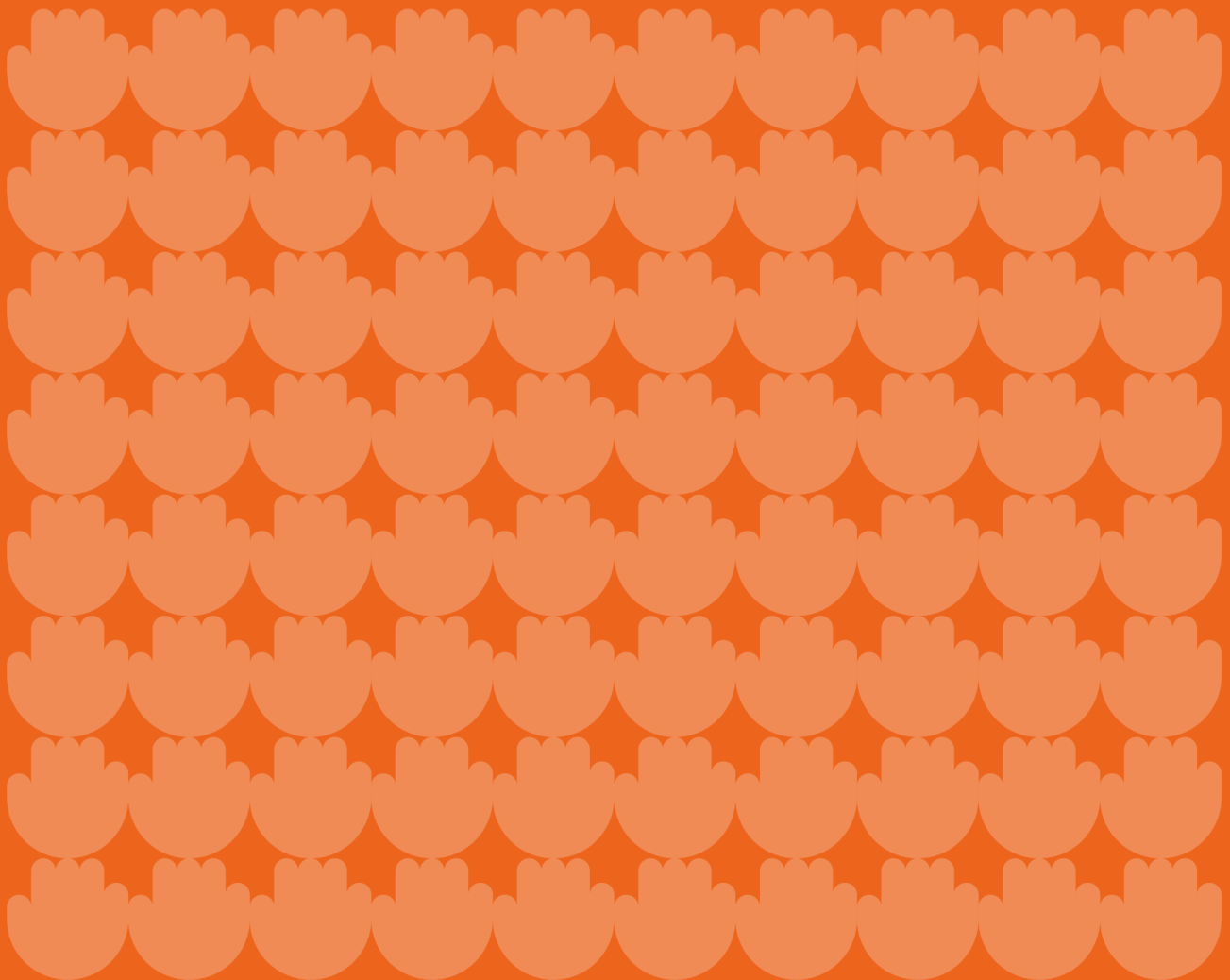


Local Skills Report & Labour Market Plan

Data Annexes and References

March 2021



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: GM has slightly more employment in sectors such as retail, health, business administration and professional services, but differences are slight. The same applies to occupations: GM has 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 several percentage points below the national average. Similarly, there is a notable gap in wage levels, with GM workers paid less than the national average. This is a long-standing issue for GM, pre-dating the 2008/09 financial crisis and has been highlighted as an area of focus in terms of both skills supply (ie up-skilling and in-work progression) and skills demand (ie working with employers to promote higher value activity and better employment practice).
- GM is a relatively 'youthful' city-region (with a comparatively large population of younger people and a smaller population of older people). Yet, this doesn't mask the wider trend of an ageing population/workforce, evident across the country. This presents a skills and employment challenge in that, whilst the majority of policy interventions (and funding) focus on young people and young adults, evidence suggests that older workers (50yrs+) are more likely to experience longer periods of unemployment, challenges in terms of the currency of their skills/experience, and employment programmes are less likely to be effective in supporting entry/return to work. There are also sectoral variations that mean replacement demand is complex: some occupational areas need significant numbers of new workers to replace those leaving the industry in the years ahead, but with fundamentally different skillsets to reflect business/production processes of the future.
- Skills and employment considerations and labour market inequalities are inherently connected with disadvantage more generally: large parts of GM are

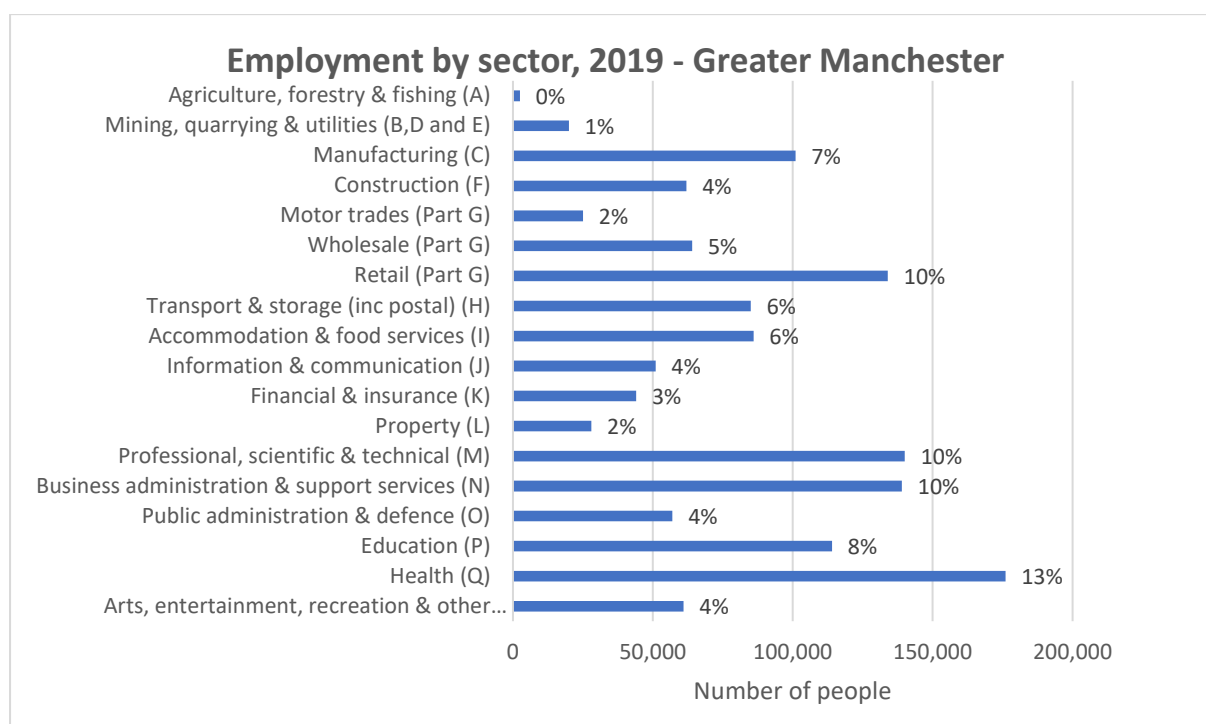
amongst the most deprived neighbourhoods in the country in terms of income, employment, and education, skills & training. This signals the importance of an effective labour market response that looks at skills, employment and health holistically, not skills in isolation.

- The claimant count has risen to an unprecedented extent during the Covid-19 pandemic and associated economic measures. However, analysis suggests volumes have risen slightly more elsewhere in England, although care must be taken when comparing percentage rises as places that had relatively few claimants to start with often appearing to have experienced the largest increases. Care must also be taken when considering this measure at city-region level, as to do so masks internal variations: some parts of GM have very high levels of claimant unemployment compared to others (for example, Oldham had just under 10% of the working age population claiming unemployment related benefits in December 2020).
- Issues with poor productivity (and low pay) are an important part of the background to the debate about skills. 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 have struggled to counteract. Skills demand and better skills utilisation are, therefore, a central element of GM's labour market challenge.

1.1 Employment by sector

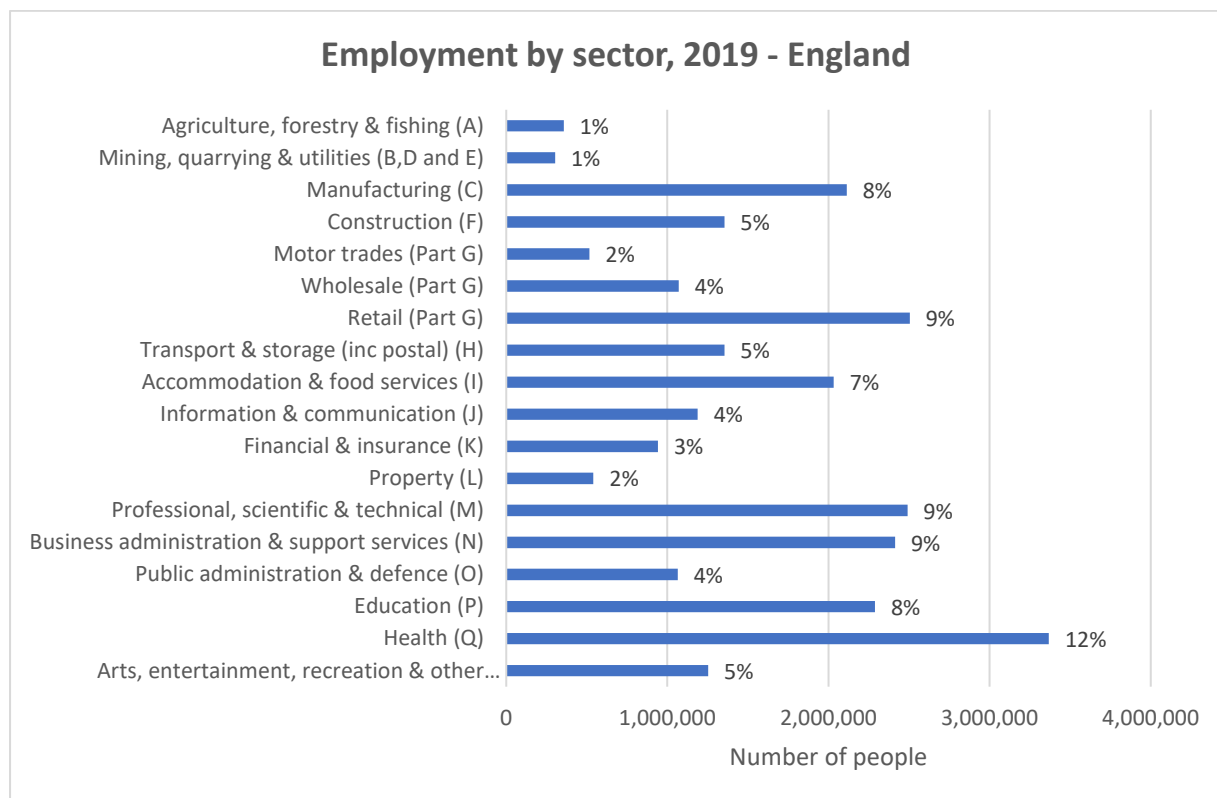
- GM's main sectors of employment are Q, G (specifically retail), M and N.
- These are exactly reflected at the national level, though England has 1 ppt less of its employment allocation in each of them.
- Key growth target areas for GM are: (Advanced) Manufacturing, Financial & Professional Services, Digital & Creative Industries and Health Innovation. There's also a focus on 'clean growth', a policy imperative identified in the LIS linked to GM's carbon neutrality ambitions, with cross-cutting skills and labour market relevance. More detail on these strengths/ambitions is set out in the body of the report.

Figure 1.1.1



Source: Business Register and Employment Survey, 2019

Figure 1.1.2

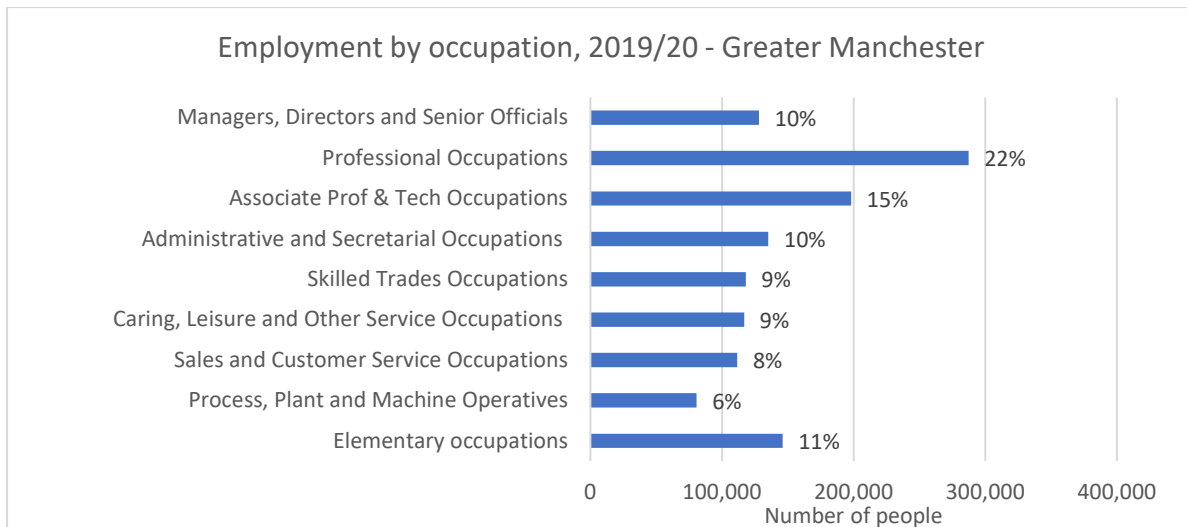


Source: Business Register and Employment Survey, 2019

1.2 Employment by occupation

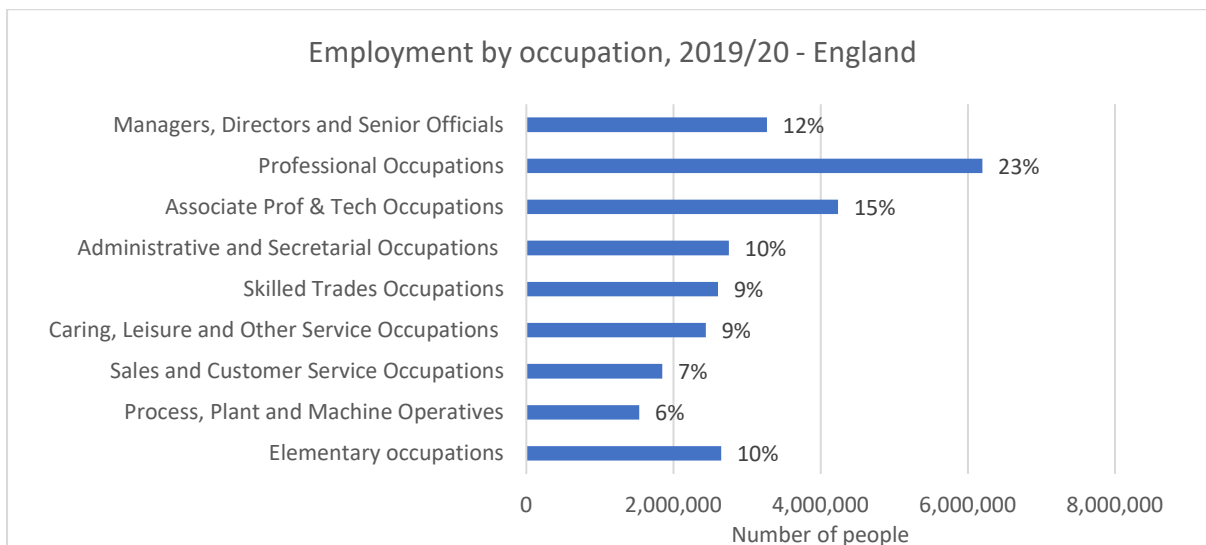
- GM's occupation distribution differs only a little from that of England. England has (slightly) more proportions of its workforce employed as managers/directors or professionals, whereas GM has more employees in sales/customer service or elementary roles.
- This could indicate a slight skewing of the GM workforce towards lower-level work types and chimes with issues highlighted in the GMIPR about 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 the occupational field.

Figure 1.2.1



Source: Annual Population Survey, October 2019 - September 2020

Figure 1.2.2



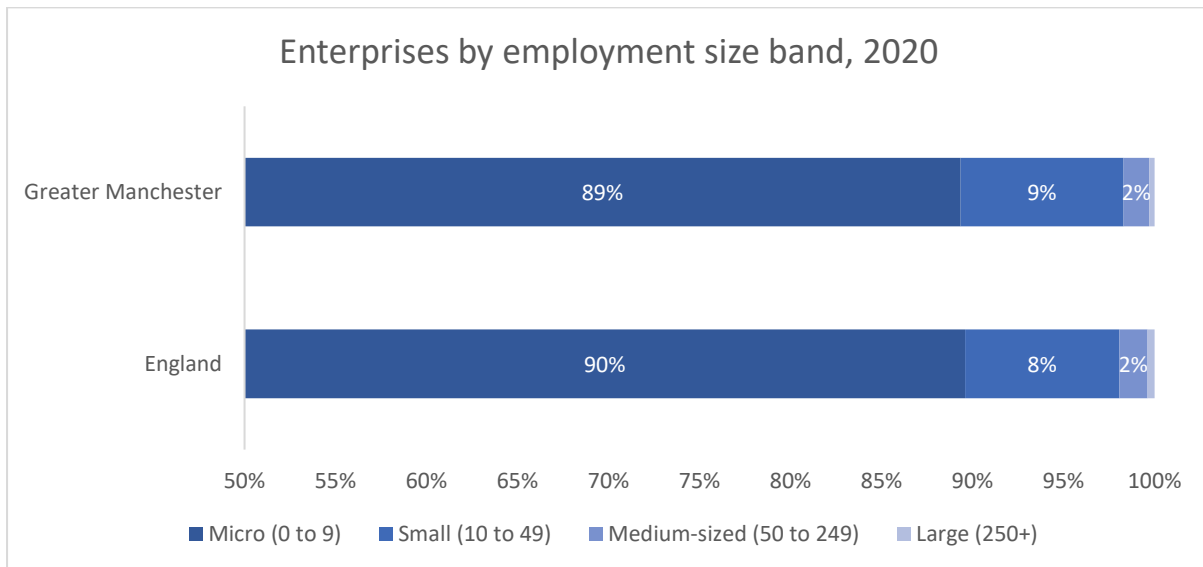
Source: Annual Population Survey, October 2019 - September 2020

1.3 Enterprises by employment size band

- GM's business ecosystem consists largely of micro enterprises. The only contrast compared to the picture for England is that GM has 1 ppt more small businesses (and 1 ppt fewer micro firms).
- 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, incentives etc 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 articulate their skills needs and signpost/facilitate appropriate support.

Figure 1.3

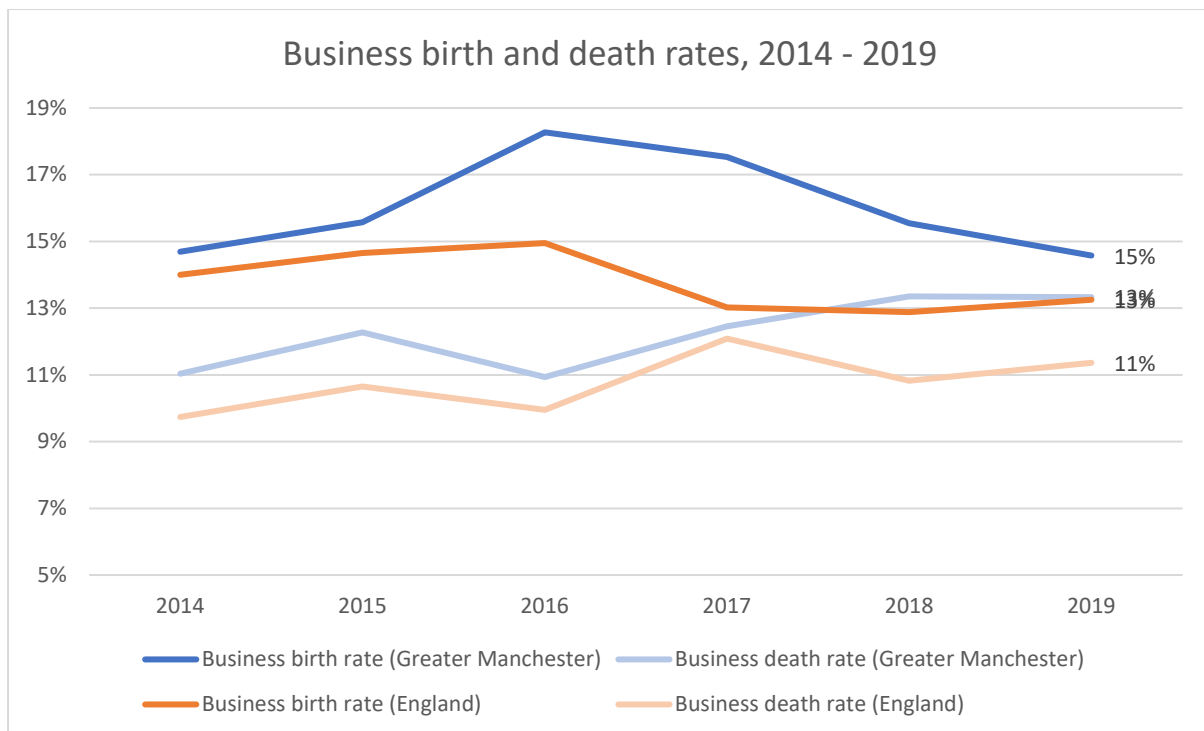


Source: UK Business Counts, 2020

1.4 Business birth and death rates

- GM has seen an above-England trend of business births since 2014, 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 2014-19 does suggest that GM has been an area of strong performance regarding 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.

Figure 1.4

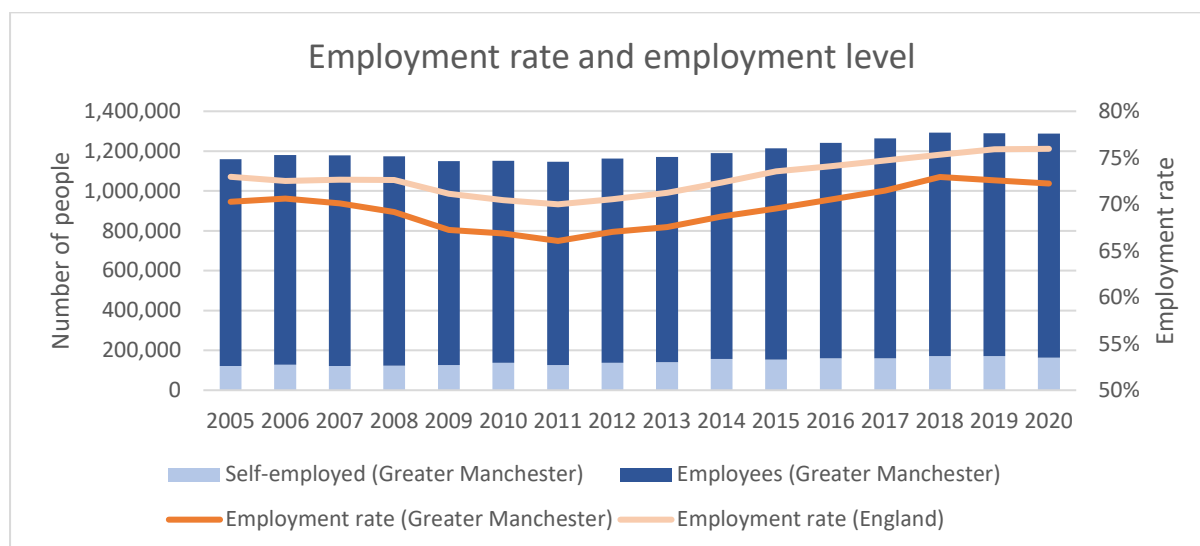


Source: ONS Business Demography, 2014-19

1.5 Employment rate and level

- Employment in GM has consistently sat below the national average – typically in the region of 3-4 ppts underneath - from 2005-20.
- GM's changes over this 15-year time period have almost been in lockstep with the trend for England, evidenced by the consistent gap.
- Across GM's districts the range of employment rates is significant. Gaps of 10-15 ppts have been consistent between 2005 and 2020. Manchester was the low performer in this regard for almost all of the 2005-15 period, hovering in the 58%-64% employment range.
- Since 2015, however, Manchester has improved, joining the likes of Oldham and Rochdale in a cluster at the bottom. Consistent high performers have been Trafford and Stockport – outside of the scope of the 2008-09 financial crisis and recovery from it, they've averaged above 75% employment (above the England equivalent).

Figure 1.5.1

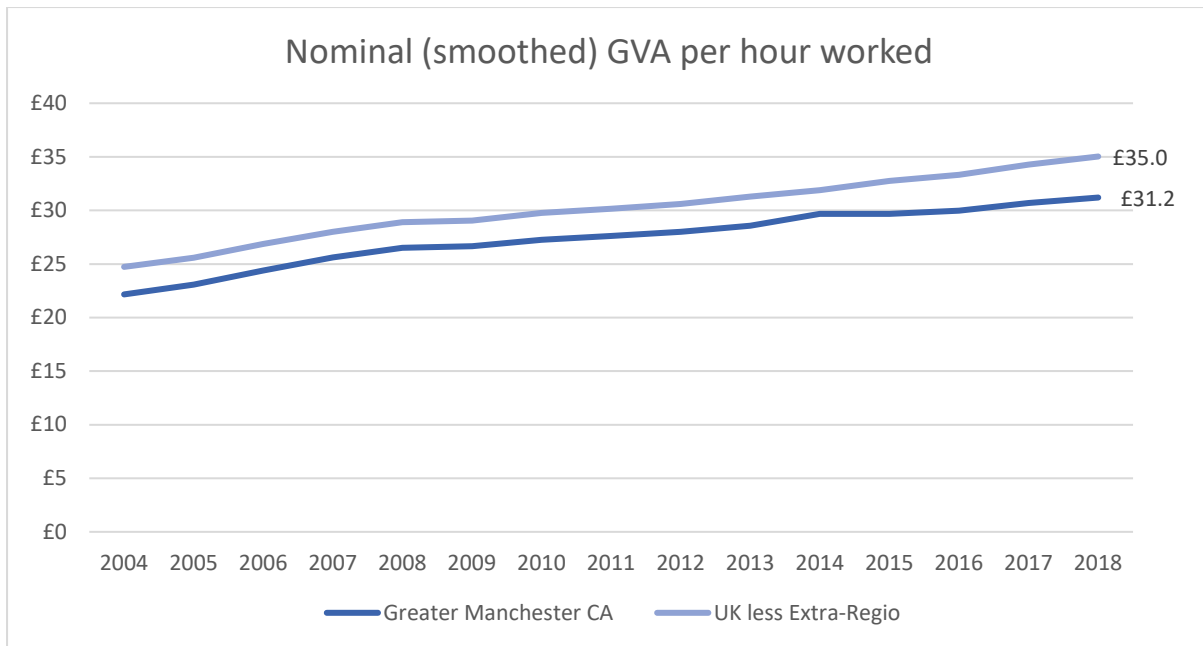


Source: Annual Population Survey, 2005-20

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 a long-standing link between poor health outcomes and low productivity, one of the driving forces behind GM's vision for better integration across skills, work and health support.
- 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, 2004-18

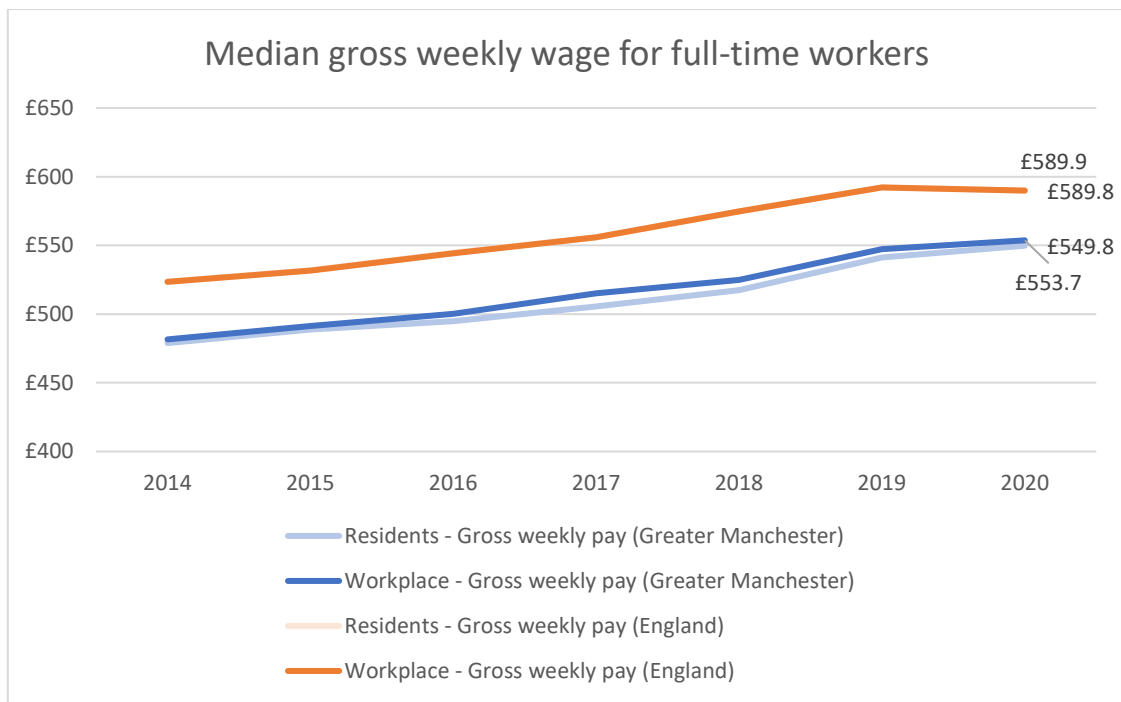
1.7 Median gross weekly wage for full-time workers

- 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 ~6% lower than England's. Between 2016 and 2019 a minor gap existed between residents' and workplace earnings for GM (the latter being higher). The maximum earnings gap was £9.60 in 2017, although the gap has narrowed to £3.90 for 2020.
- Considering workplace earnings at the GM district level, differences are endemic. A degree of clustering is visible in the chart (below). With an element of subjectivity, for the more recent data at least, we can say that people working in Tameside, Rochdale and Bolton earn less than those in

Oldham, Wigan and Bury who, in turn, earn less than their equivalents in the remaining 4 districts (on average).

- For 2020 these groups are: £450-£490 p/w; £510-£530 p/w; and £540-£610 p/w. Traditionally, within GM Manchester workers have earned the most but the 2020 data indicates that Salford has jumped to the top.
- This is something of an anomaly and demonstrates the care that must be taken in looking at data without underpinning intelligence: overall, Salford is the 18th most deprived place in the country and, as illustrated in Fig.1.10 below (IMD 2019), large proportions of Salford are amongst the 10% most deprived neighbourhoods nationally in terms of income, employment, and education, skills & training. It is therefore possible that the earnings data for Salford is skewed by the concentration of higher paid workers living or working in and around areas like Salford Quays, which benefits from its close proximity to Manchester city centre and is home to clusters of large, high profile media, digital and tech firms.

Figure 1.7.1

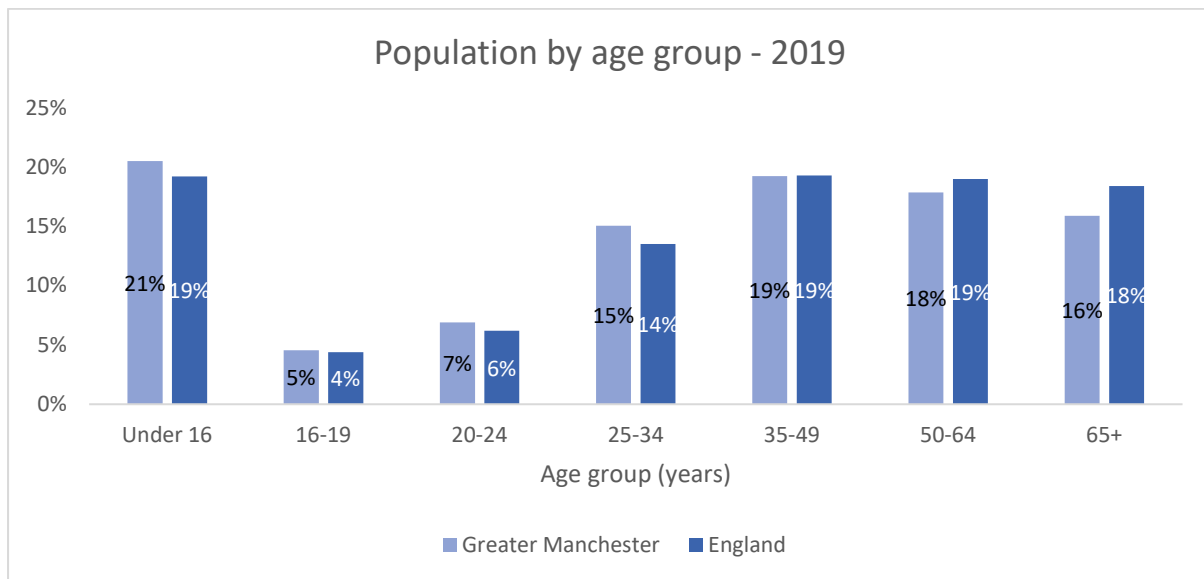


Source: Annual Survey of Hours and Earnings, 2014-20

1.8 Population by age group

- GM's population composition is slightly younger than England's. There were 2 ppts more over-65s in England, whereas GM has 2 ppts more under-16s. More broadly, GM has 4 ppts more people under the age of 34, with England having more people (proportionally speaking) above that age.
- The relatively young GM population suggest that, by some measures, the city-region might 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 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 80% of the 2030 workforce has already left compulsory education, signalling 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.

Figure 1.8

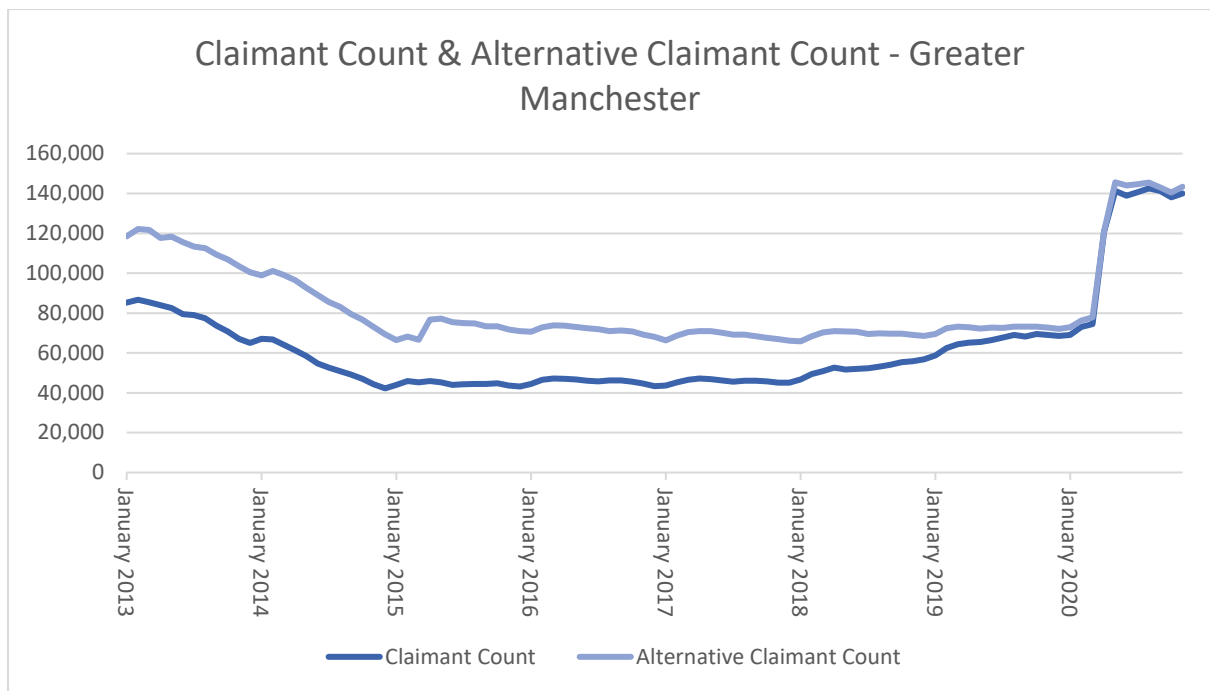


Source: ONS Mid-Year Population Estimates, 2019

1.9 Claimant Count and Alternative Claimant Count

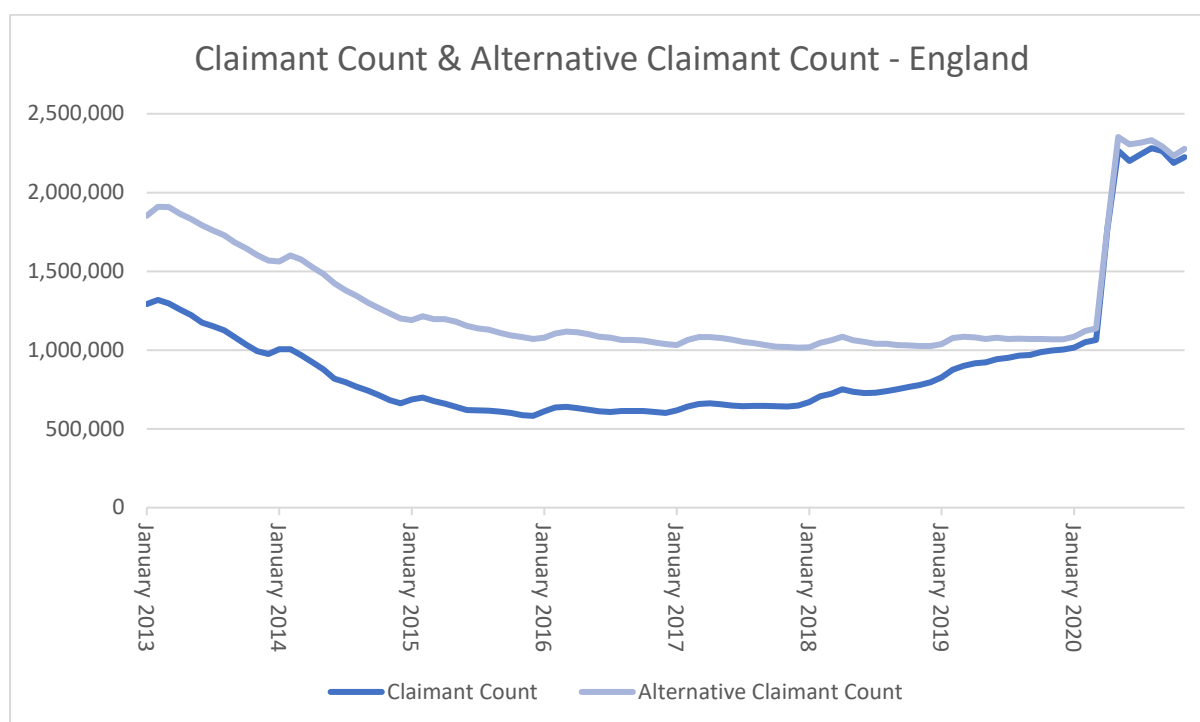
- A period of decline in the claimant count (both measures) can be identified across GM and England between 2013 and 2015. Claimants then plateaued somewhat through to 2019 (though the regular measure began an identifiable uptick in early 2018 – for GM and England). Therefore, trends-wise, GM and England have fared similarly.
- Considering the COVID period, GM's March-May 2020 surge in claimants has been 'better' than that of England, GM having seen an increase of ~87% and England ~103%. However, this simply reflects different starting points: areas with lower claimant volumes have seen sharper rises nationally.

Figure 1.9.1



Source: ONS claimant count & DWP Stat Xplore, 2013-20

Figure 1.9.2



Source: ONS claimant count & DWP Stat Xplore, 2013-20

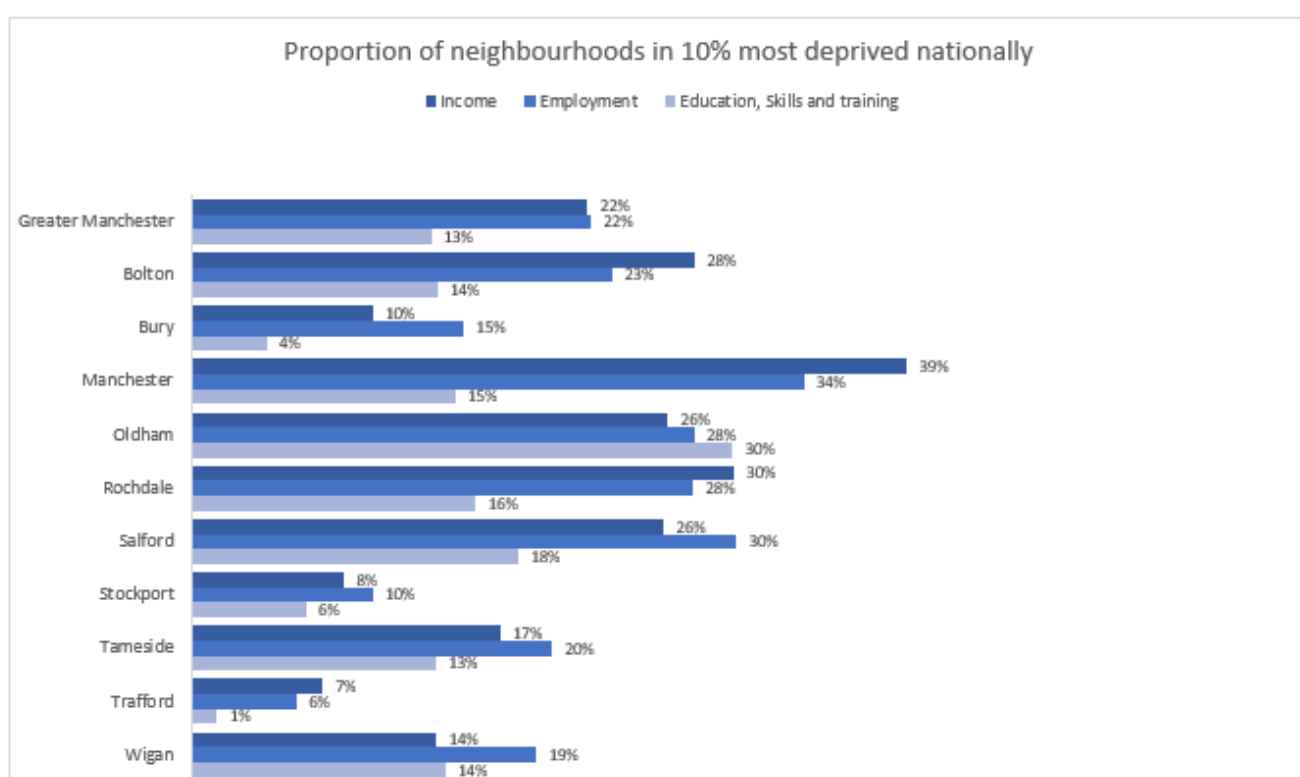
1.10 Income, Employment and Education deprivation

- 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. By contrast, an example of a district that has consistently high proportions of deprived neighbourhoods (for all 3 metrics) is Oldham. Its education, skills and training deprivation level is significantly above every other GM LA.
- 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.

- Against that backdrop, we await further detail on the government’s Levelling-Up Fund, as the information published with the Budget in March 2021 identified that 9 of the 10 GM districts are priority 1 for the fund, yet Salford has been designated as priority 2.

Figure 1.10



Source: Index of Multiple Deprivation, MHCLG, 2019

A2 SKILLS SUPPLY

Skills Supply – Summary

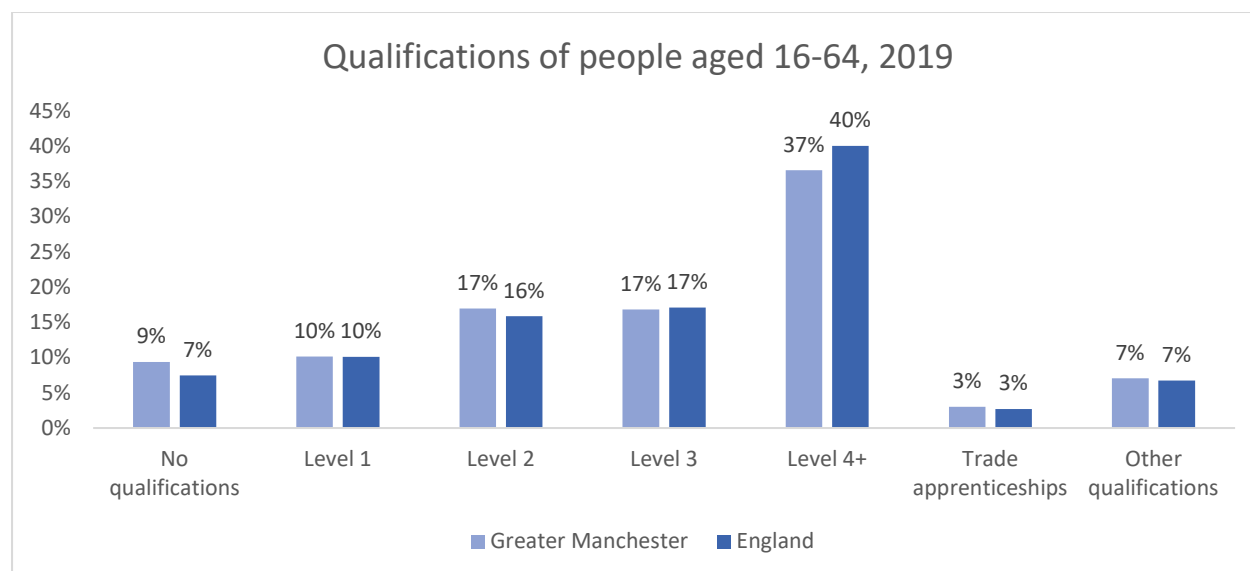
- GM's population is lower skilled than the national average – especially in respect of people without any qualifications and those with level 4+ skills.
- In line with this comparatively low skills profile, relatively basic skills training accounts for a higher proportion of skills training in GM (55% of adult skills training in GM vs 48% in England). The lower proportion of training in health and care in GM (11% vs 16% in England) appears slightly surprising given the relatively high employment in health and care (13% of all employment in GM vs 12% in England).
- Destinations differences are present between GM and England, but 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 employer reporting skills gaps, hard to fill vacancies, and employees who are not proficient in their roles, 36% of GM employers 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 or Level 2 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, therefore, 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 UKSPF – will be targeted in ways which tackle

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

Figure 2.1



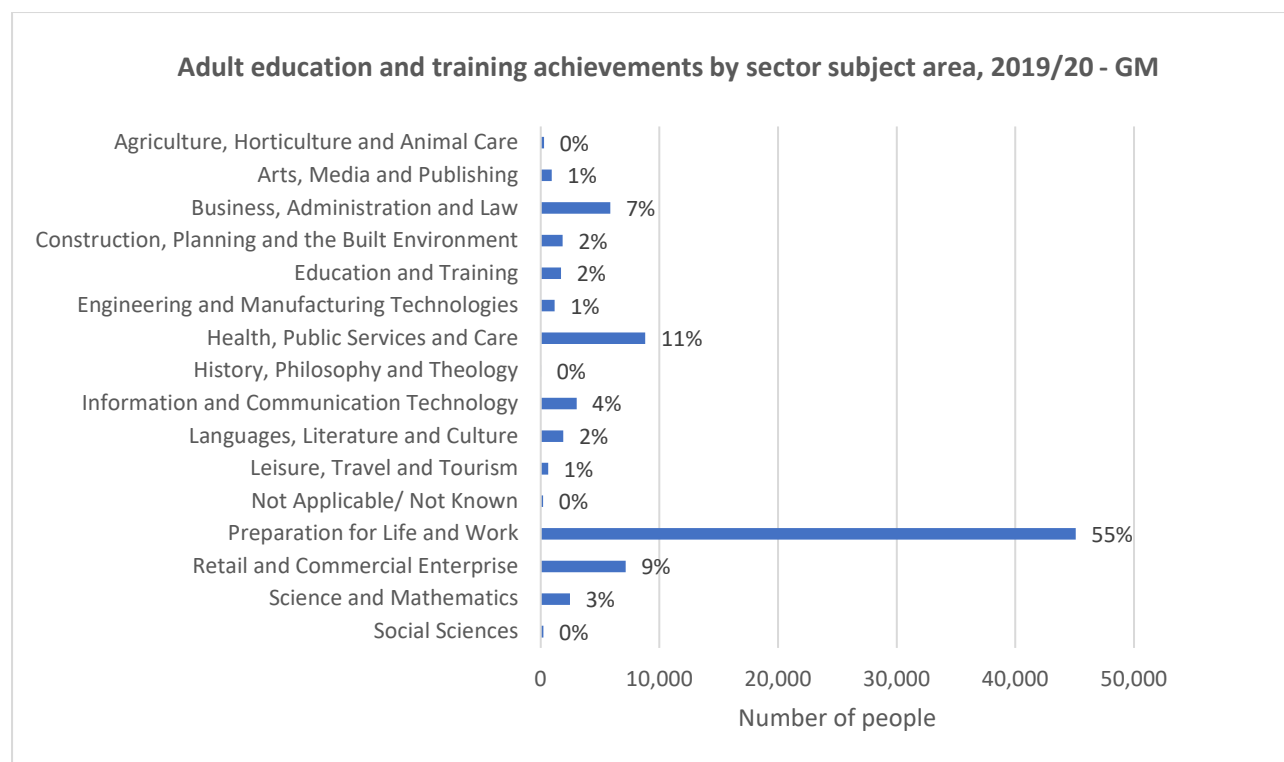
Source: Annual Population Survey, January 2019 – December 2019

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 (compared to 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 AEB funding policy and dialogue with providers is therefore driving a shift towards linking Preparation for Life and Work to an occupational area, in order to promote positive progression pathways towards/into work.
- One relatively large area for GM is Retail and Commercial Enterprise, with almost one in ten of all achievements (3 pts above England). With the retail sector suffering disproportionately amid the COVID-19 crisis, this merits attention, with particular consideration of whether the nature of the courses and qualifications relevant to the sector is shifting in line with changes in the industry (for example, around e-commerce and logistics). It is also important

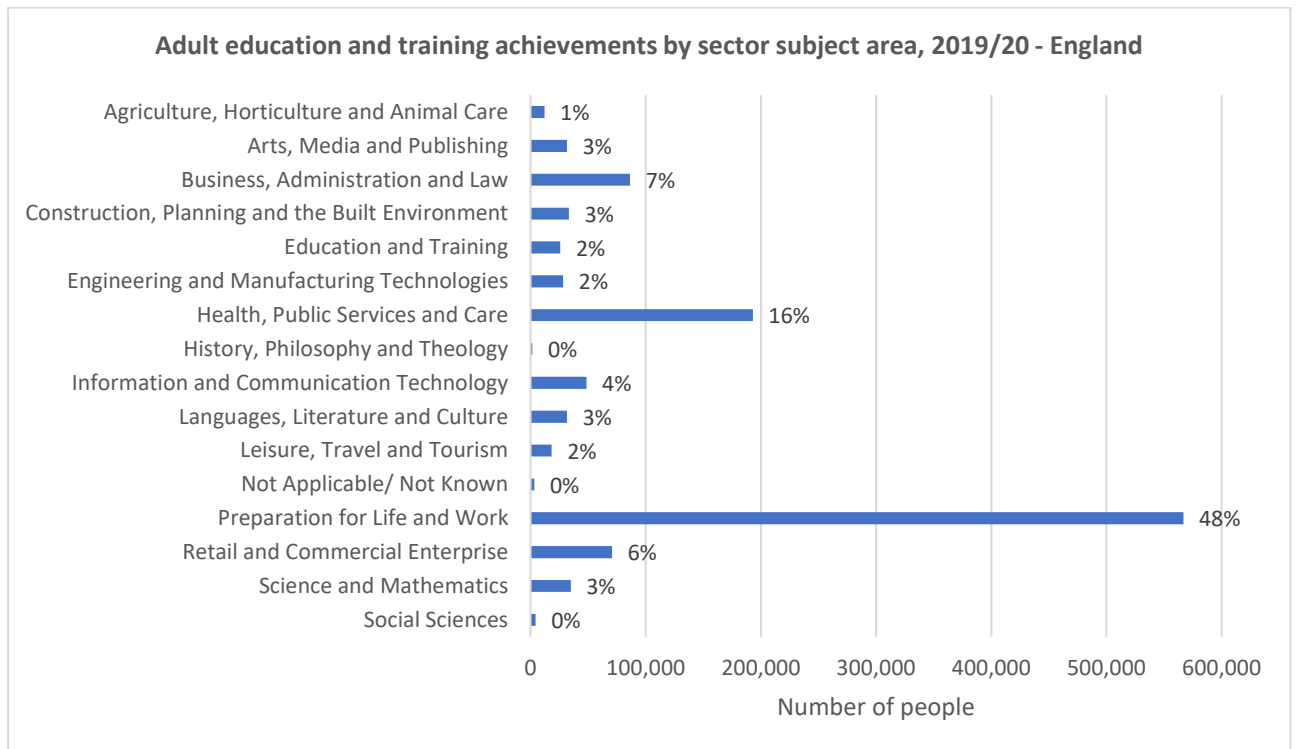
to note that, whilst the potential productivity gains relating to this sector may be limited, it remains a cornerstone of GM's foundational economy and employs a significant number of people for whom training/upskilling with a view to career progression is important.

Figure 2.2.1



Source: Further Education & Skills data, DfE

Figure 2.2.2

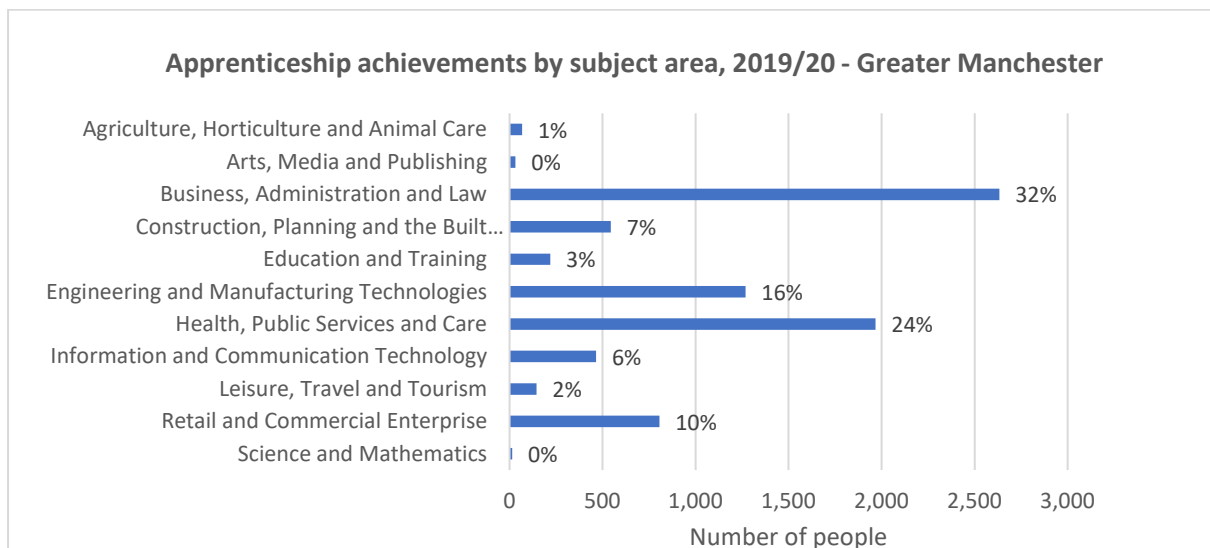


Source: Further Education & Skills data, DfE

2.3 Apprenticeship Achievements

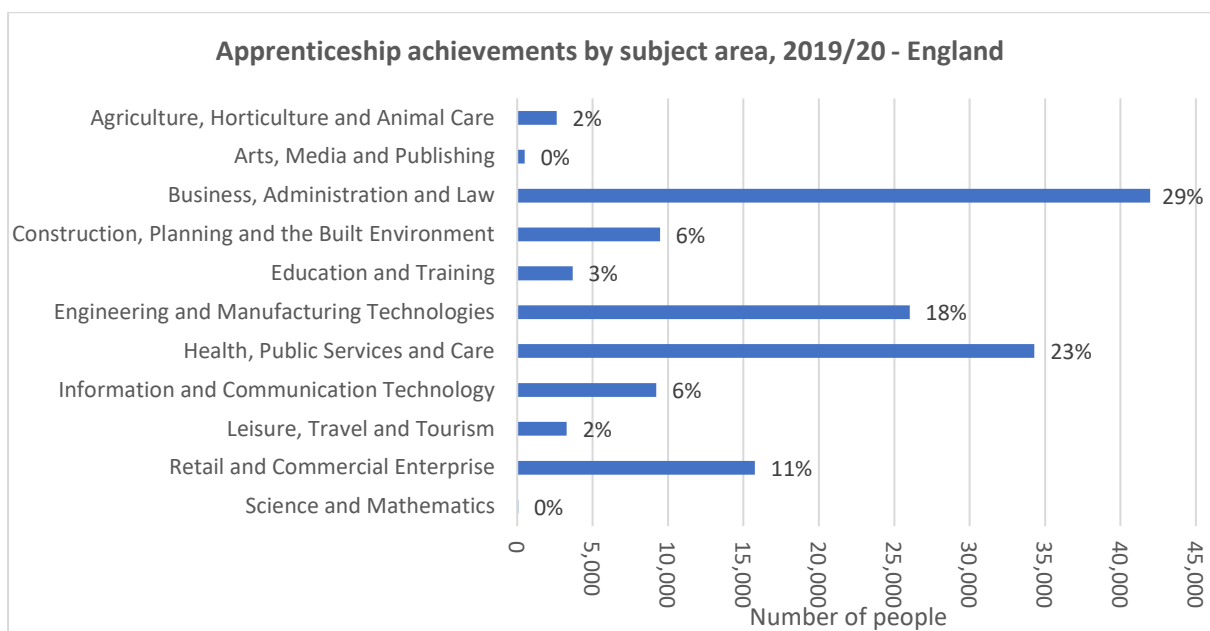
- GM's recent experience regarding the subjects of apprenticeship achievements is broadly reflective of the national picture.
- Business, engineering and health subjects carry a combined weight of 72% in GM (compared to 70% for England). Among the remaining 8 subject areas, there aren't areas of hugely significant difference between GM and England.

Figure 2.3.1



Source: Apprenticeships data, DfE

Figure 2.3.2

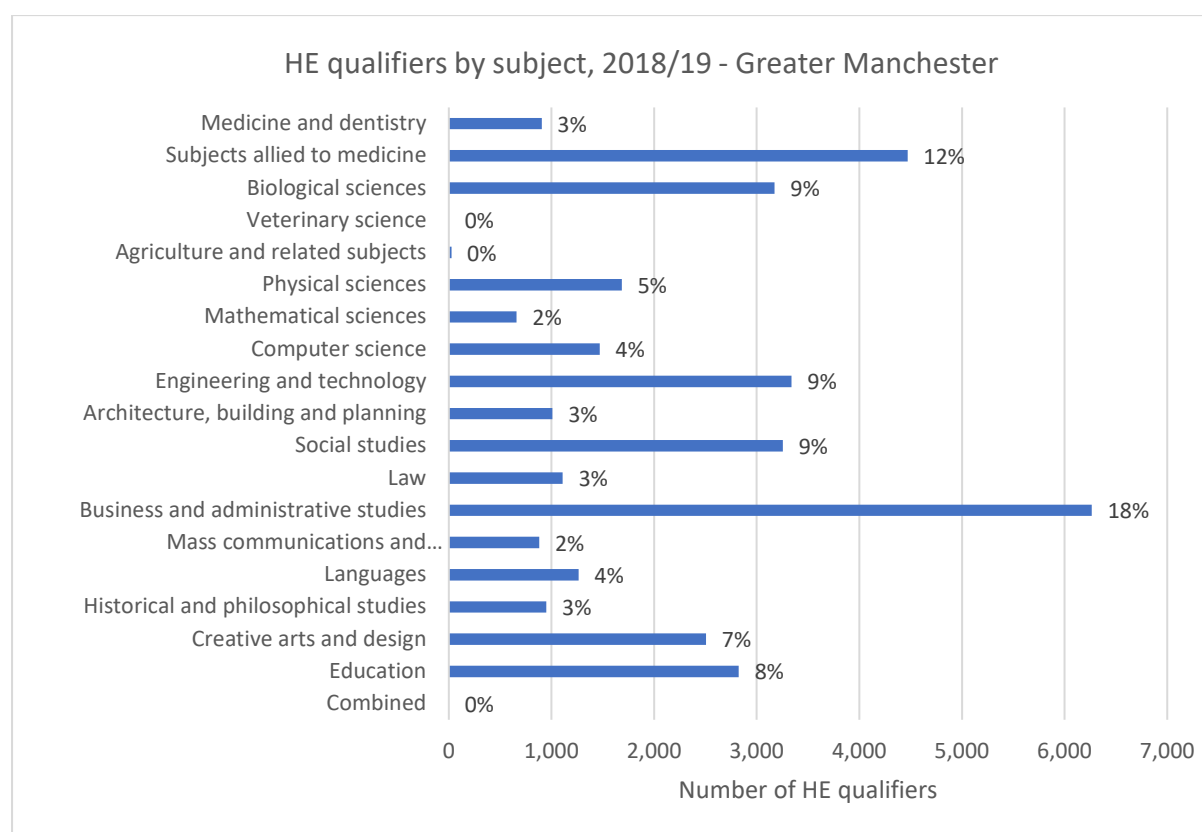


Source: Apprenticeships data, DfE

2.4 HE Qualifiers

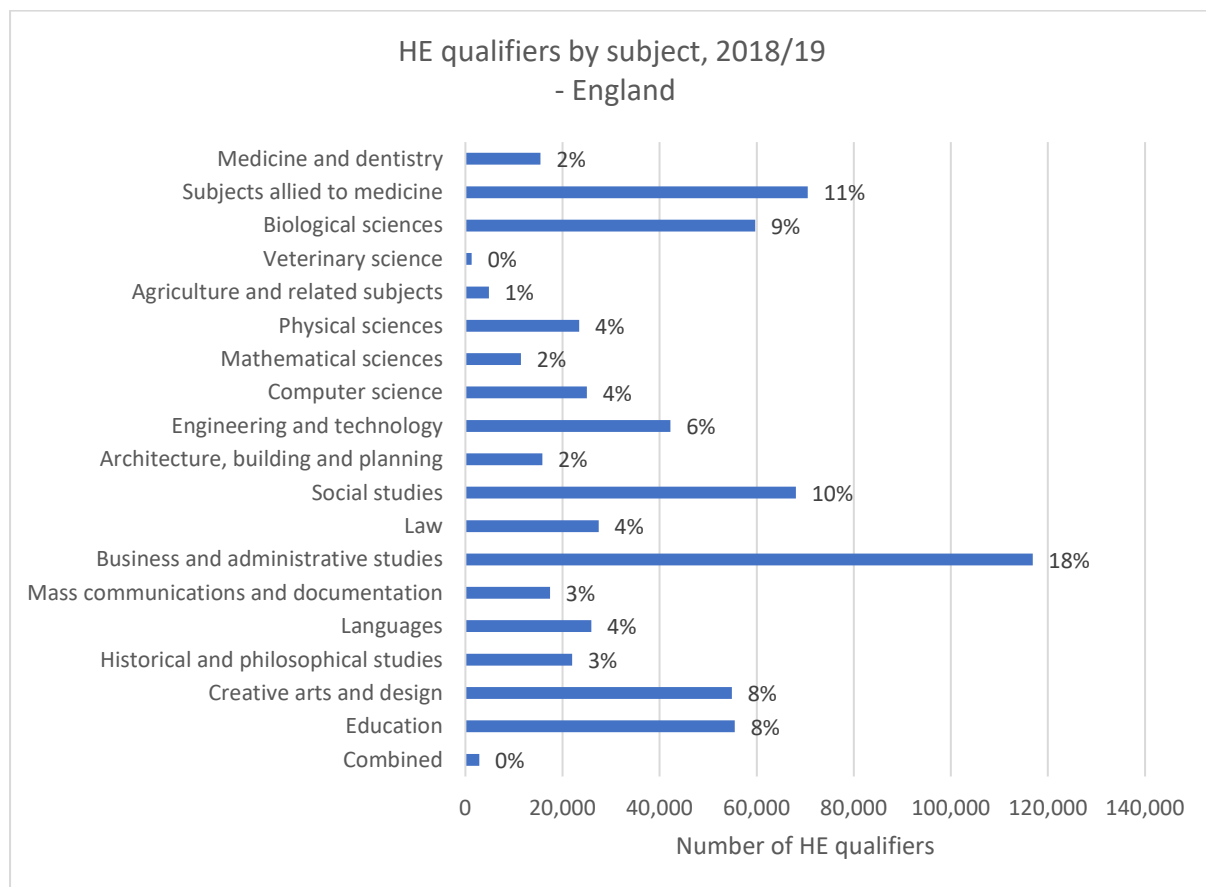
- With five higher education institutions across the city-region, GM has a very large student population of over 100,000.
- Distributions in terms of the subjects studied are very similar between GM and England (engineering/technology being the key point-of-difference (3 ppts in favour of GM)). This is potentially advantageous given GM's desire to develop its economy (and therefore employment) with a focus on advanced manufacturing.
- However, retaining graduates in GM after their studies remains a long-term challenge: the proportion who opt to stay has generally remained at about the 40% mark for the last 15 years.

Figure 2.4.1



Source: HESA, 2018/2019 qualifiers

Figure 2.4.2

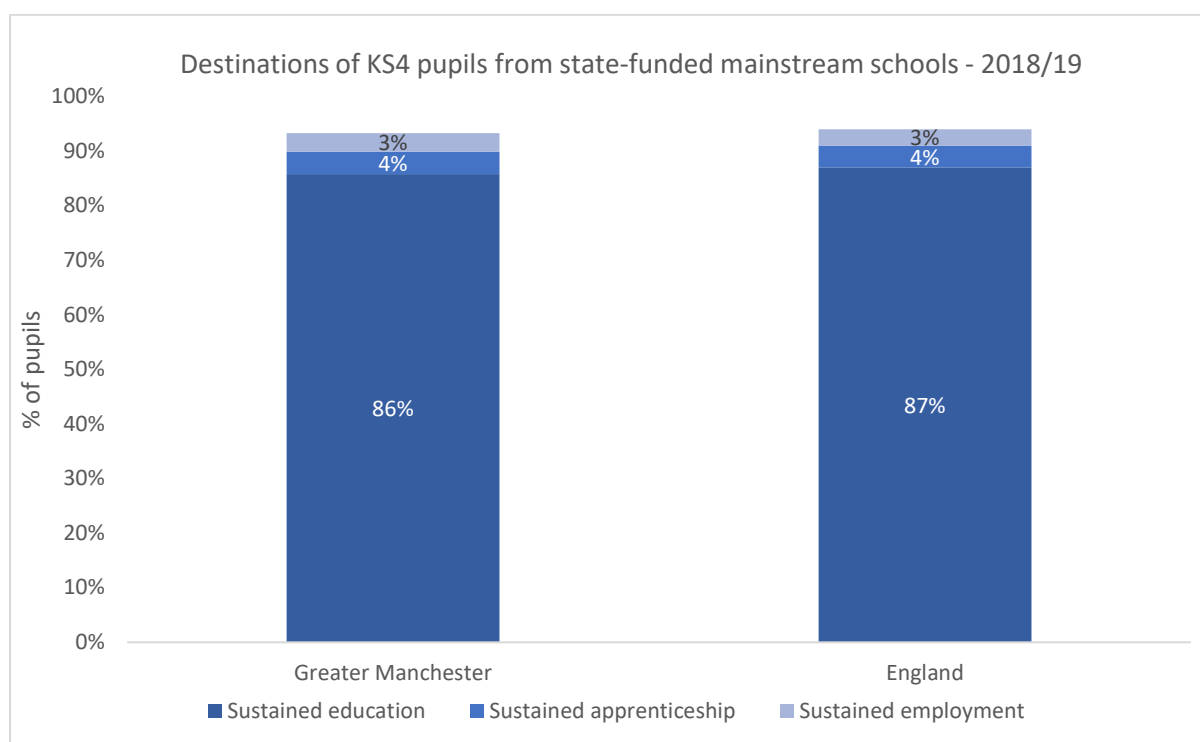


Source: HESA, 2018/2019 qualifiers

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.
- GM has the same percentage going to apprenticeships and employment (4% and 3%, respectively).
- However, GM has a higher proportion of pupils not sustaining any destinations (though by only 1ppt). This is an important focus for activity in GM, with new approaches to NEET prevention and reduction currently being tested through the Future Workforce Fund, a collaboration between GMCA and The Prince's Trust, which aims to support over 6,000 young people and young adults who are NEET or at risk of becoming so.

Figure 2.5



Source: *KS4 Destination Measures, DfE, 2018/19*

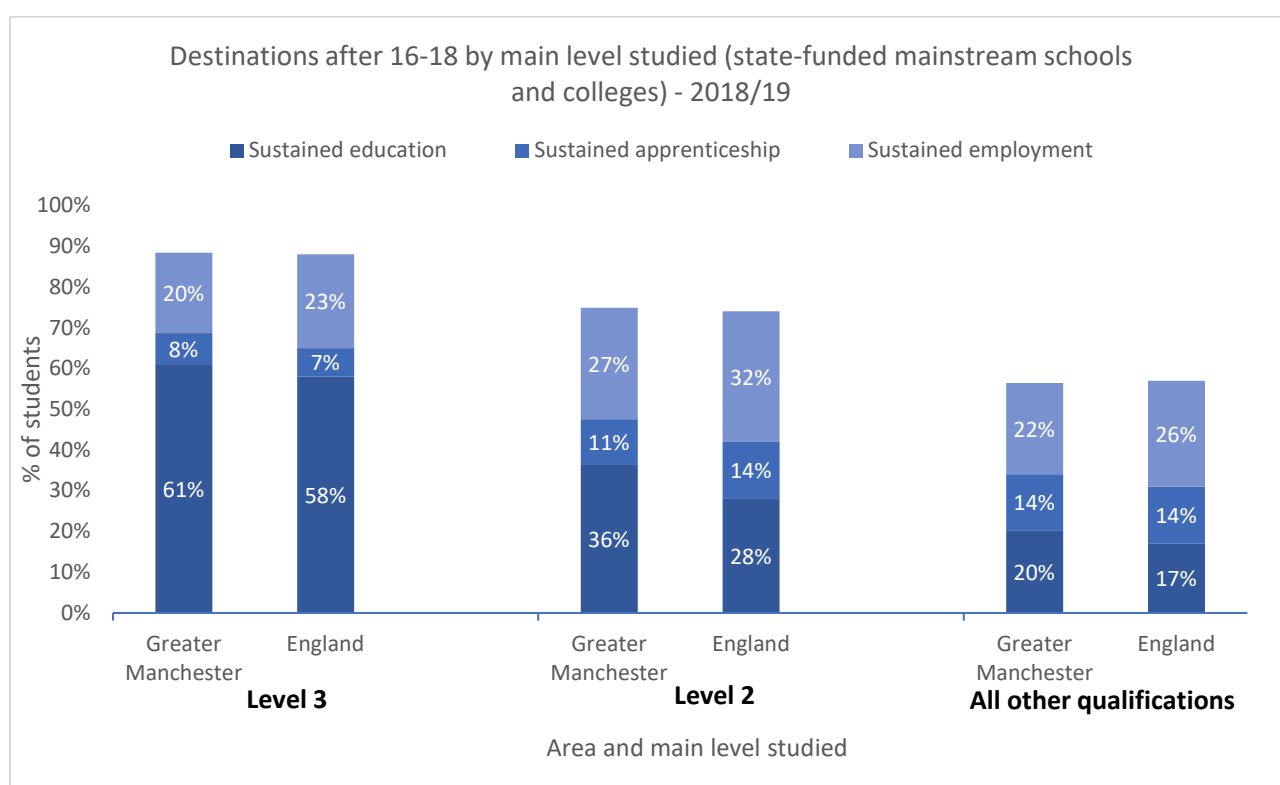
2.6 KS5 destinations

- More 16-18 students sustain an education destination after their KS5 L3 studies compared to England as a whole (3 ppts more; 61%). 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 (8% for GM, 7% for England).
- Adding these proportions up leaves 89% 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 in their aftermath. For destinations that are sustained, more are in education for GM compared to apprenticeships and work routes, with education potentially being seen as a safer long-term proposition (as well as safer in the short term in the current economic climate) than an apprenticeship or going straight into work. This might also reflect the number 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, 2018/19

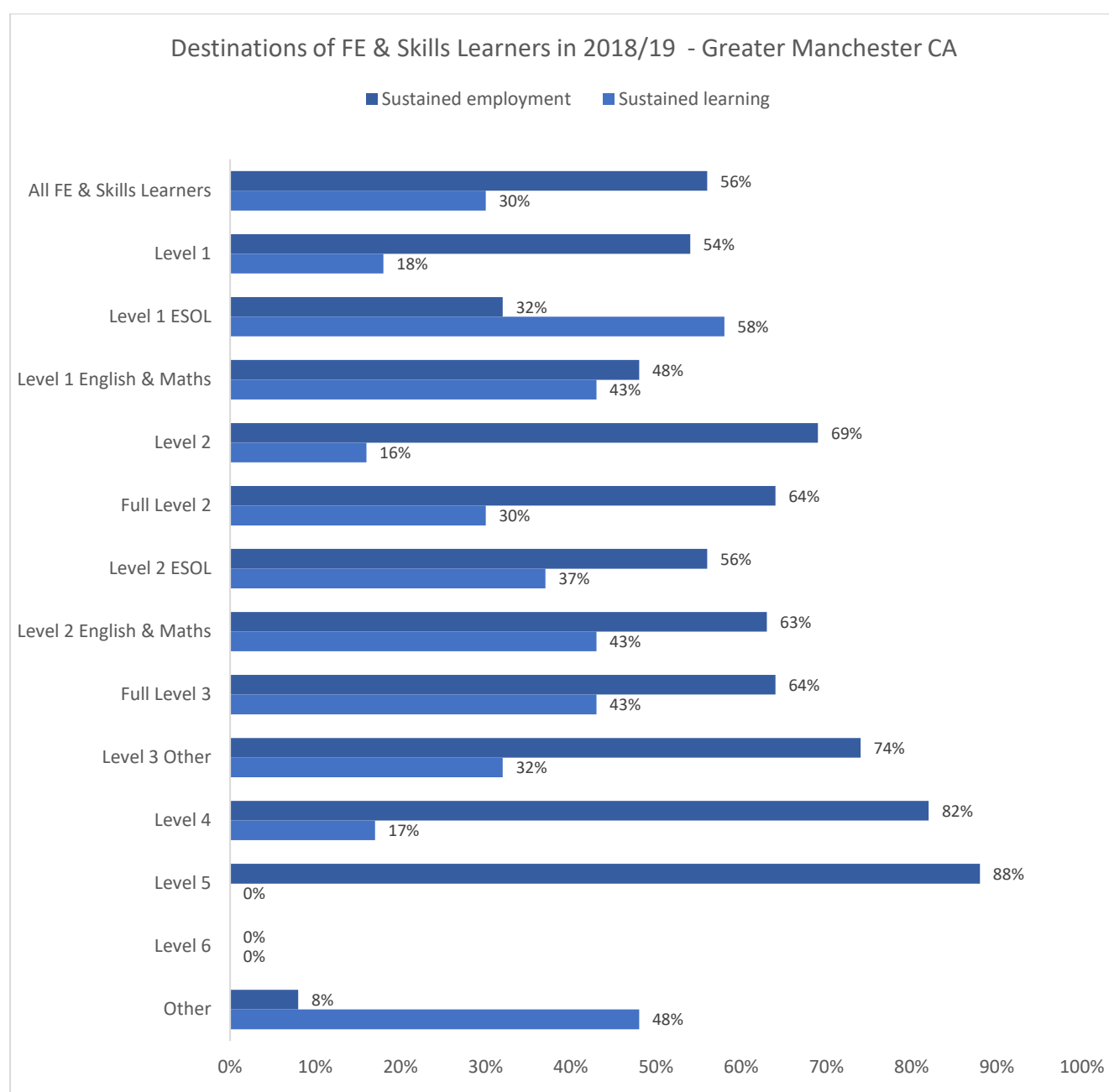
2.7 FE and skills destinations

- 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.
- Level 1 ESOL (along with the 'other' category) is the only course type where more GM students sustain learning after completion, as opposed to entering

sustained employment. This could be indicative of wider skills needs that go beyond English for ESOL learners.

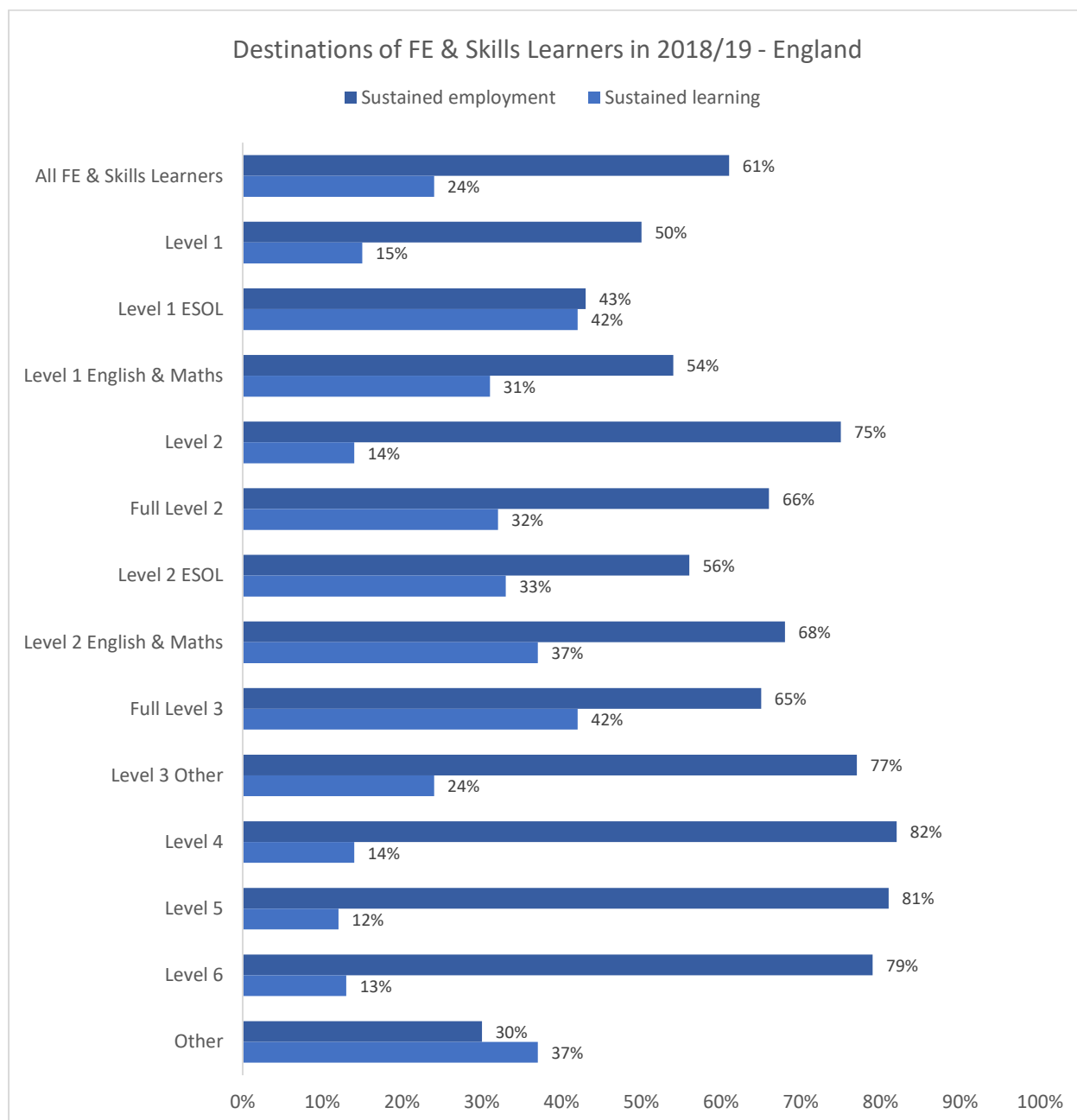
- Whilst it might be expected that lower level qualifications are less likely to lead to work, more than half of those completing a Level 1 qualification and two thirds of those completing Level 2 go into sustained work afterwards. Whilst progression into employment is a positive outcome in some regards, 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, 2018/19 destinations, DfE

Figure 2.7.2

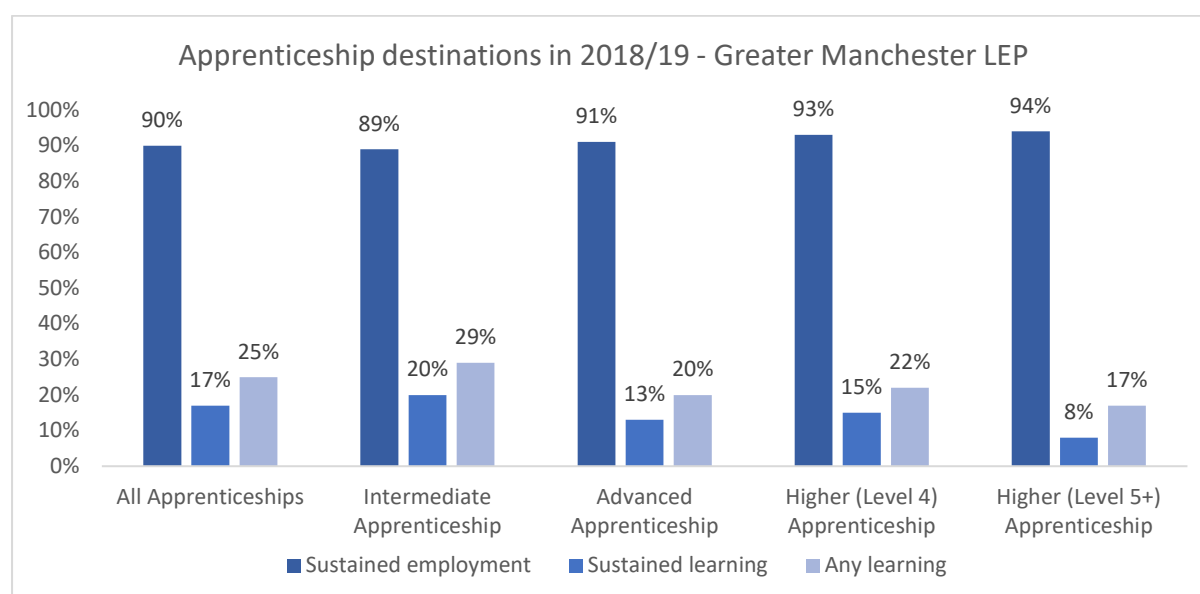


Source: FE outcome-based success measures, 2018/19 destinations, DfE

2.8 Apprenticeship destinations

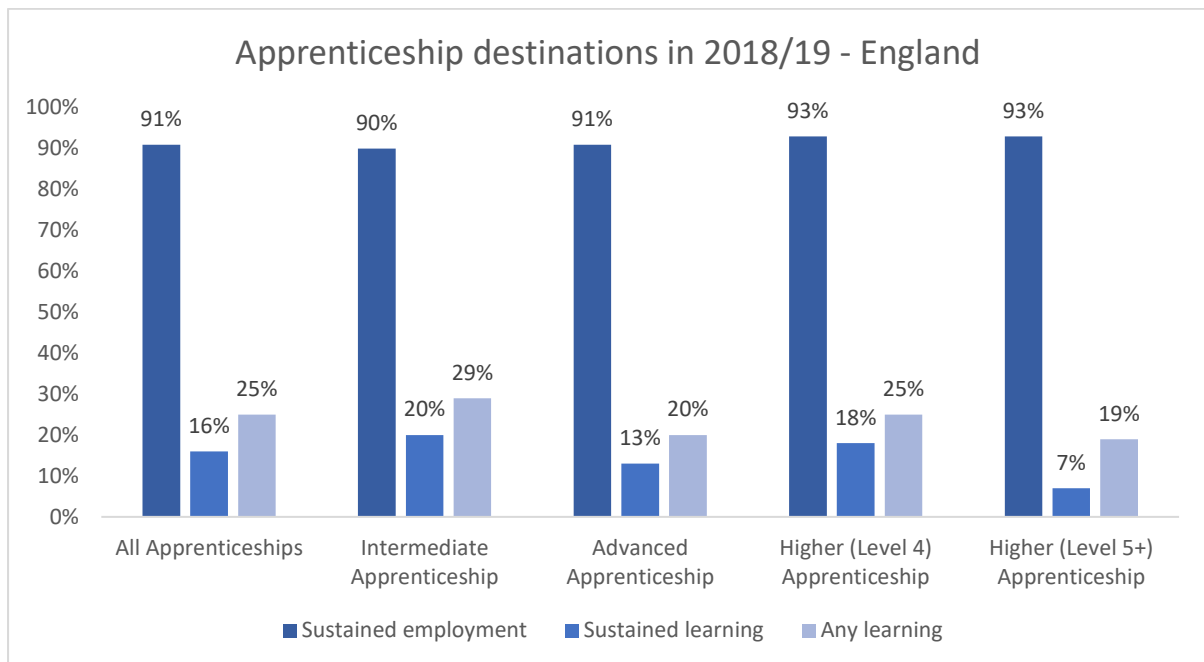
- Apprenticeship destinations in GM broadly reflect those for England as a whole. A large proportion of apprenticeship finishers move on to employment (90% for all apprentices in GM, 91% in England) and the proportion sustaining further learning is also comparable.
- The tendency to go into sustained 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 (learning as a destination tends to decrease with higher level apprenticeships).

Figure 2.8.1



Source: FE outcome-based success measures, 2018/19 destinations, DfE

Figure 2.8.2

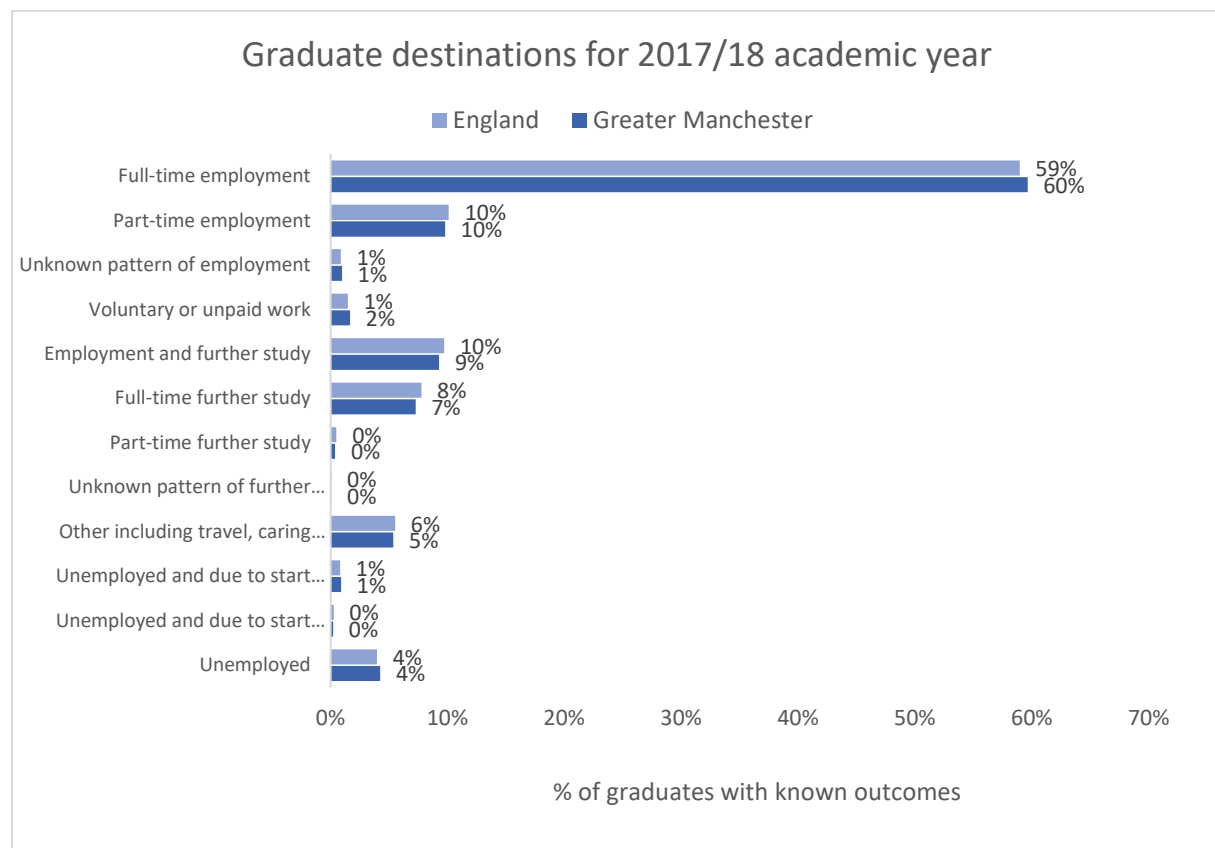


Source: FE outcome-based success measures, 2018/19 destinations, DfE

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 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: HESA, 2017/18 graduates

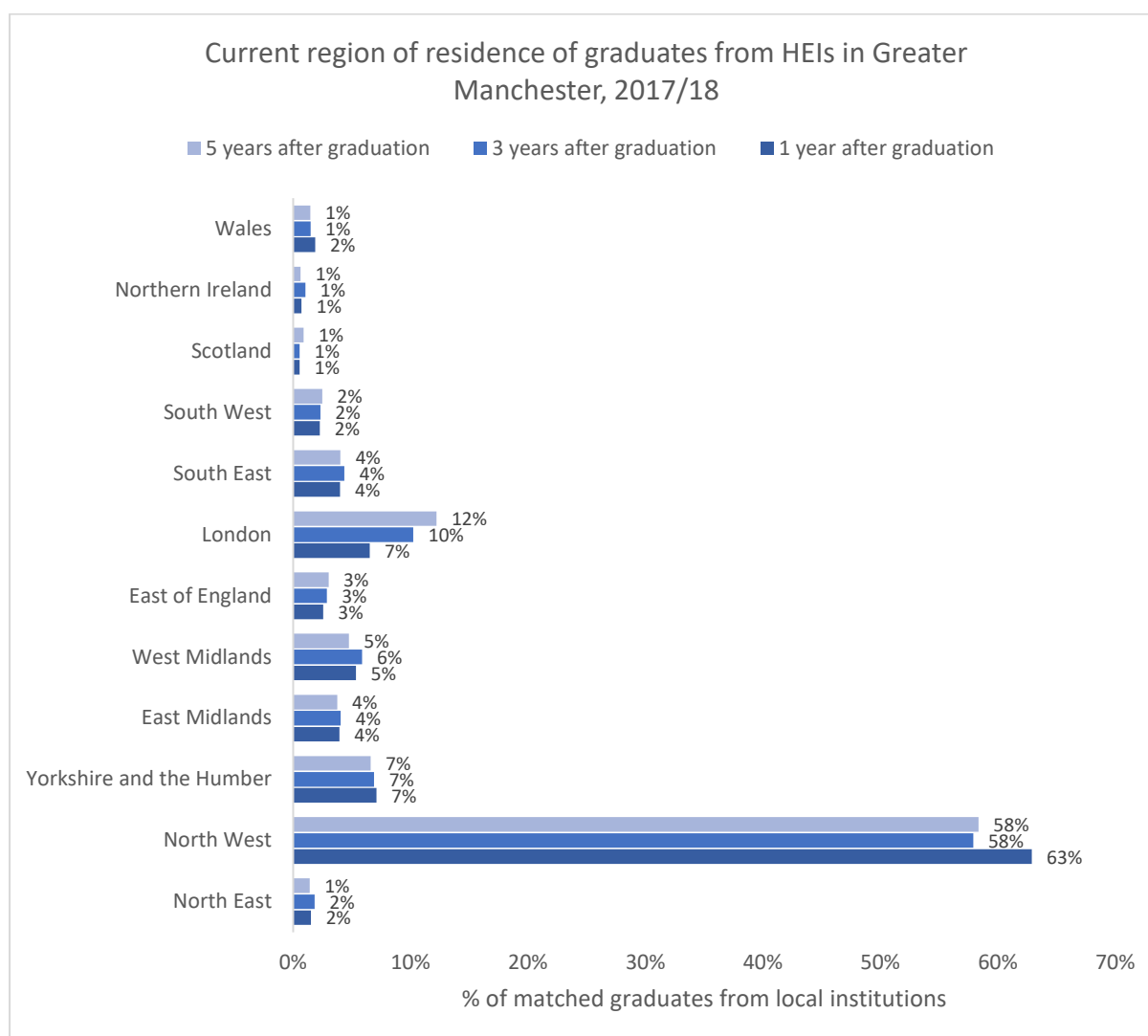
2.10 Graduate retention

- 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

3 years of graduating (from 63% to 58%), 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 the leavers, which wouldn't be surprising, not least because of the attraction of higher average salaries.

Figure 2.10

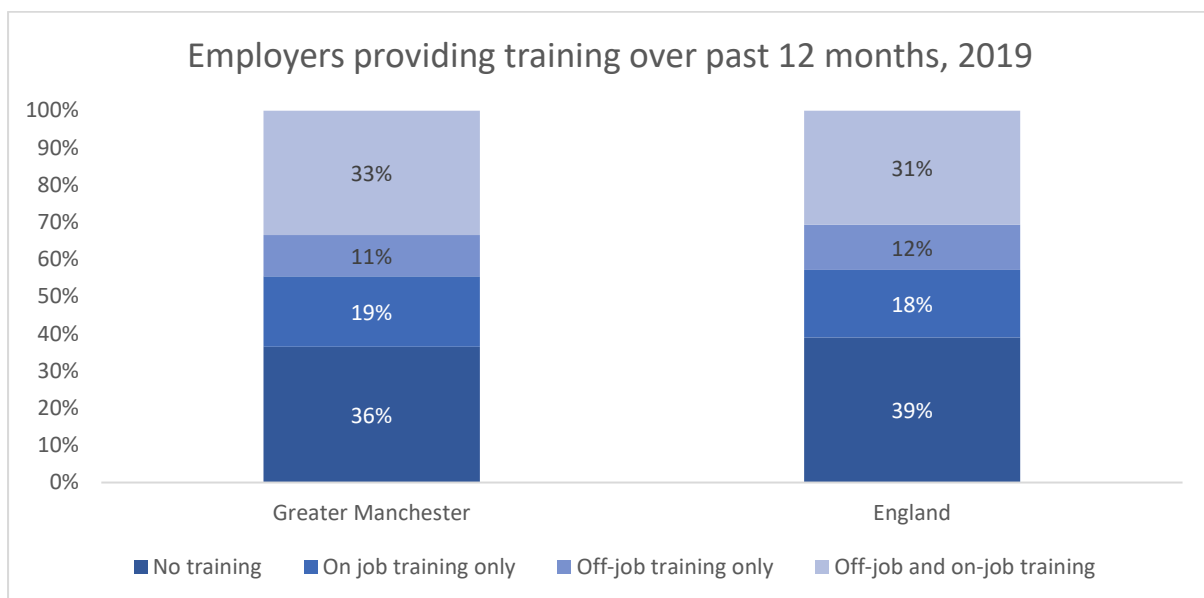


Source: Graduate Outcomes in 2017/18, DfE

2.11 Employer provided training

- GM's training story appears relatively positive compared to England: although 36% of employers provided no training in 2019, the comparable figure was slightly higher for England. Off-the-job training was the only area where GM lagged England (11% of employers vs 12%).
- 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 a significant proportion of employers are providing no training.

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 (eg. 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 adverts picked up again towards the end of 2020 and on into early 2021.
- Local analysis, however, has indicated that the nature of vacancies has shifted, with increased propensity for employers to offer fixed term, project based vacancies, and a reduction in entry level roles as a proportion of the overall quantum of vacancies, which is a concern in terms of enabling labour market entry for young people and those who have struggled to enter/return to work.

3.1 Sector growth forecasts

- 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.
- IT and professional services roles are consistent with a developing digital 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 aren't surprising, given GM's continued transition to a more services-oriented economy.
- However, the ongoing decline of engineering and manufacturing, as well as the sub-sectoral nuances, is an area of possible concern for the future.

Figure 3.1

Greater Manchester LEP	
Sectors with highest forecast growth (2017-2027)	Sectors with lowest forecast growth (2017-2027)
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

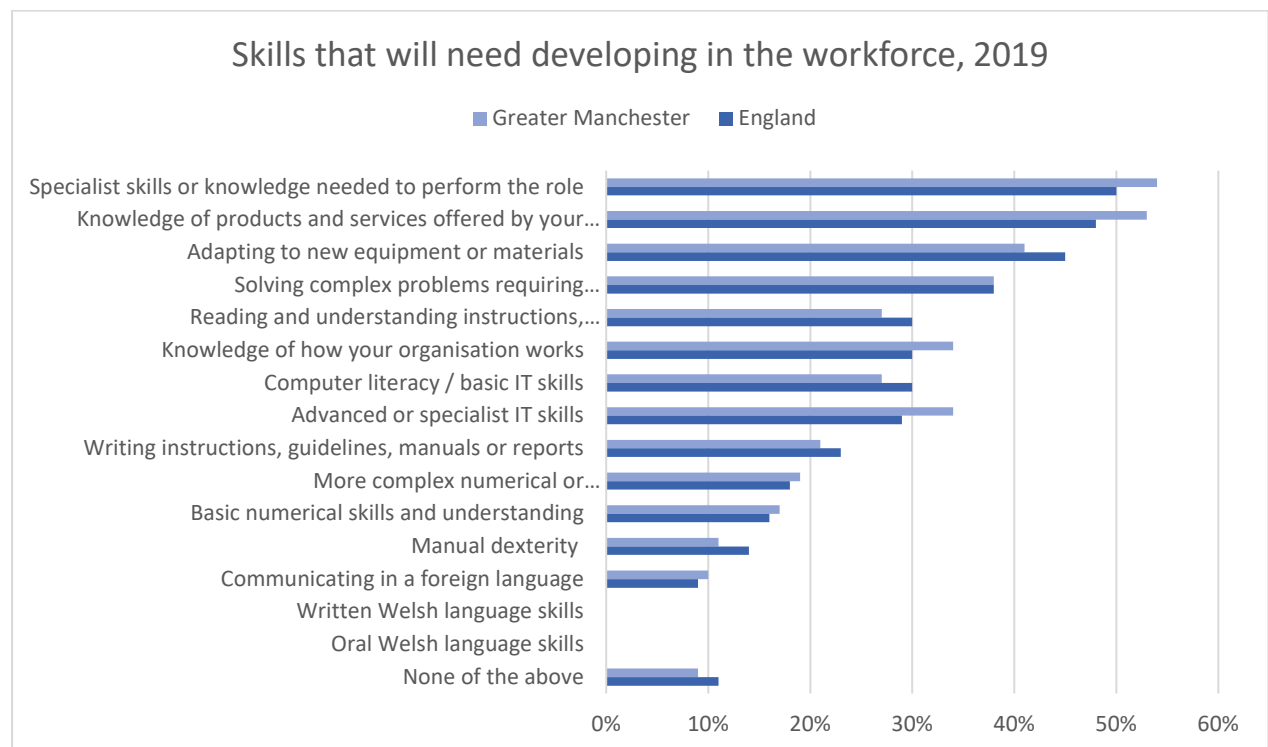
Greater Manchester LEP	
Occupations with highest forecast growth (2017-2027)	Occupations with lowest forecast growth (2017-2027)
1) Caring personal service occupations	1) Secretarial and related occupations
2) Customer service occupations	2) Process, plant and machine operatives
3) Health & social care 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. For example, specialist skills or knowledge and knowledge of products and services ranked highly for both geographies (with a minimum of 48% of companies wanting these to improve across their businesses), as did a desire to grow these skills in their workforces.
- 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.
- A high proportion of GM businesses also want more of their employees to understand the products and services their business offers and the workings of their organisation, highlighting the importance of employers investing their own expertise in workforce development, not solely relying on the publicly funded skills and employment support system.

Figure 3.3

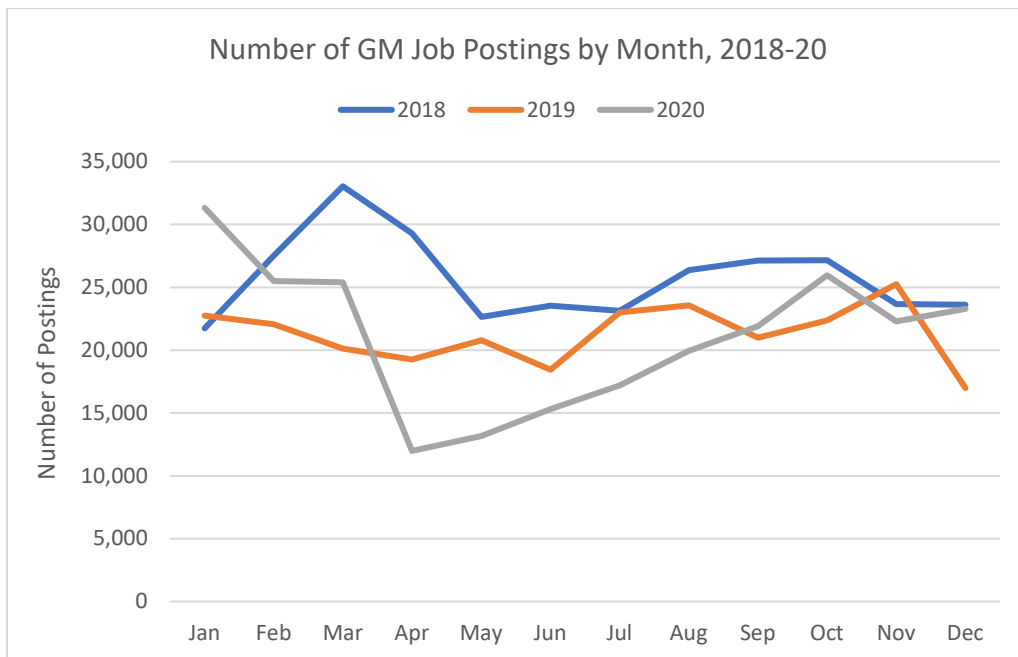


Source: *Employer Skills Survey, 2019*

3.4 Vacancies

- The March-April 2020 vacancies drop was understandably very steep due to the first national Covid lockdown. However, there are some other visible periods of significant decline in previous years (e.g. spring of 2018 and end of 2019).
- There was a sustained gradual increase in vacancies post-April 2020. In October they were back up above 25,000 p/m (similar to Feb and Mar). As seems typical for the time of year, vacancies generally declined towards the end of 2020.

Figure 3.4

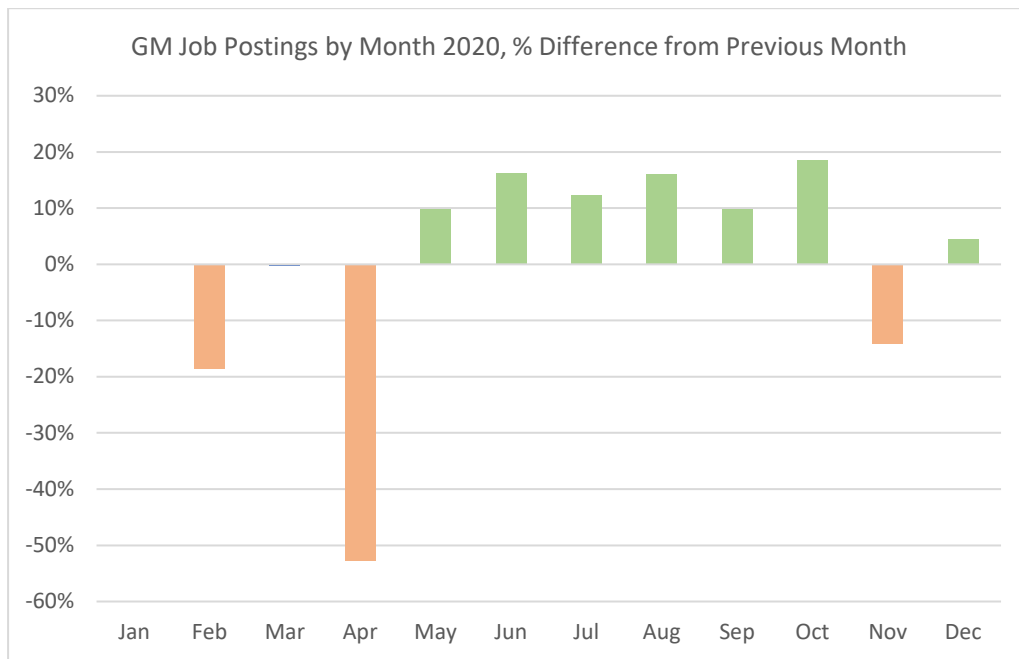


Source: Labour Insight/Burning Glass

3.5 Vacancies: month on month through 2020

- The April drop is put into clear terms below - the vacancies fall was over 50% vs March's level.
- The sustained post-April recovery in vacancies is also visible, given that month-on-month increases occurred all the way until November.
- It is worth noting that the nature of some of the vacancies was different to customary recruitment behaviour in 'steady state', with a reduction in entry level roles (which has implications for those looking to enter the labour market for the first time), as well as an increase in shorter fixed-term contracts, suggesting that many employers were looking to fill vacancies on a temporary project basis rather than committing to permanent roles.
- This balance in terms of the nature of vacancies will bear watching in 2021 in order to give a sense of employer confidence/stability, taking account of further periods of disruption relating to Covid, as well as other economic influences such as the unfolding impact of Brexit

Figure 3.5

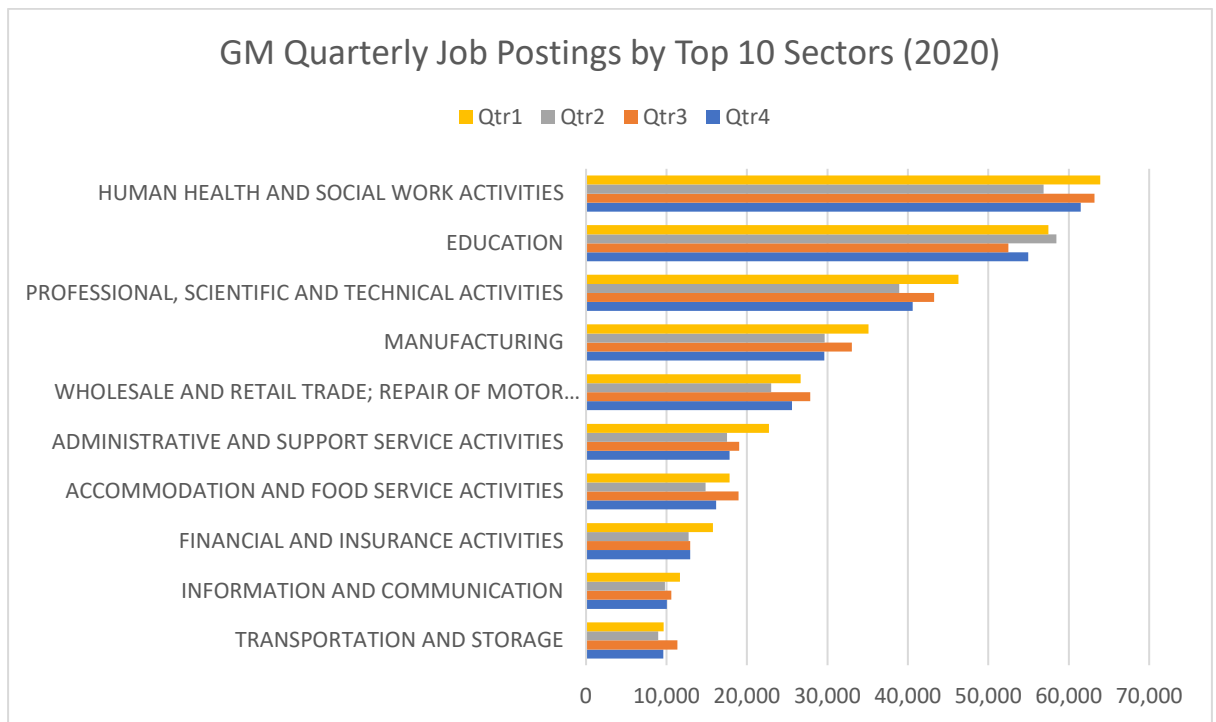


Source: Labour Insight/Burning Glass

3.6 Vacancies: by sector and occupation

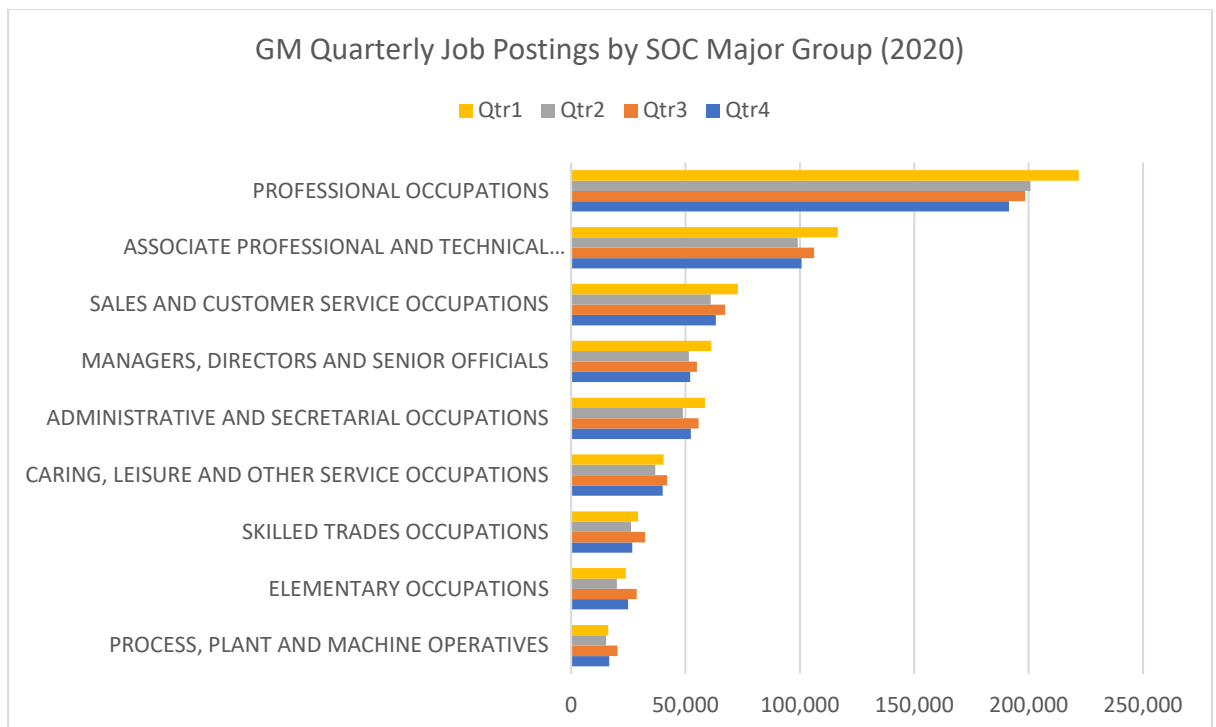
- As would be expected in the light of Covid-19 and repeated periods of lockdown/restrictions, vacancies at the end of 2020 were lower than at the start for all sectors.
- The sectors bucking the trend of reductions were those which linked directly or closely to elements of the pandemic response: vacancies were typically high in GM across health and social work; education; and professional/scientific activities.
- 2020 vacancies were highest in GM for professional/professional & technical occupations.
- Vacancies at the end of the year were lower than at the start for most occupations. The three exceptions were: caring, leisure and other service occupations; elementary occupations; and process, plant and machine operatives.

Figure 3.6



Source: Labour Insight/Burning Glass

Figure 3.7



Source: Labour Insight/Burning Glass

A4 MAPPING SUPPLY AND DEMAND FOR SKILLS

Skills Supply and Demand – Summary

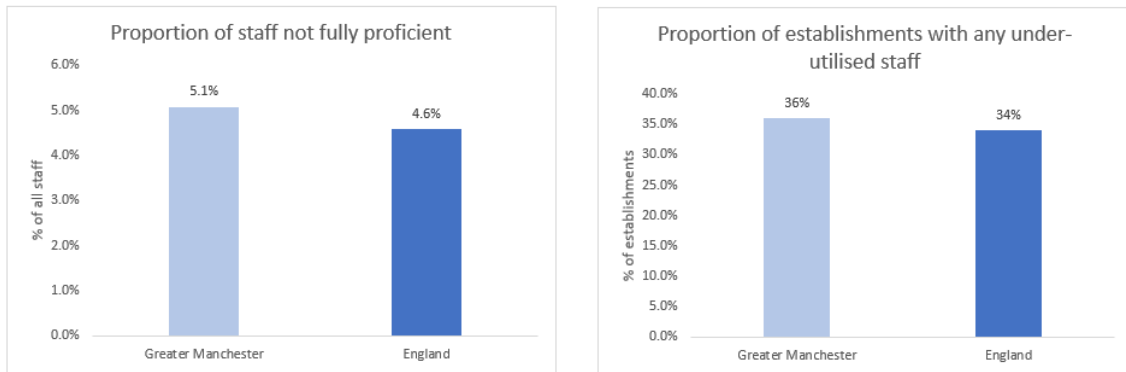
- GM's population overall is comparatively low skilled and has a slightly higher proportion of not-fully-proficient staff (as reported by employers) than the national average.
- The match between skills delivery and the labour market, while not unreasonable given employer demand, can be improved.
- However – and crucially – under-utilisation of skills runs at a higher level than lack of staff proficiency or skills shortage vacancies: in GM, there was a greater degree of under-utilisation than the national average.
- In the wake of the pandemic, this issue of under-utilisation might increase: 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.

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.
- However, staff under-utilisation runs at a much higher level than missing proficiencies: 36% of firms reported under-utilisation 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

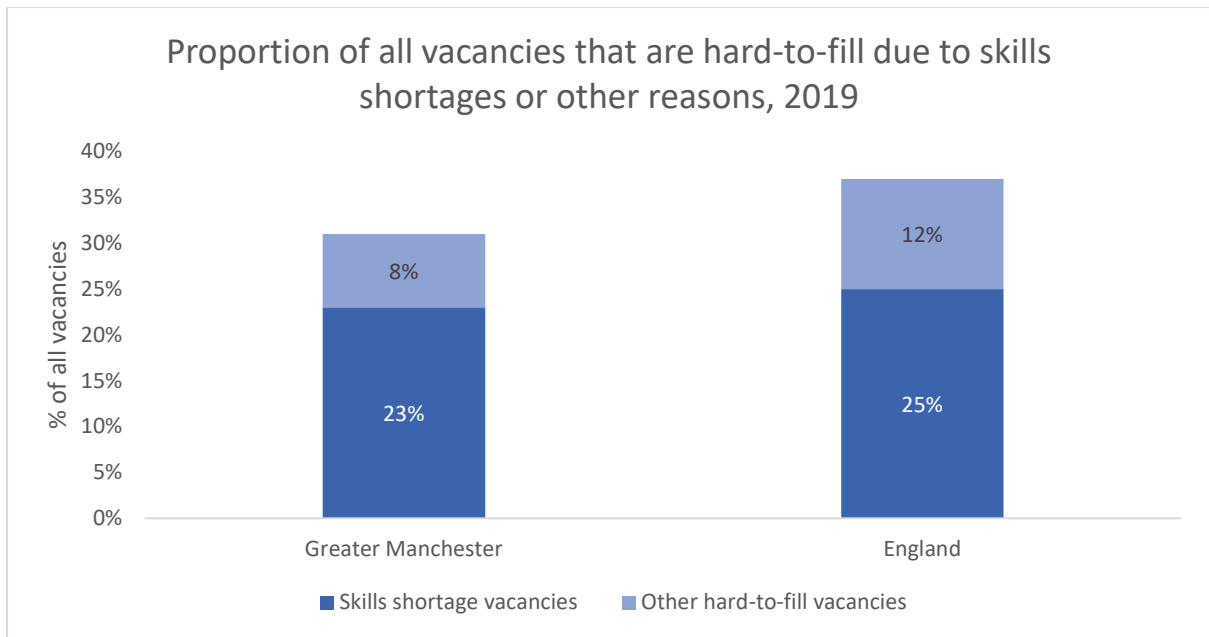


Source: *Employer Skills Survey, 2019*

4.2 Hard-to-fill and skills shortage vacancies

- Total hard-to-fill vacancies and the proportion of those vacancies that employers attribute to a skills shortage accounted for 31% of all vacancies in GM; almost 1 in every 3 open roles experienced such a hiring issue.
- 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

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

Summary

- The impact of Covid 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 a national issue (so far).
- Inflation adjusted median pay demonstrates 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 skills profile of the districts of GM are significantly different. This has the effect at the city regional level (ie. GM) of averaging sharp divergence. The difference between GM and other city regions of the UK on skills profile is more modest.
- Skills mismatch issues appear in some parts of GM to a striking degree (notably Oldham). This is mismatch both in terms of oversupply (over-qualification and under-utilisation of skills) and undersupply (employers reporting skills shortage vacancies).
- Analysis has been undertaken at a district level to forecast growth/contraction of different occupational areas in each part of GM linked to labour market forecasting over the next 15 years. Whilst the forecasting pre-dated the pandemic, there remain some clear areas in which we can use this data in conjunction with our qualitative industry intelligence reports to identify occupationally relevant/transferrable skillsets and develop pathways from contracting sectors to growing ones.

Regular reviews of skills, and assessments of the relationship between skills development, employment support, the labour market and the economy, have been

undertaken relatively frequently within GM. This process pre-dates current political and administrative structures and can be traced back to the time of the *Manchester Independent Economic Review* of 2008, believed to be the first ever independent investigation of a city region in the UK¹. More recently, [GM's Industrial Strategy](#) has also encompassed an [GM Independent Prosperity Review](#), again led by leading independent economists². GMCA takes steps to ensure skills and work data is publicly available, easy-to-access and interpret via dashboards on its website (the annual [Labour Market and Skills Review](#)).

Further reviews were undertaken as part of an Industrial Strategy partnership in which officials from GM and from the Department for Education and the Department for Work and Pensions agreed to work together to tackle pressing labour market challenges defined through a shared evidence base. GMCA takes steps to ensure skills and work data is publicly available, easy-to-access and interpret via dashboards on its website (the annual [Labour Market and Skills Review](#)).

GM's understanding of skills and work has been informed by this evolving evidence base over time. It highlights both how much has changed and the extent to which some issues remain outstanding. For example, GM has seen significant improvements in its workforce qualification profile over the last decade (both in level 4+ skills and in sharp reductions in the proportion without any qualifications). Yet the city-region's skills profile still lags behind national benchmarks and productivity growth remains weak. The analysis that follows draws out some of the key challenges, strengths and forecasts needs in Greater Manchester's labour market.

B1 LABOUR MARKET

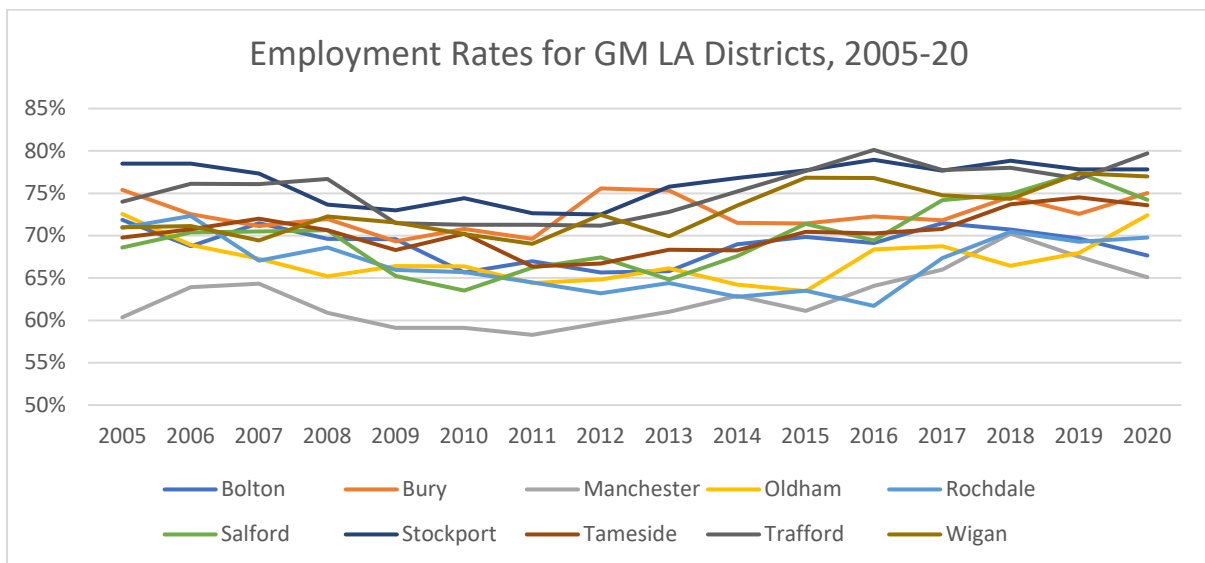
B1.1 Employment, unemployment and inactivity

¹ Manchester Independent Economic Review, *Understanding Labour markets, Skills and Talent*, 2009

² Greater Manchester Independent Prosperity Review, *Reviewers Report*, GMCA, 2019, https://www.greatermanchester-ca.gov.uk/media/1826/gmis_reviewersreport_final_digital.pdf. The GMIPR was also revisited and revised in the light of Covid. Greater Manchester Prosperity Review: One Year On, September 2020. [gmipr_one-year-on.pdf \(greatermanchester-ca.gov.uk\)](#)

- Alongside falls in employment and rises in unemployment as a result of the Covid-19 economic crisis, there have been notable rises in economic inactivity. This is most apparent in the North West of England, but GM as a major city region of the NW is also affected.
- Data from the LFS (for the NW) and from the Annual Population Survey (for GM) – although for slightly different time periods – demonstrate this phenomenon. Below we compare March 2020 (the month of the first lockdown) with the most recent data at the time of writing from the autumn/winter of 2020.
- This is a significant policy challenge: as noted in the main report, a key focus for GM's ESAP throughout 2020/21 has been to balance emerging and existing needs. This shift from long term unemployment into economic activity illustrates the importance of that balance and the risk of further displacement facing those on the fringes/outside of the labour market.

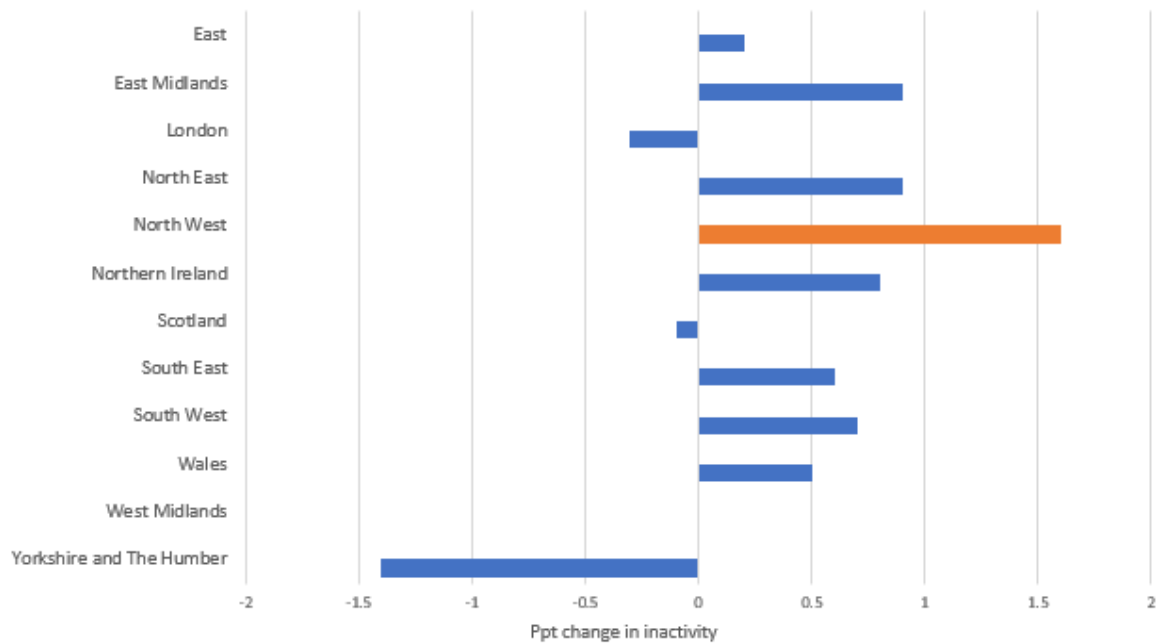
Figure B1.1.1



Source: Annual Population Survey, 2005-20

Figure B1.1.2

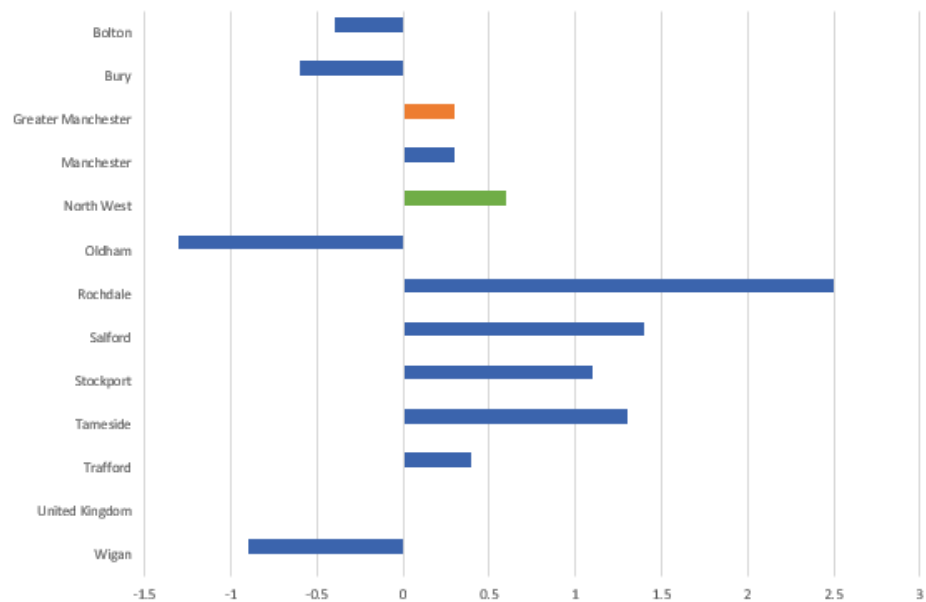
Change in economic inactivity (16-64) by region (ppt change), Jan-Mar 2020 to Sep-Nov 2020



Source: Labour Force Survey, Jan-Mar 2020 and Sep-Nov 2020

Figure B1.1.3

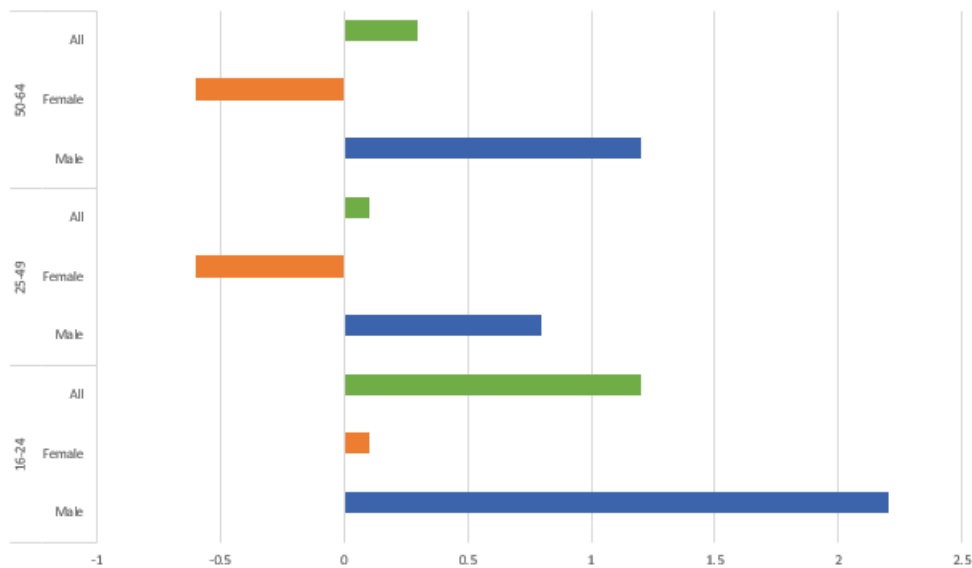
Change in economic inactivity (16-64), April 2019-March 2020 – October 2019-September 2020 (ppts change)



Source: Annual Population Survey, Apr 2019-Mar 2020 and Oct 2019-Sep 2020

Figure B1.1.4

GM change in economic inactivity (16-64), by age and gender, April 2019-March 2020 – October 2019-September 2020 (ppts change)

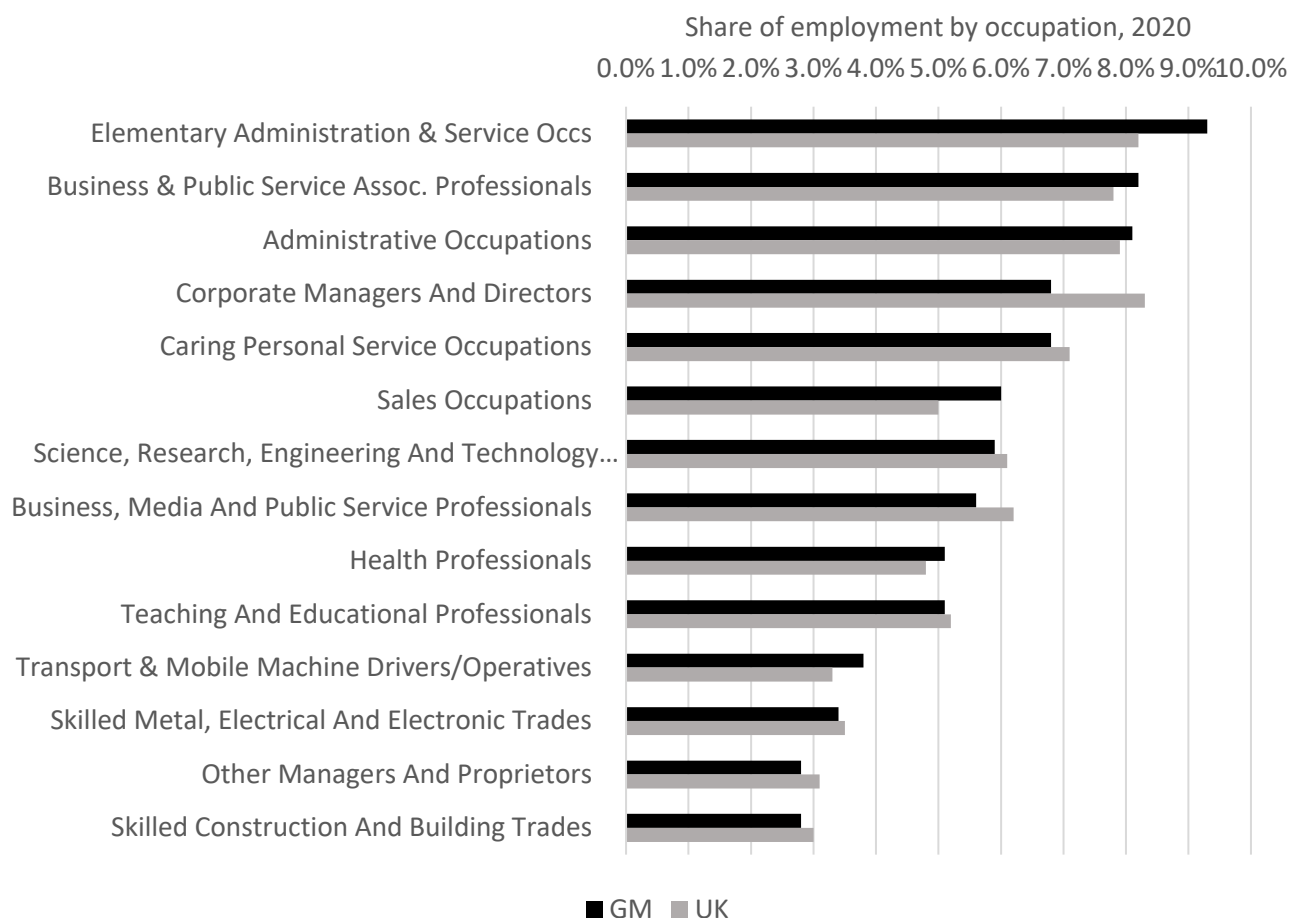


Source: Annual Population Survey, Apr 2019-Mar 2020 and Oct 2019-Sep 2020

B1.2 Occupational variations

- Although occupational profiles were covered in Annex A, the core indicators do not bring out occupational variations, and the relative strengths/vulnerabilities of different parts of the labour market in GM compared to the UK more broadly. The chart below shows GM's higher proportion of the workforce in areas such as sales, elementary jobs in services and in other occupational areas such as transport, illustrating both the links between labour market composition and low skills/low pay.
- Individual districts in GM will have very different occupational profiles and therefore face different challenges. For example, Manchester Airport is a significant employer in Manchester and in Trafford, Media City is a major digital/media employer in Salford, while the logistics sector is also very prominent in districts such as Rochdale, Bolton and Oldham.

Figure B1.2

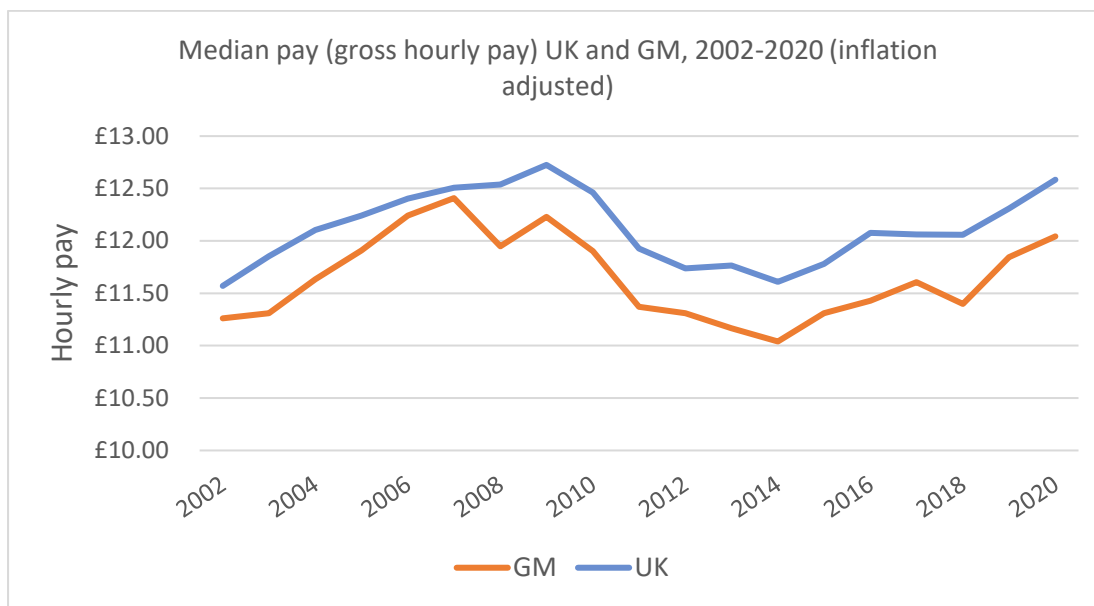


Source: Annual Population Survey

B1.3 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, with that impact being most apparent in pay levels. GM workers earned less in real terms than prior to financial crisis in 2020 (£12.41 median hourly pay in 2007 vs £12.04 in 2020).
- GM pay is consistently below UK levels (a gap of just under £0.50p an hour is typical). Pay growth has remained weak. GM experienced 5.4% growth between 2016 and 2020.

Figure B1.3

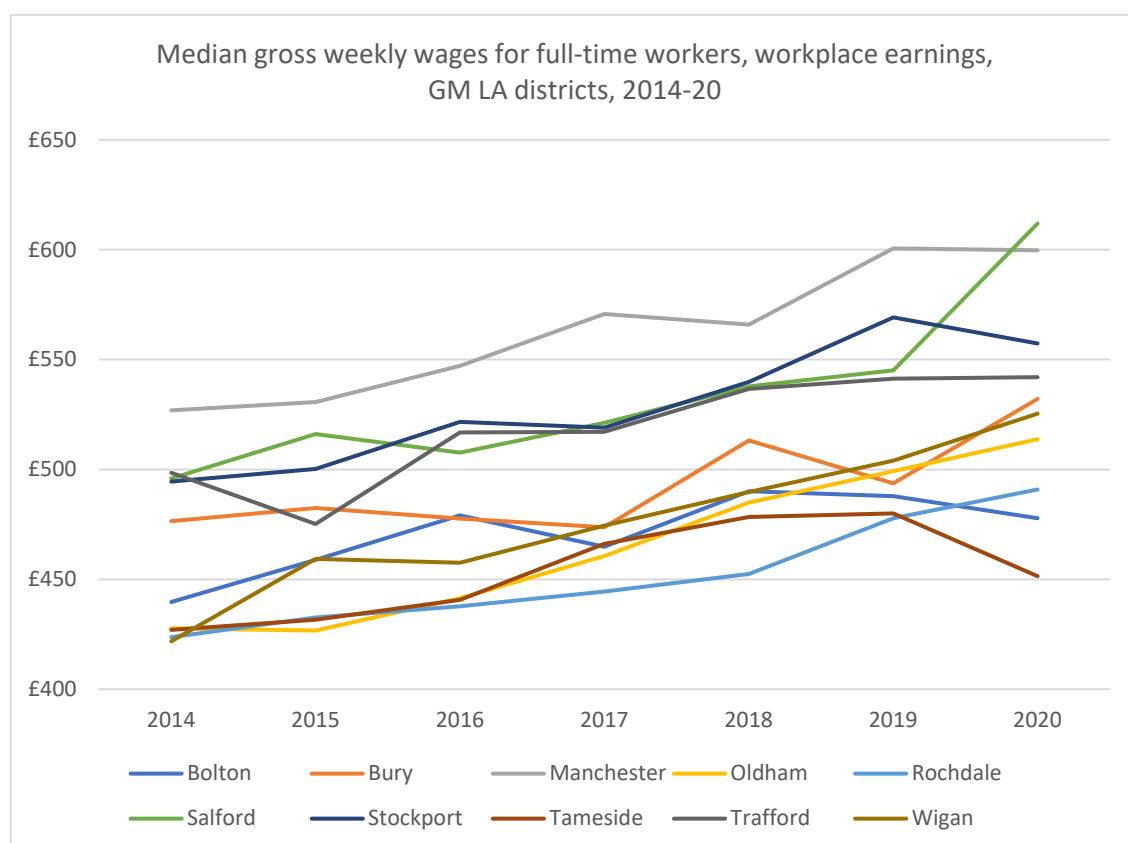


Source: Annual Survey of Hours and Earnings (workplace data), 2020

B1.4 Low pay

- In 2020, 220,000 people earned below the level of the living wage in GM. In 2019, it was 227,000. Whilst as a proportion, those earning below a living wage is slightly lower than a few years ago, it has remained slightly above a fifth of the working population for several years.
- Once again, however, there are significant variations at district level. In parts of GM (e.g. Tameside the proportion of workers earning below living wage is closer to a third).

Figure B1.4.1



Source: Annual Survey of Hours and Earnings, 2014-20

Figure B1.4.2

Proportion of workers earning below a living wage, 2013-2020

	2013	2014	2015	2016	2017	2018	2019	2020
Bolton	27.4	28	25.8	23.4	24.8	27.7	24.4	27.0
Bury	21.7	26.4	27.6	29.3	27.1	27.7	25.8	22.4
Manchester	16.4	17.2	15.8	18	15.3	17.6	13.0	15.7
Oldham	32.3	33.7	32.9	32.1	30.2	27.6	25.1	22.6
Rochdale	26.7	32.6	29.6	32	29	29.9	23.0	25.0
Salford	16	17.4	19.9	21.3	16.5	18.5	16.9	14.5
Stockport	20.4	23.2	23.9	25.5	25.6	26.3	20.8	19.4
Tameside	25.6	24.7	25.8	28.9	25.7	25.4	25.3	31.2
Trafford	24.7	24.7	26.2	27.3	25.3	23.7	22.6	23.3
Wigan	26.4	30.2	28.4	31.9	29.3	31.5	27.6	24.3
GM	21.7	23.3	23	24.4	22.0	23.5	19.7	20.4
UK	20.8	22.6	22.8	22	22.2	22.9	20.0	20.3
Living Wage*	£7.45	£7.65	£7.85	£8.25	£8.45	£8.75	£9.00	£9.30

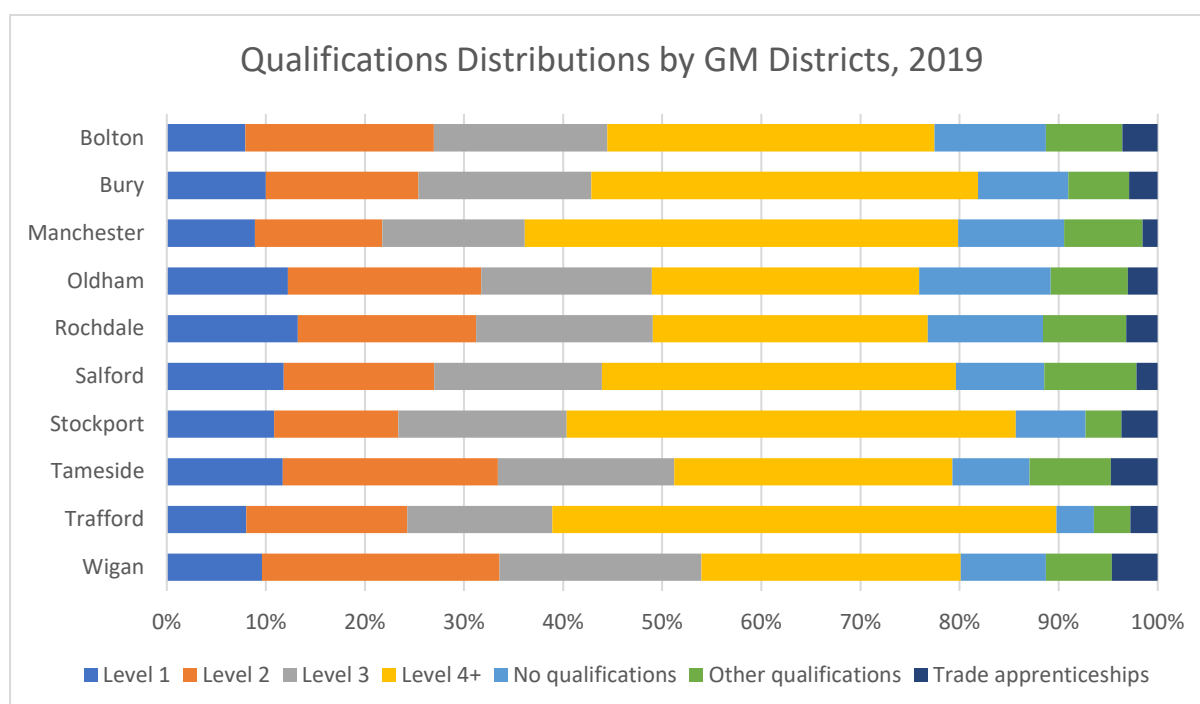
Source: Annual Survey of Hours and Earnings (workplace data), 2020

B2 SKILLS SUPPLY

B2.1 Qualification levels

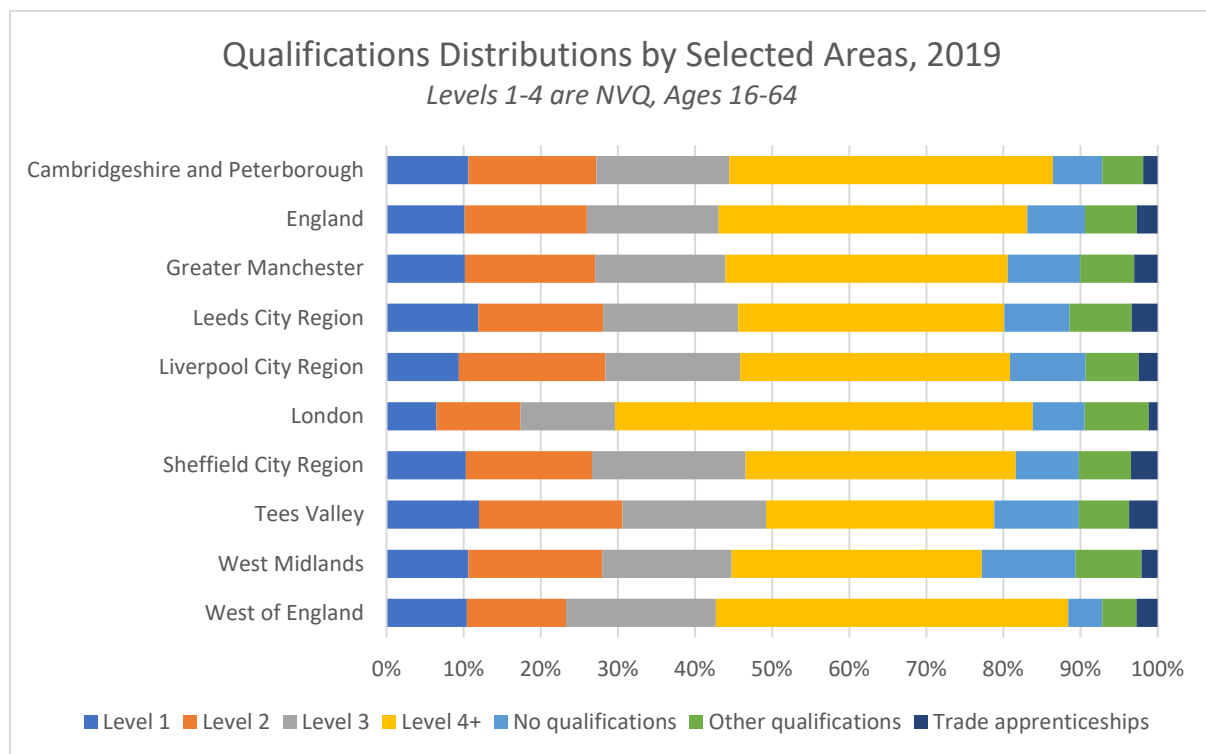
- Differences in the skills profile of GM compared with other broadly comparable major city regions are relatively small. If we compare GM with other city regions on the proportion with level 4+ skills, it is apparent that some have a smaller L4+ cohort (Tees Valley, West Midlands and Leeds/Liverpool City Regions), but London and Cambridgeshire & Peterborough have notably higher shares. GM is 'mid-table' - in this respect.
- However, differences within GM are much more visible. This suggests that city regions may not be the best vehicles for understanding skills inequality and skills deprivation: averaging at city regional level will mask such differences. The likes of Trafford, Stockport, Manchester and Bury have large level 4+ cohorts, whilst Oldham and Rochdale have low ones. Note too that Oldham and Rochdale have high levels of their populations possessing no qualifications.

Figure B2.1.1



Source: Annual Population Survey, 2019

Figure B2.1.2



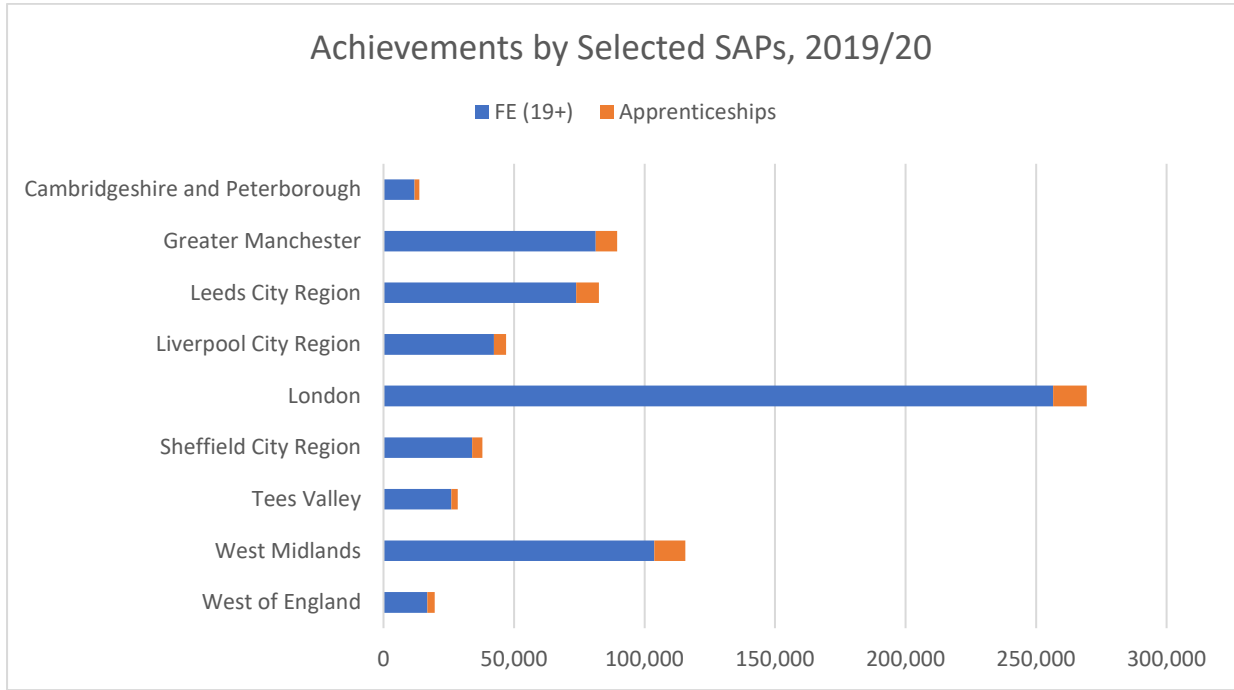
Source: Annual Population Survey, 2019

B2.2 FE (education and training) & apprenticeship achievements

- Data on apprenticeship and adult FE achievement levels typically reflect population. Ideally, this data would be standardised.
- FE and apprenticeship achievements appear to have a correlation with skills deprivation levels – i.e. tend to be higher in areas with skills disadvantages (e.g. Oldham) and lower in areas with a more qualified population (e.g. Trafford).
- Subject-wise, GM appears to have a notable skew towards retail FE achievements (after excluding ‘preparation for life and work’ achievements, 20% of all achievements were in this subject). For apprenticeships, there isn’t such an obvious subject skew. However, for both apprenticeships and FE, engineering and manufacturing achievements appear comparatively low.
- Arguably, such data is a loose reflection of the GM labour market. From the BRES data in Annex A we know that GM has higher than average retail employment and lower than average manufacturing employment (although if this argument was consistent, GM should also have higher achievements in health-related fields). However, this connects to debates about productivity

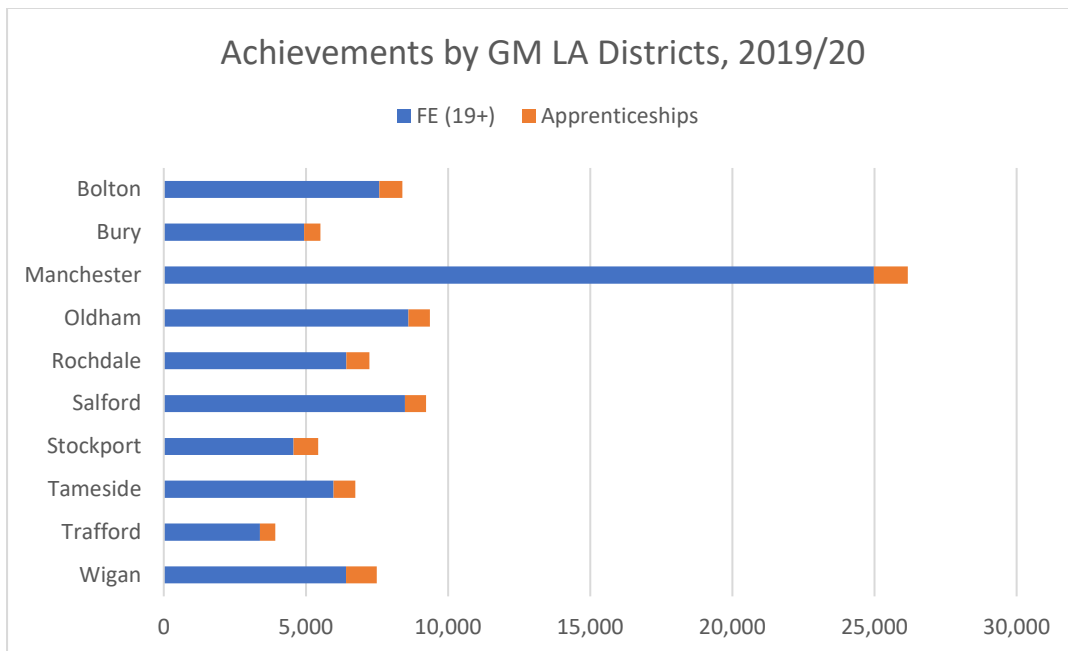
and low pay and the extent to which the skills system should reflect the current labour market or one which seeks to align with future priorities (in practice it needs to do both).

Figure B2.2.1



Source: Apprenticeships and FE data, DfE, 2020

Figure B2.2.2



Source: Apprenticeships and FE data, DfE, 2020

Figure B2.2.3

**FE (19+) achievements for selected city regions and England, by subject, 2019/20
(excluding *Preparation for Life and Work*)**

Subject	Cambridgeshire and Peterborough	England	Greater Manchester	Leeds City Region	Liverpool City Region	London	Sheffield City Region	Tees Valley	West Midlands	West of England
Agriculture, Horticulture and Animal Care	2%	2%	1%	1%	2%	2%	1%	0%	1%	2%
Arts, Media and Publishing	7%	5%	3%	3%	4%	10%	2%	1%	3%	8%
Business, Administration and Law	12%	14%	16%	16%	14%	14%	18%	12%	14%	17%
Construction, Planning and the Built Environment	2%	5%	5%	3%	9%	7%	4%	3%	7%	6%
Education and Training	2%	4%	5%	4%	5%	5%	3%	4%	5%	4%
Engineering and Manufacturing Technologies	3%	5%	3%	3%	8%	2%	6%	10%	5%	4%
Health, Public Services and Care	41%	31%	24%	33%	25%	23%	28%	42%	25%	28%
History, Philosophy and Theology	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Information and Communication Technology	6%	8%	8%	9%	5%	10%	9%	6%	11%	6%
Languages, Literature and Culture	5%	5%	5%	6%	4%	7%	5%	2%	6%	5%
Leisure, Travel and Tourism	3%	3%	2%	2%	3%	4%	2%	1%	3%	4%
Not Applicable/ Not Known	0%	1%	1%	0%	1%	1%	0%	1%	0%	0%
Retail and Commercial Enterprise	11%	11%	20%	12%	16%	9%	14%	14%	11%	9%
Science and Mathematics	5%	6%	7%	7%	6%	6%	6%	2%	7%	6%
Social Sciences	1%	1%	1%	1%	1%	0%	1%	1%	2%	1%

Source: DfE FE data, 2020

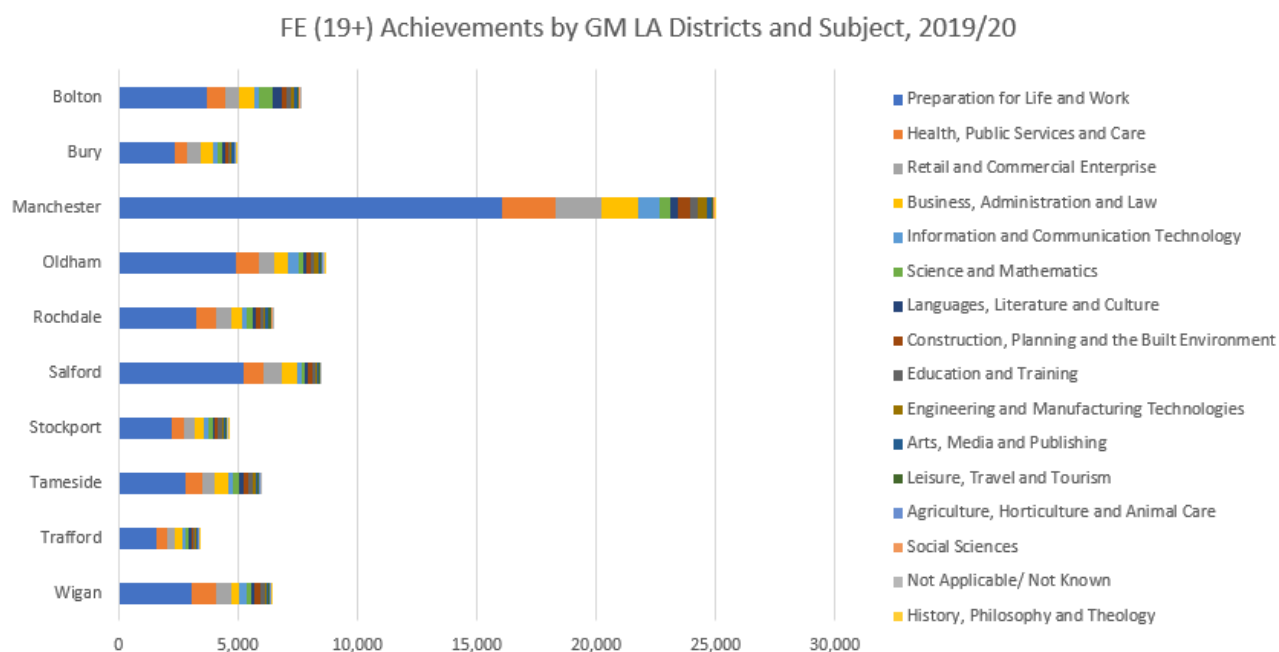
Figure B2.2.4

Apprenticeship achievements for selected city regions and England, by subject, 2019/20

Subject	Cambridgeshire and Peterborough	England	Greater Manchester	Leeds City Region	Liverpool City Region	London	Sheffield City Region	Tees Valley	West Midlands	West of England
Agriculture, Horticulture and Animal Care	2%	2%	1%	1%	1%	2%	1%	1%	1%	2%
Arts, Media and Publishing	0%	0%	0%	0%	0%	1%	0%	1%	0%	0%
Business, Administration and Law	28%	29%	32%	30%	31%	34%	30%	34%	31%	30%
Construction, Planning and the Built Environment	7%	6%	7%	10%	6%	4%	9%	8%	5%	7%
Education and Training	2%	3%	3%	2%	3%	3%	2%	3%	3%	2%
Engineering and Manufacturing Technologies	15%	18%	16%	15%	16%	9%	19%	15%	21%	15%
Health, Public Services and Care	27%	23%	24%	24%	26%	25%	19%	21%	22%	24%
Information and Communication Technology	6%	6%	6%	5%	3%	11%	4%	4%	5%	7%
Leisure, Travel and Tourism	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Retail and Commercial Enterprise	10%	11%	10%	11%	11%	11%	12%	11%	9%	10%
Science and Mathematics	0.1%	0%	0.2%	0%	0.1%	0%	0.1%	0%	0.1%	0%

Source: DfE apprenticeships data, 2020

Figure B2.2.5



Source: DfE FE data, 2020

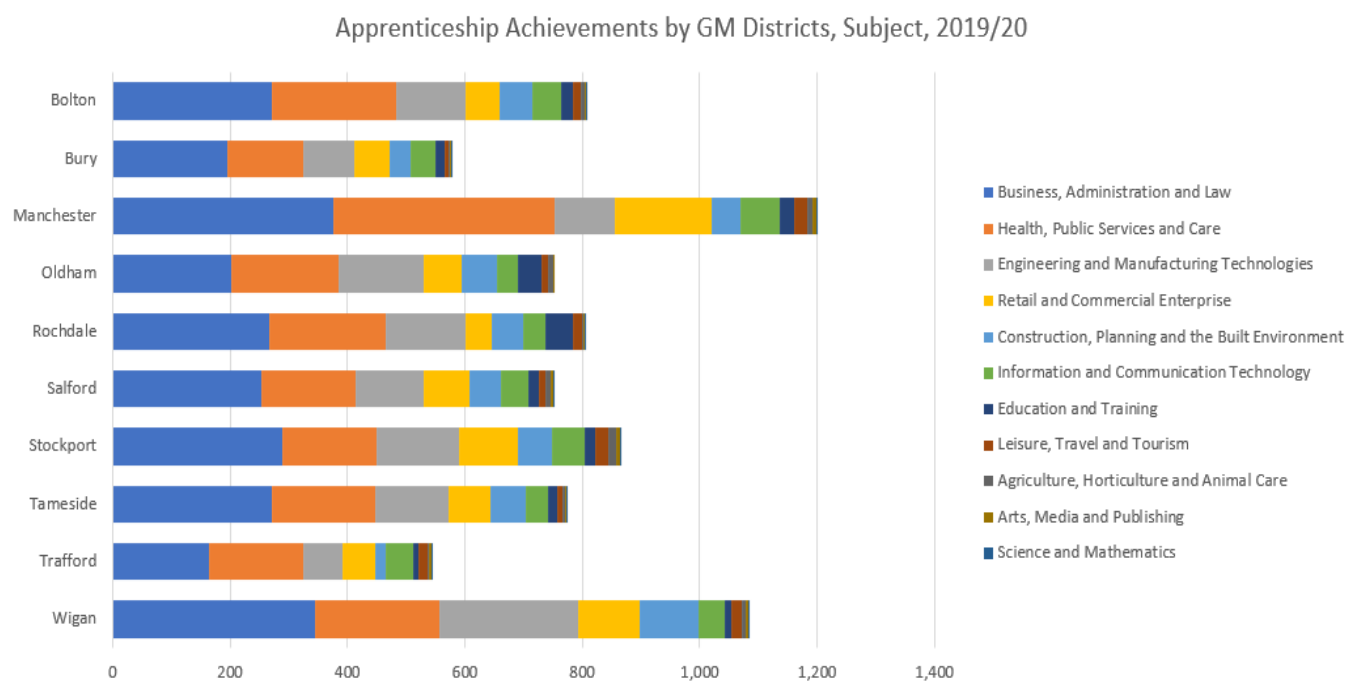
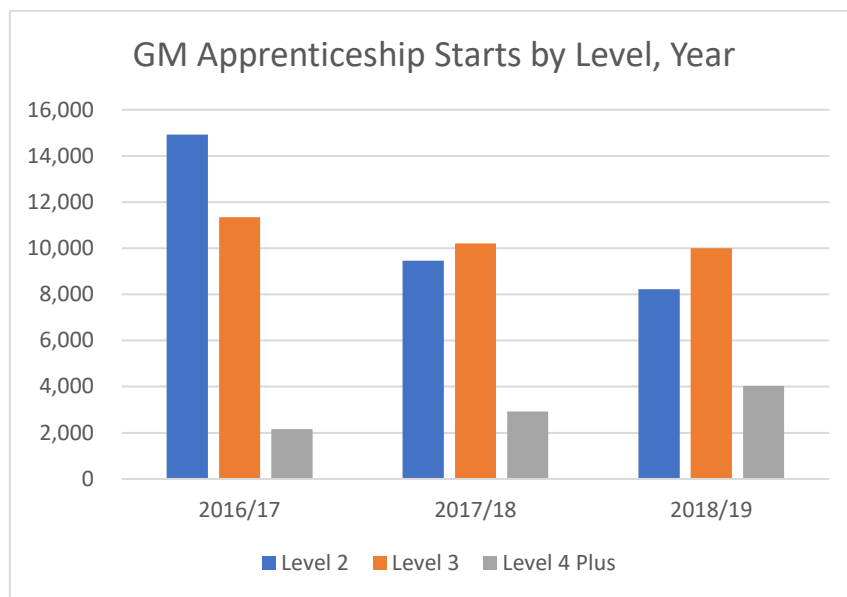


Figure B2.2.6

Source: DfE apprenticeships data, 2019

Figure B2.2.7



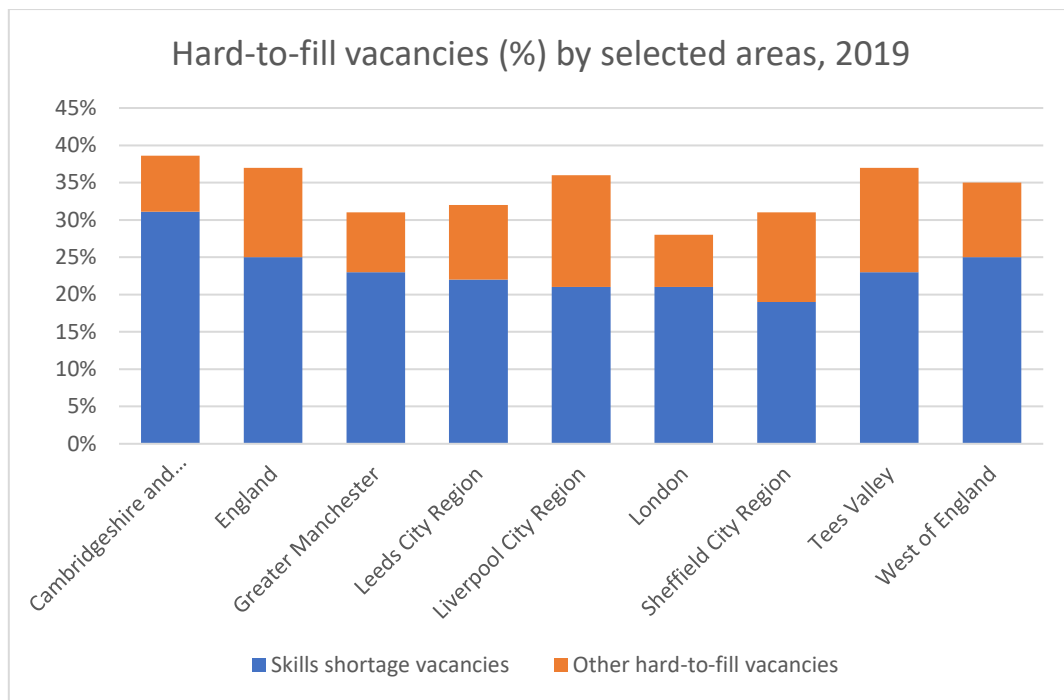
Source: ESFA Datacube (GM-tailored version), 2018/19

B3 SKILLS SUPPLY AND DEMAND

B3.1 Hard-to-fill and skills shortage vacancies

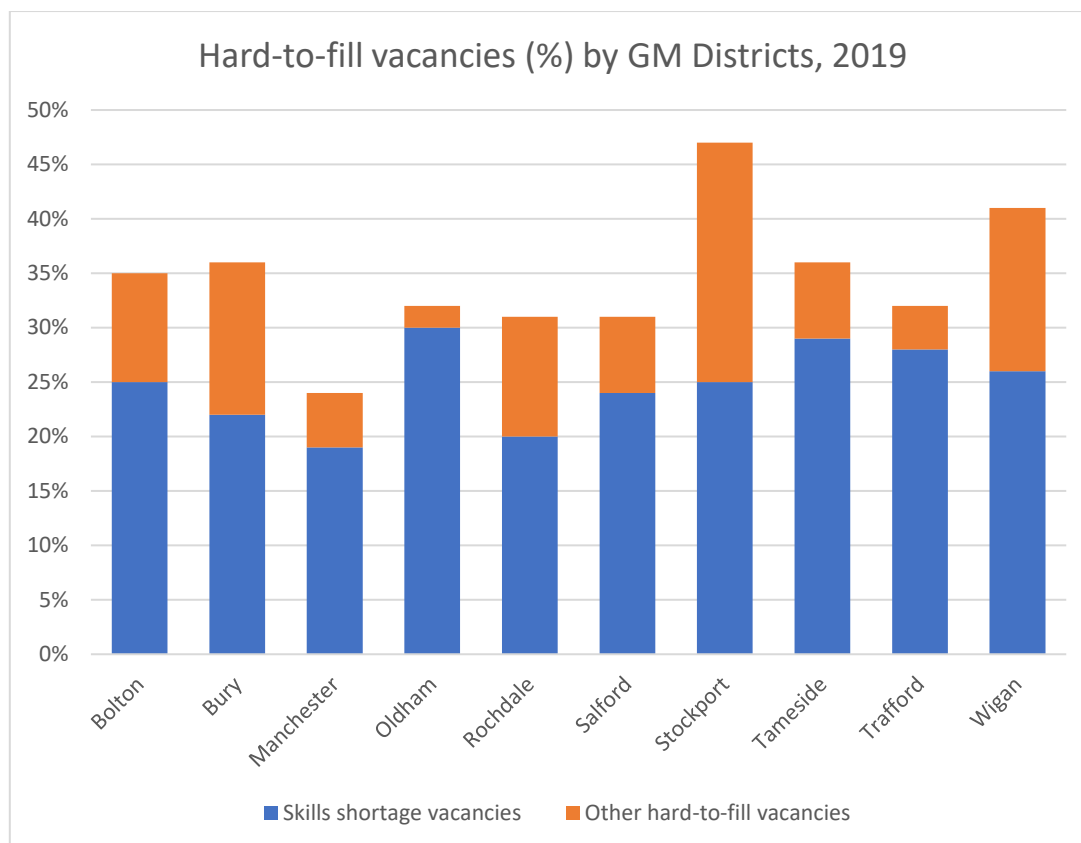
- GM is again 'mid-table' on employer recruitment issues compared to other city-regions. Its hard-to-fill and skills shortage vacancy rates are lower than many comparable areas – but higher than London.
- Skills shortage vacancies are strikingly high in Oldham – also the area of GM with a relatively low skills profile, while Stockport seems to have the most hard-to-fill vacancies.

Figure B3.1.1



Source: Employer Skills Survey, 2019

Figure B3.1.2

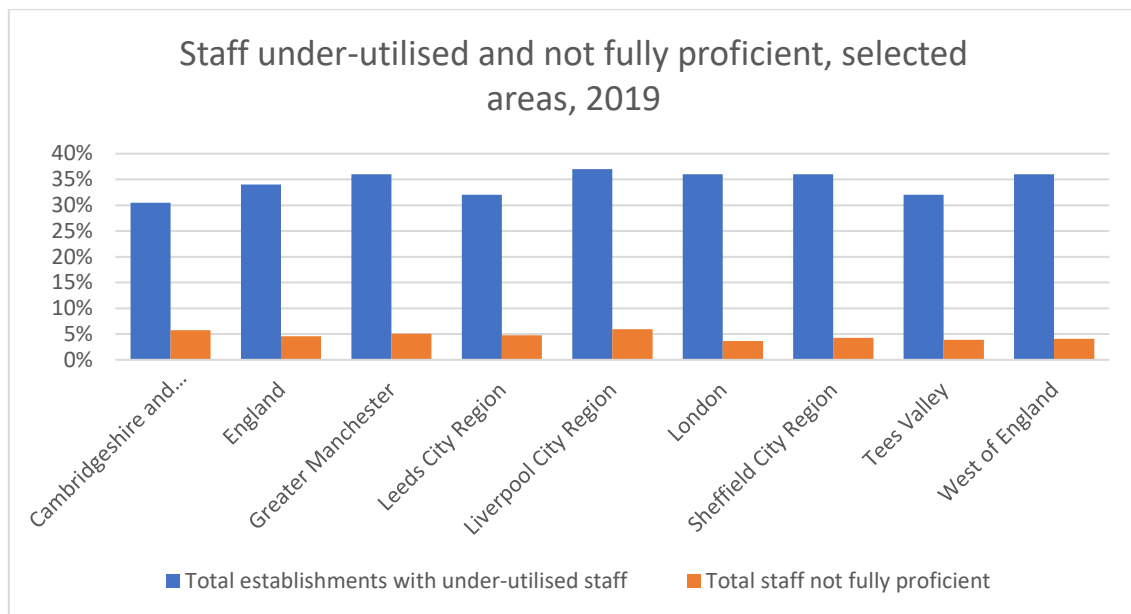


Source: Employer Skills Survey, 2019

B3.2 Proficiency of workforce

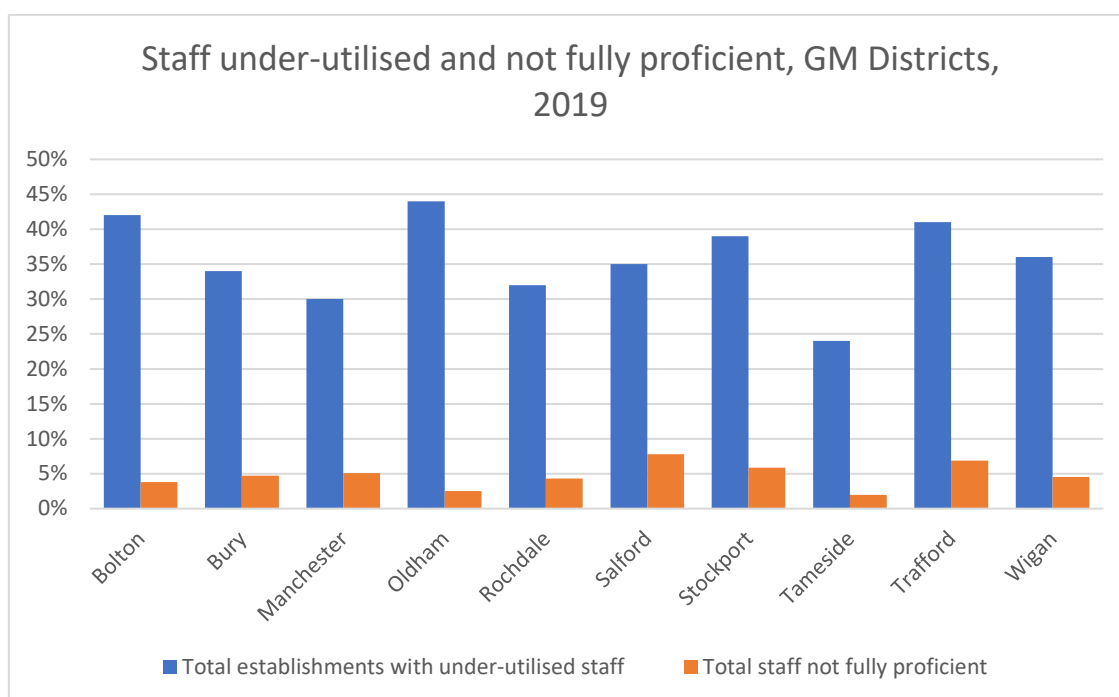
- GM seems to have slightly higher under-utilisation of skills issues than other comparable areas.
- At district level, Trafford – generally GM’s highest qualified district – is amongst the districts with the highest proportion of organisations with both under-utilised and not fully proficient staff.

Figure B3.2.1



Source: Employer Skills Survey, 2019

Figure B3.2.2



Source: Employer Skills Survey, 2019

B4 SKILLS PROJECTIONS: PLACE FOCUS

B4.1 Projecting future skills demand by place

- Projections developed for GMCA via the Greater Manchester Forecasting Model (GMFM, Jan 2019) 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 B4.1 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%
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 by Oxford Economics, 2019

Figure B4.2 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 by Oxford Economics, 2019

Figure B4.3 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 by Oxford Economics, 2019

Figure B4.4 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%
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 by Oxford Economics, 2019

Figure B4.5 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 by Oxford Economics, 2019

Figure B4.6 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 by Oxford Economics, 2019

Figure B4.7 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%
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 by Oxford Economics, 2019

Figure B4.8 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%
33 Protective Service Occupations	0.50%	0.40%	-19%

Source: Greater Manchester Forecasting Model by Oxford Economics, 2019

Figure B4.9 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 by Oxford Economics, 2019

Figure B4.10 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%
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 by Oxford Economics, 2019

Annex B2 - References and Data Sources

1 Programmes

- Greater Manchester Strategy (GMS): <https://www.greatermanchester-ca.gov.uk/ourpeopleourplace>
- 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/>

2 Data Sources for Annexes A and B (in order of appearance)

- Business Register and Employment Survey: <https://www.nomisweb.co.uk/datasets/newbres6pub#>
- Annual Population Survey: <https://www.nomisweb.co.uk/datasets/apsnew>
- UK Business Counts: <https://www.nomisweb.co.uk/datasets/idbrent>

- ONS Business Demography:
<https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/businessdemographyreferencetable>
- ONS Subregional Productivity:
<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/regionalandsubregionalproductivityintheuk/february2020/relateddata>
- Annual Survey of Hours and Earnings:
<https://www.nomisweb.co.uk/sources/ashe>
- ONS Mid-Year Population Estimates:
<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland>
- ONS Claimant Count: <https://www.nomisweb.co.uk/datasets/ucjsa>
- DWP Stat Xplore: <https://stat-xplore.dwp.gov.uk/webapi/jsf/login.xhtml>
- Index of Multiple Deprivation, MHCLG:
<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>
- Further Education & Skills data, DfE: <https://content.explore-education-statistics.service.gov.uk/api/download/further-education-and-skills/2019-20/ancillary/370a8247-0069-45be-507b-08d88c68ab27>
- Apprenticeships data, DfE: <https://content.explore-education-statistics.service.gov.uk/api/download/apprenticeships-and-traineeships/2019-20/ancillary/d33b6e81-562b-4457-5063-08d88c68ab27>
- HESA, HE Qualifiers: <https://www.hesa.ac.uk/data-and-analysis/students/table-19>
- KS4 Destination Measures data, DfE: <https://explore-education-statistics.service.gov.uk/find-statistics/key-stage-4-destination-measures#releaseHeadlines-charts>
- 16-18 Destination Measures data, DfE: <https://explore-education-statistics.service.gov.uk/find-statistics/16-18-destination-measures>
- FE Outcome-based Success Measures data (destinations), DfE:
<https://explore-education-statistics.service.gov.uk/find-statistics/further-education-outcome-based-success-measures>

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- Graduate Outcomes, DfE: https://data.explore-education-statistics.service.gov.uk/api/download/graduate-outcomes-leo-provider-level-data/2017-18/ancillary/Provider_Table_GB.xlsx
- Employer Skills Survey: <https://www.gov.uk/government/publications/employer-skills-survey-2019-england-results>
- Working Futures 2017-27 (University of Warwick): Accessible at <https://warwick.ac.uk/fac/soc/ier/wf7downloads/>
- Labour Force Survey: <https://www.nomisweb.co.uk/query/construct/summary.asp?mode=construct&version=0&dataset=59>
- GM ESFA Datacube: Stored internally at GMCA (provided by the ESFA on annual basis)
- Greater Manchester Forecasting Model (January 2019): <https://www.greatermanchester-ca.gov.uk/what-we-do/economy/greater-manchester-forecasting-model/>