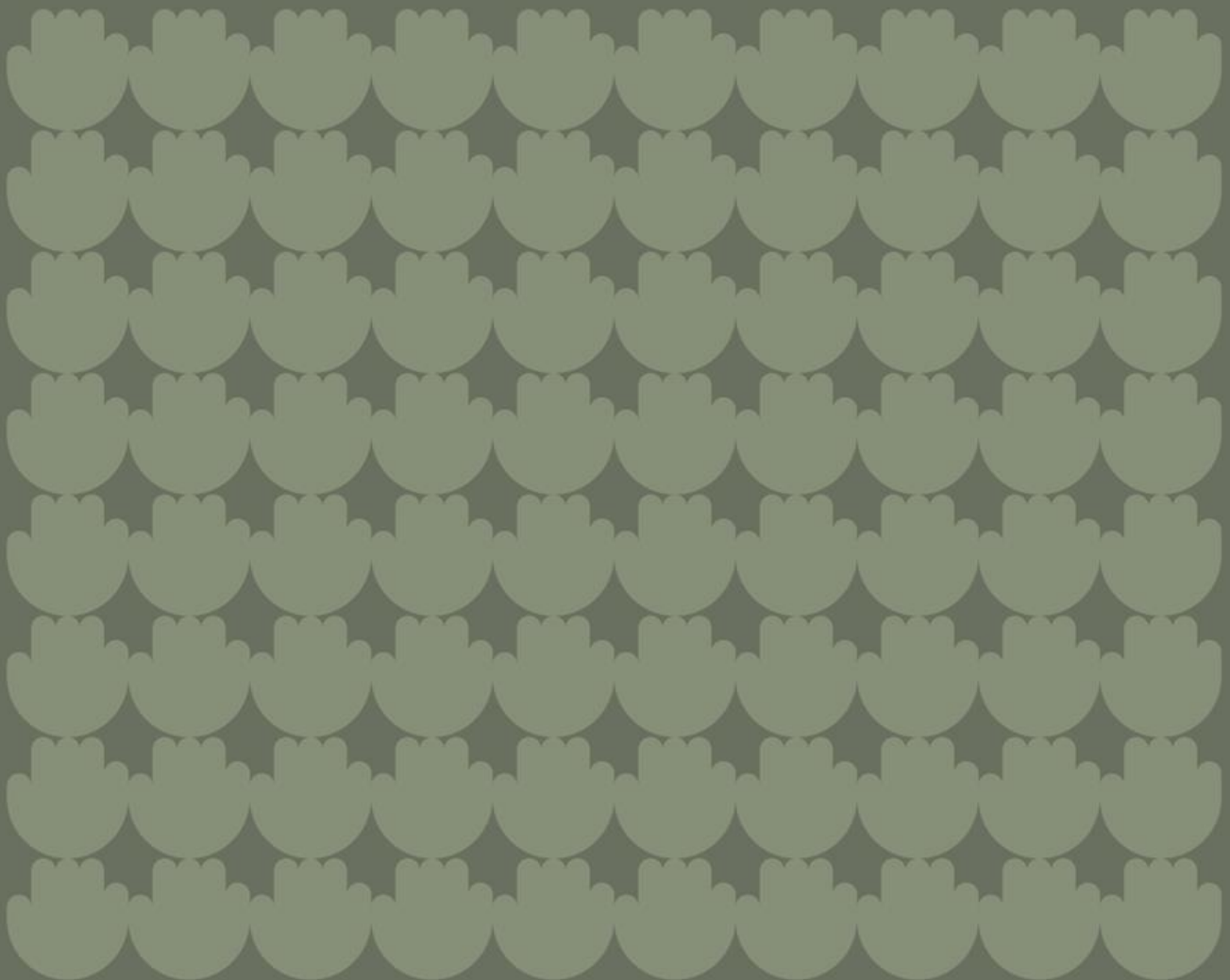


Local Skills Report & Labour Market Plan

Sector Overviews, Data Annexes and References

Version 2 - February 2022



Sector Overviews

At February 2022, sectoral deep dives had been completed in:



Further deep dives are underway with publication expected on an ongoing basis through Spring/early Summer 2022:



The full reports are [available here](#). The following summaries focus on the findings in those sectors that see the strongest overlap between national and Greater Manchester priorities:

Digital/ Tech



Sector Intelligence

- Remained a resilient sector throughout COVID.
 - GM as a region is higher in terms of market share of vacancies than the rest of the UK.
- High level technical skills are needed as well as digital skills for non-technical staff to support digital transformation.
- Residents struggle to understand progression pathways within digital and often employers are equally interested in wider soft skills and mindsets as well as a strong technical foundation. This is a challenge but also a great opportunity!
- People looking to switch to digital often have misconceptions about the industry. A big one was the idea there are not opportunities for mid-career and older careers switchers.
- Employers are looking for individuals who can demonstrate their skills and competencies including softer skills through real life examples.
 - Employers often refer to a digital portfolio.
- Despite GM's strength in digital apprenticeships, there currently might not be enough entry level routes into the industry as we would have expected to see in relation to sector growth.

Occupations

Main roles in GM – top job families :

- Software development
- Data
- Operations support
- Network engineering

Wider digital skills needed in wider sectors including; data analysis, digital marketing, digital finance, cyber and information security

Skills Needs/ personal qualities

- Common skills and mindsets employers looked for:
 - tenacious individuals who are willing to have a thirst for continued learning, good communicators, team players, ability to self-manage their workload, and curiosity.
- Employers are actively looking for people from a variety of backgrounds who will bring different perspectives to teams.

Progression pathways

- Through the intelligence work digital jobs have been broken down into occupational clusters with progression pathways. [See report and detailed appendix here](#)

Manufacturing

Sector Intelligence

- Growing need for digital skills in Manufacturing as production processes become more modern – trends towards electrification, automation, and digitalisation
- Prevalence of small “lifestyle businesses” in the sector – run with no growth intentions
- Production teams see higher turnover of staff than engineering/quality teams - more vacancies
- Manufacturing has seen a mixed impact from the COVID-19 pandemic, generally aligned to sub-sector:
 - Auto/Aero declining
 - Food/Household growing
- Firms often promote from within into management positions but need outside talent – could be an opportunity for experienced managers
- Big requirement for sales and marketing skills
 - Approx. 60% of firms still seeing decreased sales due to the impact of the pandemic
 - Lack of ecommerce in many cases
- Many engineers in the sector start out as apprentices
- Some difficult skills are always in demand – welders and metalworkers rarely struggle to find well-paid jobs, but churn is high

Occupations

- Food and Component Manufacturing Operatives
- Production Operators and Production Managers
- Sales and Marketing
- Digital roles within Manufacturing
- Machine operators

Skills Needs/ personal qualities

- Entry level production roles have low requirements but roles are generally unskilled and poorly paid.
- Numeracy skills, analytical and problem-solving
- Attention to detail is highly valued
- Specific technical skills – i.e. CNC machining, maintenance

Progression pathways

- Clear lines of progression into Production Management roles.
- Some staff are supported on Engineering training programmes if they want to develop
- Series of qualifications for Continuous Improvement Engineers

Construction



Sector Intelligence

- Growing pipeline of construction work in GM – largest growth areas are housebuilding and public infrastructure investment.
- Apprenticeships well-respected as a path into the sector – heavily incentivised by CITB and government grants
- Progression is often linked to CPD, additional “cards” and certifications
 - Plant machinery licences
 - Installer safety certifications
 - Additional site H&S certs
- Unique project-based nature of the sector means often perceived as unstable by job-seekers
- High levels of self-employment – approx. 1 in 3 Construction workers in NW is self-employed
- Materials supply effect by Brexit and COVID19 supply chain issues – current stocks of certain materials like plaster are very unreliable
- Rising awareness of green requirements – electrification and green energy rollout will need new electrical focused installers and maintenance

Occupations

- Site logistics – labourers, gate staff
- Specialist Plant operators
- Civil Engineers / Rail Engineers
- Ongoing national shortage in certain trades
 - Rail Engineers
 - Scaffolders
 - Ground-workers
- CAD/BIM specialists (digital paths)

Skills Needs/ personal qualities

- Entry level roles have low requirements (H&S cert or CSCS card) but roles are generally poorly paid
- Work ethic
- Team-working highly valued
- Specific technical skills – i.e. plant, CAD, scheduling

Progression pathways

- Clear lines of progression for individuals as they achieve new certifications or cards
- Easy to transfer skills across sub-sectors – infrastructure, rail, housing



Sector Intelligence

- There is a **current and growing need for retrofit skills in GM** with projects including:
 - The number of **private home owners** willing to pay for retrofit is growing. The market is estimated to be worth more than **£2 million in the next 12 months**.
 - The **Green Homes Grant voucher scheme** is available for home owners nationally until 31 March 2022.
 - **GM Housing providers** have a significant pipeline of work planned.
 - **GMCA have secured £107 million capital funding to deliver retrofit for domestic and public buildings** across the region during 2021. Geographically this work impacts across all 10 boroughs of GM
- the past with **previous failed green skills initiatives** they are understandably cautious to act until there is the prospect of real work and contracts to deliver.
- **Employers don't understand what skills** they need to deliver retrofit work
- Where skills providers exist they are specialist and small scale. **Current construction skills providers do not understand retrofit** and the skills required and **qualifications have not yet caught up.**

Occupations

Roles which need to be upskilled:

Trades: Heating engineers, electrical trades and installers, plumbers, joiners, roofers, plasterers
 Professionals: Architects, project managers, site supervisors, planners, designers, surveyors
New roles/ competencies: Retrofit coordinator, assessor, advisor, designer, evaluator

Skills Needs/ personal qualities

- Ability to work with clients to assess and advise for retrofit – customer service with construction/retrofit knowledge
- Multi-skilled operatives with the ability to understand whole project view of retrofit wider than their own trade
PAS2035 sets the standard of retrofit required

Progression pathways

- Various training roles in construction
- Training for retrofit specific skills is limited, much with no formal accredited qualifications yet available



Sector Intelligence

- Unlike most sectors, the majority of businesses and occupational areas in the 'Green Economy' don't characterise themselves in this way, or talk in terms of 'green skills'. Rather, the Green Economy is approached along 5 sub-sector lines: Buildings, Transport, Energy, Waste, and Nature
- Much of the shift to Net Zero will involve improvements in infrastructure, transport, business practices/processes, and consumer habits. Measuring the size and scope of the Green Economy is therefore difficult as many employers and job roles contribute heavily but indirectly towards "green" objectives.
- Many green technologies are approaching mass-adoption stage, including electric vehicles, low carbon heating technology, and renewable energy production. This will bring changes to the volume, make-up, and skill levels of hundreds of different occupations
- Real opportunities are being presented by initiatives such as public sector decarbonisation, but there are challenges across the economy around basic carbon literacy: awareness/understanding of sustainability, Net Zero and green business practices/processes
- Employers in some sub-sectors like construction have seen stop/start subsidies and government initiatives, which has diminished trust in the pipeline of 'green' opportunities, and the level of upskilling. For example, many are hesitant to develop training or staff around a specific heating technology, because it's not clear where the government will support (i.e. hydrogen or heat-pumps or biomass or electric boilers).
- Young people are keen to work in carbon-neutral or carbon-negative careers, but often don't know what occupations are available

Occupations

- Perceptions of careers in the Green Economy are outdated, with many still referring to environment-linked jobs (eg Ecologists, Land Managers, Marine Biologists) as 'green' occupations
- Highly technical specialisms exist but highest demand is for skilled technical trades (eg. electrical engineers) and cross-cutting occupations, eg. Project Management/evaluation, Digital, Data Analysts, and Customer Service staff are in demand.
- Job roles within the Green Economy are often in highly technical occupations so STEM skills are absolutely critical. However, STEM learners are already being increasingly drawn to careers in digital & tech, with which other skilled trades/professions struggle to compete

Skills Needs/ Issues and personal qualities

- Occupations/skillsets in demand range from entirely new specialisms (eg in retrofit, transport, energy), to changing skills and accreditation requirements in the way existing professions work (from architects and engineers to accountants/ financiers dealing with green finance, carbon measurements, or carbon taxes).
- As with all emerging technologies/innovation sectors, entrepreneurship and skillsets to support commercialisation are key.

Progression pathways

- Careers guidance: support is needed for careers advisers to ensure they understand the range of opportunities and pathways available, not only for young people but adults who will need to retrain/upskill
- Priority should be given to reskilling individuals in so-called "sunset jobs" – roles which will see decline in the shift to Net Zero in the same way that other sectors are seeing occupational change linked to automation/AI



Sector Intelligence

- This is a huge sector and there is an immediate need for Health and Social Care skills across GM. This is likely to increase significantly:
 - An ageing population means more demand on services. People are living longer and with more health conditions. There is likely to be more integrated treatment and far more people receiving care at home.
 - There is an ageing workforce with over 25% of GM employees in this sector aged over 50.
 - Ongoing issues with retention of staff means that high numbers of people are needed to be recruited to simply replace those leaving the system.
- Many positions suffer with poor pay, terms and conditions. There is often shift work and/or a need to work overnight in some positions. Zero hour contracts are common in GM and minimum wage.
- Massively female dominated sector with upwards of 85% female staff in some areas
- Some gaps in skill provision have been identified. GM has numerous providers and qualifications are available. There are new positions emerging; however employers already stretched can be reluctant to release staff for training.

Occupations

Roles with staffing shortages:

Direct care roles: Care assistant, Personal Assistant,

Ancillary roles: Cleaner, Cook

Professionals: Nurses, Social Workers, Occupational Therapists, Radiographers, Domiciliary / Residential Care managers

New Roles: Nursing Associate, Advanced Clinical Practitioner, Mental Health Therapist

Skills Needs/ personal qualities

- Mental Health skills highly desired
- Personal Values – compassionate / empathetic / good communication skills and personal resilience

Progression pathways

- Various training routes – traditional academic and vocational – progression from entry level to Nurse
- Issues around 'off job learning (and backfill costs) and clinical placements

Logistics



(NB: preliminary findings arising from the intelligence gathering phase of the deep dive for haulage & logistics, and are subject to further testing prior to the report and recommendations being finalised)

Sector Intelligence

- Logistics: c. 6,100 enterprises in GM, 95% of which are SME/micros.
- Six key subsectors: Land Transport, Air Transport, Postal Services, Warehousing, Distribution and Freight.
- Logistics underpin large parts of the economy – many industries have logistics sub-sectors/occupations. ‘Key worker’ status during the pandemic to ensure supply of essential goods and vital to the boom in e-commerce.
- This crucial enabling role extends to economic growth/development, such as GM’s M62 Northeast Growth Corridor
- Both skills gaps and labour shortages, including unprecedented shortage of HGV drivers (net fall of 42k UK nationals and 12k EU nationals working as HGV drivers from 2017 to 2021).
- Shortages are exacerbated by poor perceptions of conditions and progression in the sector, although high demand is driving pay up: almost half of respondents to Logistics UK Industry Survey 2020/21 indicated they had increased staff gross pay.
- Innovation and emerging technologies are shaping the future of logistics through changing customer requirements, rapid digital transformation and automation within the business environment.
- Post-Brexit, logistics businesses face new challenges/ training needs around import and export rules
- Clean Air Zones/Net Zero: Low-emission schemes and an increase in sustainable technology innovation and development will drive higher costs and the demand for new skills in the sector.

Occupations

- Skills shortages and high numbers of vacancies across all sub sectors
- Highest vacancies currently in Delivery Drivers, HGV Drivers, Transport Planners, Logistics Administrators, Transport Managers and Transport Co-ordinators
- Skills gaps in the planning, control, and scheduling: Traffic Office roles such as Planning Supervisor and Controller; Logistics Administrators

Skills Needs/ personal qualities

- Higher-level digital skills to support digital transformation and automation.
- Upskilling required in the new import / export/ rules of origin regulations, documents and associated processes
- Urgent need to diversify the workforce based on a range of characteristics, including age: only 9% of workforce is <25yrs, 45% are aged over 45yrs
- Soft skills a common theme - can improve efficiency and cohesion at all levels in organisations

Progression pathways

- Progression routes available into supervisory, management, planning and specialist roles, eg International Freight Forwarding Specialist
- BUT gaps in some higher technical occupations where Apprenticeship standards have not yet been designed: Fleet Managers; Logistics Operations Maintenance; Procurement; Warehousing Managers; Supply Chain Managers.

Annex A – Core Indicators

A1 LOCAL CONTEXT

Local Labour Market Landscape: Summary

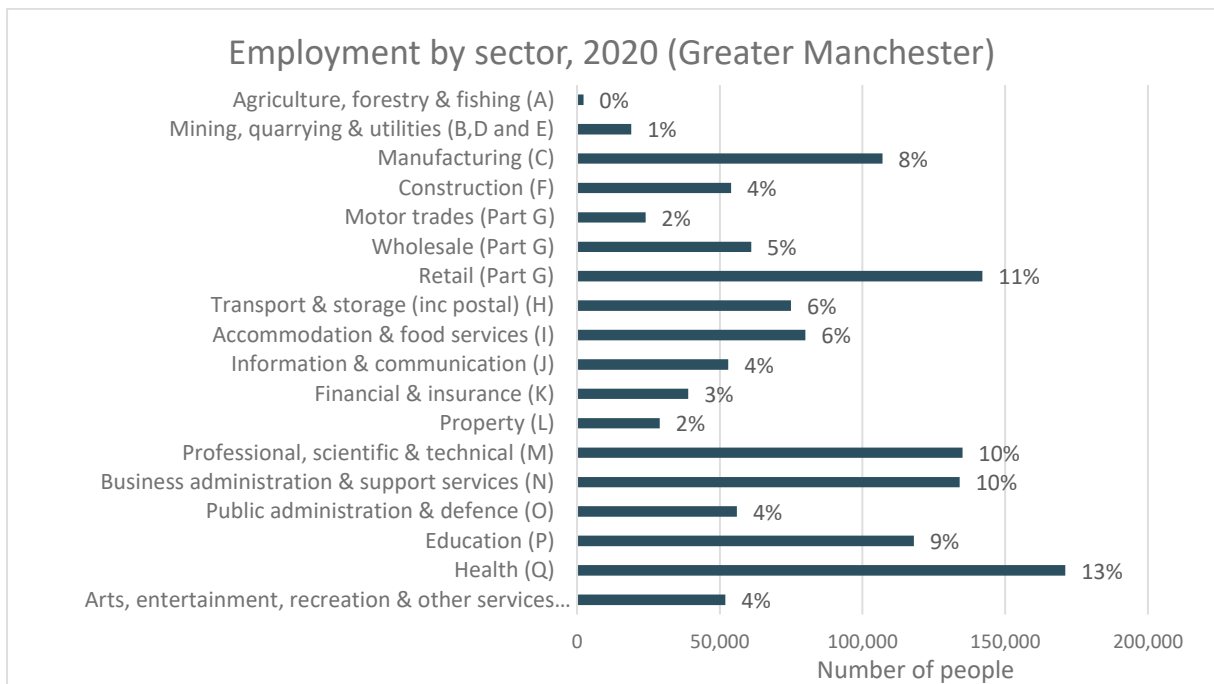
- Greater Manchester (GM) is a large and broad-based economy. GM's employment profile differs only marginally from national averages, having slightly more employment in sectors such as retail, business administration and professional services. The same applies to occupations, with GM having slightly higher levels of employment in elementary occupations and sales and customer service.
- However, there are larger differences in respect of GM's GVA and employment rates, both of which are persistently several percentage points below the national average. This has been highlighted as an area of focus for both skills supply (such as up-skilling and in-work progression) and skills demand, working with employers to promote higher value activity and better employment practice.
- Skills and employment considerations and labour market inequalities are inherently connected with disadvantage more generally. Large parts of GM are amongst the most deprived neighbourhoods in the country in terms of income, employment, and education, skills & training. This signals the importance of an effective labour market response that looks at skills, employment and health holistically, not skills in isolation.
- The claimant count rose to an unprecedented extent at the beginning of the COVID-19 pandemic. Despite a strong recovery since Spring 2021, there is still a considerable distance to travel to return to pre-pandemic levels. Compared to March 2020, the claimant count in November 2021 was still 42% higher in GM, and 52% higher than in England.
- However, the claimant count is a poor measure of labour market performance and does not carry the status of a national statistic. Unemployment and – crucially – economic inactivity (measured by the Labour Force Survey/Annual Population Survey) both rose in the course of the pandemic and the associated lockdowns. This data is considered in Annex B.

- Issues around poor productivity, low pay, and poor skills utilisation, together with wider labour market issues (including labour shortages that are not based in skills gaps/mismatches), are an important part of the background to the debate about skills in Greater Manchester. Whilst there are some skills gaps, low employer demand for higher level skills and high volumes of employment in low productivity sectors are prominent features of the skills landscape in GM, that skills interventions alone cannot counteract. Skills demand and better skills utilisation are, therefore, a central element of GM's labour market challenge.
- Low pay in GM is an enduring issue; even before the pandemic, average pay levels had not recovered to levels seen before the financial crisis in 2008/09. This is likely to place increased pressure on living standards in the light of high inflation, exacerbating existing inequalities.

1.1 Employment by sector

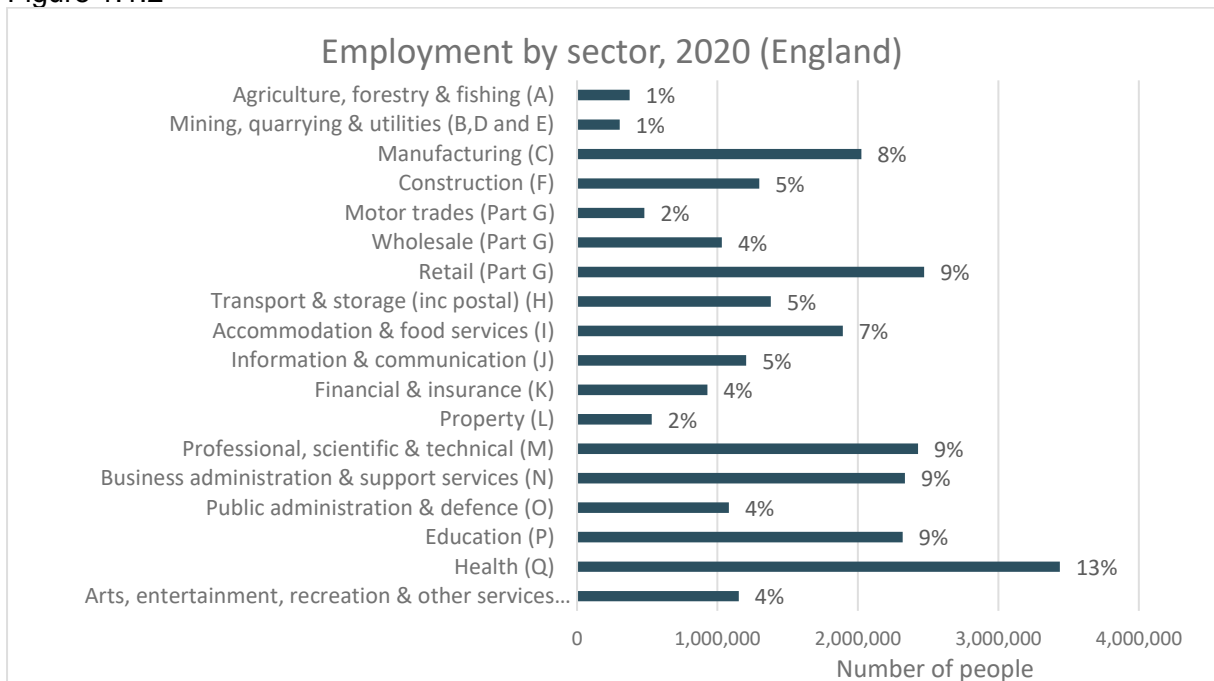
- The main sectors of employment in GM are Q (Health), G (specifically Retail), M (Professional, scientific and technical), and N (Business administration and support services).
- These are also the main employment sectors nationally, though they account for a slightly higher proportion of employment in GM.
- Key growth target areas for GM are: (Advanced) Manufacturing, Financial & Professional Services, Digital & Creative Industries and Health Innovation. There is also a focus on 'clean growth', a policy imperative linked to GM's carbon neutrality ambitions and Local Industrial Strategy, with cross-cutting skills and labour market relevance.

Figure 1.1.1



Source: Business Register and Employment Survey, 2020

Figure 1.1.2

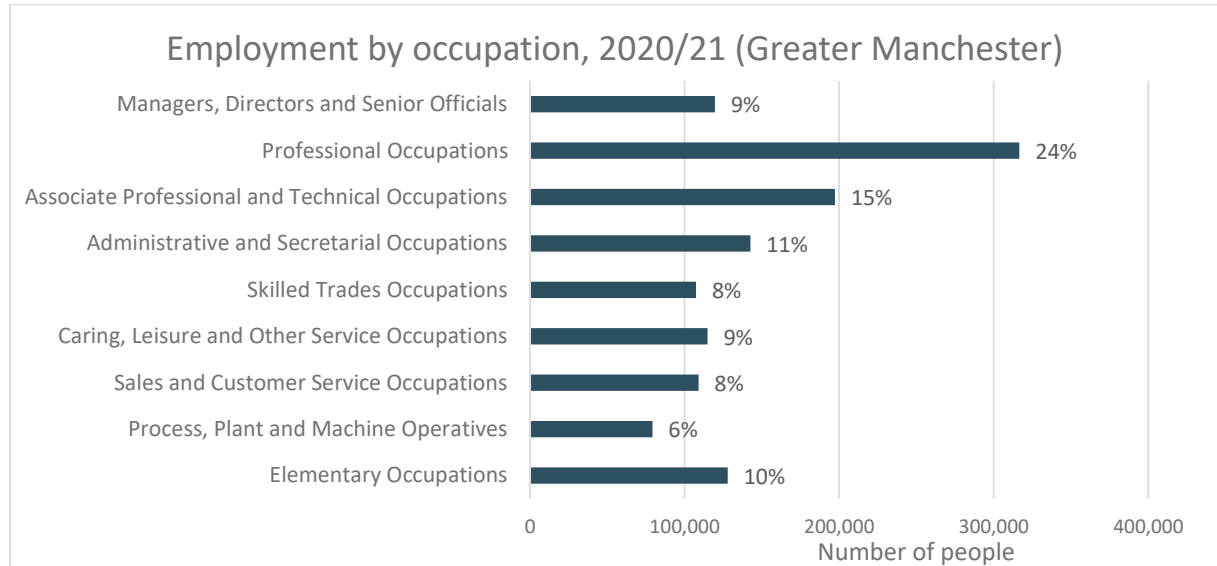


Source: Business Register and Employment Survey, 2020

1.2 Employment by occupation

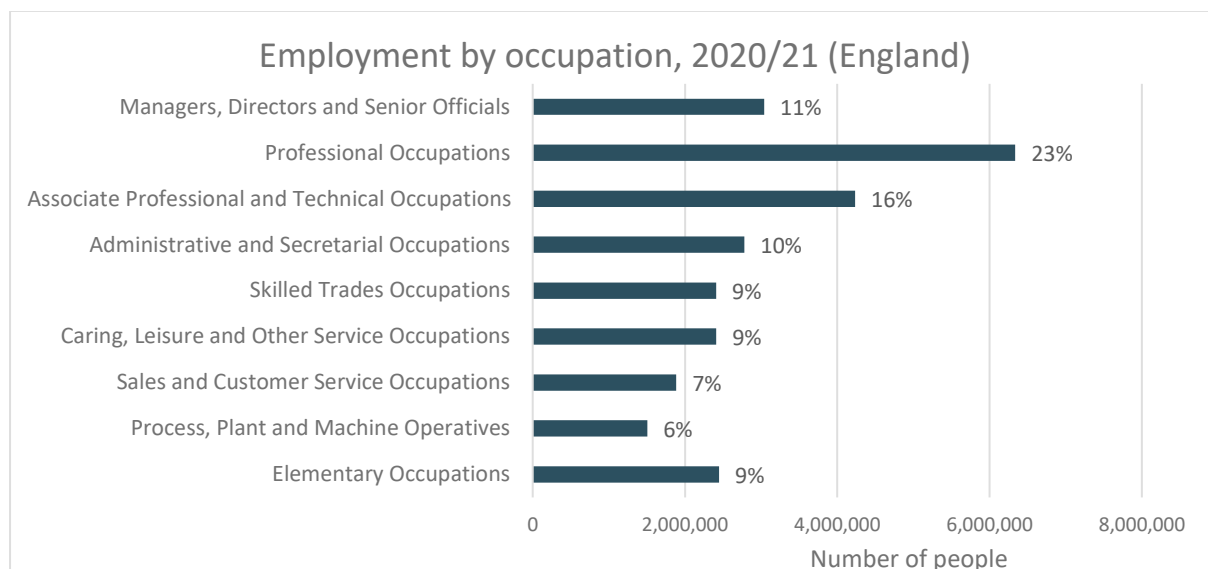
- GM's occupational distribution is only marginally different from England; typically within 1-2 ppt for each sector.
- England has a (slightly) higher proportion of its workforce employed as managers/directors or professionals, whereas GM has more employees in sales and customer service or elementary roles.
- This could indicate a slight skewing of the GM workforce towards lower-level work types and chimes with the need to develop sector-specific leadership & management, as well as the skillsets needed to commercialise some of the outputs from our R&D and other assets.
- This need for sector-specific commercial and professional skills development is also reflected in the emerging industry intelligence reports, which indicate that managers and supervisors in, for example, a manufacturing environment, want management training tailored to/delivered by industry specialists, not generic leadership training with limited application in specialist fields.

Figure 1.2.1



Source: Annual Population Survey, July 2020 - June 2021

Figure 1.2.2

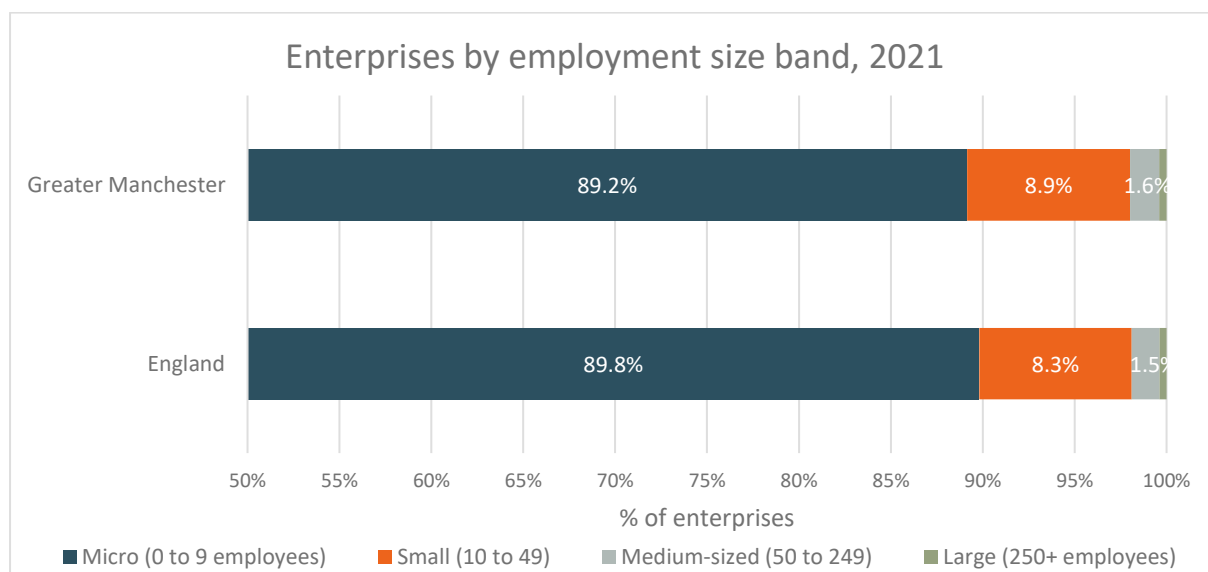


Source: Annual Population Survey, July 2020 - June 2021

1.3 Enterprises by employment size band

- GM's business ecosystem consists largely of micro enterprises, and its overall composition almost exactly mirrors that of England. In 2021, there were 106,695 enterprises in Greater Manchester, and just over 1 in 10 businesses had 10+ employees.
- This poses a number of challenges: very small and micro enterprises are less likely to have capacity or the HR/OD expertise to engage in workforce development planning or in the curriculum design activity that will help ensure their skills needs are being identified and met, or to make informed decisions about the most appropriate training options and incentives for their needs.
- This is why we have designed and commissioned programmes such as the £7m ESF Skills for Growth SME Support to help those businesses, which will be the engine room of GM's inclusive economic growth, to help articulate their skills needs and signpost/facilitate appropriate support.

Figure 1.3

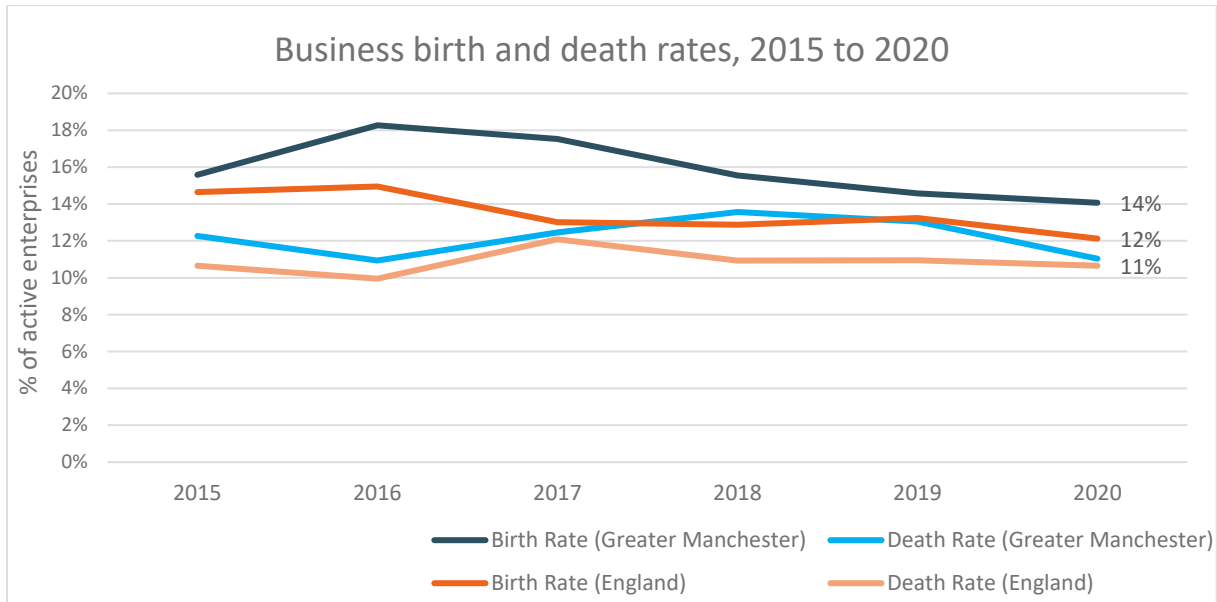


Source: UK Business Counts, 2021

1.4 Business birth and death rates

- GM has seen an above-England trend of business births since 2015, but this has been accompanied by a similar pattern of business deaths (i.e. above the national average).
- The apparent average gap between births and deaths of businesses from 2015-20 does suggest that GM has been an area of strong performance regarding the creation and upholding of new businesses – it seems to be a successful entrepreneurial area, but this would be best considered in the context of other comparable regions.
- A high business birth rate presents a strong opportunity for growth in GM if new businesses can be supported to develop the skills and knowledge required to remain active.

Figure 1.4

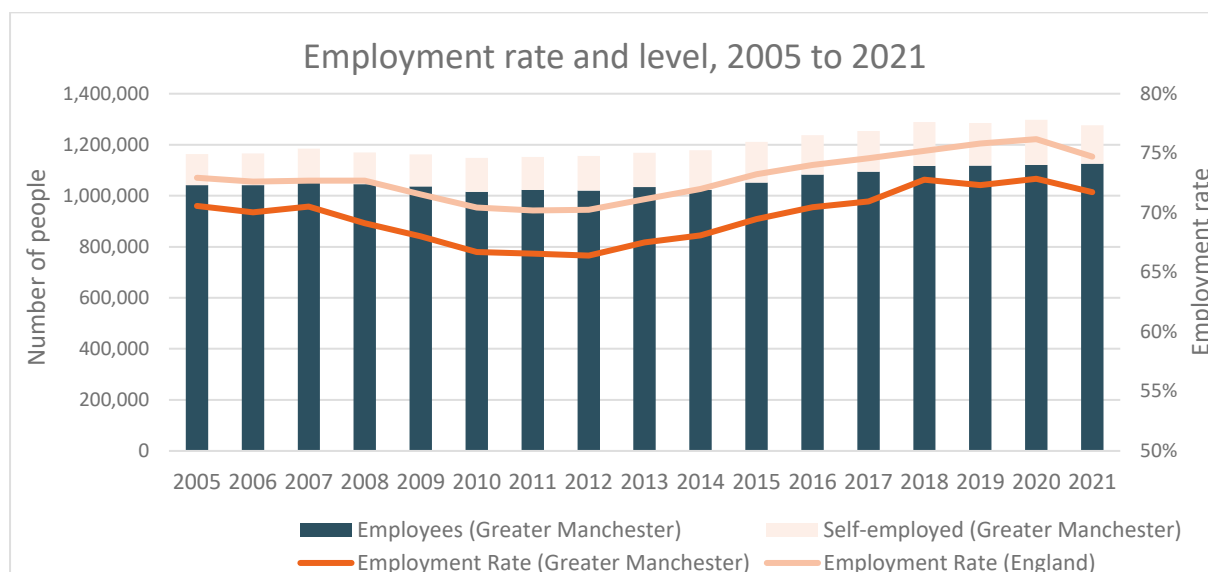


Source: ONS Business Demography, 2015 - 2020

1.5 Employment rate and level

- Employment rates in GM have been consistently below the national average – typically in the region of 3-4 ppts underneath - from 2005 to 2021.
- GM's changes over this 15-year time period have almost been in lockstep with the trend for England, evidenced by the consistent gap.
- The impact of the COVID-19 pandemic on employment appears to have been much less significant than anticipated, although GM and the NW have not seen the same recovery in employment as the national average.
- Across GM's districts the range in employment rates is significant. Trafford and Stockport averaged above 75% employment from 2005 to 2021, whilst a cluster of districts are consistently below 70%.

Figure 1.5

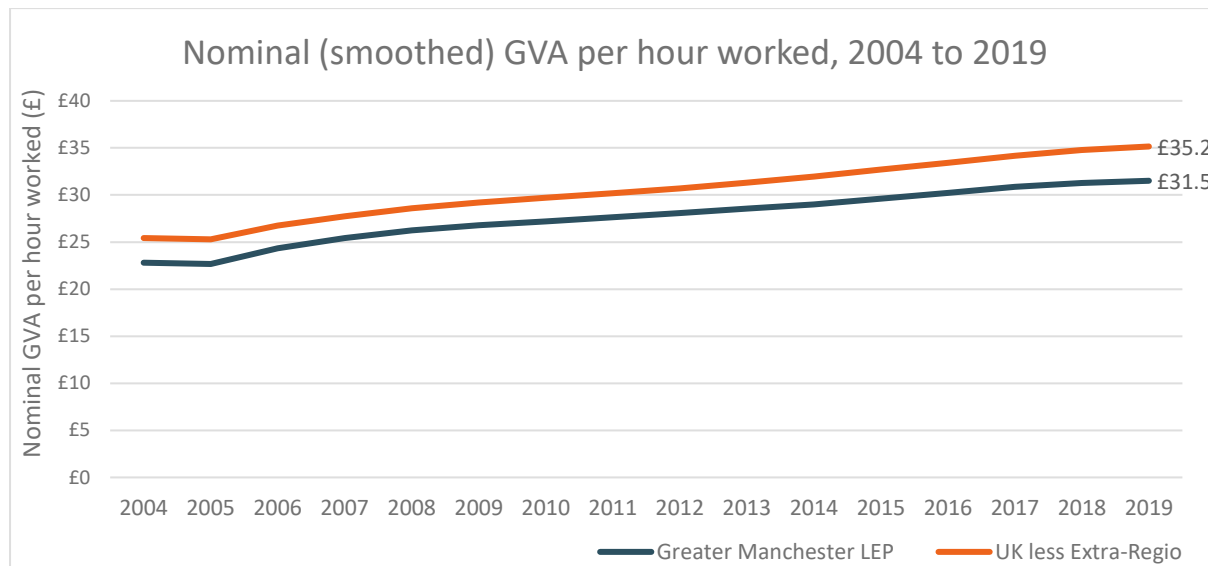


Source: Annual Population Survey, 2005 - 2021 (Note: Year is 12 months to June).

1.6 Nominal GVA per hour worked

- Much like changes in employment, patterns of productivity correspond with the entrenched trend of GM underperforming relative to the nation as a whole. This trend was highlighted in the GMIPR/LIS, which noted the high proportion of people employed in low productivity sectors within the ‘foundation economy’, as well as seeking to demonstrate the link between poor health outcomes and low productivity.
- Even though GVA has been increasing for both geographies since 2004, the GM conurbation has persistently under-performed the UK (less extra regions).
- The gap has widened post-2014 (from 2004-14 changes were effectively in tandem).

Figure 1.6



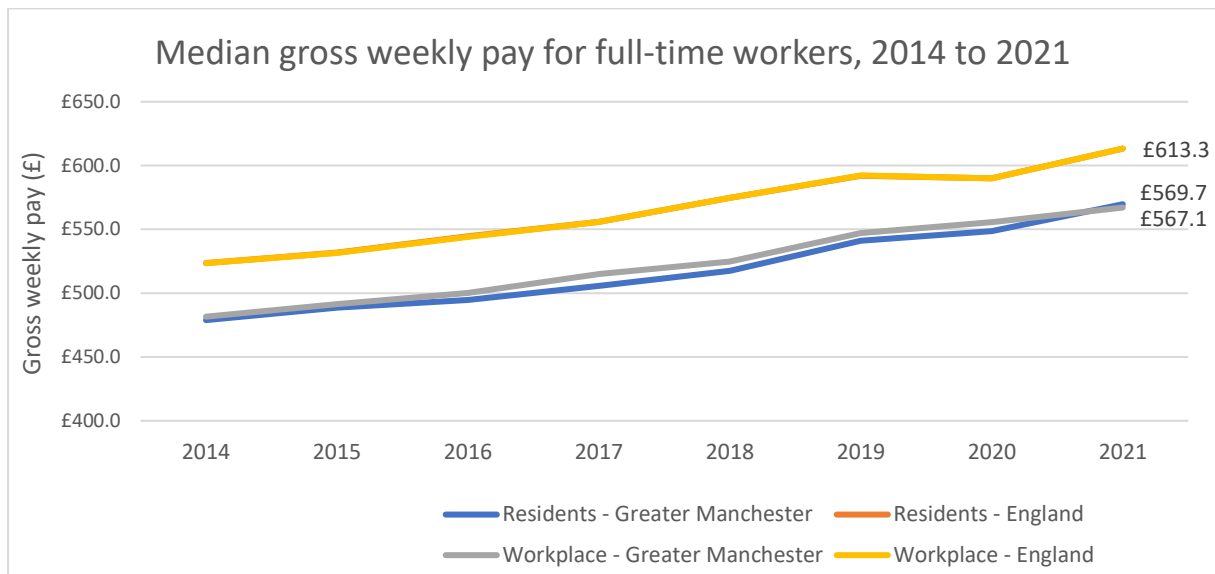
Source: ONS Subregional Productivity, 2004 - 2019

1.7 Median gross weekly wages for full-time workers

- Wages in GM have lagged the national level for a sustained period of time. This is a long-standing challenge in the GM labour market and a barrier to addressing both the levelling-up agenda and some of the skills demand issues highlighted throughout this report. Better skilled workers are, in general, more expensive to employ, so higher value activity, better skills utilisation and supporting in-work progression for individuals comes at a cost to employers, who might not always be persuaded by the economic returns of training. In a period of economic downturn brought about by the impact of the pandemic, Brexit, and other factors, this is likely to remain a challenge.
- Since 2014, GM's average wages have sat ~8% lower than England's. A minor gap between resident and workplace earnings for GM since 2016 is no longer present in the most recent data; workplace pay was previously higher. However, there are larger differences between resident and workplace pay at district level.

- Looking ahead, the high level of inflation is likely to increase pressure on pay and the cost of living, and is a particular concern for those already being paid below the real living wage.
- Further information on pay is presented in Annex B.

Figure 1.7



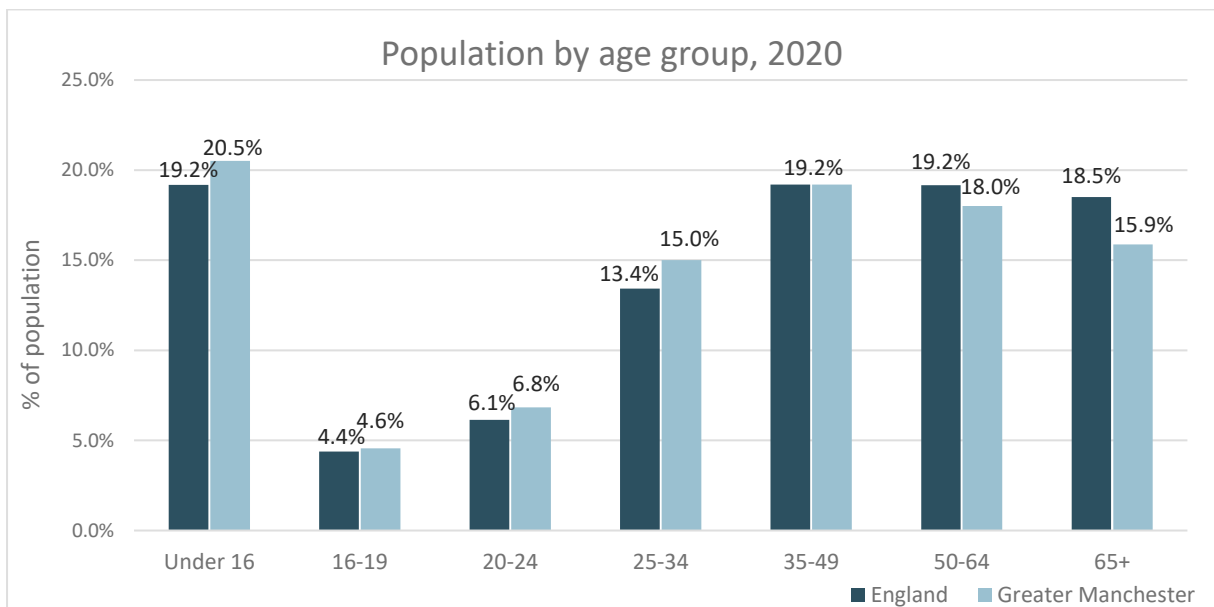
Source: Annual Survey of Hours and Earnings, 2014 - 2021 (Note: In England, there are only marginal differences between resident- and workplace-based pay. Pay is nominal i.e. not adjusted for inflation).

1.8 Population by age group

- The composition of GM's population is slightly younger than that of England. Greater Manchester has 4 ppts more of its population under the age of 35, with England having the same in its 50+ population.
- The relatively young GM population suggests that, arguably, the city-region may have a more 'future-proof workforce' than the country as a whole (assuming that the young cohorts remain GM residents).
- However, the wider backdrop of an ageing English population, and the disproportionate impact of the pandemic on older workers who might be edged out of the labour market and find it harder to return, will still carry repercussions for the GM workforce, with sectoral divergence expected in some occupational areas which have an older workforce and will face issues around replacement demand and skills currency/relevance over time.

- This also has implications for skills, employment support and careers advice for adults, as a significant proportion of the 2030 workforce has already left compulsory education. There is a need to focus on upskilling, retraining and lifelong learning, as well as all-age, all-level careers advice in order to support future resilience in the workforce.
- The wider impact on inequalities must also be borne in mind, as older workers who might struggle to return to work/economic activity after the pandemic could be at risk of effectively falling into involuntary early retirement without the necessary financial provisions in place to support themselves in later life.

Figure 1.8



Source: ONS Mid-year Population Estimates, 2020

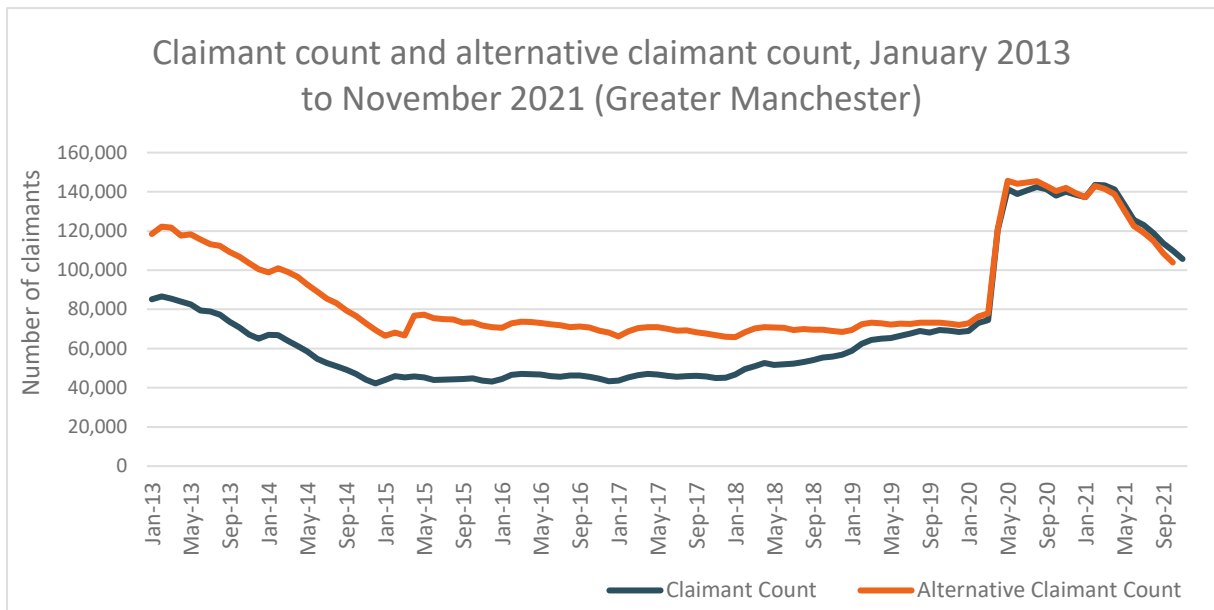
1.9 Claimant count and alternative claimant count

- Considering the COVID-19 period, GM's initial surge in claimants in spring 2020 was slightly 'better' than that of England, GM having seen an increase of ~90% and England ~113% between March and May 2020. However, this simply reflects different starting points, as areas with lower claimant volumes have seen sharper rises nationally.
- From the Spring of 2021, both measures of the claimant count have shown signs of recovery, with a drop in the number of claimants in both GM and

England. In Greater Manchester, the claimant count has fallen by 23% since January 2021, and 26% in England.

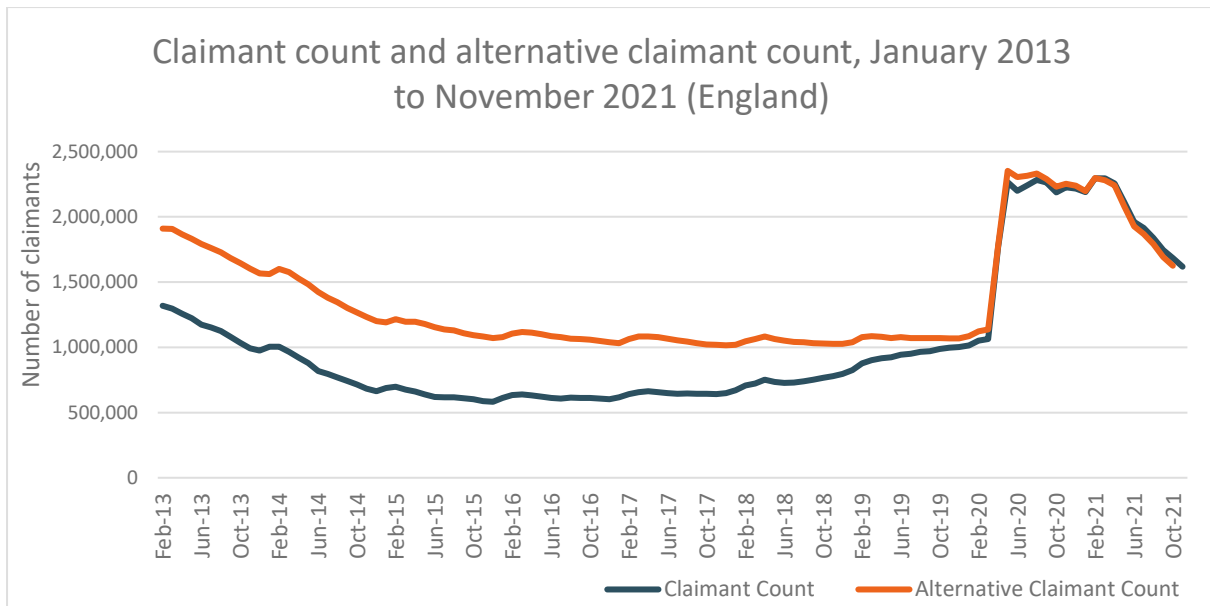
- However, there is still a considerable distance to travel to return to pre-pandemic levels. Compared to March 2020, the claimant count in November 2021 was still 42% higher in GM. The end of the furlough scheme in September 2021 appears not to have led to an increase in claimants.
- However, this only tells part of the story. Unemployment trends in Greater Manchester and the North West of England have diverged from national patterns of recovery. In the period to November 2021 unemployment had risen in the NW for four consecutive months to 4.7%, according to the Labour Force Survey, and economic inactivity also rose over the same period.

Figure 1.9.1



Source: ONS Claimant Count & DWP Stat-Xplore, 2013 – 2021

Figure 1.9.2



Source: ONS Claimant Count & DWP Stat-Xplore, 2013 - 2021

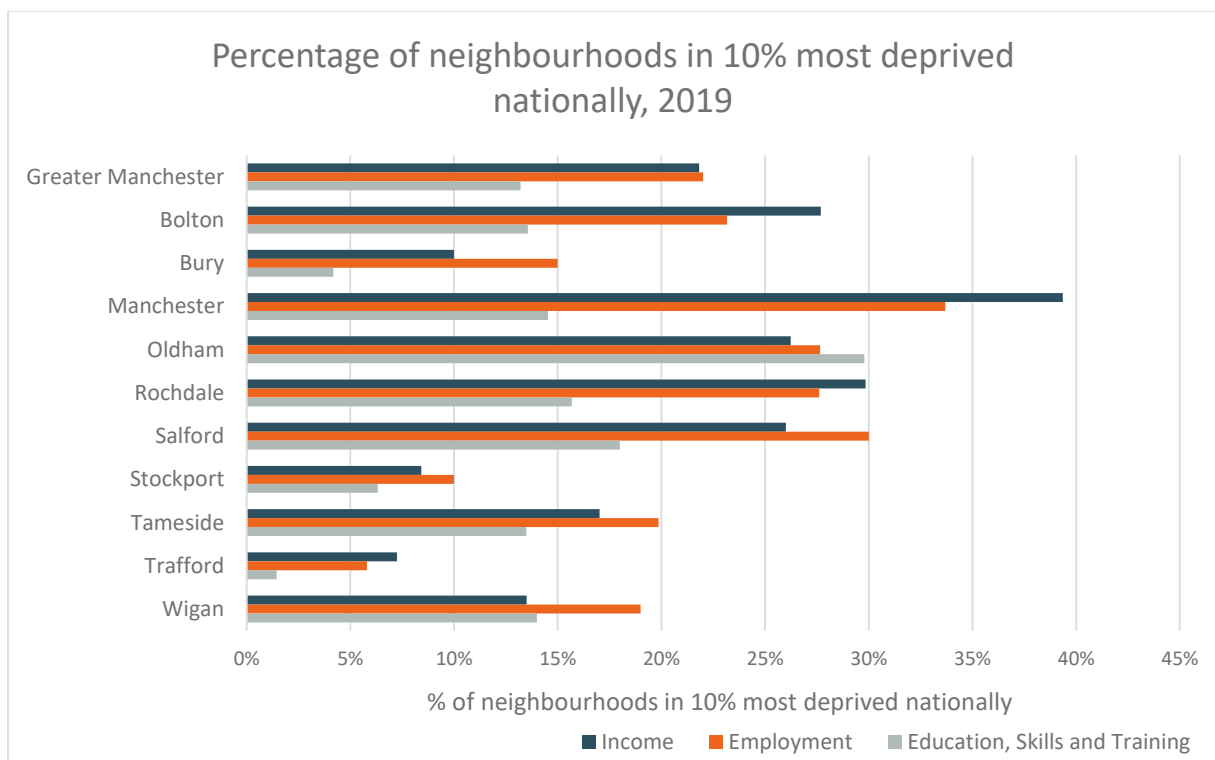
1.10 Income, employment and education deprivation

- Again, consideration at city-region level masks spatial variations, as GM's LAs vary significantly in terms of their deprivation levels. Trafford has the benefit of experiencing particularly low deprivation prevalence across all three of these measures (although this too masks some pockets of significant deprivation). By contrast, Oldham has consistently high proportions of deprived neighbourhoods for all 3 metrics, with education, skills and training deprivation levels significantly above other GM LAs.
- Manchester stands out in the income and employment elements as being highly deprived but, as an inner-city area, it would perhaps be more prudent to compare it to similar settings. If we were to categorise GM's LAs, Trafford, Stockport and Bury could be in the lower deprivation bracket. Middling LAs would be Tameside, Wigan and perhaps Bolton. Salford, Rochdale, Oldham and Manchester have a larger segment of their respective populations in the most deprived cohort.
- This raises questions for policy makers around the levelling up agenda and the ways in which we approach tackling inequalities. Whilst GM seeks to do so in ways that produce positive outcomes for the city-region compared to national benchmarks, there is also 'internal' levelling up that must take place within GM, and potentially a case to be made around the ways in which

resources and interventions are targeted and prioritised. In effect, the differences within GM's LAs are more substantial than the difference between GM and UK averages.

- The Levelling Up White Paper (Feb 2022) marshals a range of policies and tools around this agenda, including the introduction of Education Investment Areas in seven of GM's ten LAs.

Figure 1.10



Source: *Index of Multiple Deprivation, MHCLG, 2019*

A2 SKILLS SUPPLY

Skills Supply: Summary

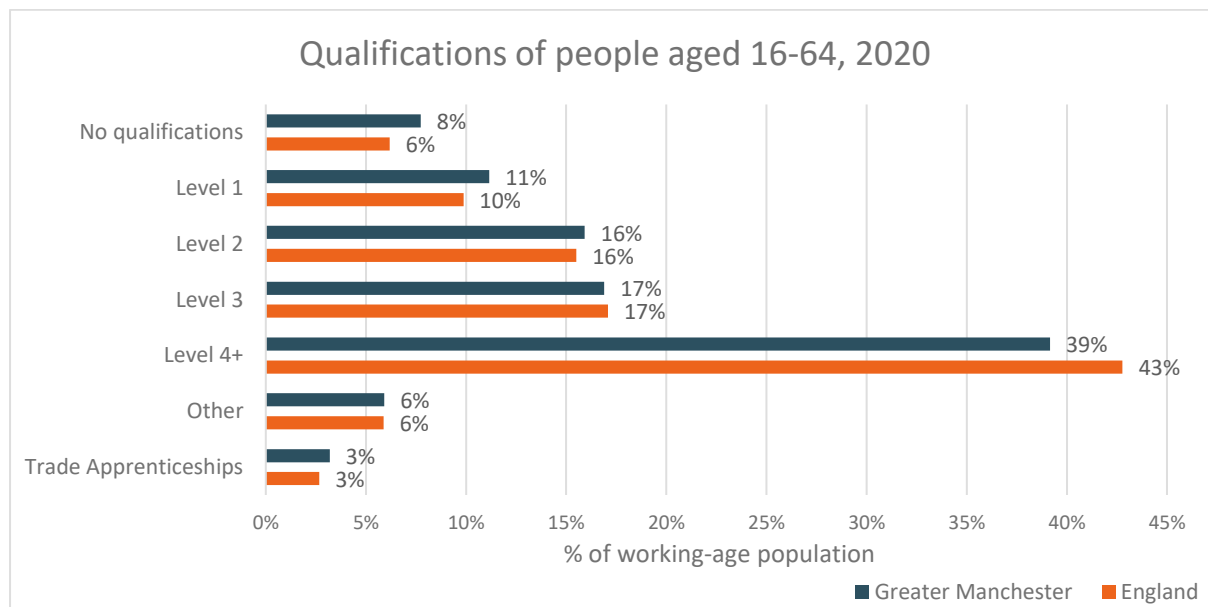
- There is no direct measure of 'skill'. However, if qualifications are treated as a valid proxy, then GM's population has lower qualification levels than the national average – especially in respect of people without any qualifications and those with level 4+ skills.
- In line with this comparatively low skills profile, relatively basic skills provision accounts for a higher proportion of skills training in GM (51% of adult skills training in GM vs 43% in England). The lower proportion of training in health and care in GM (12% vs 18% in England) appears slightly surprising given the relatively high employment in health and care in both geographies (13% of all employment in GM and England).
- Destinations differences are generally fairly small (for example GM is lower on people entering work after a level 2 than the English average). Such differences may reflect demand issues as much as supply.
- Despite the number of employers reporting skills gaps, hard-to-fill vacancies, and employees who are not proficient in their roles, over a third of GM employers (36%) provided no training in 2019 (compared to 39% for England).

2.1 Qualification levels

- GM's qualification profile suggests it has generally lower skills than is typical nationally. The city-region has proportionally more people with no qualifications, whereas England has more with Level 4+ qualifications. Overall, GM's 16-64 population is less well-qualified compared to England's.
- This presents challenges for the way in which GM uses its devolved adult skills functions and associated Adult Education Budget; if every resident chose to enrol for education and skills development linked to their statutory entitlements, the AEB could be spent many times over.
- This must be taken into account by government as well as within GM when considering how future skills and employment programmes aimed at 'levelling up' – such as the people and skills elements of UKSPF – will be targeted in

ways which tackle deep-seated skills inequalities without duplicating or displacing existing activity.

Figure 2.1

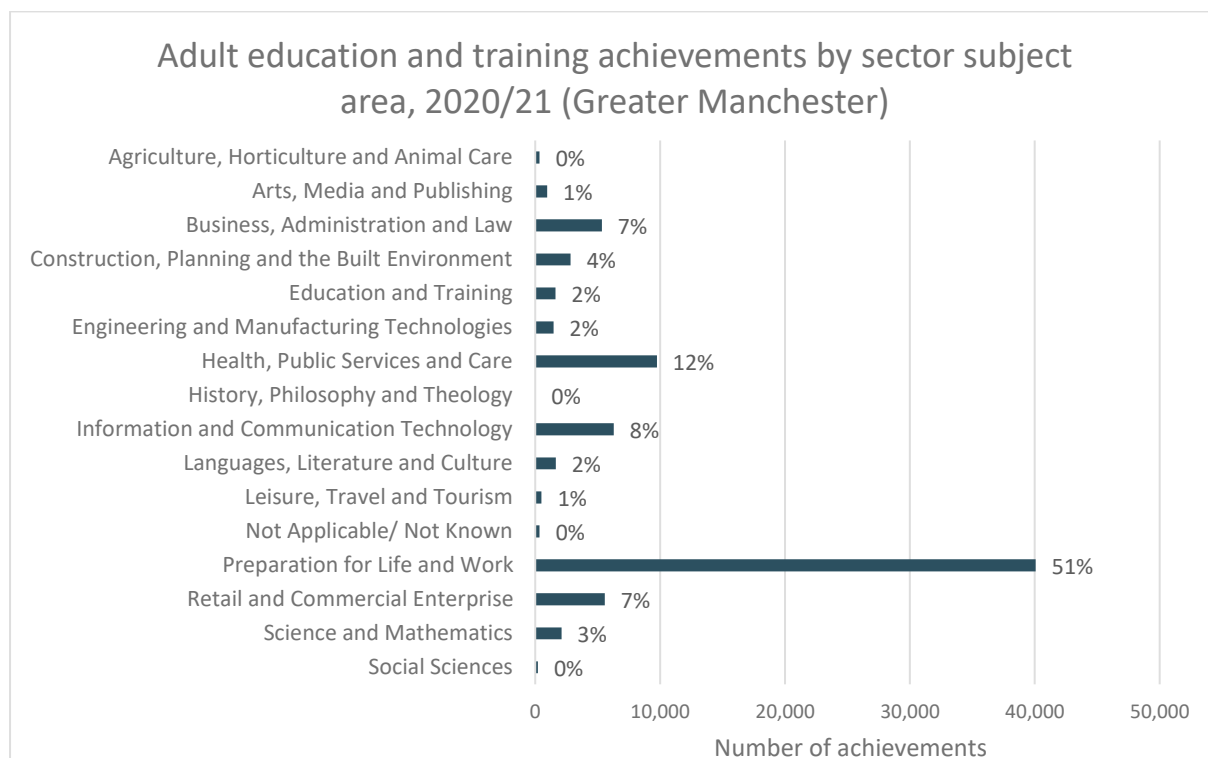


Source: Annual Population Survey, 2020

2.2 FE education and training achievements

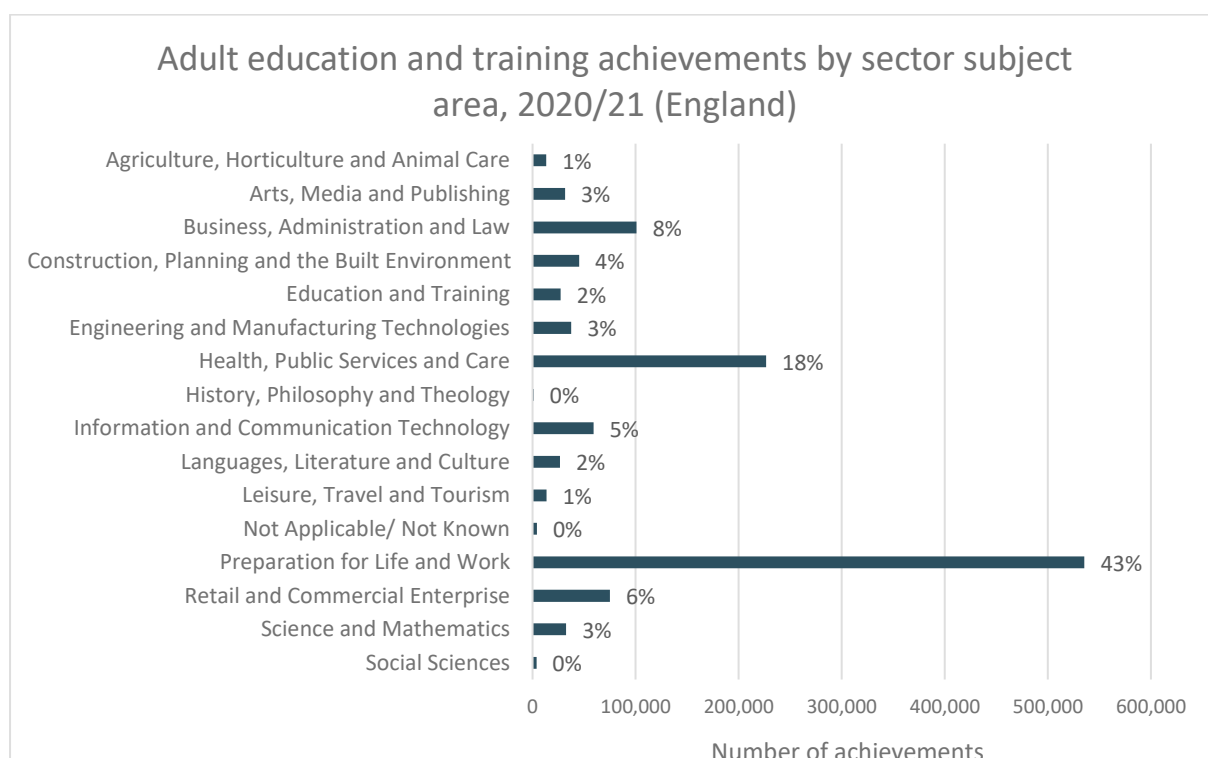
- Adult FE achievements are concentrated in the ‘Preparation for Life and Work’ area (in part due to the way in which data are collected/recorded). This skew is more apparent in GM than England as a whole, and is a potential drawback in the sense that Pfl&W is often seen as being populated with generic basic employability courses that are perhaps less likely to lead to progression.
- GM’s strategic priorities include a strong focus on providing clear lines of sight and progression pathways into GM’s labour market; our AEB funding policy / dialogue with providers is therefore driving a shift towards linking these essential foundation skills to occupational areas, in order to promote positive progression pathways towards/into work.

Figure 2.2.1



Source: Further Education & Skills data, DfE, 2020/21

Figure 2.2.2

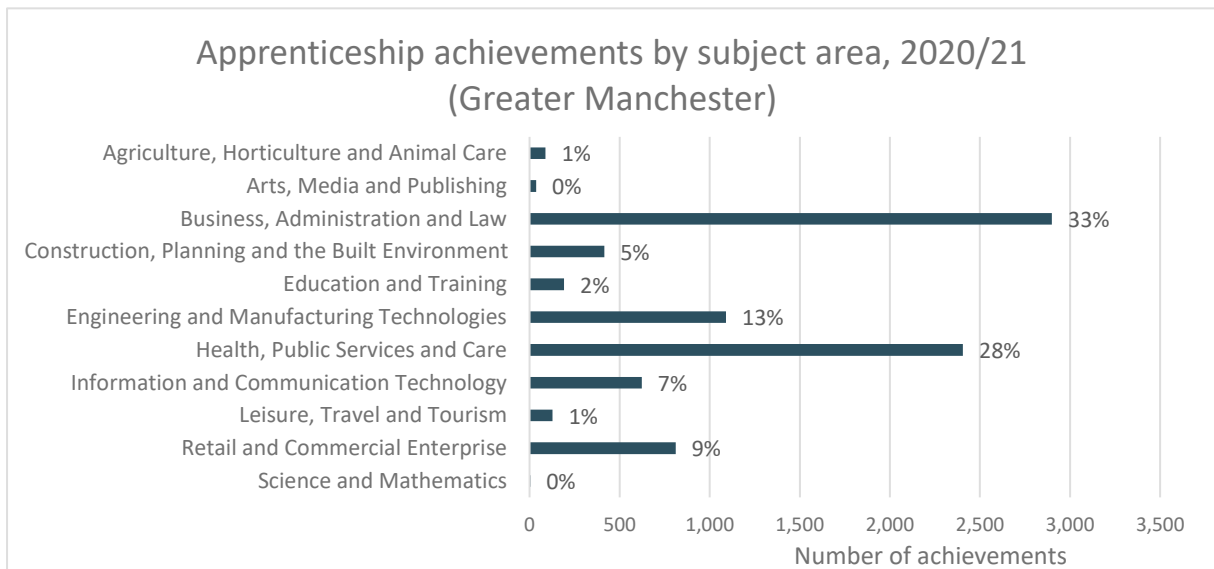


Source: Further Education & Skills data, DfE, 2020/21

2.3 Apprenticeship achievements

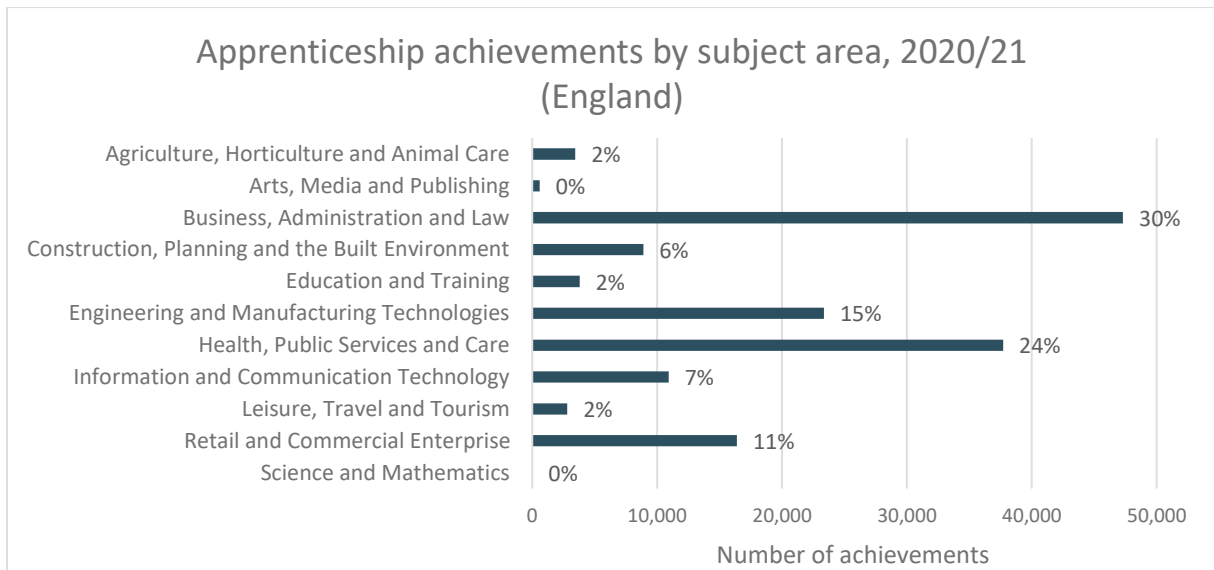
- GM’s recent experience regarding apprenticeship participation and achievements is broadly reflective of the national picture.
- Business, engineering and health subjects carry a combined weight of 74% in GM, compared to 70% for England. This is broadly in line with what might be expected given GM’s labour market employment profile. There are no areas of significant difference in the remaining subject areas.

Figure 2.3.1



Source: Apprenticeships data, DfE, 2020/21

Figure 2.3.2

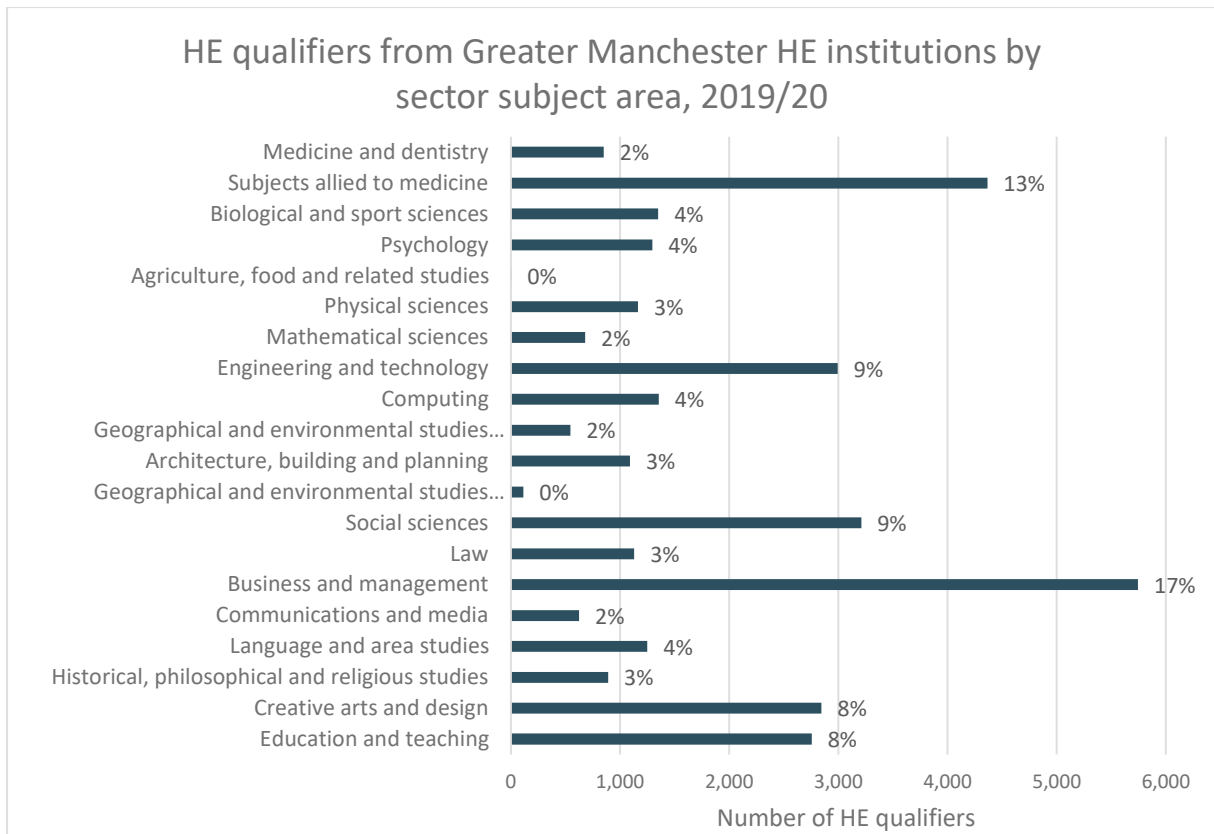


Source: Apprenticeships data, DfE, 2020/21

2.4 HE qualifiers

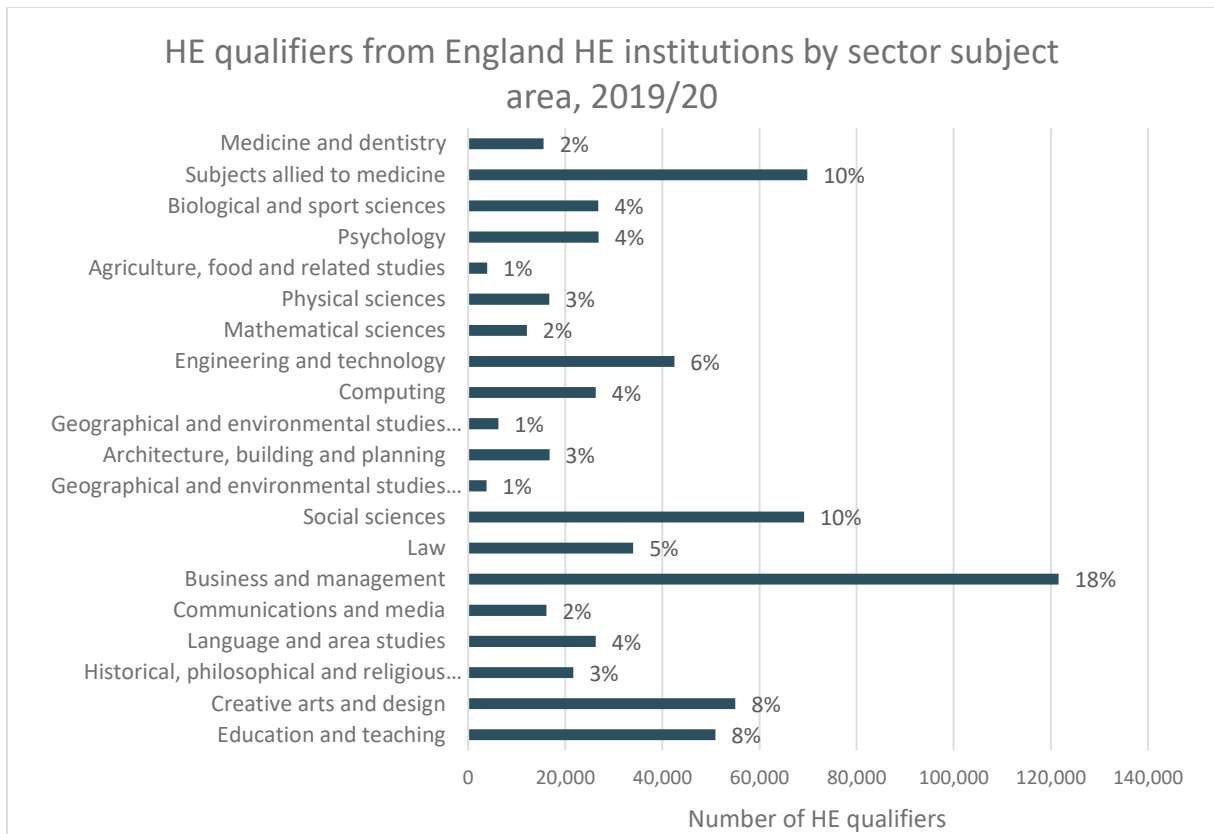
- With five higher education institutions across the city-region, GM has a very large student population of over 100,000.
- Distributions in terms of the subjects studied are very similar between GM and England, with subjects allied to medicine and engineering and technology the key points of difference, GM's slightly higher volumes in these areas aligning with some of GM's frontier sectors, supporting GM's ambitions to develop its economy (and therefore employment) with a focus on advanced manufacturing and health innovation.
- However, retaining graduates in GM after their studies remains a long-term challenge.

Figure 2.4.1



Source: HE Qualifiers, HESA, 2019/20 (Note: Subjects with fewer than 0.5% of total qualifiers nationally are not shown).

Figure 2.4.2

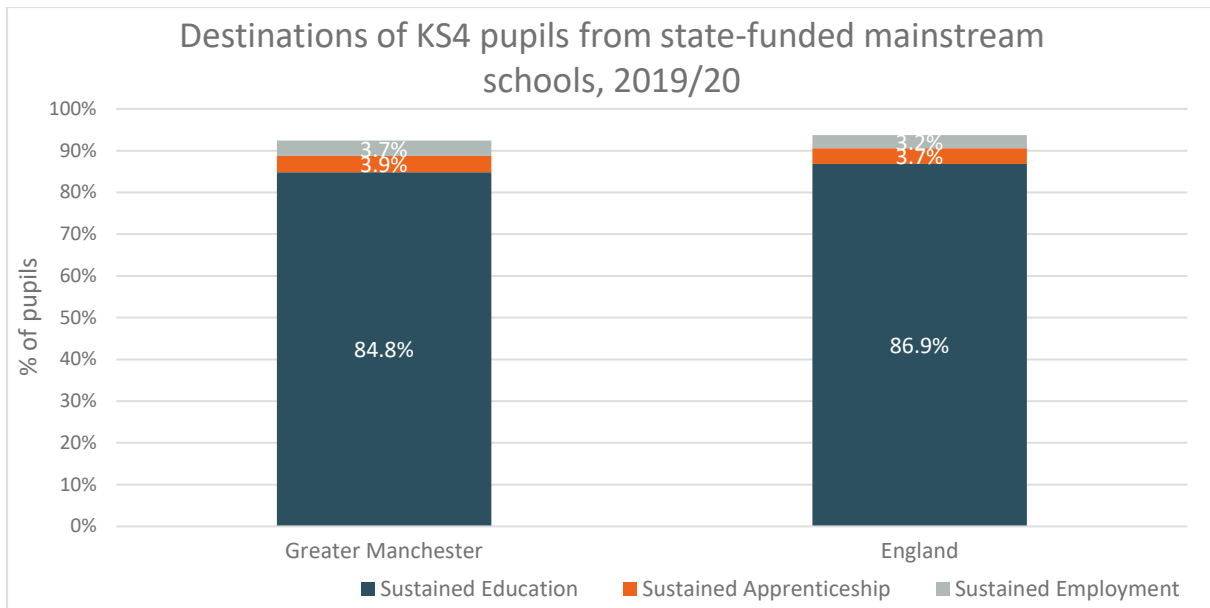


Source: HE Qualifiers, HESA, 2019/20 (Note: Subjects with fewer than 0.5% of total qualifiers nationally are not shown).

2.5 KS4 destinations

- Unsurprisingly, most KS4-leavers maintain education after school. GM is broadly in line with the average for England in this respect, though 2% fewer of its school leavers stay in education.
- GM has the same percentage as England going on to apprenticeships (around 4%), with marginally more going on to employment.
- Overall, GM has a slightly higher proportion of pupils not sustaining any post-KS4 destinations (though only by 1ppt). This is an important focus for activity in GM, with new approaches to NEET prevention and reduction being tested through the Future Workforce Fund, a collaboration between GMCA and The Prince's Trust, and the launch in early 2022 of a £10m ESF NEET and Youth Unemployment programme

Figure 2.5



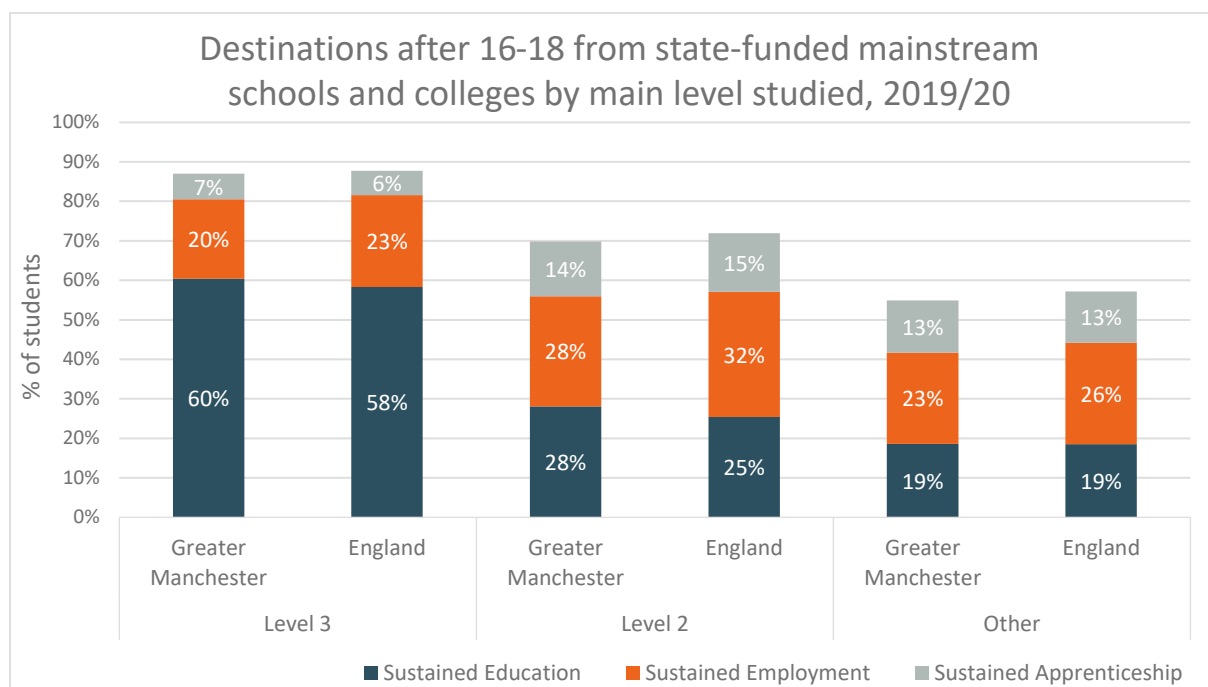
Source: *KS4 Destination Measures, DfE, 2019/20*

2.6 KS5 destinations

- More 16-18 students sustain an education destination after their KS5 L3 studies compared to England as a whole (2 pts more; 60%). However, more L3 students move straight on to employment across England (23% vs 20% for GM). A similar percentage of students progress to apprenticeships in both geographies (~6%). Adding these proportions up leaves 87% of L3 KS5 leavers accounted for in GM and 88% in England.
- For the other, lower levels of 16-18 study, destinations are less commonly sustained upon completion. Leavers in GM are more likely to continue in education compared to England, but are less likely to go on to employment or an apprenticeship. Continuing in education may be seen as a safer proposition, especially given the unpredictable economic climate, but this might also reflect the number of young people who have not yet decided either the occupational area they wish to pursue, or explored the alternative routes/pathways into a particular career. This is one of the objectives behind GMACS, which enables young people to explore technical routes into their occupation of choice.
- Whether the greater disposition to continue with education in GM as opposed to alternative pathways is a good thing is subjective – for one, it will depend on the quality of the destinations entered and future prospects associated with

them. It will also depend upon the nature and quality of careers education, inspiration and guidance available, and the currency of labour market information supporting curriculum design and pathway choices.

Figure 2.6

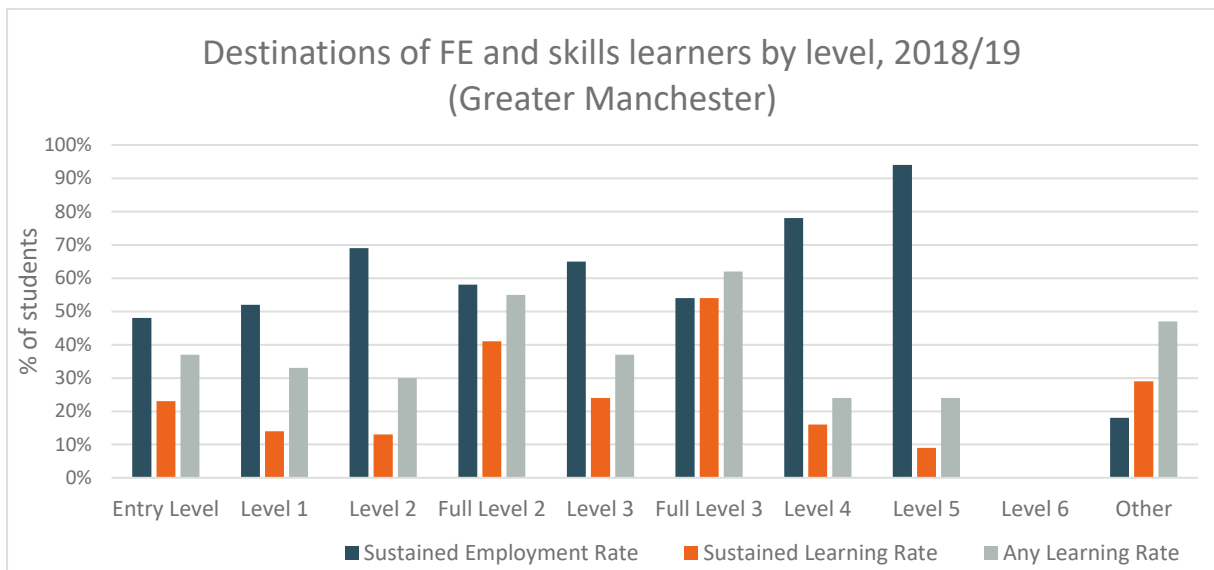


Source: 16-18 Destination Measures, DfE, 2019/20

2.7 FE and skills destinations

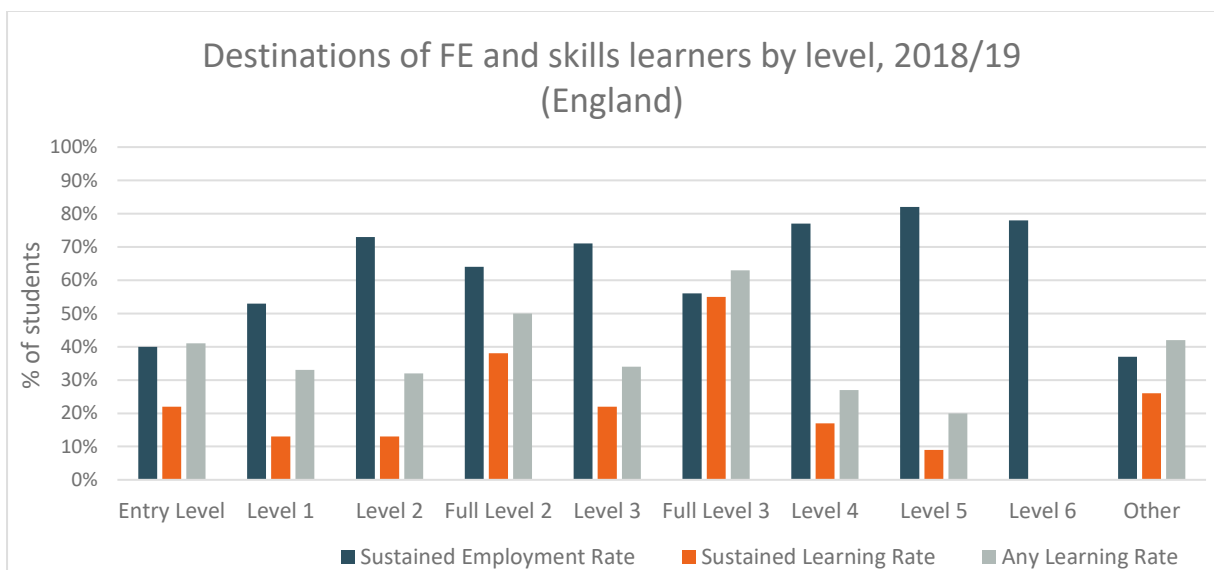
- More students attain employment destinations after completing their course(s) in England compared with GM. This could reflect demand-side factors (eg. higher unemployment and lower wages) as well as supply side.
- Whilst it might be expected that lower-level qualifications are less likely to lead to work, more than half of those completing a Level 1 qualification and two thirds of those completing Level 2 go into sustained work afterwards. Whilst progression into employment is a positive outcome in some regards, it is of concern that significantly more learners enter work on completing a Level 1 than continue in sustained learning. If left unchecked, this pattern risks perpetuating the entrenched low skill/low pay cycles GM has experienced.

Figure 2.7.1



Source: FE Outcome-based Success Measures, DfE, 2018/19

Figure 2.7.2



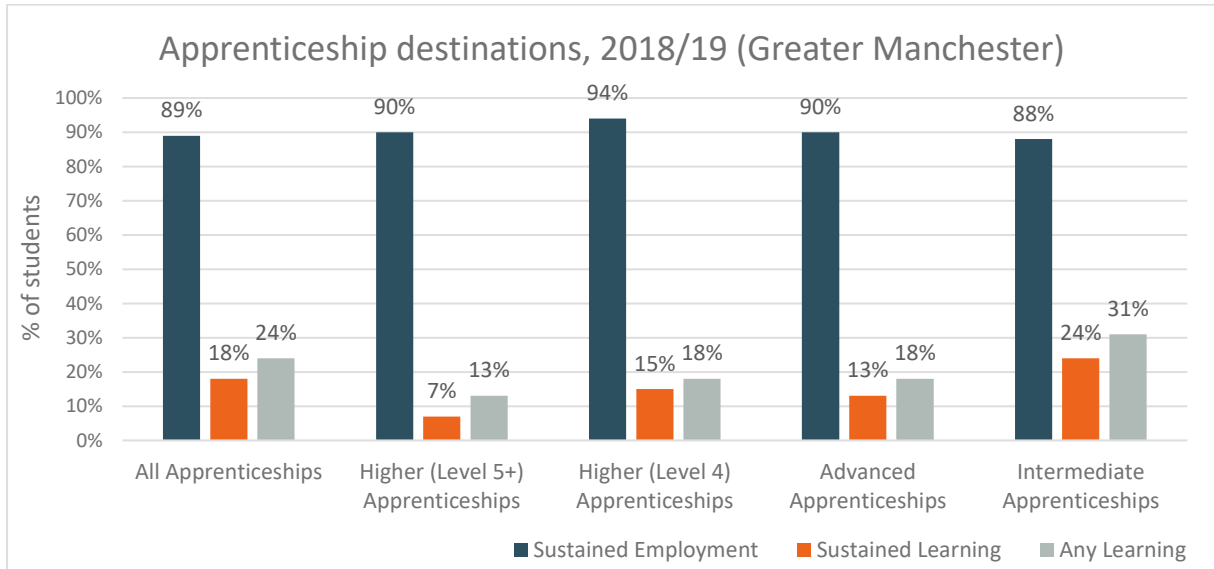
Source: FE Outcome-based Success Measures, DfE, 2018/19

2.8 Apprenticeship destinations

- Apprenticeship destinations in GM broadly reflect those for England as a whole. A large proportion of apprenticeship finishers move on to employment (89% for all apprentices in GM and in England) and the proportion sustaining further learning is also comparable.

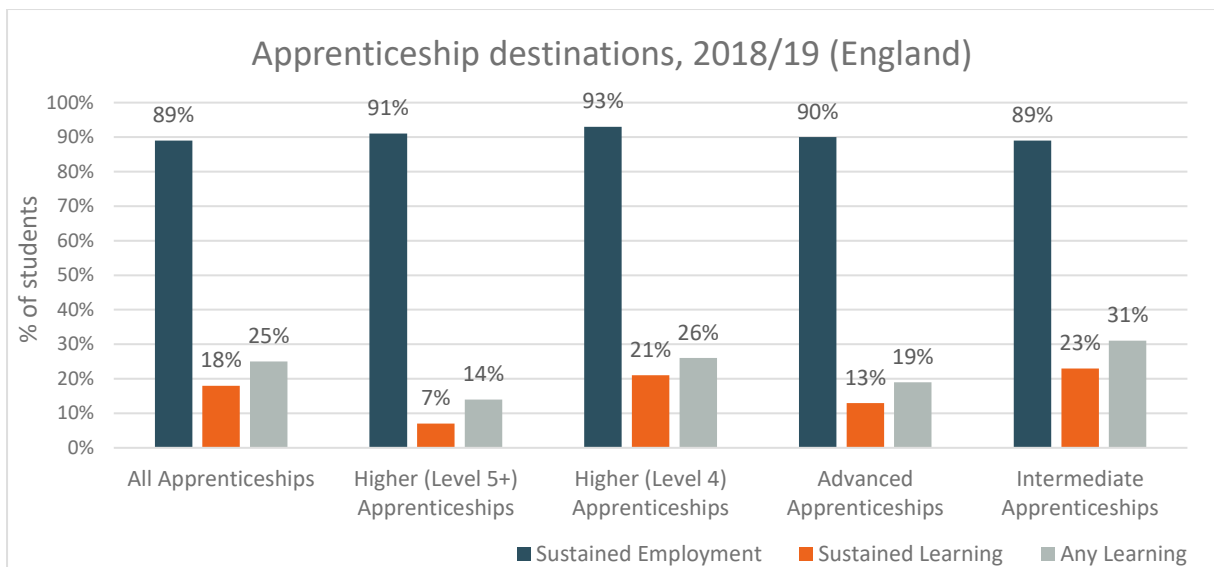
- The tendency to go into sustained employment is progressively greater with higher level apprenticeships in GM and England, which is to be expected given the nature of higher apprenticeships.
- The propensity to sustain learning post-apprenticeship is highest for those finishing intermediate apprenticeships.

Figure 2.8.1



Source: FE Outcome-based Success Measures, DfE, 2018/19

Figure 2.8.2

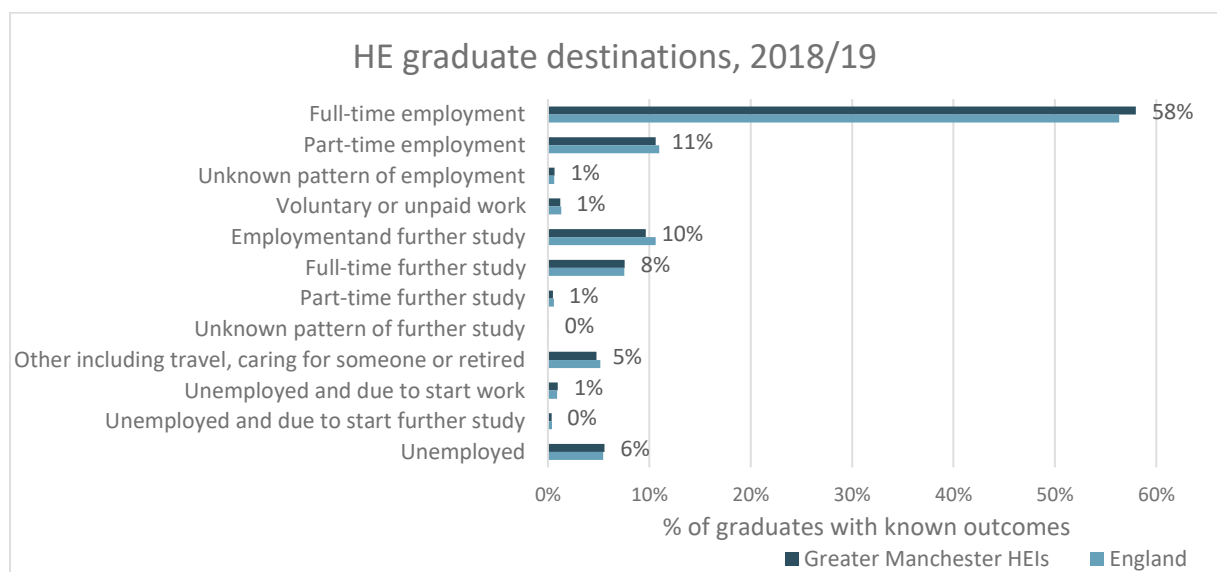


Source: FE Outcome-based Success Measures, DfE, 2018/19

2.9 HE graduate destinations

- Post-university destinations are also broadly consistent between GM institutions and the wider England landscape across all potential destinations.
- Full-time work after university eclipses all other routes, as would be expected. As highlighted above, with GM’s large body of HE graduates, this raises important issues around graduate retention, not only as an end in and of itself, but with particular focus on retaining those who have graduated in specialisms linked to GM’s frontier sectors.

Figure 2.9

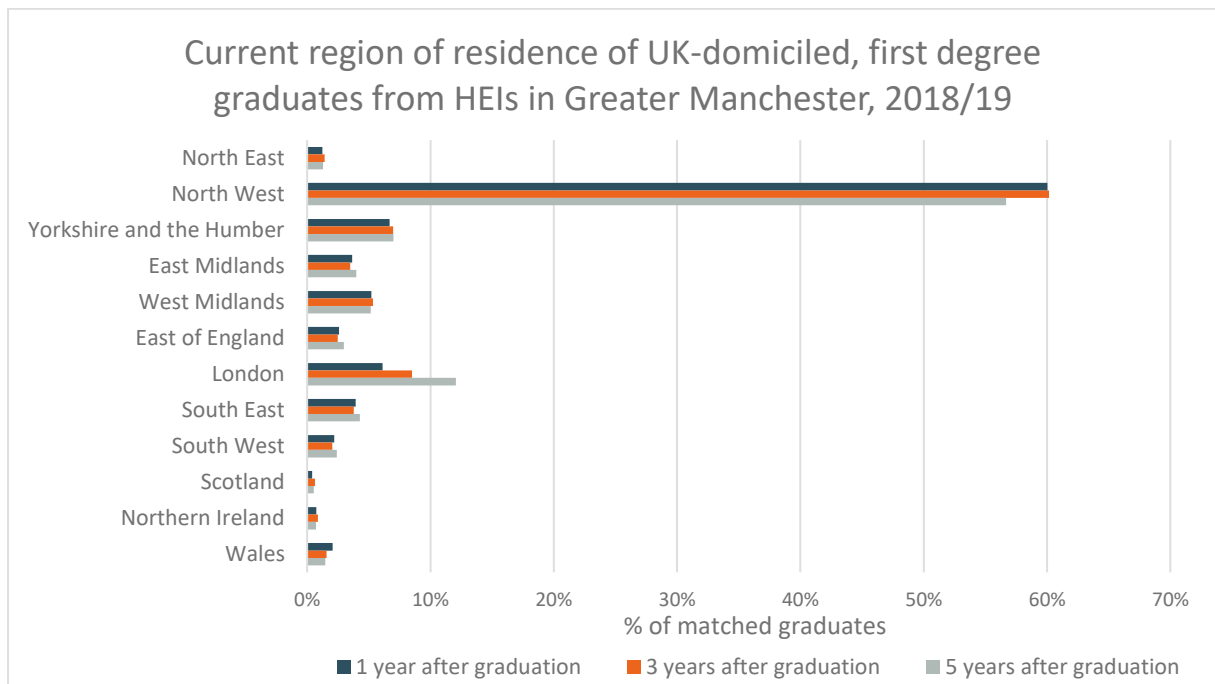


Source: Graduate Activities, HESA, 2018/19

2.10 Graduate retention

- The North West remains home to around 60% of graduates after finishing their studies at GM universities. The proportion staying in the NW tails off after 5 years from graduation, to 57%, although we do not know if this is a long-term phenomenon since the data only extends 5 years post-graduation.
- London looks to be the key region of attraction for those leaving the North West. This is unsurprising, not least because of the attraction of higher average salaries.
- It is also important to remember in the debate about retention that some graduates from institutions in the NW will also have gone to school in the NW to start with.

Figure 2.10

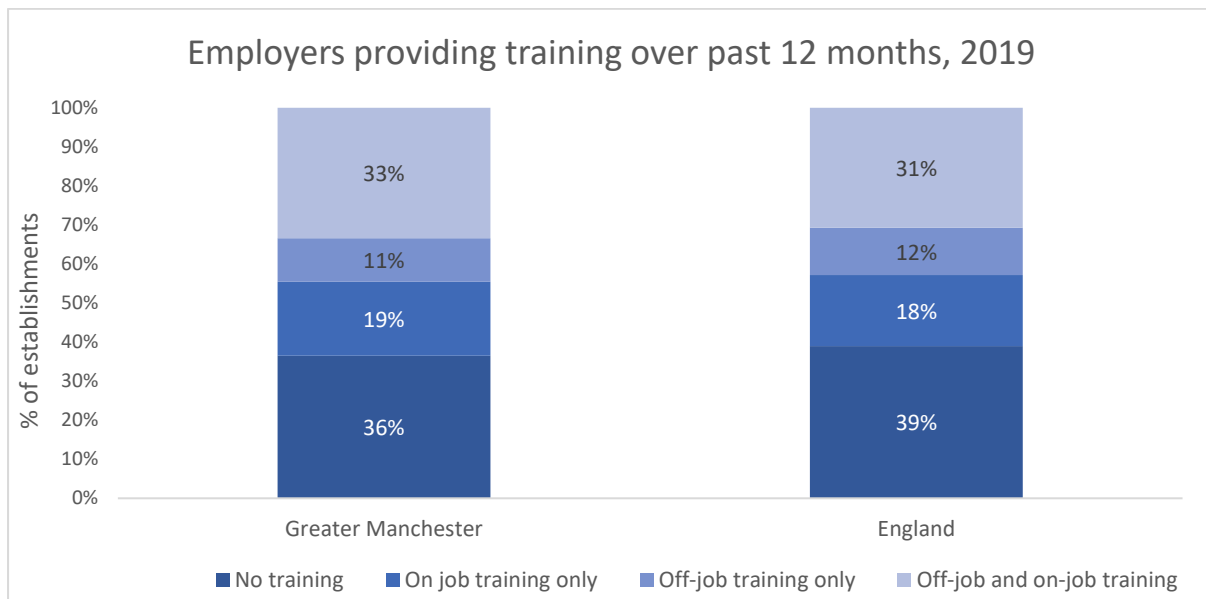


Source: Graduate Outcomes, DfE, 2018/19

2.11 Employer-provided training

- GM's training story appears relatively positive compared to England. In GM, 36% of employers provided no training in 2019, slightly lower than the comparable figure for England.
- Nonetheless, it is of concern that over a third of employers provided no training for their workforce over the course of a year. This highlights one of the complexities of skills supply and demand; whilst a larger number of employers report skills gaps and mismatches, at the same time more than one in three employers provide no training for their staff.
- It is unclear how the pandemic has impacted on the desire and ability of employers to provide training to staff. It is likely that for some industries, the move to online working has made providing training easier, whilst for others it may have disrupted existing training arrangements. On-job training may also be more difficult given changes to work arrangements, not least the requirement for many employees to work from home.

Figure 2.11



Source: Employer Skills Survey, 2019

A3 SKILLS DEMAND

Skills Demand: Summary

- Forecasts for sectors and occupations need to be treated cautiously in the light of COVID-19 and Brexit, as the implications are still playing out in the labour market.
- However, there are some areas in which, despite the uncertain economic environment, anticipated growth continues to align with the Local Industrial Strategy (e.g. Digital and Creative Industries, and Healthcare). Low growth sectors seem to be in line with long-term trends.
- Occupational forecasts essentially point to a continuation of recent trends. The attraction, retention and development of digital, creative and media professionals is particularly important to GM's economic future.
- Recruitment activity (measured by online job adverts) unsurprisingly saw a marked decrease in the wake of the pandemic. However, the volume of vacancies being advertised has been rising since summer 2021.
- While slightly under a quarter of vacancies are considered difficult to fill by employers due to skills shortages, the vast majority (around 70%) of vacancies are not regarded as skills shortage vacancies or otherwise hard to fill. This indicates the distinction between a skills shortage and a labour shortage needs to be kept in mind in debates about local skills provision.

3.1 Sector growth forecasts

- In the context of the impact of the pandemic, EU exit, and other factors, forecasts must be treated with caution; much of the modelling predates these economic events/shocks and the picture continues to evolve at a pace that makes forecasting with confidence a challenge. Arts and entertainment, for example, are key to GM's visitor/night-time economy which felt some of the most severe impact of the pandemic and faces a period of recovery.
- Some of the high growth estimations are consistent with the city-region's sector priorities/strengths, as well as its continued growth as an urban hub. For example, digital & creative industries and the health sector (especially

health innovation) have been identified by the Local Industrial Strategy as important sectors for GM.

- Growth in IT and professional services roles are consistent with a developing digital, tech and creative sector, as well as the need for digital skills in all sectors of the labour market. The position of real estate may be a reflection of GM's ongoing construction boom (both residential and commercial), although both this and the forecast in respect of arts/entertainment may need revising in the light of COVID-19, as more data becomes available.
- Health and social work as a growth area correlates with some of the occupation areas that are forecast to grow and GM's ambitions in health and health innovation.
- The low growth forecast sectors are unsurprising, given GM's more services-oriented economy.
- However, the ongoing decline of engineering and manufacturing, as well as the sub-sectoral nuances (such as advanced manufacturing relative to some subsectors within the industry), is an area of possible concern for the future.

Figure 3.1

Sectors with highest forecast growth, 2017-2027 (GM LEP)	Sectors with lowest forecast growth, 2017-2027 (GM LEP)
1) Real estate	1) Food, drink and tobacco
2) Arts and entertainment	2) Rest of manufacturing
3) Information technology	3) Agriculture
4) Professional services	4) Engineering
5) Health and social work	5) Electricity and gas

Source: *Working Futures 2017-27, University of Warwick*

3.2 Occupation growth forecasts

- GM occupational growth is predicted to be strongest in jobs commonly regarded as low-skilled, reflecting the nature of the productivity challenge facing GM.
- Closely following these are two perceived areas of relatively high-skilled employment (managers/directors and business/media professionals).

- Low occupational growth in areas such as metal/electrical workers and textile workers/printers are consistent with a trend towards fewer skilled manual jobs, and secretarial work has been declining for a relatively long time.
- This highlights the need to work with employers to identify ways in which higher value activity and higher skills might benefit the relevant sectors, as well as the value of GM's industry intelligence deep dives that aim to map occupational skillsets and competencies in ways that highlight opportunities to up-skill and retrain workers in declining occupations in order to shift them on to parallel pathways in other occupations/industries.

Figure 3.2

Occupations with highest forecast growth, 2017-2027 (GM LEP)	Occupations with lowest forecast growth, 2017-2027 (GM LEP)
1) Caring personal service occupations	1) Secretarial and related occupations
2) Customer service occupations	2) Process, plant and machine operatives
3) Health & social care associate professionals	3) Skilled metal, electrical and electronic trades
4) Corporate managers and directors	4) Textiles, printing and other skilled trades
5) Business, media & public service professionals	5) Protective service occupations

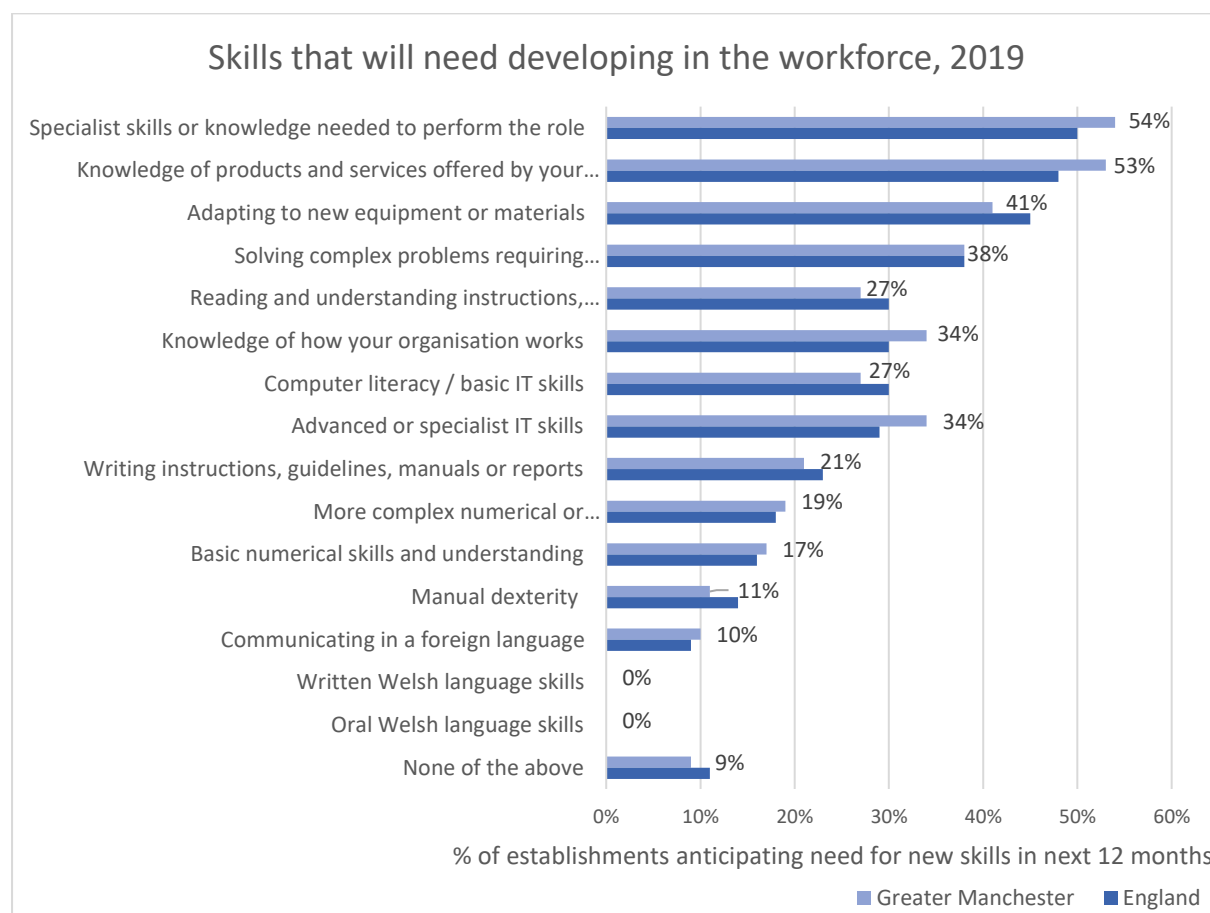
Source: Working Futures 2017-27, University of Warwick

3.3 Skills that need developing

- The hierarchy of desired skills enhancements (per employer responses to the ESS) is much the same for GM and England.
- A high proportion of GM businesses which anticipated a need for new skills identified specialist skills or knowledge and an understanding of their products, services and the workings of their organisation as areas for development, highlighting the importance of employers investing their own expertise in workforce development, not solely relying on the publicly funded skills and employment support system.
- Another area of relatively large demand from GM employers is advanced or specialist IT skills; over a third of employers foresee a need to develop these abilities in GM (slightly higher than England), reflecting both the vibrant

Digital, Creative & Media sector in GM but also the recognition that digital specialists are needed across the economy.

Figure 3.3



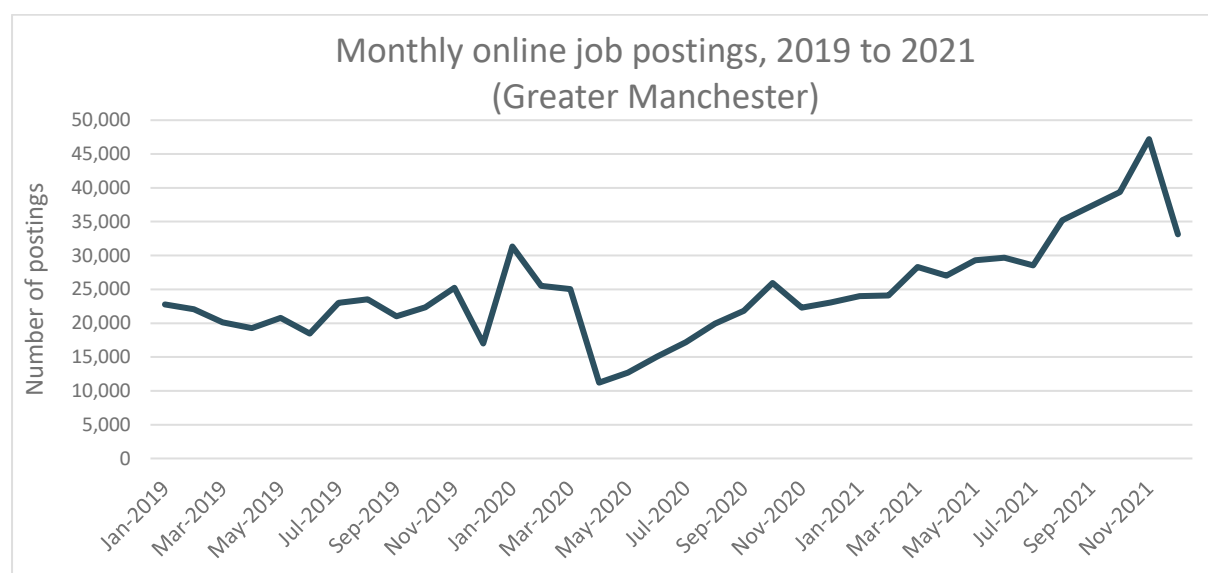
Source: Employer Skills Survey, 2019

3.4 Vacancies

- The March-April 2020 vacancies drop was understandably very steep due to the first national lockdown. However, fluctuations in the number of postings are not uncommon in other periods too.
- There was a sustained gradual increase in vacancies post-April 2020. In October 2020 they were back up above 25,000 p/m (similar to February and March). They then fell slightly, before settling at around 23,000 p/m.
- The latter half of 2021 has seen a significant rise in the number of postings, reaching almost 40,000 in October and approaching 50,000 in November.

This may reflect the continued recovery from the pandemic and the easing of restrictions, contributing to business confidence.

Figure 3.4

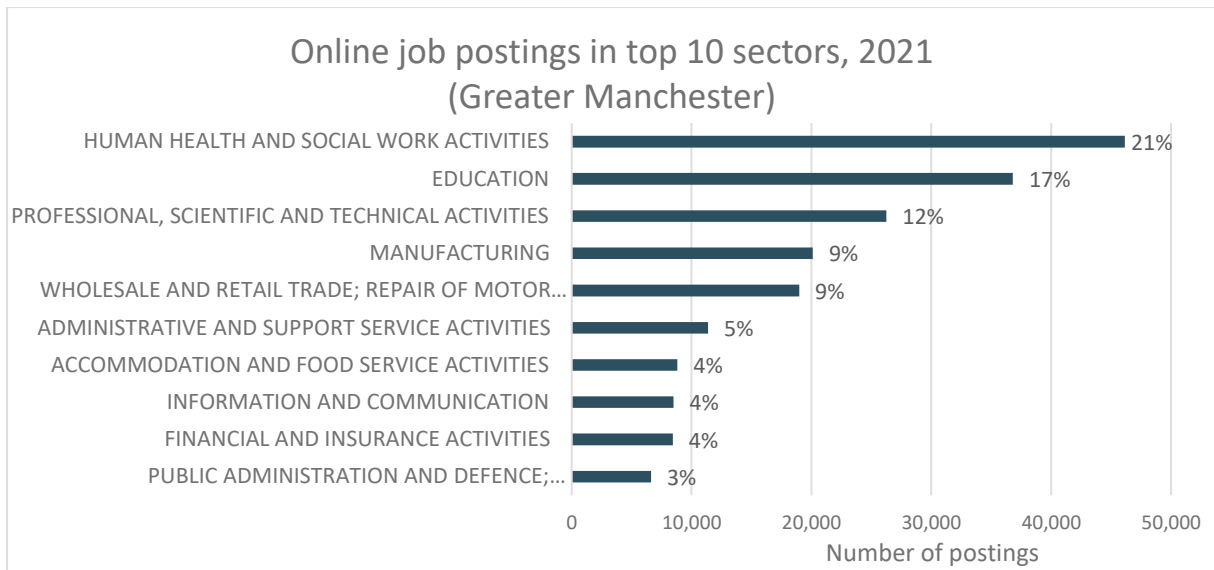


Source: Labour Insight, Burning Glass Technologies, 2019 – 2021

3.5 Vacancies by sector and occupation

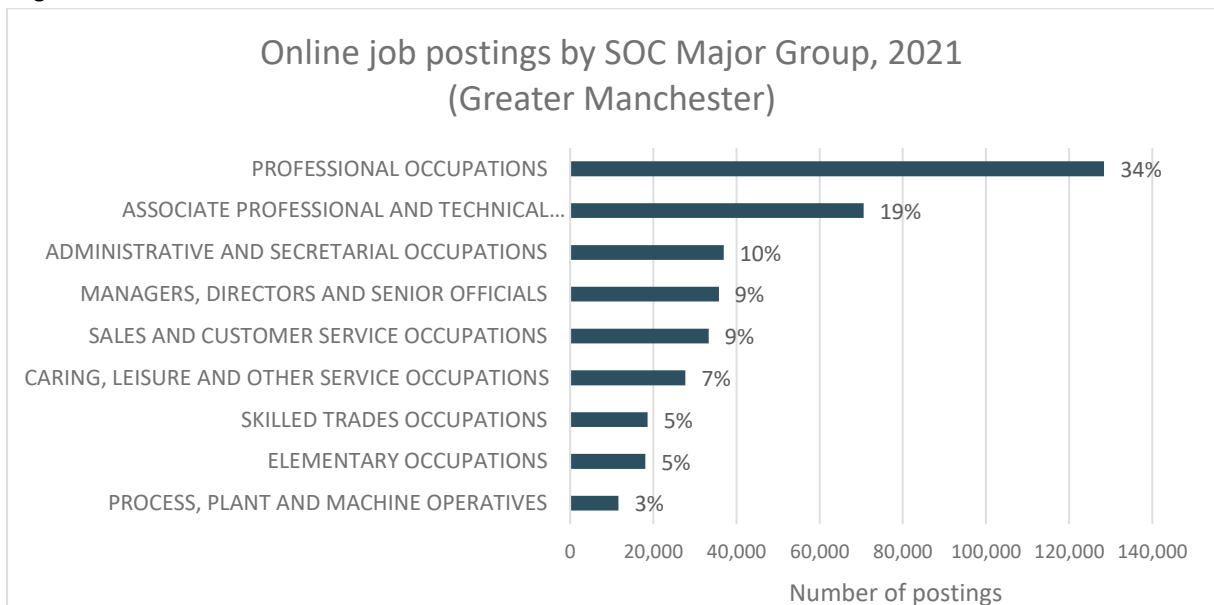
- In GM, the key sector for online job postings was in Human Health and Social Work activities - 21% of postings in 2021 were in this sector. This was followed by Education, which accounted for 17% of postings.
- The high proportion of postings in these sectors is unsurprising, given that they have continued to operate throughout the pandemic and repeated lockdowns.

Figure 3.5.1



Source: Labour Insight, Burning Glass Technologies, 2019 – 2021

Figure 3.5.2



Source: Labour Insight, Burning Glass Technologies, 2019 - 2021

A4 MAPPING SUPPLY AND DEMAND FOR SKILLS

Skills Supply and Demand: Summary

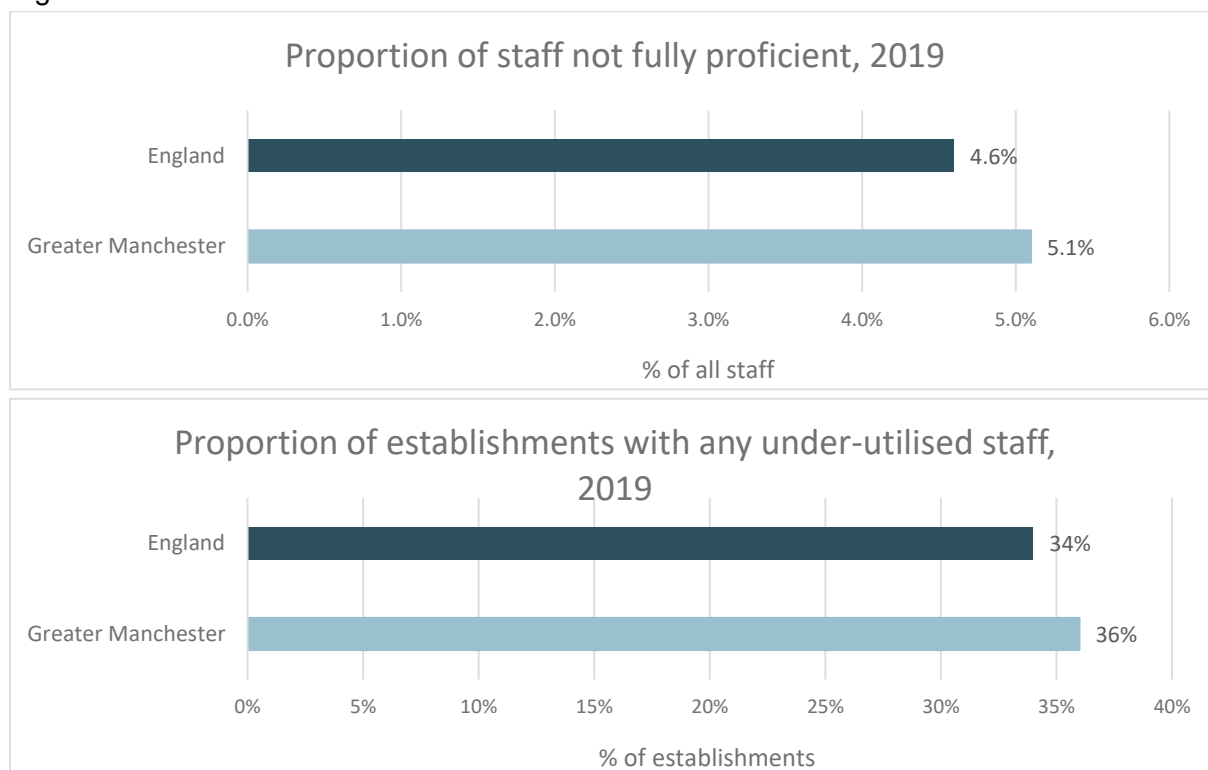
- GM's population overall is comparatively low skilled and has a slightly higher proportion of not-fully-proficient staff (as reported by employers) than the national average.
- The match between skills delivery and the labour market, while not unreasonable given employer demand, can be improved.
- In GM, there was a greater degree of under-utilisation of skills than the national average – perhaps a further reflection of the nature of the labour market.
- In the wake of the pandemic, this issue of under-utilisation might increase, as employers may find that they can attract highly qualified/skilled workers who have been made redundant into roles not commensurate with their skills at lower than usual cost to the business. This has a number of effects, not least continuing to depress pay levels in GM (which, as noted above, had not recovered pre-pandemic to levels seen prior to the 2008/09 financial crisis), as well as creating a blocking effect by using highly qualified workers to fill roles that might otherwise have been suited to new labour market entrants, returners, and young people. Failure to use skills may also limit the scope for productivity improvements.

4.1 Proficiency of workforce

- GM firms recorded a lack of proficiency in 5.1% of their staff, implying that the supply of appropriately skilled workers is lagging demand for skills.
- Staff under-utilisation was reported in 36% of firms in GM, compared with 34% in England. This suggests a skills mismatch in terms of the way that employers are making use of the talent and skills available to them and that, despite low skills/qualification levels in some parts of the workforce, in other parts of the labour market workers are over-qualified for the role they are in.
- So, at the same time as having (proportionally) more under-qualified workers, it also appears that GM has more over-qualified workers. These mismatches

would suggest a slightly worse-than-national functioning local labour market in GM.

Figure 4.1

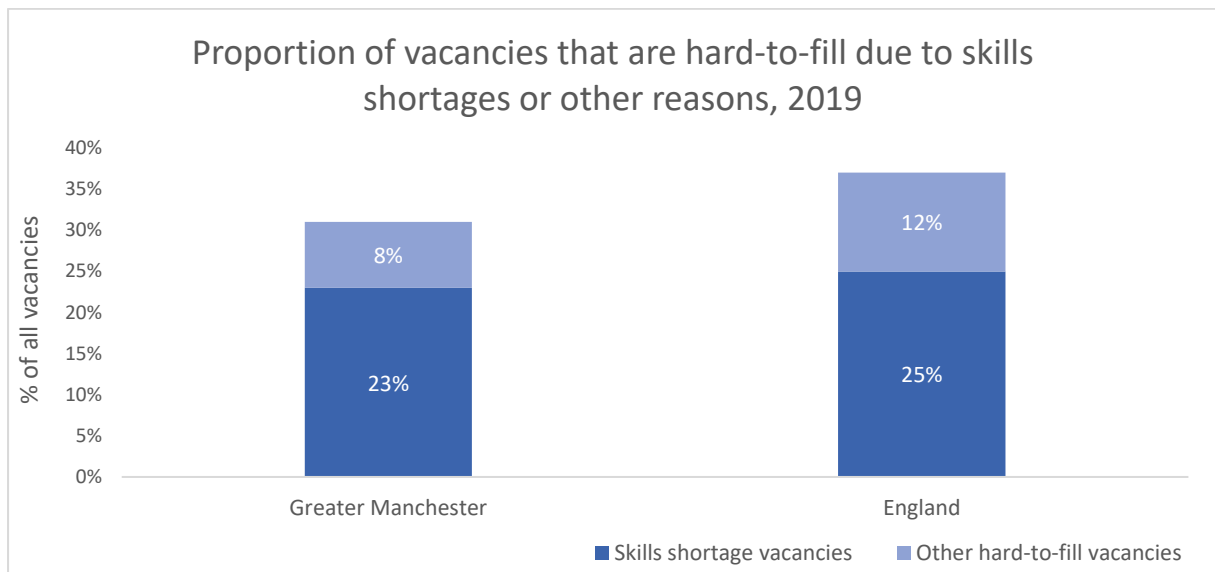


Source: *Employer Skills Survey, 2019*

4.2 Hard-to-fill and skills shortage vacancies

- Almost 1 in 3 (31%) of all vacancies in GM were considered hard-to-fill; 23% due to skill shortages, and 8% otherwise hard to fill.
- The implication of this is that just under 70% of vacancies are not seen as hard to fill, and where they are, this is not always related to skills deficiencies. In debates about local skills provision, it is therefore essential to distinguish between skills deficiencies and standard labour market churn. The demand for labour and 'skills demand' or skills gaps should not be conflated. Such data also implies that skills considerations may not always be at the heart of labour supply questions.
- Despite the fact that GM's in-work workforce are, as noted above, less well-matched to their roles, the ability of the labour market to satisfy job vacancies is better in GM compared to England as a whole.

Figure 4.2



Source: Employer Skills Survey, 2019

Annex B1 – Additional Analysis

B1 Local Labour Market

Pay and Economic Activity: Summary

This section provides additional data/analysis relating to Greater Manchester, its labour market, and its skills & employment environment.

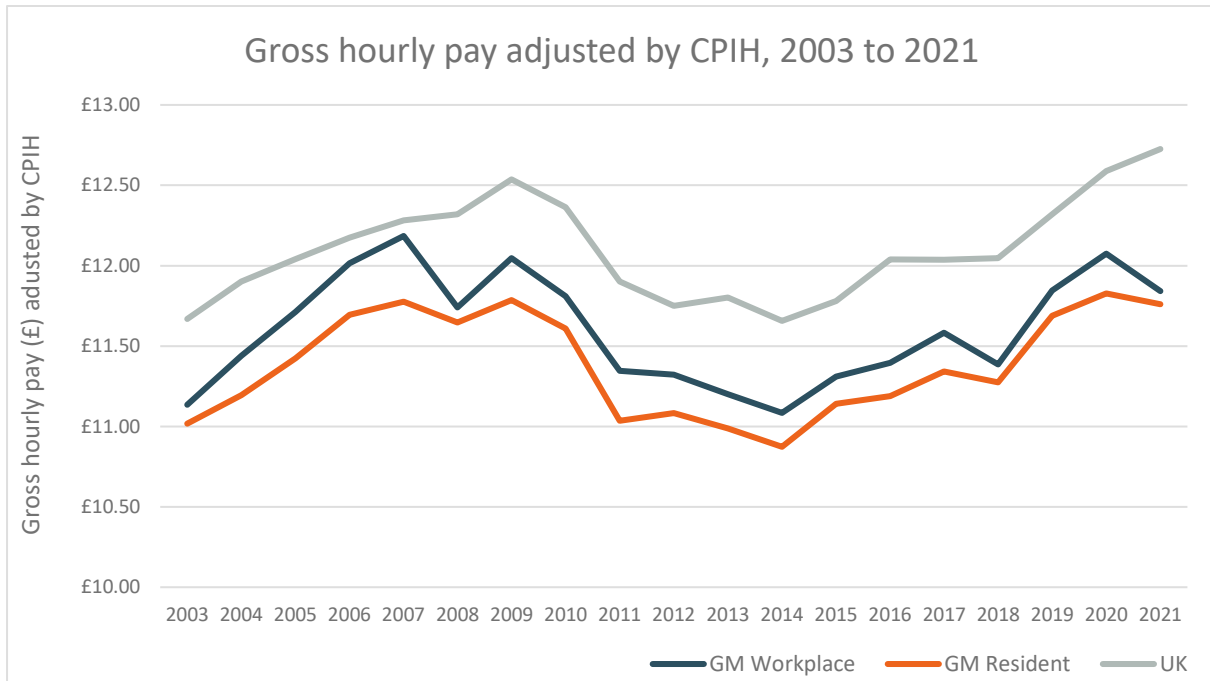
- Adjusting for inflation (unlike the pay data presented in Annex A) demonstrates better both the gap between GM wages and national norms and the lingering effect of the financial crisis and recession.
- Low pay remains a very prominent issue and policy focus in GM (for example through the GM Good Employment Charter). This is likely to blunt the incentive to upskill – both for employers to invest in training and for employees to develop themselves in order to progress.
- The impact of COVID-19 in GM and the wider North West is notable for the growth of economic inactivity, alongside rises in unemployment and falls in employment. This is a GM and NW phenomenon – and not quite so much of a national issue (so far).

B1.1 Median pay

- Examining nominal median pay (as in Annex A) is enhanced with some additional material that considers the impact of inflation on wages and the scale of low pay.
- GM bore the impact of the financial crisis and recession of 2008-2009 for well over a decade. In 2021 the ‘median GM worker’ earned less in real terms than prior to the financial crisis of 2008-9. This data shows that the recovery in wages in the UK appears to have been better nationally than in GM, where pay has tended to lag behind.
- GM pay is consistently below UK levels. In 2021, the gap between an hour’s work nationally and in GM was 0.89p.

- Pay had been improving, but provisional data for 2021 suggests growth has not continued. This dip is especially noticeable for GM workplaces (as opposed to resident pay).

Figure B1.1.1



Source: Annual Survey of Hours and Earnings, 2003 - 2021 (Notes: Wages for UK workplaces and residents are identical. 2021 data is provisional).

- The difference between resident and workplace pay is a notable feature of wages in the GM city region. This difference can be more clearly seen at the district level. The table below shows that in districts closely connected to the regional centre (notably Manchester and Salford), workplace wages are higher than resident wages. In other areas (notably Trafford and Stockport) the pattern is reversed and resident wages are higher. These differences reflect travel-to-work patterns and point to the need for a place-based perspective on pay. Trends and patterns can sometimes be locally specific.

Figure B1.1.2 Median hourly pay (ex. overtime), resident v workplace, 2021

Area	Resident	Workplace
Bolton	£12.35	£12.65
Bury	£14.34	£11.78
Manchester	£12.62	£15.33
Oldham	£12.47	£12.08
Rochdale	£11.69	£12.26
Salford	£12.81	£13.19
Stockport	£14.88	£12.78
Tameside	£12.35	£11.08
Trafford	£16.35	£13.53
Wigan	£13.30	£12.36

Source: Annual Survey of Hours and Earnings, 2021

B1.2 Low pay

- Low pay has been a very significant problem in GM over many years, with the proportion earning less than a ‘living wage’ (one of several possible gauges to measure low incomes) fluctuating between a quarter and a fifth. The most recent data suggests notable improvements. In 2021, the proportion earning less than a living wage of £9.50 an hour was 19.1% for GM as a whole. This fits with other evidence that the incidence of low pay is below the level it was a few years ago¹.
- Once again, however, there are significant variations at district level. In parts of GM the proportion of workers earning below living wage was comparatively very high (e.g. Tameside - 28.5%). The point here is that city regional performance on wages can mask significant differences affecting local authorities.

¹ For example, [Low Pay Britain 2021, Resolution Foundation](#)

Figure B1.2.1 Percentage of workers earning below the living wage, 2013 to 2021

Area	2013	2014	2015	2016	2017	2018	2019	2020	2021
UK	20.8	22.6	22.8	22	22.2	22.9	20	20.2	17.1
GM	21.7	23.3	23	24.4	22	23.8	19.7	20	19.1
Bolton	27.4	28	25.8	23.4	24.8	27.7	24.4	24.8	22.4
Bury	21.7	26.4	27.6	29.3	27.1	27.7	25.8	22.6	22.9
Manchester	16.4	17.2	15.8	18	15.3	17.6	13	14.8	14.6
Oldham	32.3	33.7	32.9	32.1	30.2	27.6	25.1	22.9	23.1
Rochdale	26.7	32.6	29.6	32	29	29.9	23	25.8	19.4
Salford	16	17.4	19.9	21.3	16.5	18.5	16.9	14.3	16.3
Stockport	20.4	23.2	23.9	25.5	25.6	26.3	20.8	20.1	17.8
Tameside	25.6	24.7	25.8	28.9	25.7	25.4	25.3	32.1	28.5
Trafford	24.7	24.7	26.2	27.3	25.3	23.7	22.6	22.9	19.3
Wigan	26.4	30.2	28.4	31.9	29.3	31.5	27.6	24.6	23.5
Living wage (ex. London)	£7.45	£7.65	£7.85	£8.25	£8.45	£8.75	£9.00	£9.30	£9.50
Living wage (London)	£8.55	£8.80	£9.15	£9.40	£9.75	£10.20	£10.55	£10.75	£10.85

Source: Annual Survey of Hours and Earnings – Pay below the living wage (workplace data), 2013 – 2021

- There are gender differences in the incidence of low pay. Although the improvement in the incidence of low pay has affected different groups of workers, women were still more likely to be affected by low pay. Over a fifth of women earned less than a living wage in GM in 2021.

Figure B1.2.2 Percentage of workers earning below the living wage by characteristic, 2021

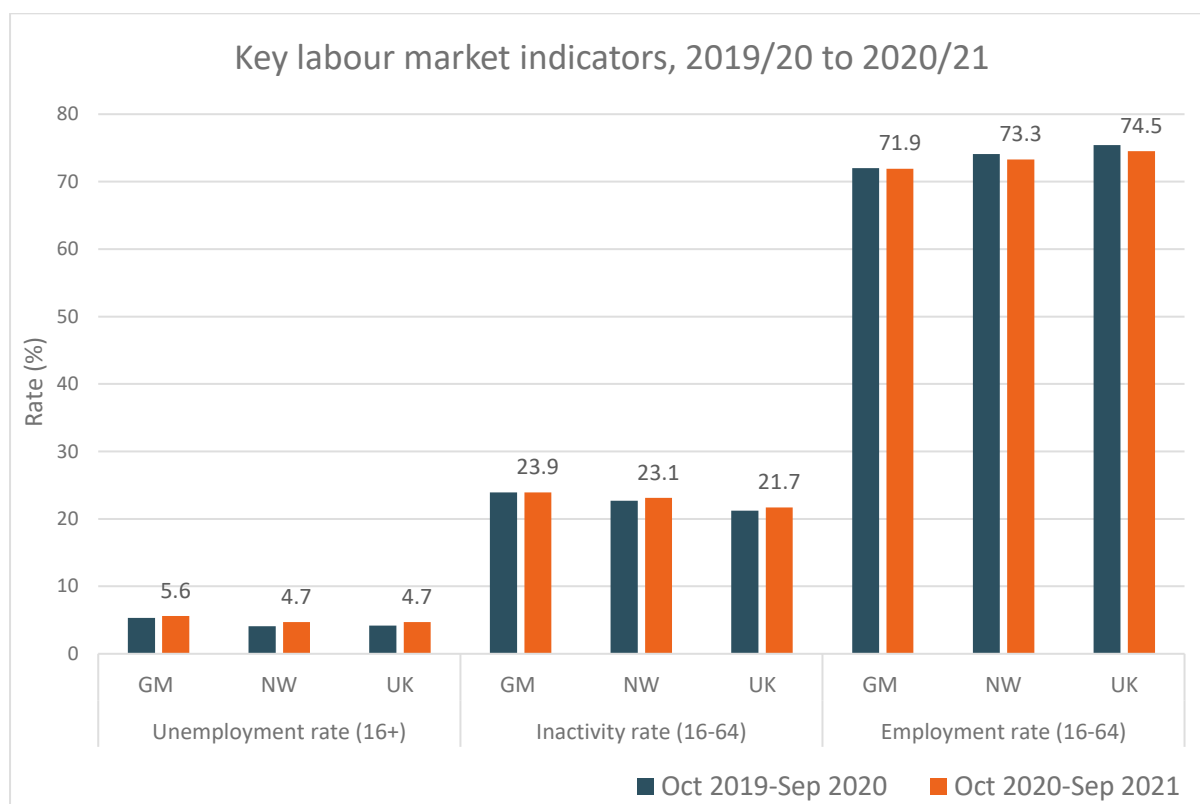
Area	All	Men	Women	Full-time	Part-time
UK	17.1	13.9	20.4	11.0	33.2
GM	19.1	17.3	20.9	11.7	38.8
Bolton	22.4	24.3	20.3	18.6	32.9
Bury	22.9	19.7	26.0	12.5	44.3
Manchester	14.6	14.5	14.8	7.9	38.9
Oldham	23.1	20.7	25.5	14.1	46.8
Rochdale	19.4	15.3	23.5	14.2	32.9
Salford	16.3	13.6	18.9	10.1	35.0
Stockport	17.8	14.1	22.3	10.3	35.4
Tameside	28.5	18.3	39.6	16.3	53.3
Trafford	19.3	19.5	19.1	11.6	37.2
Wigan	23.5	19.4	26.6	14.5	40.2

Source: Annual Survey of Hours and Earnings – Pay below the living wage (workplace data), 2021

B1.3 Inactivity, employment and unemployment

- The impact of COVID-19 and the associated lockdowns have had significant impacts on the labour market that are not necessarily captured by the claimant count and total employment data. As well as employment and unemployment, there has been a rise of economic inactivity.
- Economic inactivity is a complex category with many distinct groups making up the inactive. However, the key risk attached to it is people withdrawing from the labour market altogether. Some 23.9% of GM residents were inactive in the year to September 2021. This is higher than rates for both the North West and the UK. The explanation is likely to lie in several factors, but deprivation and its health and well-being impacts are key. This points to the likely significant need for programmes addressing ill-health and mental well-being as well as simply ‘encouraging’ people back into the labour market.

Figure B1.3



Source: Annual Population Survey, 2019 - 2021

B2 SKILLS PROJECTIONS: PLACE FOCUS

B2.1 Projecting future skills demand by place

- Projections developed for GMCA via the Greater Manchester Forecasting Model have resulted in a series of profiles for all ten districts in the conurbation over the period to 2035. The tables below show the distribution of job types across the local labour market in each district, based on the proportion of employment accounted for, together with projected contraction/growth as a percentage change in the number of people employed.
- This analysis, whilst conducted prior to the pandemic, provides a high-level indication for providers and stakeholders of how demand for different skillsets is expected to shift in the years ahead. When combined with industry intelligence that is beginning to define high-demand job roles and competencies in GM's key sectors, this begins to give a sense of the nature and scope of future skills demand, and of the retraining/up-skilling provision and careers & employment support that will be needed to help future-proof GM's talent pipeline by creating pathways into growth areas.

Figure B2.1.1 Occupational Shape projections to 2036: Bolton

Occupation	2020	2035	% Change
92 Elementary Occupations: Clerical and Services related	9.50%	9.60%	1%
41 Administrative Occupations	9.00%	8.80%	-3%
71 Sales Occupations	7.40%	7.30%	-2%
61 Caring Personal Service Occupations	7.20%	7.20%	-1%
11 Corporate Managers	6.70%	7.10%	6%
35 Business and Public Service Associate Professionals	5.70%	5.80%	3%
53 Skilled Construction and Building Trades	5.20%	5.50%	6%
22 Health Professionals	4.90%	5.20%	6%
82 Transport and Mobile Machine Drivers and Operatives	4.70%	4.60%	-2%
24 Business and Public Service Professionals	4.50%	4.90%	10%
81 Process, Plant and Machine Operatives	4.30%	3.80%	-12%
52 Skilled Metal and Electrical Trades	4.00%	3.40%	-15%
12 Managers / Proprietors in agriculture and services	3.70%	4.00%	7%
23 Teaching and Research Professionals	2.80%	2.50%	-9%
21 Science and Technology Professionals	2.70%	2.70%	2%
42 Secretarial and Related Occupations	2.60%	2.60%	0%
62 Leisure and Other Personal Service Occupations	2.50%	2.50%	3%

Occupation	2020	2035	% Change
72 Customer Service Occupations	2.40%	2.40%	-1%
54 Textiles, Printing and Other Skilled Trades	2.20%	2.00%	-9%
34 Culture, Media and Sports Occupations	1.90%	2.10%	10%
32 Health and Social Welfare Associate Professionals	1.90%	2.00%	3%
91 Elementary Occupations: Trades, Plant and Storage related	1.70%	1.60%	-7%
31 Science and Technology Associate Professionals	1.50%	1.40%	-4%
51 Skilled Agricultural Trades	0.50%	0.60%	11%
33 Protective Service Occupations	0.50%	0.40%	-19%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.2 Occupational Shape projections to 2036: Bury

Occupation	2020	2035	% Change
92 Elementary Occupations: Clerical and Services related	9.70%	9.80%	1%
61 Caring Personal Service Occupations	8.70%	8.50%	-2%
71 Sales Occupations	8.30%	8.20%	-2%
41 Administrative Occupations	7.40%	7.20%	-3%
11 Corporate Managers	6.50%	6.90%	6%
22 Health Professionals	6.00%	6.30%	5%
35 Business and Public Service Associate Professionals	5.60%	5.80%	3%
82 Transport and Mobile Machine Drivers and Operatives	4.90%	4.80%	-3%
24 Business and Public Service Professionals	4.20%	4.70%	11%
53 Skilled Construction and Building Trades	4.10%	4.40%	7%
12 Managers / Proprietors in agriculture and services	4.10%	4.40%	7%
23 Teaching and Research Professionals	4.00%	3.70%	-8%
52 Skilled Metal and Electrical Trades	3.40%	2.90%	-14%
81 Process, Plant and Machine Operatives	3.20%	2.80%	-13%
62 Leisure and Other Personal Service Occupations	2.70%	2.70%	0%
42 Secretarial and Related Occupations	2.50%	2.50%	0%
72 Customer Service Occupations	2.50%	2.50%	-2%
54 Textiles, Printing and Other Skilled Trades	2.30%	2.20%	-6%
21 Science and Technology Professionals	2.20%	2.30%	3%
34 Culture, Media and Sports Occupations	2.10%	2.30%	9%
32 Health and Social Welfare Associate Professionals	1.50%	1.50%	1%
31 Science and Technology Associate Professionals	1.40%	1.30%	-3%
91 Elementary Occupations: Trades, Plant and Storage related	1.30%	1.20%	-8%
51 Skilled Agricultural Trades	0.70%	0.70%	7%
33 Protective Service Occupations	0.50%	0.40%	-22%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.3 Occupational Shape projections to 2036: Manchester

Occupation	2020	2035	% Change
92 Elementary Occupations: Clerical and Services related	11.20%	11.30%	1%
41 Administrative Occupations	8.80%	8.40%	-4%
35 Business and Public Service Associate Professionals	8.00%	8.20%	1%
24 Business and Public Service Professionals	7.80%	8.50%	9%
11 Corporate Managers	6.60%	6.90%	5%
71 Sales Occupations	6.20%	5.80%	-7%
22 Health Professionals	5.50%	5.80%	6%
21 Science and Technology Professionals	4.90%	4.90%	1%
61 Caring Personal Service Occupations	4.80%	4.80%	-2%
82 Transport and Mobile Machine Drivers and Operatives	4.10%	4.00%	-3%
12 Managers / Proprietors in agriculture and services	3.90%	4.10%	5%
62 Leisure and Other Personal Service Occupations	3.90%	3.90%	2%
23 Teaching and Research Professionals	3.40%	3.00%	-12%
42 Secretarial and Related Occupations	2.80%	2.70%	-2%
34 Culture, Media and Sports Occupations	2.70%	2.90%	7%
72 Customer Service Occupations	2.40%	2.30%	-2%
53 Skilled Construction and Building Trades	2.30%	2.40%	2%
81 Process, Plant and Machine Operatives	2.10%	1.90%	-7%
54 Textiles, Printing and Other Skilled Trades	2.00%	1.90%	-3%
52 Skilled Metal and Electrical Trades	1.90%	1.70%	-14%
31 Science and Technology Associate Professionals	1.70%	1.70%	-2%
32 Health and Social Welfare Associate Professionals	1.40%	1.40%	2%
91 Elementary Occupations: Trades, Plant and Storage related	0.80%	0.70%	-6%
33 Protective Service Occupations	0.50%	0.40%	-19%
51 Skilled Agricultural Trades	0.30%	0.40%	14%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.4 Occupational Shape projections to 2036: Oldham

Occupation	2020	2035	% Change
92 Elementary Occupations: Clerical and Services related	12.4%	12.6%	0.6%
61 Caring Personal Service Occupations	8.0%	8.1%	-1.0%
41 Administrative Occupations	7.3%	7.1%	-4.5%
71 Sales Occupations	6.9%	6.6%	-5.5%
11 Corporate Managers	5.9%	6.2%	3.6%
82 Transport and Mobile Machine Drivers and Operatives	5.9%	5.8%	-2.8%
35 Business and Public Service Associate Professionals	4.9%	5.1%	1.3%
53 Skilled Construction and Building Trades	4.7%	4.9%	4.5%
81 Process, Plant and Machine Operatives	4.3%	3.9%	-12.4%
23 Teaching and Research Professionals	4.2%	4.0%	-4.8%
52 Skilled Metal and Electrical Trades	4.1%	3.6%	-14.9%
22 Health Professionals	4.0%	4.3%	5.5%
24 Business and Public Service Professionals	3.9%	4.2%	5.9%
12 Managers / Proprietors in agriculture and services	3.4%	3.7%	4.8%
21 Science and Technology Professionals	2.8%	2.9%	0.6%

Occupation	2020	2035	% Change
54 Textiles, Printing and Other Skilled Trades	2.4%	2.3%	-6.9%
42 Secretarial and Related Occupations	2.3%	2.3%	-1.1%
62 Leisure and Other Personal Service Occupations	2.2%	2.3%	0.0%
91 Elementary Occupations: Trades, Plant and Storage related	2.2%	2.1%	-8.4%
34 Culture, Media and Sports Occupations	2.1%	2.2%	5.7%
32 Health and Social Welfare Associate Professionals	1.6%	1.7%	1.6%
31 Science and Technology Associate Professionals	1.5%	1.5%	-5.1%
72 Customer Service Occupations	1.4%	1.4%	-2.3%
51 Skilled Agricultural Trades	0.7%	0.8%	10.6%
33 Protective Service Occupations	0.6%	0.5%	-18.5%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.5 Occupational Shape projections to 2036: Rochdale

Occupation	2020	2035	% Change
92 Elementary Occupations: Clerical and Services related	12.50%	12.70%	2%
61 Caring Personal Service Occupations	8.10%	8.10%	0%
82 Transport and Mobile Machine Drivers and Operatives	7.40%	7.20%	-3%
41 Administrative Occupations	7.20%	7.00%	-2%
11 Corporate Managers	6.70%	7.10%	6%
71 Sales Occupations	6.70%	6.50%	-3%
53 Skilled Construction and Building Trades	5.00%	5.30%	6%
81 Process, Plant and Machine Operatives	4.80%	4.30%	-11%
35 Business and Public Service Associate Professionals	4.70%	4.80%	3%
52 Skilled Metal and Electrical Trades	4.60%	4.00%	-13%
12 Managers / Proprietors in agriculture and services	3.90%	4.10%	7%
23 Teaching and Research Professionals	3.60%	3.50%	-5%
22 Health Professionals	3.00%	3.20%	7%
24 Business and Public Service Professionals	2.90%	3.20%	9%
21 Science and Technology Professionals	2.50%	2.60%	3%
62 Leisure and Other Personal Service Occupations	2.40%	2.50%	4%
54 Textiles, Printing and Other Skilled Trades	2.40%	2.20%	-7%
91 Elementary Occupations: Trades, Plant and Storage related	2.20%	2.00%	-7%
42 Secretarial and Related Occupations	2.00%	2.10%	0%
34 Culture, Media and Sports Occupations	1.70%	1.90%	10%
32 Health and Social Welfare Associate Professionals	1.50%	1.50%	3%
72 Customer Service Occupations	1.50%	1.50%	0%
31 Science and Technology Associate Professionals	1.30%	1.30%	-3%
51 Skilled Agricultural Trades	0.80%	0.90%	13%
33 Protective Service Occupations	0.50%	0.40%	-17%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.6 Occupational Shape projections to 2036: Salford

Occupation	2020	2035	% Change
41 Administrative Occupations	10.80%	10.30%	-4%
92 Elementary Occupations: Clerical and Services related	8.10%	8.20%	1%
11 Corporate Managers	7.30%	7.70%	5%
35 Business and Public Service Associate Professionals	7.10%	7.20%	2%
24 Business and Public Service Professionals	6.50%	7.10%	9%
61 Caring Personal Service Occupations	6.20%	6.20%	-1%
21 Science and Technology Professionals	5.40%	5.40%	1%
22 Health Professionals	4.80%	5.10%	5%
53 Skilled Construction and Building Trades	4.70%	5.00%	7%
82 Transport and Mobile Machine Drivers and Operatives	4.60%	4.50%	-2%
71 Sales Occupations	4.50%	4.30%	-5%
23 Teaching and Research Professionals	3.40%	3.20%	-8%
52 Skilled Metal and Electrical Trades	3.40%	3.00%	-13%
12 Managers / Proprietors in agriculture and services	3.30%	3.50%	6%
42 Secretarial and Related Occupations	2.70%	2.60%	-1%
81 Process, Plant and Machine Operatives	2.60%	2.30%	-10%
34 Culture, Media and Sports Occupations	2.40%	2.60%	7%
72 Customer Service Occupations	2.40%	2.30%	-4%
62 Leisure and Other Personal Service Occupations	2.00%	2.10%	4%
31 Science and Technology Associate Professionals	2.00%	2.00%	-4%
32 Health and Social Welfare Associate Professionals	1.70%	1.70%	2%
54 Textiles, Printing and Other Skilled Trades	1.70%	1.60%	-5%
91 Elementary Occupations: Trades, Plant and Storage related	1.10%	1.10%	-5%
33 Protective Service Occupations	1.00%	0.80%	-20%
51 Skilled Agricultural Trades	0.30%	0.30%	14%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.7 Occupational Shape projections to 2036: Stockport

Occupation	2020	2035	% Change
41 Administrative Occupations	8.60%	8.30%	-4%
92 Elementary Occupations: Clerical and Services related	8.40%	8.50%	2%
61 Caring Personal Service Occupations	7.80%	7.70%	-1%
11 Corporate Managers	7.20%	7.60%	5%
35 Business and Public Service Associate Professionals	6.90%	7.10%	2%
71 Sales Occupations	6.90%	6.60%	-4%
22 Health Professionals	5.10%	5.40%	5%
24 Business and Public Service Professionals	5.00%	5.40%	9%
21 Science and Technology Professionals	4.70%	4.70%	1%
12 Managers / Proprietors in agriculture and services	4.40%	4.70%	6%
53 Skilled Construction and Building Trades	3.80%	3.90%	4%

Occupation	2020	2035	% Change
82 Transport and Mobile Machine Drivers and Operatives	3.80%	3.70%	-2%
52 Skilled Metal and Electrical Trades	3.20%	2.70%	-16%
72 Customer Service Occupations	3.00%	2.90%	-3%
23 Teaching and Research Professionals	3.00%	2.80%	-7%
34 Culture, Media and Sports Occupations	2.80%	3.00%	8%
42 Secretarial and Related Occupations	2.70%	2.70%	-1%
62 Leisure and Other Personal Service Occupations	2.60%	2.60%	2%
81 Process, Plant and Machine Operatives	2.60%	2.30%	-13%
54 Textiles, Printing and Other Skilled Trades	2.30%	2.10%	-7%
31 Science and Technology Associate Professionals	1.80%	1.70%	-4%
32 Health and Social Welfare Associate Professionals	1.40%	1.40%	2%
91 Elementary Occupations: Trades, Plant and Storage related	0.90%	0.80%	-8%
51 Skilled Agricultural Trades	0.80%	0.90%	12%
33 Protective Service Occupations	0.30%	0.30%	-19%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.8 Occupational Shape projections to 2036: Tameside

Occupation	2020	2035	% Change
92 Elementary Occupations: Clerical and Services related	10.40%	10.60%	2%
61 Caring Personal Service Occupations	8.80%	8.90%	0%
41 Administrative Occupations	7.30%	7.00%	-3%
71 Sales Occupations	7.20%	7.20%	0%
11 Corporate Managers	6.30%	6.60%	6%
82 Transport and Mobile Machine Drivers and Operatives	4.90%	4.80%	-1%
53 Skilled Construction and Building Trades	4.80%	5.00%	5%
35 Business and Public Service Associate Professionals	4.80%	4.90%	2%
81 Process, Plant and Machine Operatives	4.80%	4.20%	-13%
52 Skilled Metal and Electrical Trades	4.80%	4.10%	-14%
22 Health Professionals	4.70%	5.10%	7%
12 Managers / Proprietors in agriculture and services	4.10%	4.40%	7%
24 Business and Public Service Professionals	3.60%	3.80%	8%
23 Teaching and Research Professionals	3.50%	3.40%	-5%
54 Textiles, Printing and Other Skilled Trades	2.90%	2.80%	-5%
62 Leisure and Other Personal Service Occupations	2.60%	2.80%	5%
21 Science and Technology Professionals	2.40%	2.40%	1%
42 Secretarial and Related Occupations	2.30%	2.30%	1%
34 Culture, Media and Sports Occupations	2.00%	2.20%	10%
91 Elementary Occupations: Trades, Plant and Storage related	1.90%	1.70%	-9%
72 Customer Service Occupations	1.80%	1.80%	-1%
32 Health and Social Welfare Associate Professionals	1.50%	1.50%	3%
31 Science and Technology Associate Professionals	1.50%	1.50%	-4%
51 Skilled Agricultural Trades	0.60%	0.60%	8%

Occupation	2020	2035	% Change
33 Protective Service Occupations	0.50%	0.40%	-19%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.9 Occupational Shape projections to 2036: Trafford

Occupation	2020	2035	% Change
92 Elementary Occupations: Clerical and Services related	9.10%	9.10%	1%
41 Administrative Occupations	9.10%	9.00%	-2%
71 Sales Occupations	8.90%	8.50%	-4%
11 Corporate Managers	8.30%	8.80%	6%
35 Business and Public Service Associate Professionals	8.30%	8.50%	2%
24 Business and Public Service Professionals	6.10%	6.90%	12%
61 Caring Personal Service Occupations	4.90%	4.70%	-5%
21 Science and Technology Professionals	4.80%	4.90%	2%
82 Transport and Mobile Machine Drivers and Operatives	4.10%	4.00%	-3%
12 Managers / Proprietors in agriculture and services	4.00%	4.20%	6%
34 Culture, Media and Sports Occupations	3.40%	3.80%	12%
53 Skilled Construction and Building Trades	3.10%	3.30%	5%
52 Skilled Metal and Electrical Trades	3.00%	2.60%	-14%
81 Process, Plant and Machine Operatives	2.80%	2.50%	-11%
72 Customer Service Occupations	2.70%	2.60%	-2%
42 Secretarial and Related Occupations	2.60%	2.60%	-1%
22 Health Professionals	2.50%	2.60%	2%
62 Leisure and Other Personal Service Occupations	2.20%	2.30%	3%
31 Science and Technology Associate Professionals	2.20%	2.10%	-3%
23 Teaching and Research Professionals	2.20%	1.90%	-13%
54 Textiles, Printing and Other Skilled Trades	1.90%	1.70%	-8%
32 Health and Social Welfare Associate Professionals	1.10%	1.10%	-1%
91 Elementary Occupations: Trades, Plant and Storage related	1.00%	0.90%	-6%
33 Protective Service Occupations	1.00%	0.80%	-20%
51 Skilled Agricultural Trades	0.50%	0.60%	10%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Figure B2.1.10 Occupational Shape projections to 2036: Wigan

Occupation	2020	2035	% Change
92 Elementary Occupations: Clerical and Services related	10.90%	11.30%	3%
61 Caring Personal Service Occupations	8.40%	8.40%	0%
41 Administrative Occupations	8.10%	7.80%	-3%
71 Sales Occupations	7.00%	6.60%	-5%
53 Skilled Construction and Building Trades	6.10%	6.40%	5%
11 Corporate Managers	6.00%	6.30%	5%
82 Transport and Mobile Machine Drivers and Operatives	5.20%	5.10%	-1%
81 Process, Plant and Machine Operatives	4.90%	4.40%	-11%

Occupation	2020	2035	% Change
35 Business and Public Service Associate Professionals	4.80%	4.90%	3%
22 Health Professionals	4.20%	4.40%	6%
52 Skilled Metal and Electrical Trades	4.10%	3.60%	-13%
12 Managers / Proprietors in agriculture and services	3.70%	3.90%	7%
24 Business and Public Service Professionals	3.30%	3.60%	8%
62 Leisure and Other Personal Service Occupations	3.10%	3.20%	4%
23 Teaching and Research Professionals	3.10%	2.90%	-6%
21 Science and Technology Professionals	2.50%	2.60%	3%
42 Secretarial and Related Occupations	2.20%	2.20%	0%
91 Elementary Occupations: Trades, Plant and Storage related	2.20%	2.00%	-7%
54 Textiles, Printing and Other Skilled Trades	2.10%	1.90%	-6%
34 Culture, Media and Sports Occupations	1.70%	1.90%	11%
31 Science and Technology Associate Professionals	1.60%	1.60%	-3%
32 Health and Social Welfare Associate Professionals	1.50%	1.50%	3%
72 Customer Service Occupations	1.40%	1.50%	0%
33 Protective Service Occupations	1.10%	0.90%	-19%
51 Skilled Agricultural Trades	0.70%	0.80%	14%

Source: Greater Manchester Forecasting Model, Oxford Economics, 2019

Annex B2 - References and Data Sources

Programmes

- Greater Manchester Strategy (GMS): <https://www.greatermanchester-ca.gov.uk/what-we-do/greater-manchester-strategy/>
- Local Industrial Strategy (LIS): <https://www.greatermanchester-ca.gov.uk/what-we-do/economy/greater-manchesters-local-industrial-strategy/>
- Independent Prosperity Review (IPR): https://www.greatermanchester-ca.gov.uk/media/1826/gmis_reviewersreport_final_digital.pdf
- (revised here: https://www.greatermanchester-ca.gov.uk/media/3408/gmipr_one-year-on.pdf)
- Good Employment Charter (GEC): <https://www.gmgoodemploymentcharter.co.uk/>
- Working Well: <https://www.greatermanchester-ca.gov.uk/what-we-do/work-and-skills/working-well/>
- STEM Framework: <https://www.greatermanchester-ca.gov.uk/what-we-do/work-and-skills/greater-manchester-stem-framework/>
- Young Persons' Guarantee: <https://www.greatermanchester-ca.gov.uk/what-we-do/children-and-young-people/youth-task-force-and-young-persons-guarantee/>
- Apprenticeship and Careers Service (GMACS): <https://gmacs.co.uk/>
- Fast Track Digital Workforce Fund: <https://www.greatermanchester-ca.gov.uk/what-we-do/digital/fast-track-digital-workforce-fund/>

Data Sources for Annexes (in order of first appearance)

- [Business Register and Employment Survey](#)
- [Annual Population Survey](#)
- [UK Business Counts](#)
- [ONS Business Demography](#)
- [ONS Subregional Productivity](#)
- [Annual Survey of Hours and Earnings](#)
- [ONS Mid-Year Population Estimates](#)
- [ONS Claimant Count](#)
- [DWP Stat-Xplore](#)
- [Index of Multiple Deprivation, MHCLG](#)
- [Further Education & Skills data, DfE](#)
- [Apprenticeships data, DfE](#)
- [HE Qualifiers, HESA](#)
- [KS4 Destination Measures, DfE](#)
- [16-18 Destination Measures, DfE](#)
- [FE Outcome-based Success Measures, DfE](#)
- [Graduate Activities, HESA](#)
- [Graduate Outcomes, DfE](#)
- [Employer Skills Survey](#)
- [Working Futures 2017-27, University of Warwick](#)
- [Labour Insight, Burning Glass Technologies](#)
- [Annual Survey of Hours and Earnings – Pay below the living wage](#)
- [Greater Manchester Forecasting Model, Oxford Economics](#)