Greater Manchester's Clean Air Plan to tackle Nitrogen Dioxide Exceedances at the Roadside

Note 22: Addendum to Note 3: GM Comparative Statistics

Post-OBC approach

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COVID-19 Pandemic Statement

This work has not considered the impact of the COVID-19 pandemic. Whilst we are continuing, where possible, to develop the Greater Manchester Clean Air Plan, the pandemic has already had an impact on our ability to keep to the timescales previously indicated and there may be further impacts on timescales as the impact of the pandemic becomes clearer.

We are also mindful of the significant changes that could result from these exceptional times. We know that the transport sector has already been impacted by the pandemic, and government policies to stem its spread. The sector's ability to recover from revenue loss, whilst also being expected to respond to pre-pandemic clean air policy priorities by upgrading to a cleaner fleet, will clearly require further thought and consideration.

The groups most affected by our Clean Air Plan may require different levels of financial assistance than we had anticipated at the time of writing our previous submission to Government.

More broadly, we anticipate that there may be wider traffic and economic impacts that could significantly change the assumptions that sit behind our plans. We have begun to consider the impacts, and have committed to updating the government as the picture becomes clearer over time.

We remain committed to cleaning up Greater Manchester's air. However, given the extraordinary circumstances that will remain for some time, this piece of work remains unfinished until the impact of the COVID-19 pandemic has been fully considered by the Greater Manchester Authorities.

This Note acts as an Addendum to Note 3.

1 Introduction

1.1 This technical note provides an addendum to the report HGV Commercial Research (LGVs & HGVs), AECOM 2019 [submitted to JAQU 12th July 2019]. The note provides analysis of socio-economic data to support the Commercial Vehicles Research. It presents a series of data comparing Greater Manchester to the rest of England, demonstrating in many cases that Greater Manchester is typical to the country as a whole.

1.2 The note provides a review of data relating to:

- Population and Migration;
- Employment;
- Income;
- Education; and
- Economic Inactivity and Health;

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2 Population and Migration

2.1 Greater Manchester currently has a total population of over 2.8 million people[1]. As illustrated in **Table 2-1**, over a 10 year period (2008-2018) the population of Greater Manchester has increased by 7.3%, alongside a national increase of 8.0%. This includes natural change in the population and net migration into the area.

Table 2-1 Population growth in Greater Manchester and England (2008-2018)

	Population (Mid-2008)	Population (Mid-2018)	Population Change over 10 years	Percentage Change (%)
Greater Manchester	2,620,007	2,812,569	192,562	7.34
England	51,815,853	55,977,178	4,161,325	8.03

Source: ONS (2018) Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2018[2]

[1] ONS Population Estimates by Local Authority based by five year age band, 2018 [online]- Available from: https://www.nomisweb.co.uk/reports/lmp/la/1967128590/report.aspx

[2] ONS Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2018 [online]- Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2018

2.2 Projections for future population growth over the next 20 years are shown in **Table 2-2** for Greater Manchester, the North West and England. This highlights the expectation of a positive natural change in Greater Manchester, as well as the positive influence of net migration into the region. This positive natural change trend is also projected nationally. However, in Oxford's Economics forecasts for Greater Manchester, from early-to-mid 2020's migration will be reduced due to a stricter immigration policy being introduced and the UK / England being less attractive for migrants. This trend is also anticipated to be experienced across the rest of the UK[3].

Table 2-2 Population projections for Greater Manchester, North West and England, 2016-2036

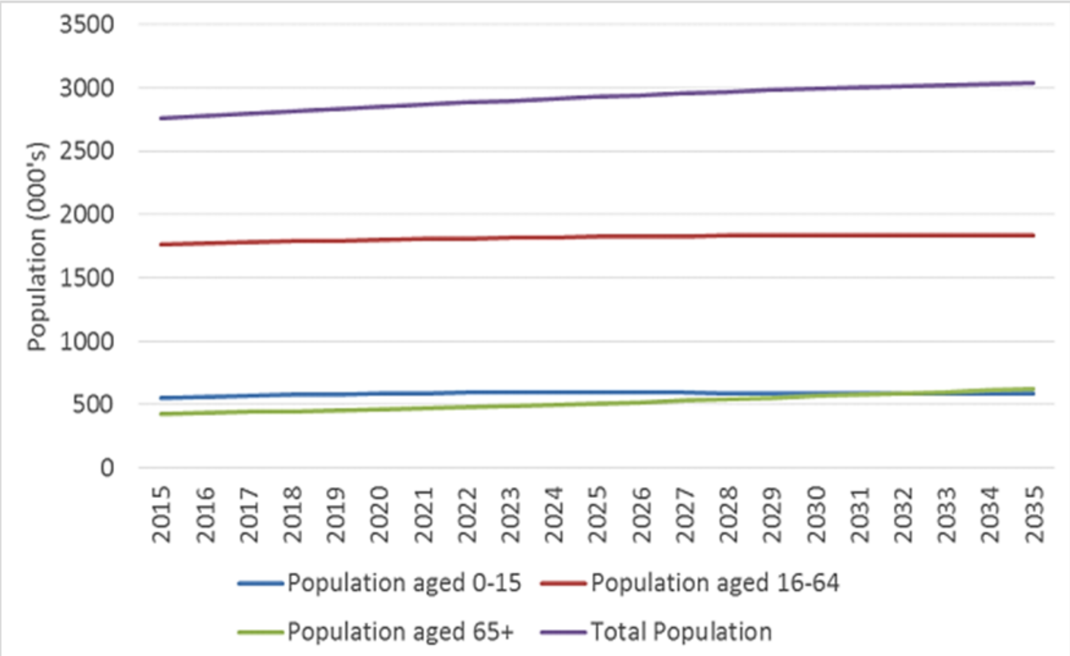
Area	Population Change (000s)	Net Migration (000s)	Natural Change (000s)
Bolton	15.2	-3	18.7
Bury	9.3	1.7	7.4
Manchester	77.2	-19.8	97.7
Oldham	19.1	-1.7	20.4
Rochdale	11.7	-2.4	13.8
Salford	37.3	9	28.2
Stockport	24.6	13.4	11
Tameside	10.7	2.4	8.1
Trafford	25.3	12.4	13
Wigan	9.8	11.6	-1.6
Greater Manchester	**240.2**	**23.5**	**216.4**
North West	403	215	187.4
England	**5,637**	**3,100**	**2,540**

Source: Greater Manchester Strategic Housing Market Assessment: (January 2019). Data Source: ONS 2016 - based subnational population projections for local authorities and higher administrative areas in England ONS[4].

[3] Economic Forecasts for Greater Manchester, (January 2019), p.10 [online] - Available from: https://www.greatermanchester-ca.gov.uk/media/1731/final_gmfm2018_forecast_paper_web.pdf
[4] ONS Based Subnational Population Projections for local authorities and higher administrative areas in England, p.52 [online]- Available from: https://www.greatermanchester-ca.gov.uk/media/1733/gm-shma-jan-19.pdf

2.3 This decline in net migration, as well as an ageing population is projected to affect Greater Manchester's population growth in the next 15+years, as well as in England and the UK. Over a 10 year period (2016-2026), Greater Manchester's population will increase by 5%[5]. **Figure 2-1** illustrates forecast growth in population for Greater Manchester between 2015 and 2035. This includes consistent population of 0-15 year olds, a levelling out of those aged 16-64 and a steady increase of those aged 65+. This will result in Greater Manchester having an ageing population, as the number of people aged 65+ will grow by 53% by 2039[6]. This will also increase the Old Age dependency ratio in Greater Manchester.

Figure 2-1 Forecast population in Greater Manchester (2015-2035)



Source: Greater Manchester Transport Strategy 2040 Evidence Base: 2018 Update. Data Source: Greater Manchester Forecasting Model: Accelerated Growth Scenario, Oxford Economics (2017)[7]

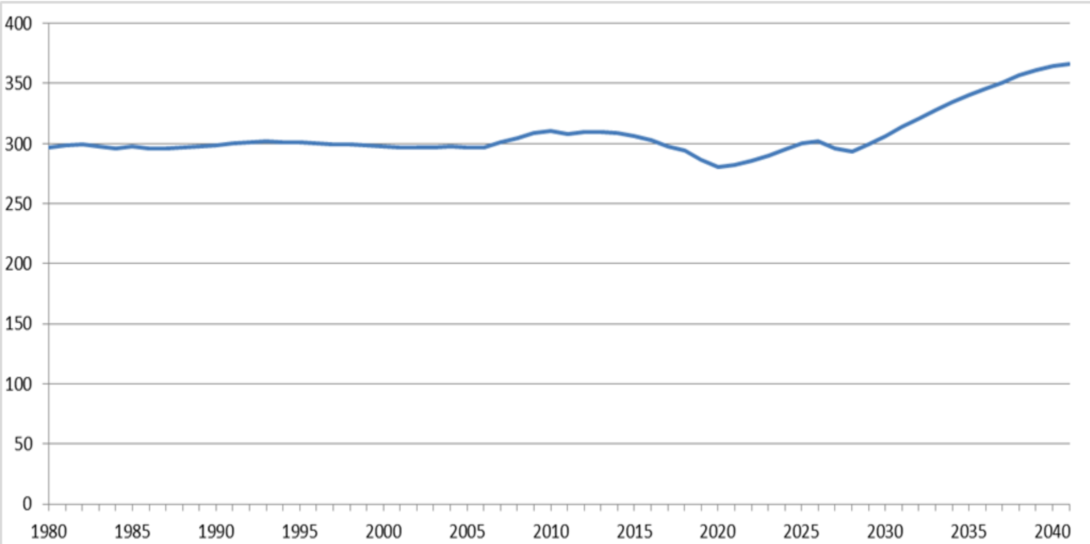
[5] ONS Population projections for local authorities: 2016 based. [online] Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandtable2

[6] ONS National Population Projections: 2014 based Statistical Bulletin [online] Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2015-10-29

[7] Greater Manchester Transport Strategy 2040, Evidence Base: 2018 Update, page S5, Data source: Greater Manchester Forecasting Model: Accelerated Growth Scenario, Oxford Economics (2017) [Online] Available from: http://www.neweconomymanchester.com/publications/greater-manchester-forecasting-model

2.4 In England, the projected average change in population over a 10 year period (2016-2026) will be an increase of 3.2 million people (a 5.9% increase) and the North West will have a slightly slower growth at 3.4%[8]. In comparison to the 2008 to 2018 period, where the population increased by 8% (nationally), this is a projected reduction in population growth. This will impact the economy due to the increasing ageing population and decline in those of working age. With regards to the Old Age dependency ratio, **Figure 2-2** demonstrates that it is predicted to exponentially grow from 280 in 2020 to 366 by 2041. These changes may increase the productive capacity of the workforce; however, it will place increasing pressure to provide social services, for example healthcare and housing, which will be the same situation in Greater Manchester.

Figure 2-2 Old Age dependency ratio in England (1980-2041)



Source: ONS (2018)[9]

3 Employment

3.1 As outlined in **Table 3-1**, the proportion that are economically active in Greater Manchester (aged 16-64) is marginally lower compared to the rest of the country. In Greater Manchester 76.0% of the population are economically active, compared to 79.4% in England. However, in 2017 there were over 890,000 (68.6%) people in Greater Manchester working full-time, which was slightly higher than the national average of 67.5%. [10]Unemployment in Greater Manchester is only marginally higher than the rest of England by 0.5%; this is also higher than whole of the North West which is currently below the national average (3.9%).

[8] ONS Subnational Population Projections for England: 2016- based [online] Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/2016based
[9] ONS Old Age dependency ratio, England, 1980-2041. [online] Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/ageing/adhocs/008459oldagedependencyratioengland1980to2041
[10]

Table 3-1 Employment and unemployment in Greater Manchester, the North West and England (Apr 2018- Mar 2019)

All People	Greater Manchester (Met County) (Numbers)	Greater Manchester (Met County) (%)	North West (%)	England[11] (%)
Economically Active†	1,389,300	76.0	76.9	79.4
In Employment†	1,328,700	72.6	73.8	76.3
Employees†	1,143,600	62.9	64.4	-
Self Employed†	181,100	9.5	9.2	-
Unemployed§	60,600	4.4	3.9	3.9

Source: ONS Annual Population Survey. †= numbers are for those aged 16 and over, %= those aged 16-64, §= numbers and %= proportion of economically active [12]

3.2 In terms of occupations in Greater Manchester, **Table 3-2** illustrates there is a slightly higher proportion of the population aged 16-64 who work in the manufacturing (Process Plant & Machine Operatives) and in the service sector compared to the national level. A total of 19.0% work as Process Plant & Machine Operatives and Elementary Occupations in Greater Manchester, whereas 16.4% work in these roles nationally. Furthermore, there are higher proportions of those who work in Greater Manchester in the services sector, for example, in Caring, Leisure, Sales and Customer Service (17.8%) compared with the national level (16.2%). This trend is also shown in **Figure 3-1**; in 2016 the Greater Manchester GVA per employee was £29,100 in the health and social care sector, but in the UK it was only £28,000 GVA per employee.

[11] England data based on March-May 2019 NOMIS data
[12] NOMIS/ ONS Annual Population Survey- Labour Market Profile- Greater Manchester (Met County)- Available from: https://www.nomisweb.co.uk/reports/lmp/la/1967128590/report.aspx#tabempunemp

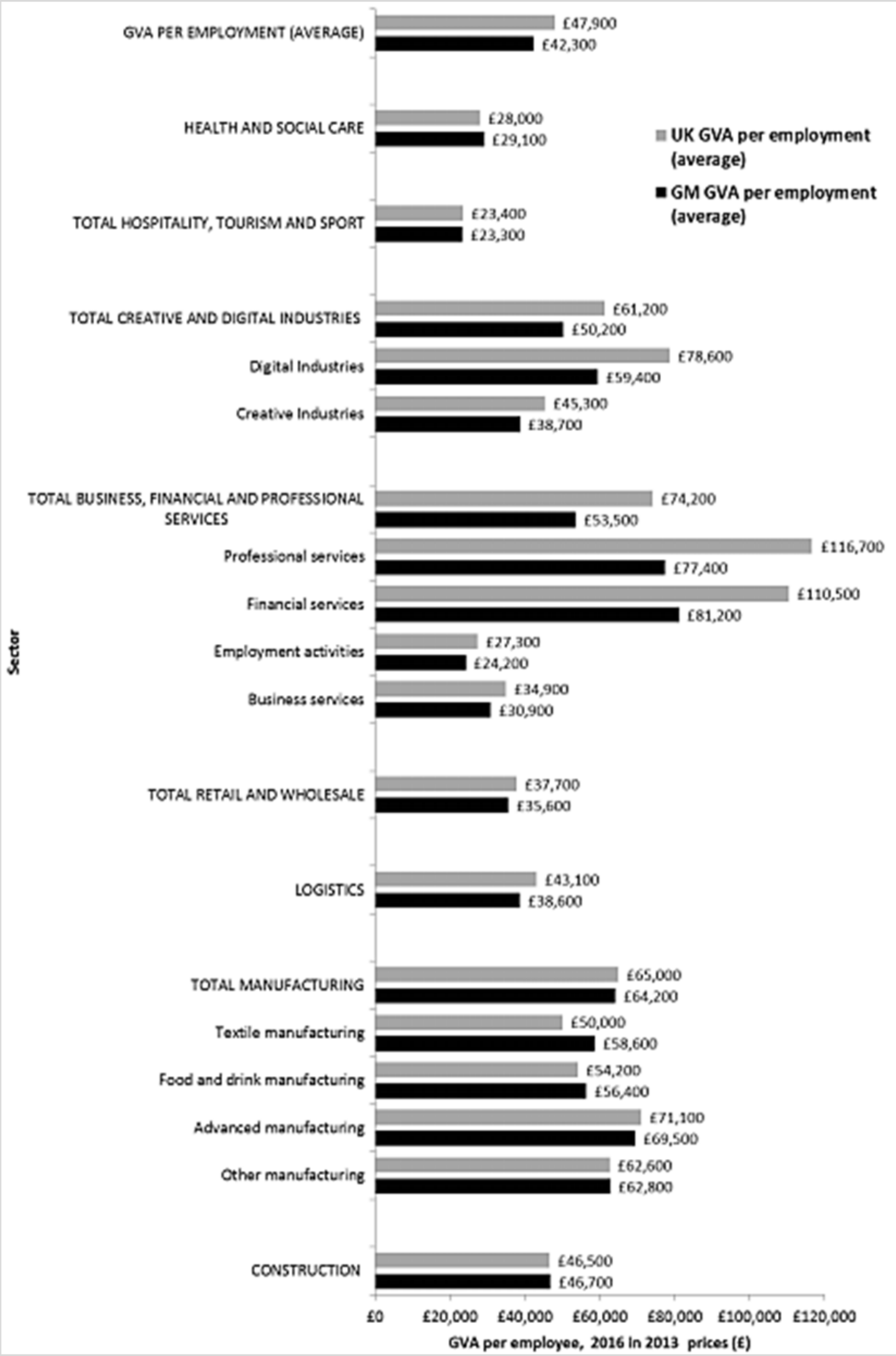
Table 3-2 Employment by occupation in Greater Manchester, the North West and England (Apr 2018-Mar 2019)

Occupations	Greater Manchester (Met County) (Numbers)	Greater Manchester (Met County) (%)	North West (%)	England (%)
Soc 2010 Major Group 1-3	583,300	44.1	44.2	47.4
1 Managers, Directors And Senior Officials	129,900	9.8	10.3	11.2
2 Professional Occupations	269,100	20.3	19.8	21.0
3 Associate Professional & Technical	184,200	13.9	13.9	15.0
Soc 2010 Major Group 4-5	252,700	19.1	20.1	19.9
4 Administrative & Secretarial	136,500	10.3	10.6	10.0
5 Skilled Trades Occupations	116,200	8.7	9.5	9.9
Soc 2010 Major Group 6-7	235,300	17.8	18.0	16.2
6 Caring, Leisure And Other Service Occupations	120,400	9.1	9.5	8.9
7 Sales And Customer Service Occs	114,900	8.6	8.5	7.3
Soc 2010 Major Group 8-9	251,100	19.0	17.7	16.4
8 Process Plant & Machine Operatives	97,700	7.4	7.0	6.2
9 Elementary Occupations	153,400	11.5	10.7	10.2

Source: ONS Annual Population Survey. Numbers and % are for those of 16+, % is a proportion of all persons in employment[13]

[13] NOMIS/ ONS Annual Population Survey, Labour Market Profile- Greater Manchester (Met County) [online]-Available from; https://www.nomisweb.co.uk/reports/lmp/la/1967128590/report.aspx#tabempunemp

Figure 3-1 Productivity Average Gap in Employment Sector between Greater Manchester and the UK



Source: Greater Manchester Transport Strategy 2040, Evidence Base (2018), Data Source: Oxford Economics (2017)[14]

[14] Oxford Economics (2017), 'Greater Manchester Forecasting Model Dataset' in Greater Manchester Transport Strategy 2040, Evidence Base (2018) p, EC8. Available from: https://downloads.ctfassets.net/nv7y93idf4jq/3ryONeNzmuSAsPDzgtB3jt/489fbfefd35227ba4bad46c89f0e210a/2040_Evidence_Base_Update_Collated.pdf

4 Income

4.1 In Greater Manchester, the Gross Weekly and Hourly-Pay are below the national level. As illustrated in **Table 4-1**, in Greater Manchester the gross hourly pay for full-time workers in 2018 was £13.04, whereas in England it was £14.42. For the Gross Weekly pay, workers are paid nearly £60 less in Greater Manchester compared with the national amount (£574.90).

Table 4-1 Earning by place of residence in Greater Manchester, the North West and England (2018)

	Greater Manchester (Met County) (Pounds)	North West (Pounds)	England (Pounds)
Gross Weekly Pay			
Full-Time Workers	516.2	529.6	574.9
Male Full-Time Workers	552.0	571.9	614.5
Female Full-Time Workers	473.4	472.4	512.0
Hourly Pay-Excluding Overtime			
Full-Time Workers	13.04	13.35	14.42
Male Full-Time Workers	13.47	13.90	15.00
Female Full-Time Workers	12.44	12.55	13.58

Source: ONS annual survey of hours and earnings - resident analysis. Median earnings in pounds for employees living in the area[15]

5 Education

5.1 A major barrier to increasing the employment rate in Greater Manchester is residents having poor skills and/or accessibility to do the available jobs which affects Greater Manchester's economic performance in relation to the rest of England. As shown in **Table 5-1**, almost one in ten (9.8%) of 16-64 year olds in Greater Manchester have no qualifications compared with 7.6% in England. It is important that Greater Manchester provides more support and access for all residents to new jobs[16].

[15] NOMIS/ ONS Annual Survey of Hours and Earnings- resident analysis [online]- Available from: https://www.nomisweb.co.uk/reports/lmp/la/1967128590/report.aspx#tabearn
[16] Greater Manchester Transport Strategy 2040, Evidence Base (2018)- Update, p. EC12 [online]- Available from: https://downloads.ctfassets.net/nv7y93idf4jq/3ryONeNzmuSAsPDzgtB3jt/489fbfefd35227ba4bad46c89f0e210a/2040_Evidence_Base_Update_Collated.pdf

5.2 Furthermore, Greater Manchester has a large proportion of students living, studying and working in the region. **Table 5-2** outlines that there were nearly 123,000 (28.7%) students economically inactive in Greater Manchester, which is higher than the national level at 27%. This large student population will be having many positive effects on the economy of Greater Manchester, but might also be negatively affecting housing prices and availability.

Table 5-1 Qualifications in Greater Manchester, the North West and England (Jan 2018-Dec 2018)

	Greater Manchester (Met County) (Level)	Greater Manchester (Met County) (%)	North West (%)	England (%)
NVQ4 and Above	632,800	35.6	35.5	39.0
NVQ3 and Above	974,800	54.9	55.1	57.7
NVQ2 and Above	1,291,600	72.7	74.1	75.0
NVQ1 and Above	1,483,900	83.5	84.8	85.6
Other Qualifications	119,800	6.7	6.1	6.8
No Qualifications	173,400	9.8	9.1	7.6

Source: ONS Annual Population Survey. No Qualifications; No formal qualifications held, Other Qualifications; Includes foreign qualifications and some professional qualifications, NVQ 1 Equivalent; e.g. fewer than 5 GCSEs at grades A-C, foundation GNVQ, NVQ 1, intermediate 1 national qualification (Scotland) or equivalent, NVQ 2 Equivalent; e.g. 5 or more GCSEs at grades A-C, intermediate GNVQ, NVQ 2, intermediate 2 national qualification (Scotland) or equivalent, NVQ 3 Equivalent; e.g. 2 or more A levels, advanced GNVQ, NVQ 3, 2 or more higher or advanced higher national qualifications (Scotland) or equivalent, NVQ 4 Equivalent and Above; e.g. HND, Degree and Higher Degree level qualifications or equivalent[17].

[17] NOMIS/ ONS Annual Population Survey- Labour Market Profile- Greater Manchester (Met County)- [online]- Available from: https://www.nomisweb.co.uk/reports/lmp/la/1967128590/report.aspx#tabempunemp

6 Economic Inactivity and Health

6.1 Health is another major barrier in Greater Manchester to employment, as well as to residents' wellbeing. Over 680,000 Greater Manchester residents fall into the 10% most disadvantaged areas of the country, affecting their life expectancies[18]. As shown in **Table 5-2**, across Greater Manchester the proportion of those who are economically inactive due to long-term sickness (25.95) is considerably higher than the national level (22.1%). Over 110,000 people aged 16-64 are currently inactive due to long-term sickness, and 10,300 are temporary sick. Furthermore, in Greater Manchester 9.8% of adults stated they had a long-term condition or disability that limited their day-to-day activities a lot and 9.5% said that their day to-day activities were limited a little, compared with 8.3% and 9.3% respectively nationally.12 This does not only impact the individual's ability to support themselves financially, it also affects Greater Manchester's productivity.

Table 5-2 . Economic inactivity in Greater Manchester, the North West and England (Apr 2018-Mar 2019)

	Greater Manchester (Met County) (Level)	Greater Manchester (Met County) (%)	North West (%)	England (%)
Student	122,600	28.7	26.0	27.0
Looking After Family/Home	104,700	24.5	23.1	24.4
Temporary Sick	10,300	2.4	2.0	1.9
Long-Term Sick	110,600	25.9	25.8	22.1
Discouraged	#	#	0.4	0.4
Retired	39,900	9.3	13.0	12.8
Other	38,000	8.9	9.7	11.4
Total	427,200	24	23.1	21.1
Wants A Job	87,500	20.5	18.6	20.5
Does Not Want A Job	339,700	79.5	81.4	79.5

Source: ONS annual population survey. # Sample size too small for reliable estimate. Numbers are for those aged 16-64. % is a proportion of those economically inactive, except total, which is a proportion of those aged 16-64[19]

[18] The Greater Manchester Population Health Plan 2017-2021, pp. 8-10 [online]- Available from: https://www.gmhsc.org.uk/wp-content/uploads/2018/05/Population-Health-Plan-2017-2021.pdf

[19] NOMIS/ ONS Annual Population Survey- Labour Market Profile- Greater Manchester (Met County) [online]- Available from: https://www.nomisweb.co.uk/reports/lmp/la/1967128590/report.aspx#tabempunemp

7 Conclusion

7.1 Overall, the data presented within this note has illustrated that the key socio economic metrics for Greater Manchester aligns closely to national trends for England, providing supporting information that Greater Manchester is ‘typical’ to England as a whole.

7.2 Given the main purpose of this analysis is to understand how typical Greater Manchester is when looking at freight demand and freight trips. The most relevant analysis relates to **Table 3-2**, which presents employment by occupation, and shows a close correlation between both Greater Manchester and England.