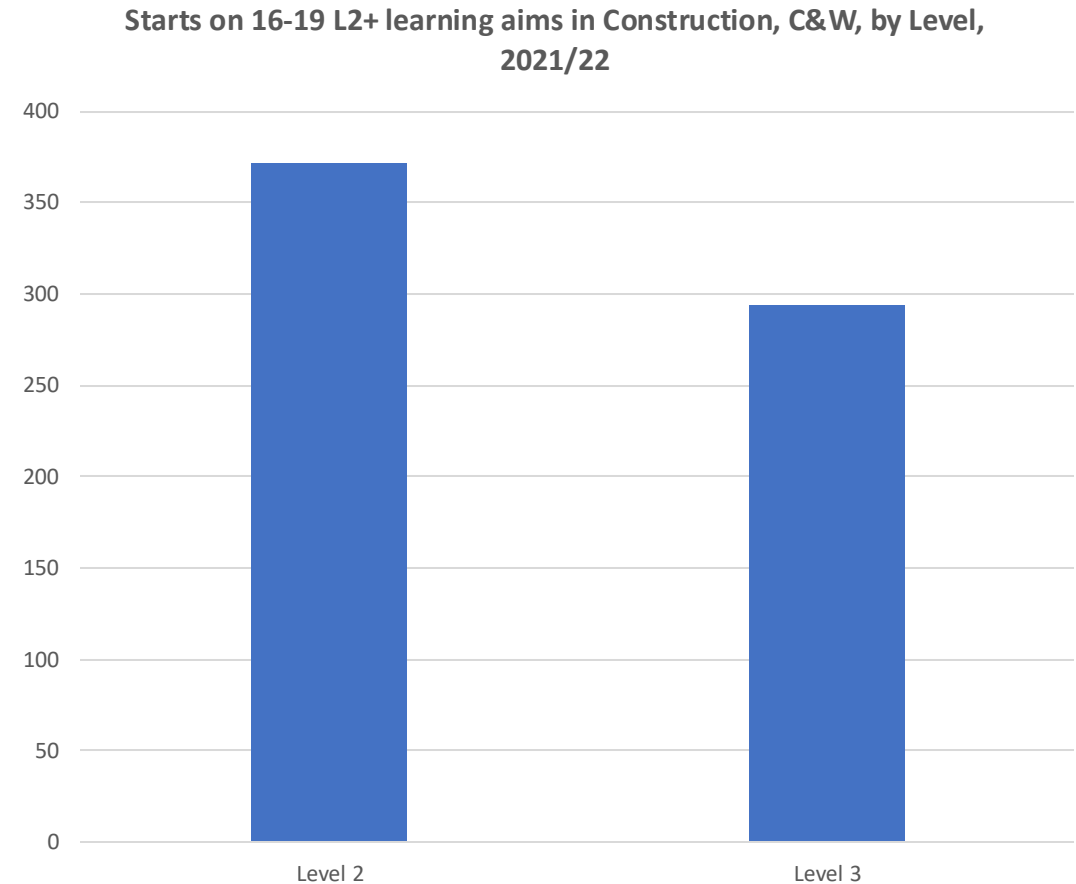


*Sources: ESFA data cube, residency; and DfE*

# **Construction in 16-19 FE: Cheshire & Warrington**

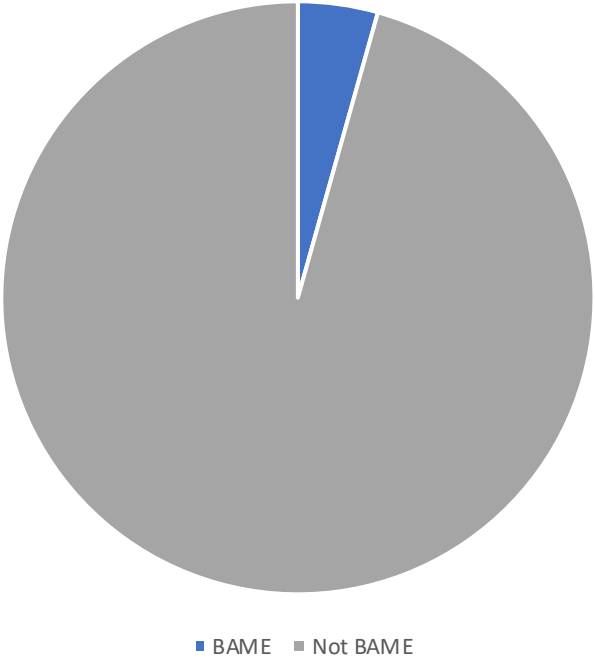
**Young people started 666 classroom-based construction learning aims at Level 2 and above in Cheshire and Warrington in 2021/22. 44% of these enrolments were at Level 3.**

<b>Starts on 16-19 L2+ learning aims (&gt;10 starts) in Construction, Cheshire &amp; Warrington, 2021/22</b>	
Total	666
Diploma in Electrical Installations (Buildings and Structures)	131
Diploma in Site Carpentry	86
Diploma in Bricklaying	84
Advanced Technical Diploma in Electrical Installation (450)	68
Diploma in Plumbing Studies	45
Diploma in Plumbing Foundation	39
T Level Technical Qualification in Building Services Engineering for Construction	38
T Level Occupational Specialism - Electrotechnical engineering	33
T Level Technical Qualification in Design, Surveying and Planning for Construction	20
T Level Occupational Specialism - Surveying and design for construction and the built environment	19
BTEC National Extended Diploma in Construction and the Built Environment	17
Diploma in Carpentry and Joinery	17
BTEC National Diploma in Construction and the Built Environment	12
<b>Source: ESFA data cube, residency</b>	

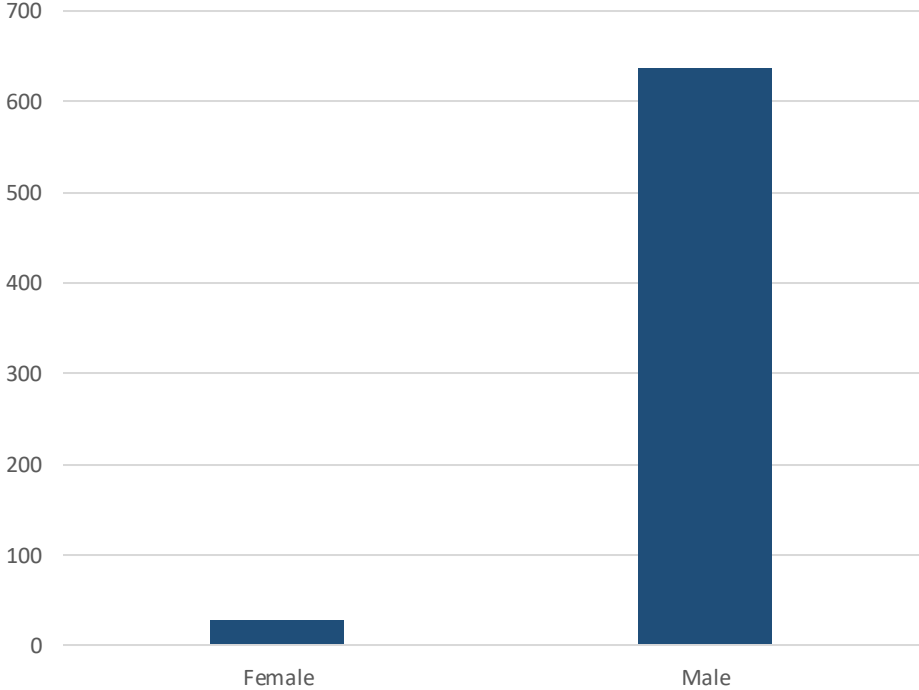


Only 4% of learners starting L2+ FE construction learning aims in C&W are female. The participation of BAME learners is slightly below what might be expected from the population share of 16–20-year-olds (96% white participation, 16-20 population 93% white).

16-19 L2+ construction starts by learners identifying as BAME in C&W, 2021/22



Gender of learners starting L2+ FE construction learning aims in C&W, 2021/22

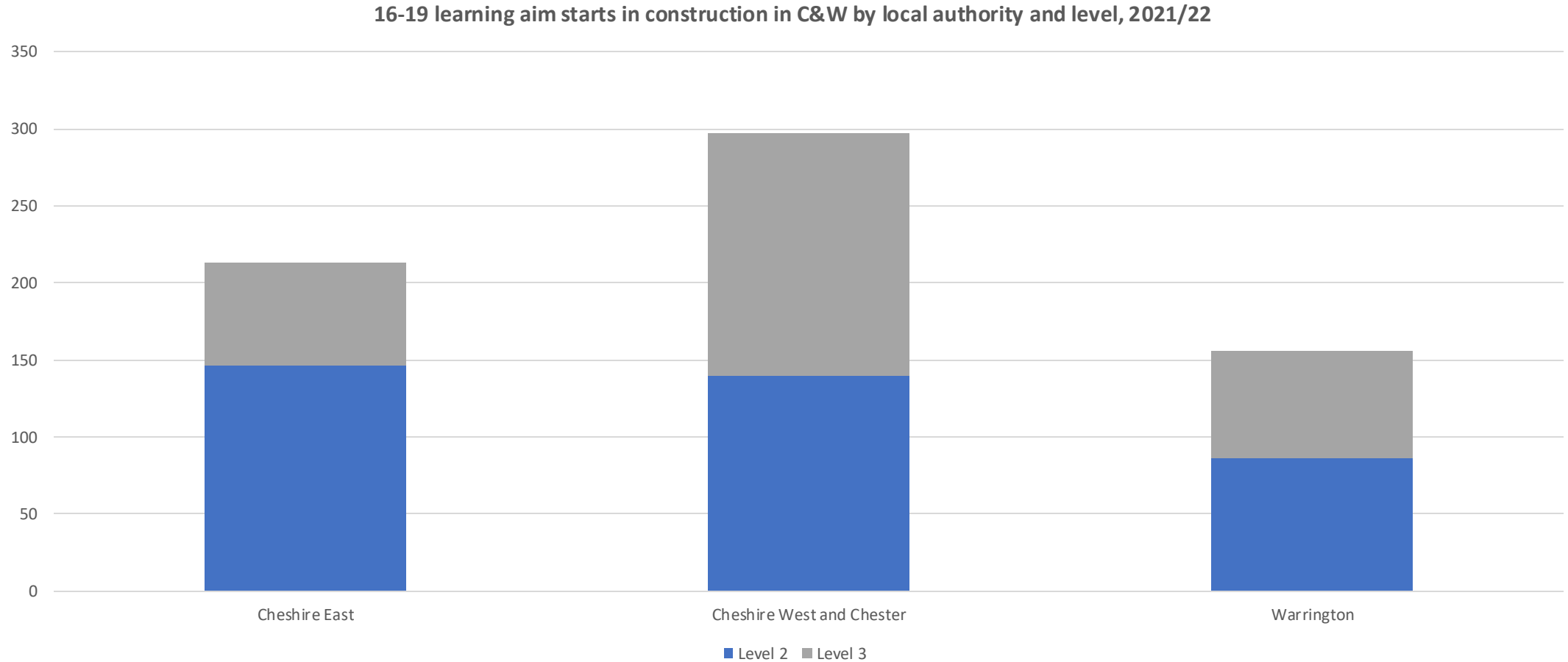




**Over half the starts on 16-19 classroom-based construction learning aims at Level 2 and above in Cheshire and Warrington in 2021/22 were with Cheshire College South and West.**

<b>Starts on 16-19 L2+ learning aims in Construction, by provider (&gt;10 starts), Cheshire &amp; Warrington, 2021/22</b>	
	Starts
Total	666
Cheshire College South and West	336
Warrington & Vale Royal College	148
Reaseheath College	59
Macclesfield College	57
Riverside College	33
The Trafford College Group	11
<b><i>Source: ESFA data cube, residency</i></b>	

The volume of learning aim starts in FE L2+ construction in Cheshire and Warrington varied from 297 in Cheshire West and Chester to 156 in Warrington. The proportion at Level 3 was 31%, 53% and 45% in Cheshire East, Cheshire West and Chester and Warrington, respectively.



# **Construction in 16-19 FE: Cumbria**

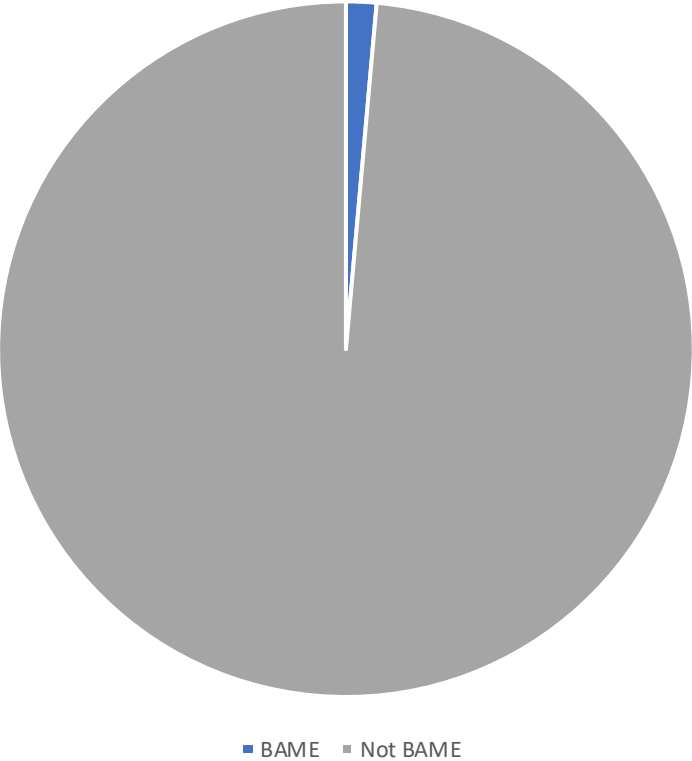
**Young people started 354 classroom-based construction learning aims at Level 2 and above in Cumbria in 2021/22. 21% of these enrolments were at Level 3.**

<b>Starts on 16-19 L2+ learning aims (&gt;10 starts) in Construction, Cumbria, 2021/22</b>	
Total	354
Diploma in Electrical Installations (Buildings and Structures)	67
Technical Certificate in Plumbing	43
Diploma in Bricklaying	42
Diploma in Site Carpentry	32
Diploma in Plumbing Studies	28
Diploma in Plastering	18
T Level Technical Qualification in Building Services Engineering for Construction	18
Diploma in Painting and Decorating	17
Diploma in Bench Joinery	15
<i>Source: ESFA data cube, residency</i>	

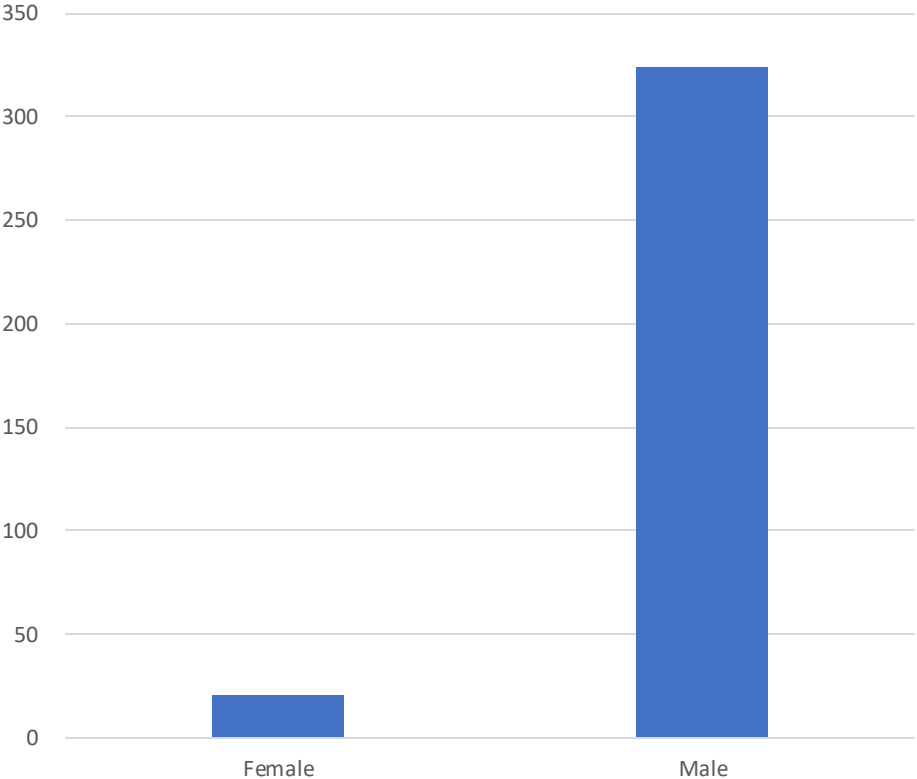


**Only 6% of learners starting L2+ FE construction learning aims are female. The participation of BAME learners is very slightly below what might be expected from the population share of 16–20-year-olds.**

**BAME status of starts on 16-19 FE learning aims in Construction in Cumbria, 2021/22**



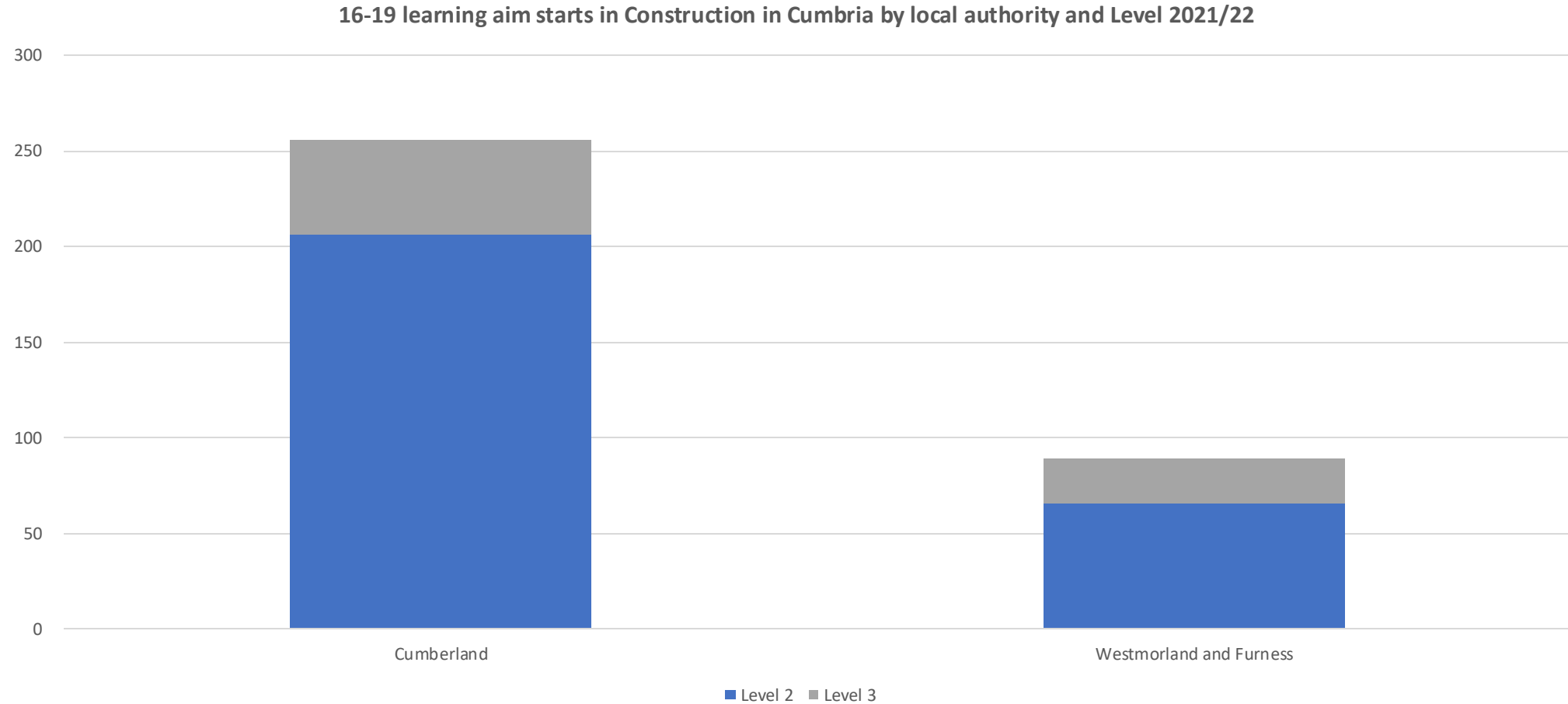
**Gender of learners starting 16-19 FE learning aims in Construction in Cumbria, 2021/22**



**40% of the starts on 16-19 classroom-based construction learning aims at Level 2 and above in Cumbria in 2021/22 were with NCG (Carlisle) and 40% with Lakes College.**

<b>Starts on 16-19 L2+ learning aims in Construction, by provider (&gt;10 starts), Cumbria, 2021/22</b>	
	Starts
Total	345
NCG	140
Lakes College West Cumbria	137
Kendal College	39
Furness College	21
<b><i>Source: ESFA data cube, residency</i></b>	

The volume of learning aim starts in FE L2+ construction in Cumbria was 256 in Cumberland and 79 in Westmorland and Furness. The proportion at Level 3 was 20% in Cumberland and 26% in Westmorland and Furness.

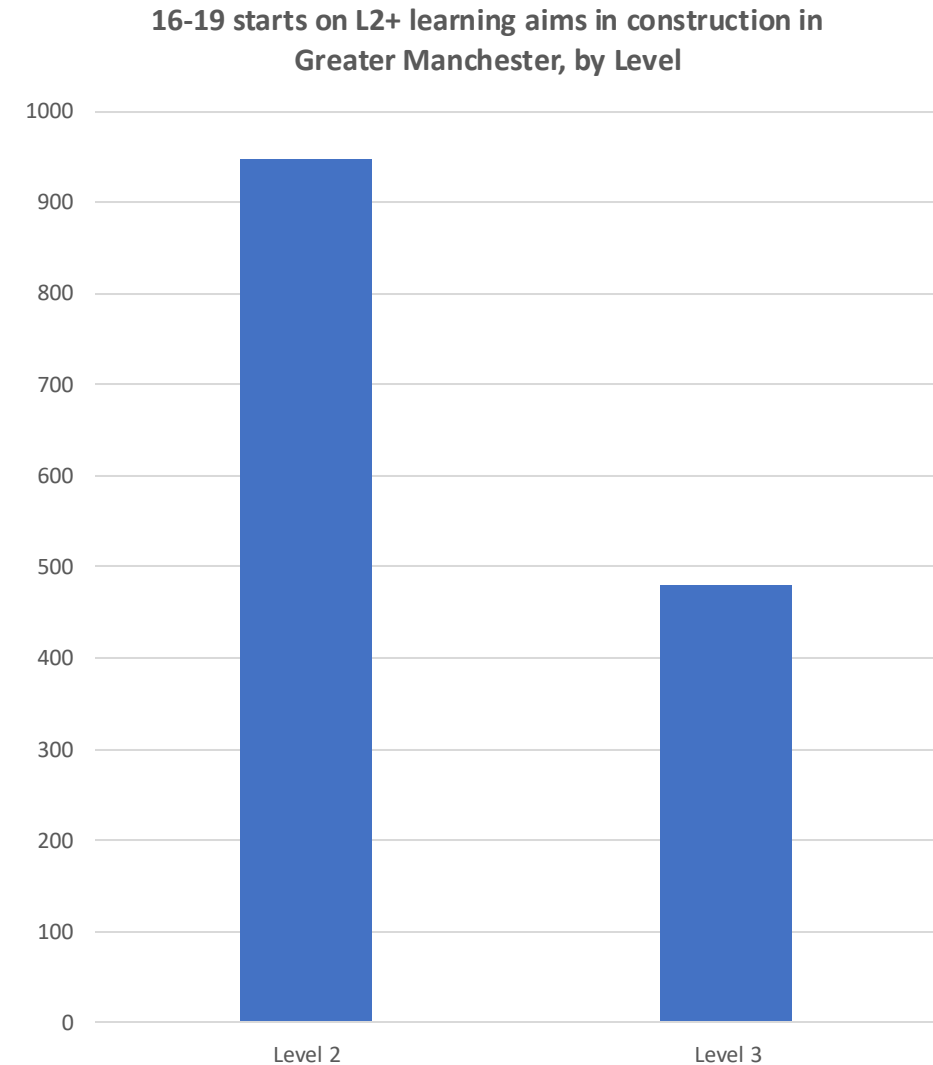


# **Construction in 16-19 FE: Greater Manchester**



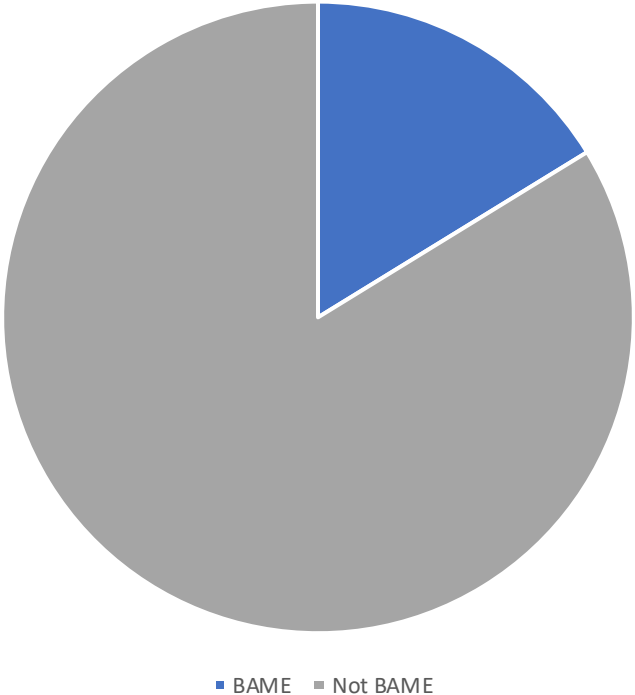
**Young people started 1429 classroom-based construction learning aims at Level 2 and above in Greater Manchester in 2021/22. 34% of these enrolments were at Level 3.**

<b>Starts on 16-19 L2+ learning aims (&gt;10 starts) in Construction, GM, 2021/22</b>	
Total	1429
Diploma in Electrical Installations (Buildings and Structures)	223
Advanced Technical Diploma in Electrical Installation (450)	124
Diploma in Site Carpentry	121
Diploma in Plumbing Studies	120
Technical Certificate in Plumbing	108
Diploma in Bricklaying	95
Advanced Technical Diploma in Plumbing (450)	87
BTEC National Foundation Diploma in Construction and the Built Environment	77
Technical Certificate in Electrical Installation	69
Technical Certificate in Site Carpentry	68
BTEC Extended Diploma in Construction and the Built Environment (QCF)	62
BTEC National Extended Diploma in Construction and the Built Environment	34
Diploma in Site Carpentry (Construction)	27
Technical Certificate in Bricklaying	25
Diploma in Painting and Decorating	23
Diploma in Plastering	22
Diploma in Plumbing Foundation	19
Diploma in Bricklaying (Construction)	17
Diploma in Plastering (Construction)	17
Advanced Technical Diploma in Site Carpentry (450)	15
Technical Certificate in Plastering	14
Technical Certificate in Painting and Decorating	12
Diploma in Construction Operations - General Construction	10
<i>Source: ESFA data cube, residency</i>	

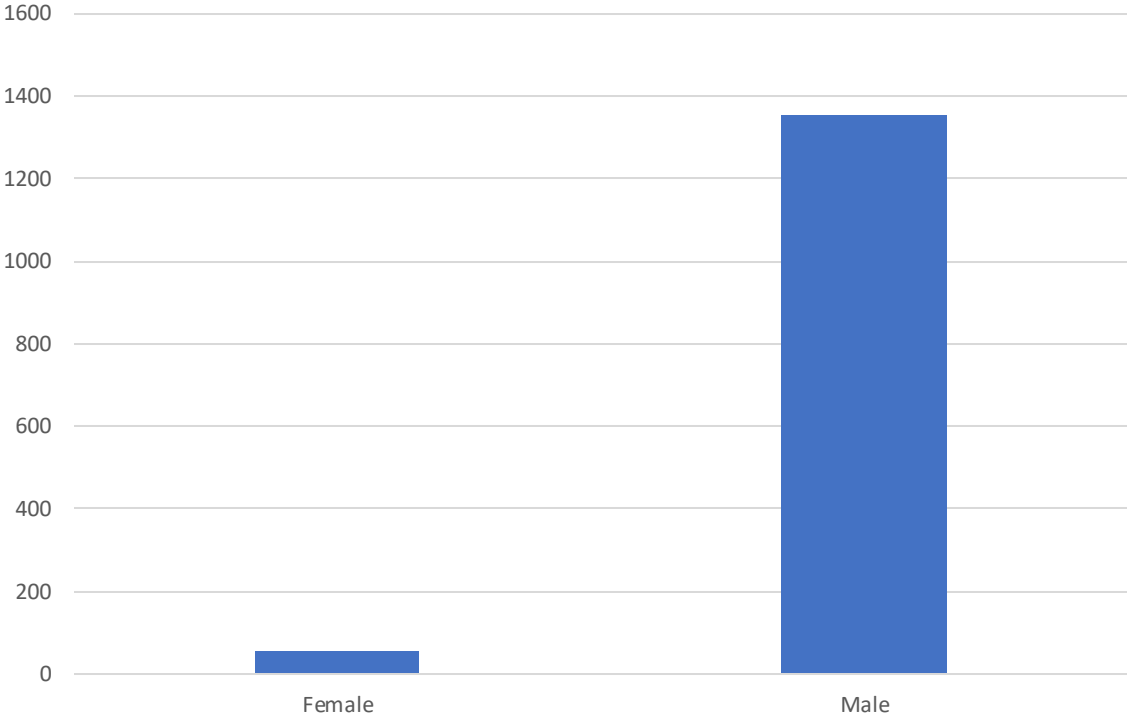


Only 4% of learners starting L2+ FE construction learning aims are female. The participation of BAME learners is below what might be expected from the population share of 16–20-year-olds (population is 67% white, 84% of learners are white).

16-19 L2+ FE learning aim starts in construction by BAME learners, Greater Manchester, 2021/22



16-19 L2+ FE learning aim starts in construction by gender, greater Manchester, 2021/22

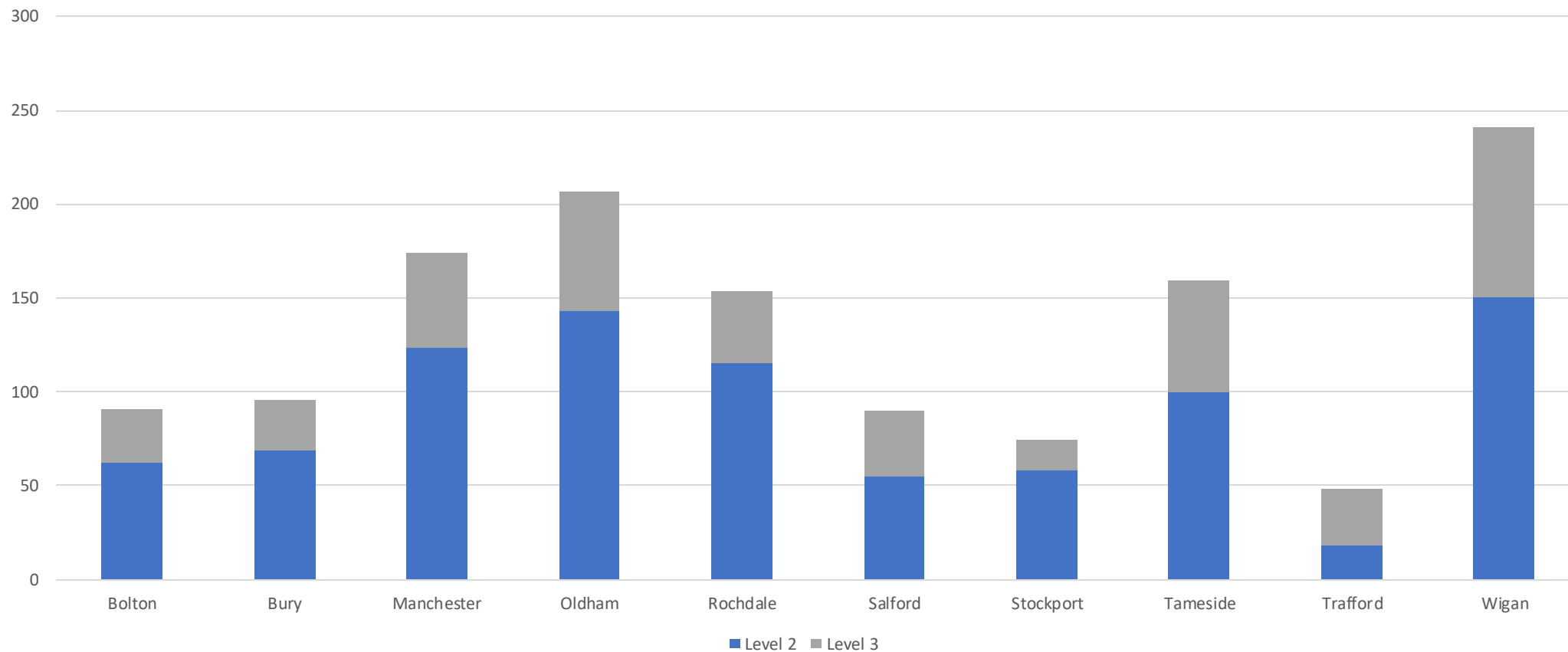


The highest volumes of the starts on 16-19 classroom-based construction learning aims at Level 2 and above in Greater Manchester in 2021/22 were with Wigan and Leigh College and Hopwood Hall College.

<b>Starts on 16-19 L2+ learning aims in Construction, by provider (&gt;10 starts), GM, 2021/22</b>	
	Starts
Total	1407
Wigan and Leigh College	296
Hopwood Hall College	215
Tameside College	177
The Oldham College	147
LTE Group	143
Bury College	142
The Trafford College Group	107
Salford City College	101
Bolton College	69
The Growth Company Limited	10
<b><i>Source: ESFA data cube, residency</i></b>	

The volume of learning aim starts in FE L2+ construction in Greater Manchester ranged from 74 in Trafford to 241 in Wigan. The proportion at Level 3 ranged from 63% in Trafford to 28% in Bury.

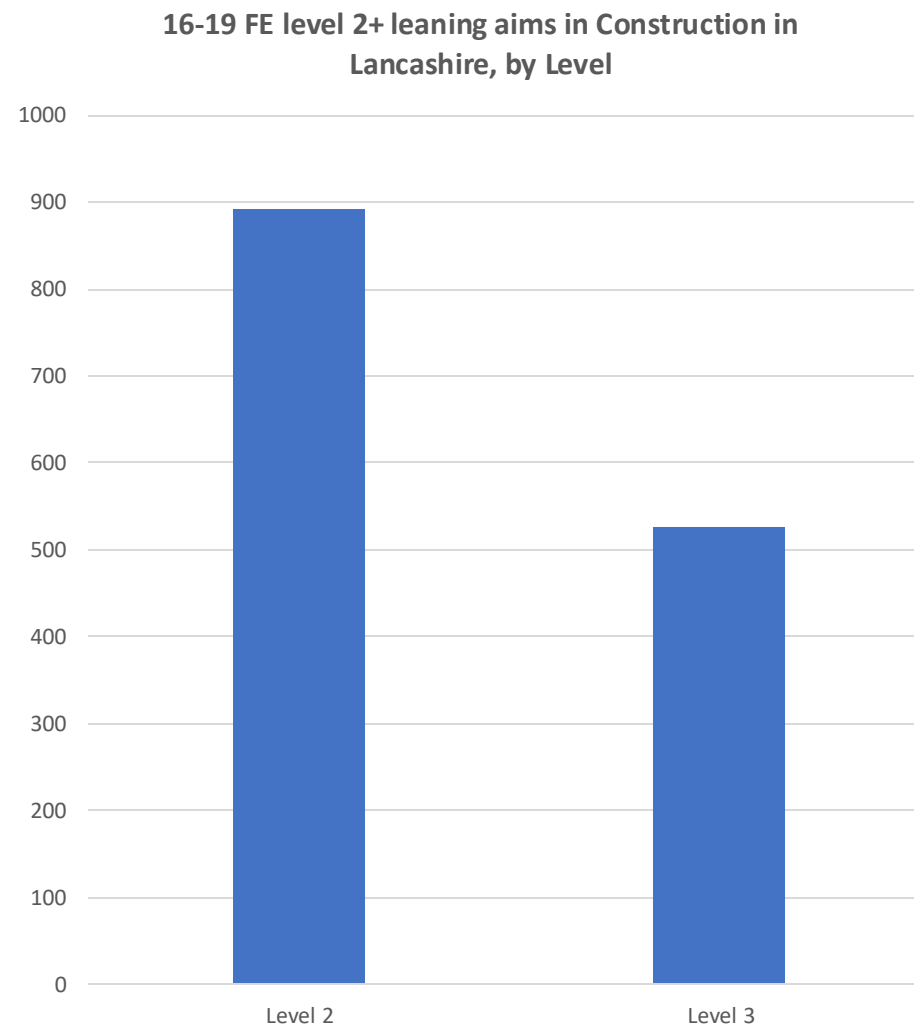
16-19 L2+ FE learning aim starts in Construction in GM, by local authority and Level, 2021/22



# **Construction in 16-19 FE: Lancashire**

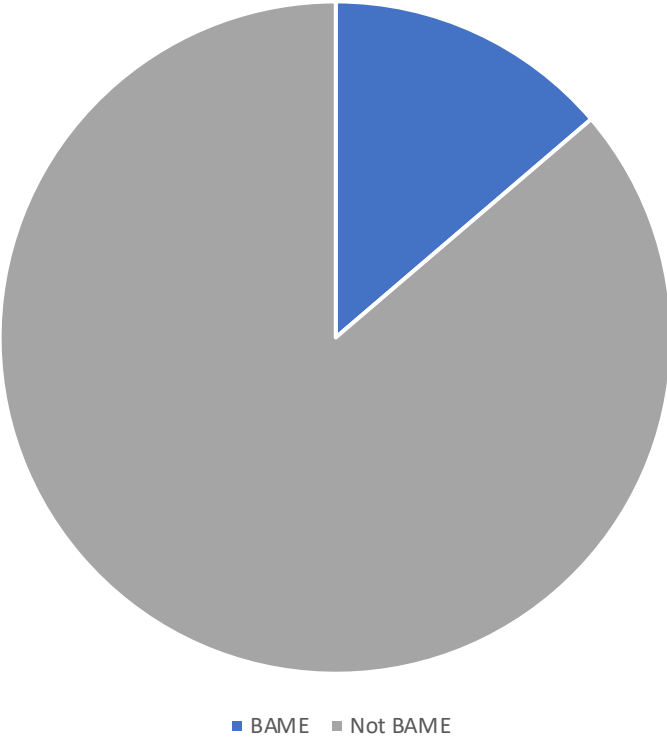
**Young people started 1419 classroom-based construction learning aims at Level 2 and above in Lancashire in 2021/22. 37% of these enrolments were at Level 3.**

<b>Starts on 16-19 L2+ learning aims (&gt;10 starts) in Construction, Lancashire, 2021/22</b>	
	Starts
Total	1419
Certificate in Skills for Professions in Building and Construction	133
Diploma in Electrical Installations (Buildings and Structures)	85
Diploma in Plumbing Studies	82
Diploma in Plumbing Foundation	75
Technical Certificate in Electrical Installation	70
Diploma in Bricklaying	69
Technical Certificate in Plumbing	65
Diploma in Site Carpentry	58
T Level Technical Qualification in Design, Surveying and Planning for Construction	54
Advanced Technical Diploma in Plumbing (450)	53
T Level Occupational Specialism - Surveying and design for construction and the built environment	51
Technical Certificate in Bricklaying	48
Technical Certificate in Site Carpentry	47
Non regulated provision, Level 2, Building and Construction	47
BTEC National Foundation Diploma in Construction and the Built Environment	40
T Level Technical Qualification in Building Services Engineering for Construction	39
BTEC National Extended Diploma in Construction and the Built Environment	38
Advanced Technical Diploma in Electrical Installation (450)	38
Non regulated provision, Level 3, Building and Construction	34
T Level Occupational Specialism - Electrotechnical engineering	29
Diploma in Bench Joinery	26
Technical Certificate in Plastering	25
<b>Source: ESFA data cube, residency</b>	

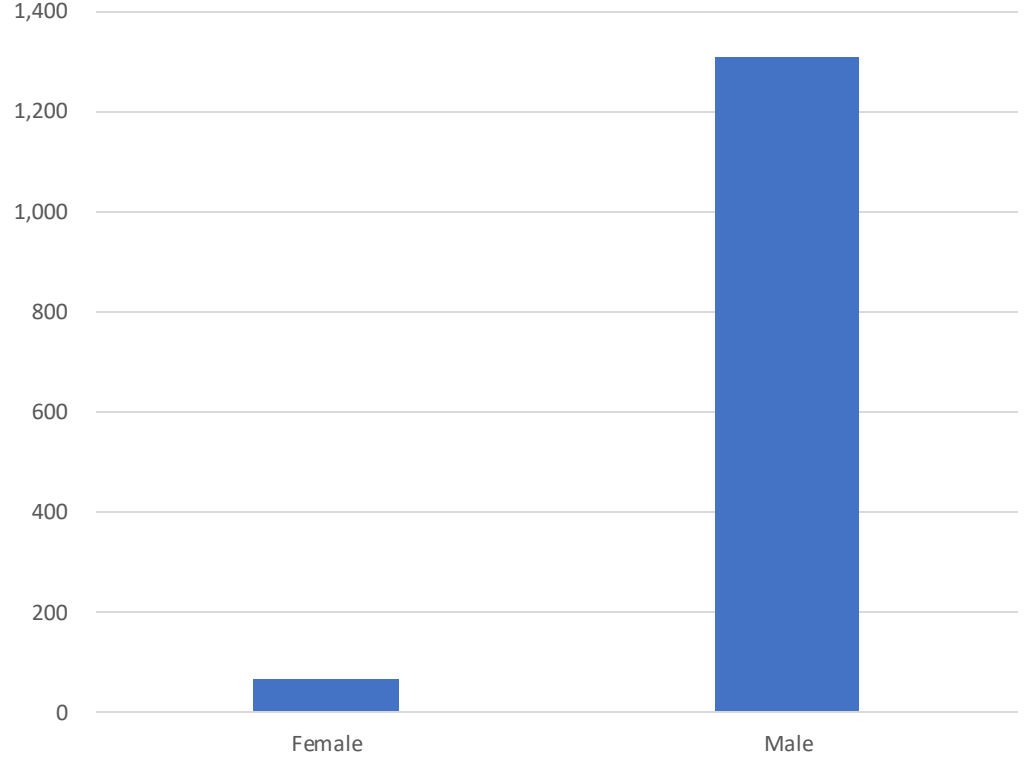


Only 5% of learners starting L2+ FE construction learning aims are female. The participation of BAME learners is below what might be expected from the population share of 16–20-year-olds (population is 79% white, 86% of learners are white).

BAME learners starting on 16-19 FE L2+ learning aims in Construction, Lancashire, 2021/22



16-19 FE L2+ learning aim starts in construction, by gender, Lancashire, 2021/22

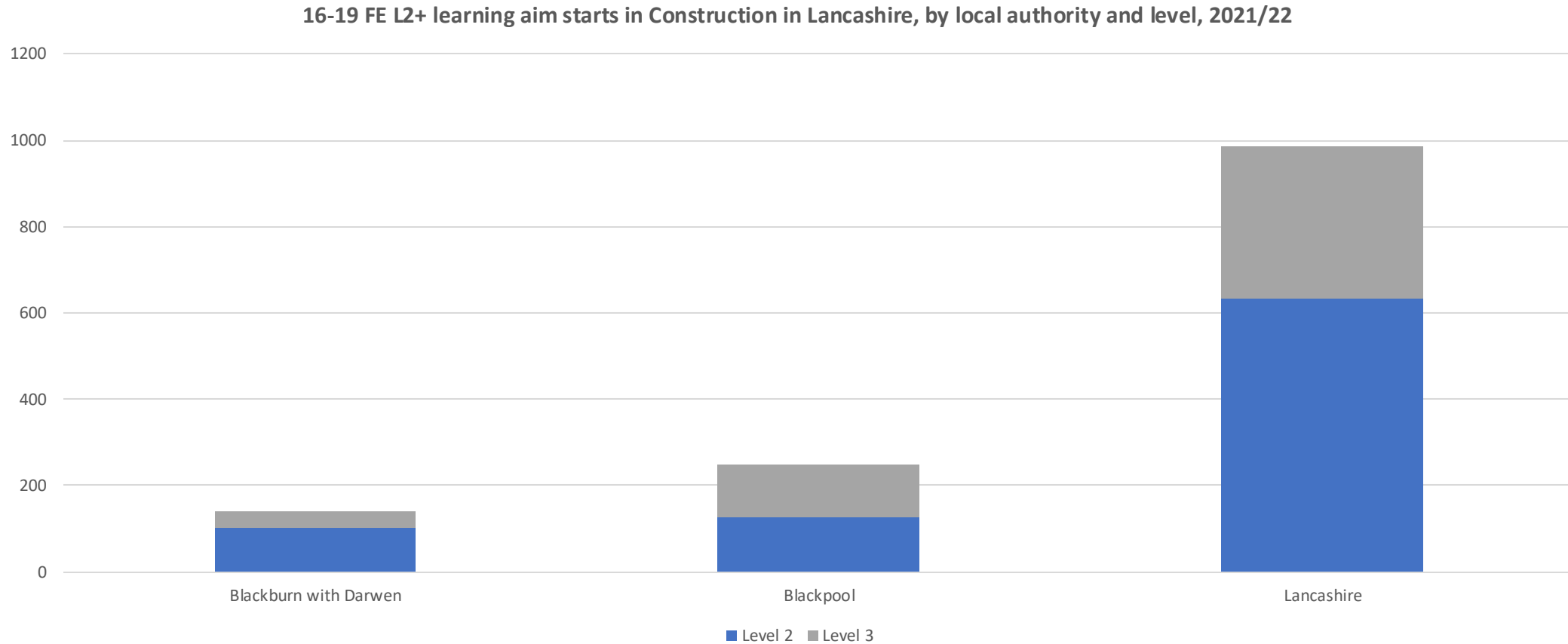


The highest volumes of the starts on 16-19 classroom-based construction learning aims at Level 2 and above in Lancashire in 2021/22 were with Blackpool and the Fylde College and Preston College.

<b>Starts on 16-19 L2+ learning aims in Construction, by provider (&gt;10 starts), Lancashire, 2021/22</b>	
	Starts
Blackpool and The Fylde College	410
Preston College	266
Blackburn College	208
Burnley College	156
Lancaster and Morecambe College	95
NCG	89
Wigan And Leigh College	54
Southport College	38
Nelson And Colne College	26
Bury College	11
<b>Source: ESFA data cube, residency</b>	



The volume of learning aim starts in FE L2+ construction in Lancashire was 987 in Lancashire, 250 in Blackpool and 141 in Blackburn with Darwen. 28%, 50%, and 36% at Level 3 in Blackburn with Darwen, Blackpool, and Lancashire, respectively.

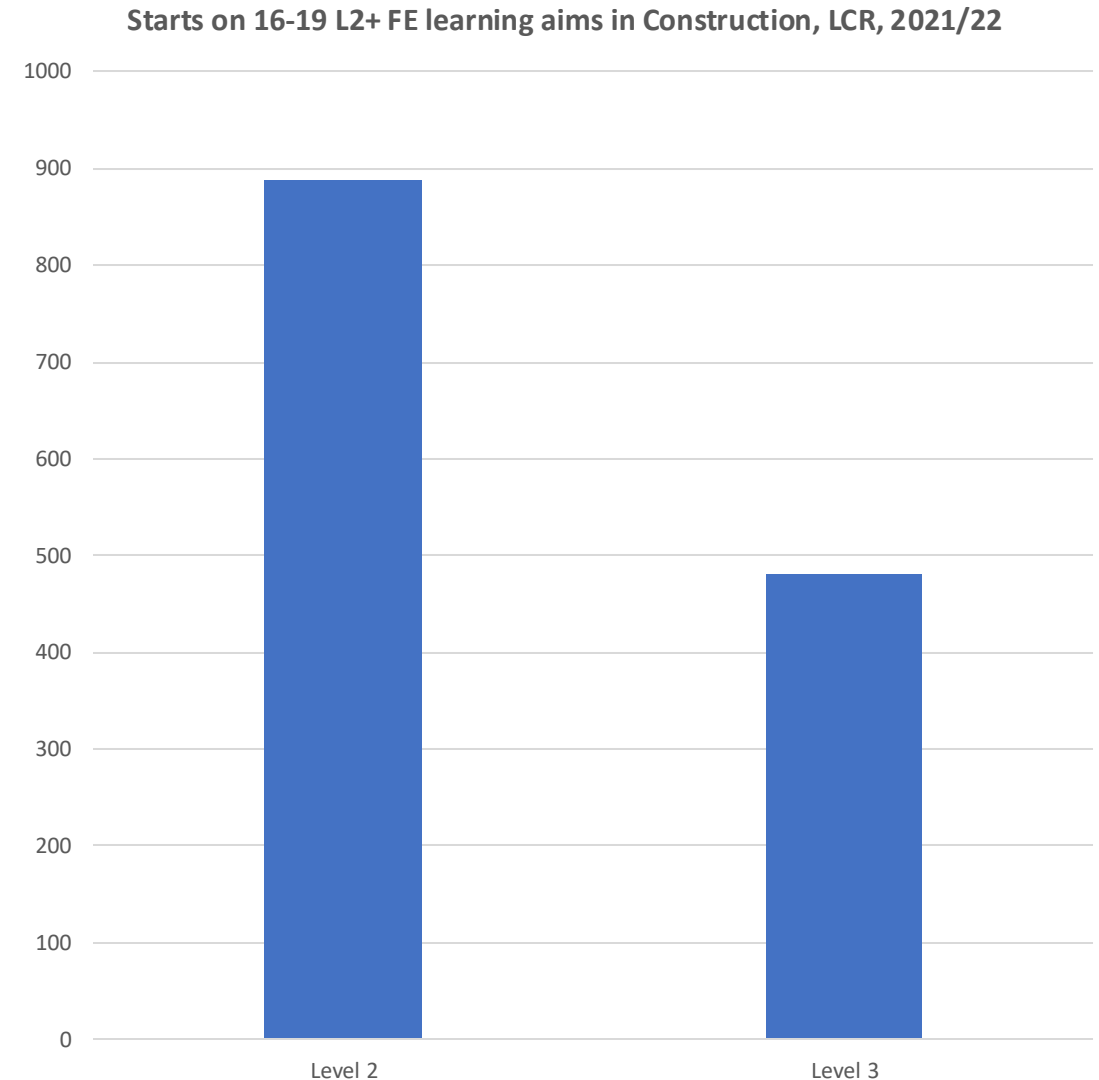


# **Construction in 16-19 FE: Liverpool City Region**

**Young people started 1368 classroom-based construction learning aims at Level 2 and above in LCR in 2021/22. 35% of these enrolments were at Level 3.**

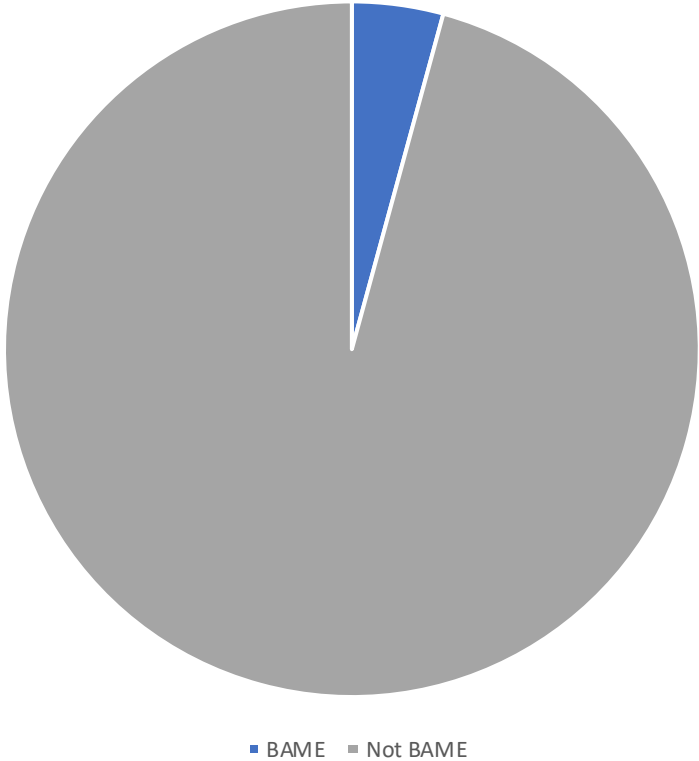
Starts on 16-19 L2+ FE learning aims (>10 starts) in Construction, LCR, 2021/22	
	Starts
Total	1368
Diploma in Electrical Installations (Buildings and Structures)	233
Advanced Technical Diploma in Electrical Installation (450)	153
Diploma in Plumbing Studies	123
Diploma in Site Carpentry	98
Technical Certificate in Electrical Installation	98
Diploma in Bricklaying	85
Advanced Technical Diploma in Plumbing (450)	75
BTEC National Diploma in Construction and the Built Environment	63
Diploma in Plumbing and Heating	50
BTEC National Foundation Diploma in Construction and the Built Environment	49
Technical Certificate in Plumbing	46
Diploma in Painting and Decorating	38
BTEC National Extended Diploma in Construction and the Built Environment	36
Diploma in Carpentry and Joinery	32
Diploma in Plastering	31
Technical Certificate in Site Carpentry	28
Diploma in Design, Engineer, Construct! The Digital Built Environment (RQF)	27
T Level Occupational Specialism - Electrotechnical engineering	13
T Level Technical Qualification in Building Services Engineering for Construction	13
Technical Certificate in Bricklaying	13
Diploma in Bench Joinery	12
Technical Certificate in Plastering	12
Diploma in Site Carpentry (Construction)	11

**Source: ESFA data cube, residency**

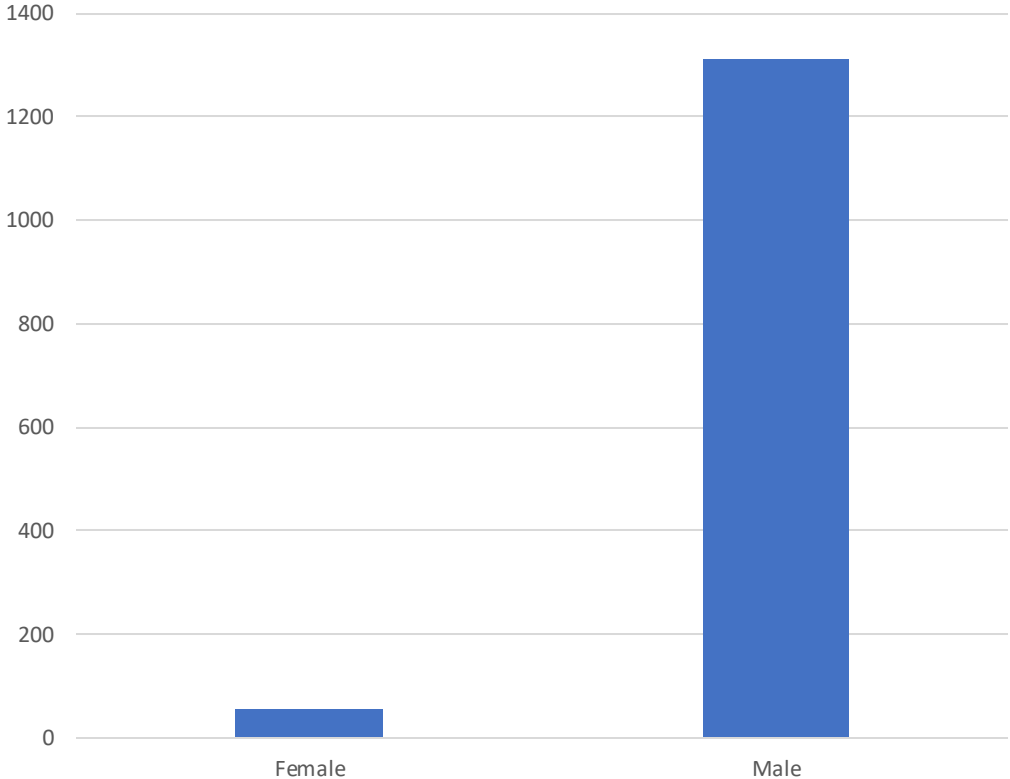


Only 4% of learners starting L2+ FE construction learning aims are female. The participation of BAME learners is below what might be expected from the population share of 16–20-year-olds (population is 88% white, 96% of learners are white).

16-19 FE L2+ construction learning aim starts, by BAME status, LCR, 2021/22



16-19 FE L2+ construction learning aim starts, by BAME status, LCR, 2021/22



The highest volumes of the starts on 16-19 classroom-based construction learning aims at Level 2 and above in LCR in 2021/22 were with Riverside College and Wirral Metropolitan College.

<b>Starts on 16-19 L2+ learning aims in Construction, by provider (&gt;10 starts), LCR, 2021/22</b>	
	Starts
Total	1365
Riverside College	301
Wirral Metropolitan College	298
St Helens College	252
The City of Liverpool College	180
Hugh Baird College	159
Southport College	129
Warrington & Vale Royal College	16
NCG	10
<b>Source: ESFA data cube (residency)</b>	

The volume of learning aim starts in FE L2+ construction in LCR ranged from 180 in Knowsley to 317 in the Wirral. The proportion at Level 3 ranged from 50% in Halton to 28% in St Helens and the Wirral.

16-19 FE L2+ learning aim starts in Construction, LCR, by local authority and Level, 2021/22

