

Report of the Head of Economic Growth

High Value Employment and Skills Update Report

Summary

1. This report is to inform Members of the work being done in York to support the growth of the city's economy by promoting High Value Employment and Skills, Apprenticeships and Graduate Retention.

Background

2. At the September 2019 meeting of this Committee, Members further discussed their work programme for the municipal year and decided to split work plan suggestions into three categories:
 - i. Pay in work poverty; Gender pay gap; Low paid industries
 - ii. High Value Jobs and Innovation; Apprenticeships and Skills; Graduate Retention; Stem the loss of skilled people
 - iii. Sustainable Growth and Social Values; Community Wealth
3. Members agreed that they wanted to consider the second category at the Committee's October meeting and to invite representatives from City of York Council, York University, York College and York St John University to attend the meeting to take part in round-table discussions.

Background to these issues

4. City of York Council (CYC) is supporting growth in the city's economy by gearing it towards the growth of high-level, highly-paid jobs. In doing so, York has seen an expansion of jobs in the knowledge

economy which particularly benefits the employment of graduates and other NVQ4+ qualified employees.

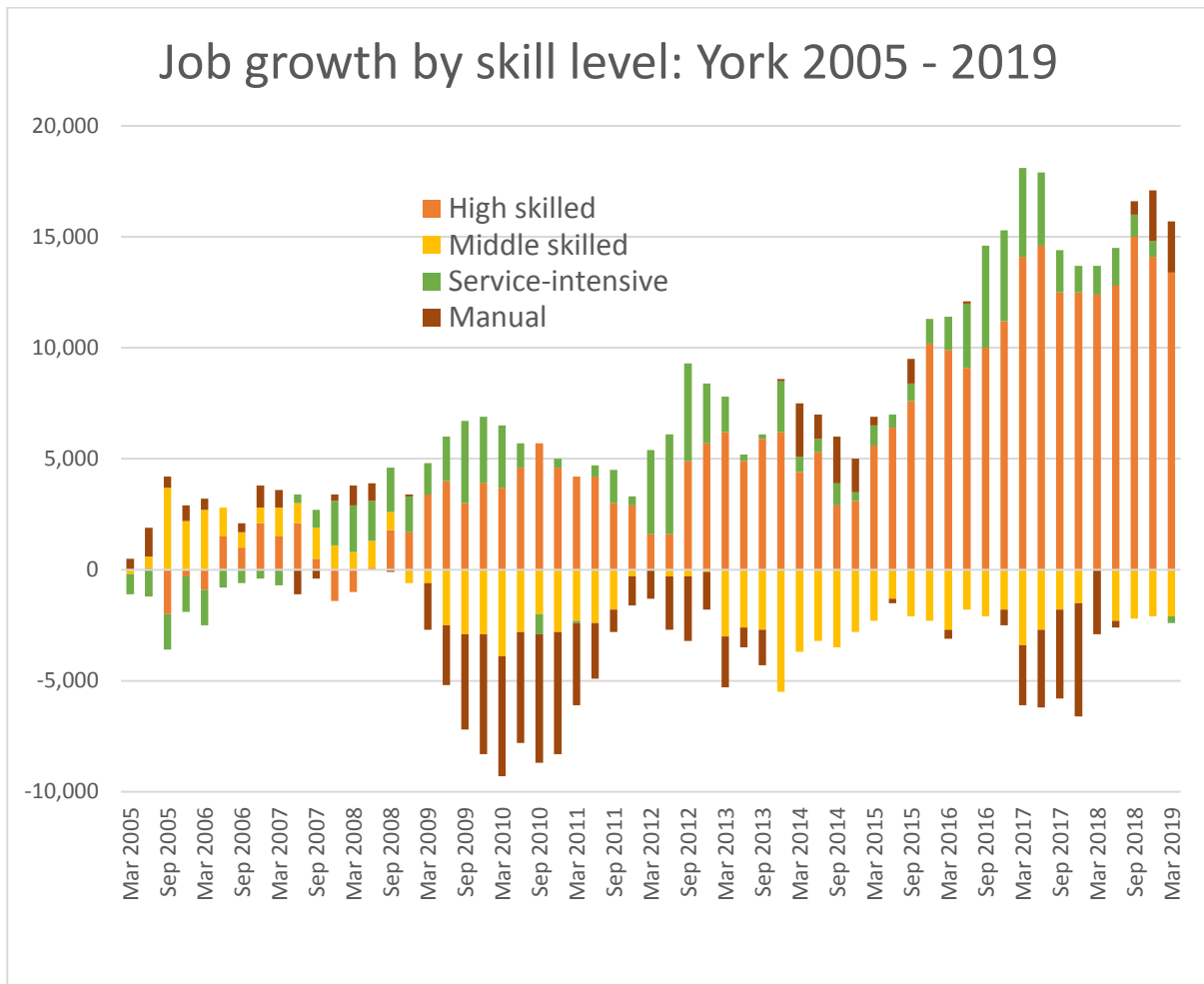
5. CYC has done this by working with the city's educational institutions, including York's two universities, to encourage graduate retention and provide a steady supply of highly-skilled job-seekers. This has been a part of the Council's strategy since at least the 2007 Economic Strategy.
6. High-skills are also derived from apprenticeships which continue to be an asset to York's economy where the city outperforms the Leeds City Region in the scale of apprenticeships started this year and also beats the national average of disadvantage students taking up apprenticeships. However, there are concerns about the use of regional data for York-specific research.
7. This report offers an initial view of York's high-value jobs and the ways by which the city can retain its graduates by drawing on some examples from other cities. It also outlines the challenges York faces in this regard and draws on a range of sources to accurately portray the economic health of the city's workforce.
8. The main areas that can best provide this information are found in the following sectors. All of the sources for this information are referenced and in the body of this report.

High Value Jobs

9. High skilled jobs in York have been growing year-on-year since 2008 with over 13,400 more jobs in this area added cumulatively to 2018-19. The growth of high-level jobs is a key plank of our economic success as a city.¹
10. Figure 1 shows that the number of service-intensive jobs has remained relatively stable since 2005 and growth in this area has been outpaced by high-skilled jobs since 2012.

¹ NOMIS, Annual Population Survey, 2018

Figure 1



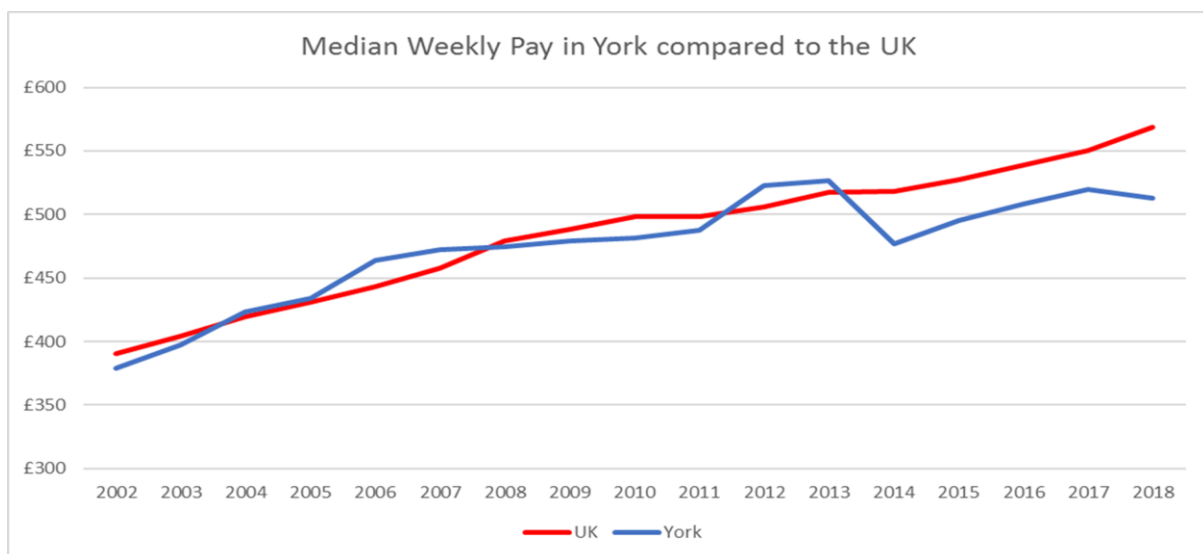
11. Of the new high skilled jobs created, SOC24 has been the largest growing group. This is made up of 'Business, media and public services professionals' which were 4,600 of the 13,400 jobs created (34%). The second largest group of growth was SOC 34 (Culture, media and sports occupations) which gained 3,200 jobs in this period which was 24%.²
12. Only two groups of high-skilled workers declined in size. The biggest fall was in SOC 21 (Science, research, engineering and technology professionals) which contracted by 500 positions. This was followed by SOC 11 (Corporate Managers and Directors) which lost 100 jobs.
13. York can be considered at the top of the Leeds City Region in terms of high value jobs (is this employees), with the most NVQ 4+ qualified residents and the second highest average hourly pay in the LCR at

² NOMIS, Annual Population Survey, 2018

£13.60. This is still below the £14.49 national average which is skewed by the South East.³

14. York has a notably high-skilled population with 48.9% of workers in the SOC Major Groups 1 to 3 compared to 42.7% in the region and 46.8% nationally. The number of high-level jobs available need to be increasing alongside the growth in residents with NVQ 4.⁴
15. Only 14% of York's businesses said that they are expecting to increase the size of their workforce in the coming year compared to an LCR average of 21%. Businesses in York are indicating that they expect their workforce to stay the same size and highlight many factors to these barriers to growth including concerns over future relations with Europe (25% of respondents).⁵
16. This has been supported by the latest LCR quarterly update which shows that the value of exports from Yorkshire and the Humber fell by 4.8% and value of imports into the same area grew by 5.5%.⁶

Figure 2



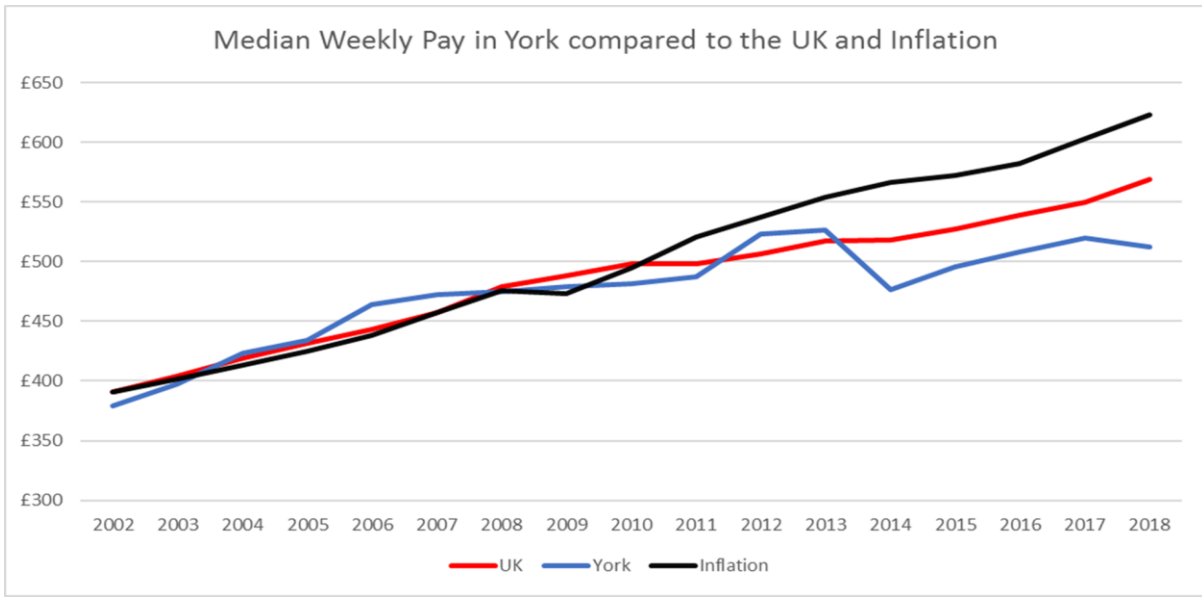
³ NOMIS, Annual Survey of Hours and Earnings, 2018

⁴ NOMIS, Annual Population Survey, 2018

⁵ LCR Local Enterprise Partnership & West Yorkshire Combined Authority, Leeds City Region Business Survey, 2019 (<https://www.the-lep.com/media/2876/leeds-city-region-business-survey-2019.pdf>)

⁶ LCR Local Enterprise Partnership & West Yorkshire Combined Authority, Economic and Brexit Monitor: Leeds City Region, May 2019, 2019 (<https://westyorkshire.moderngov.co.uk/documents/s12090/Item%2019%20-%20Appendix%201%20-%20LCR%20economic%20update%20-%20May%202019.pdf>)

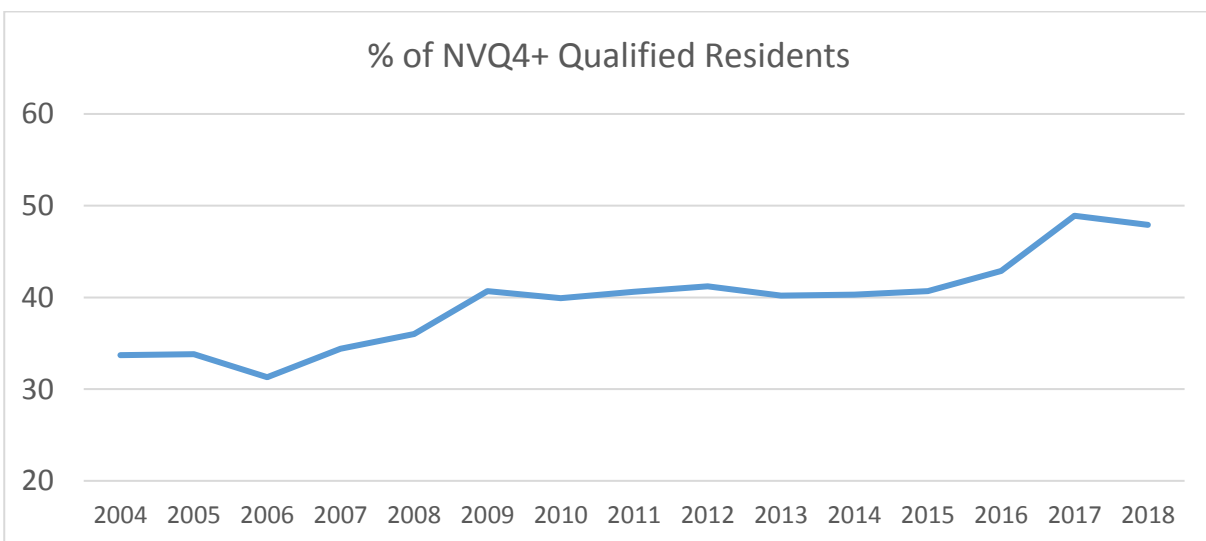
Figure 3



Graduate Retention

17. Graduates are essential to deliver high-level economic growth as we can see skills shortages developing across the LCR and an increasing demand for graduate level skills.
18. 47.9% of York's working age population have level 4 National Vocational Qualifications (degree-level) which is the highest of all cities in the north. This is helped by our two high level universities which are producing an ever increasing stream of graduates of whom over half stay in the region.⁷

Figure 4



⁷ NOMIS, Annual Population Survey, 2018

19. York's two universities produce approximately 5,900 graduates per year. The University of York, being the larger institution, produces approximately 4,400 of these whilst York St John produces around 1,500 per year.
20. Despite this, the University of York has a much lower graduate retention rate than York St John with only 43% of graduates even staying in the region whereas 66% of YSJ graduates stay in the region.⁸
21. Therefore of York's 5,900 graduates we are likely to only see a maximum of 1,850 University of York graduates and 1,000 YSJ graduates stay in the LCR, a total of 2,850.
22. Of these graduates, approximately 2,500 will be from STEM subjects with 2,000 coming from the University of York and 500 from YSJ.⁹ Assuming the proportions outlined above apply, a maximum of 1,200 will stay in LCR. Jobs in science, research, engineering and technology will rise at double the rate of other occupations between now and 2023 (6% vs 3%).¹⁰
23. York's population of graduates is relatively varied between those that stayed for both university and work (15%), came for university and stayed for work (33%), left for university and returned for work (21%) or moved in for work and are not from York (31%).¹¹ This indicates that York is drawing its population of graduates from a fairly broad range of backgrounds and institutions and suggests that York does not rely significantly on University of York and York St John graduates to fill the city's jobs.
24. Typically, York has 1,800 school leavers per year of whom approximately 1,000 go to university. Therefore, York has a net inflow of 5,000 students each year.¹² 21% of York's graduate population is made up graduates who were educated in York and graduated elsewhere.

⁸ Leeds City Region Local Enterprise Partnership, People: overview of key messages, 2019, (<https://slideplayer.com/slide/17510481/>)

⁹ HESA, HE student enrolments by HE provider, subject area, principal subject, level of study and mode of study, 2018 (<https://www.hesa.ac.uk/data-and-analysis/students/table-13>)

¹⁰ Social Market Foundation, Jobs of the future, 2016 (<https://www.edfenergy.com/sites/default/files/jobs-of-the-future.pdf>)

¹¹ Swinney & Williams, The Great British Brain Drain: Where graduates move and why, Centre for Cities, 2016 (<https://www.centreforcities.org/wp-content/uploads/2016/11/16-11-18-The-Great-British-Brain-Drain.pdf>)

¹² NOMIS, Annual Population Survey, 2018

25. 2017 saw an increase of working age people in York qualified at level 4 alongside a 2% fall in the proportion of the region's population with no qualifications to 8%. This indicates that the graduate stream for York is growing whilst the proportion of residents without any skills decreased in size.

Approaches to Increasing Graduate Retention

26. Other cities across the country have taken successful steps to retain graduates having recognised the importance of NVQ4+ qualifications to drive generate high-level jobs and strong economic growth.
27. Manchester has a graduate retention rate of 66%. In this city, rather than aiming only for increases in graduate populations or improved retention of new graduating cohorts, priority goes to certain areas of applied research and specific education investment. This has not only employed graduates but provided data for further economic development.¹³
28. Liverpool has a graduate retention rate of 69%. The city partnered with businesses such as Unilever and Bentley to build award winning research facilities such as the Virtual Engineering Centre, the Materials Innovation Factory and Centre for Global Eco-Innovation. These new institutions have forged important business partnerships and helped Liverpool to lead in the tech sector.¹⁴
29. Birmingham has overcome its low-growth past by encouraging a knowledge-based economy in partnership with its educational institutions. The University of Birmingham invested £5 million in City REDI which has become a world-leading research facility to compile data about the city and region which has been put towards economic development.¹⁵
30. Leeds is a success story with an economy of over £60bn but it has always been presented as a regional city rather than a national player which has led to problems with graduate retention. A new £42 million investment in central Leeds will soon provide improved access to

¹³ Government Office for Science, Future of cities: Graduate Mobility, 2016
(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/510421/gs-16-4-future-of-cities-graduate-mobility.pdf)

¹⁴ Government Office for Science, Future of cities: Graduate Mobility, 2016
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¹⁵ Government Office for Science, Future of cities: Graduate Mobility, 2016
(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/510421/gs-16-4-future-of-cities-graduate-mobility.pdf)

world-class research and innovation at the University of Leeds. There is also an Enterprise and Innovation Hub at Leeds Beckett University, which provides access to expert training and mentoring.¹⁶

31. All of these cities have seen an increase significant development of graduate jobs. For example, Manchester has been named the best city for graduate employment in the country. To help retain graduates cities need to offer places from which they can operate and during the final quarter of 2017, Leeds office market take-up reached 207,000 sq ft, boosting the total to 1,014,000 sq ft.^{17 18} All of these cities have a high graduate retention rate and usually draw on these from their surrounding regions although cities such as Cardiff and Leeds have made active efforts to broaden their national appeal. Graduate retention is a shared goal for these cities and their successes in this regard have strengthened their economies.

Innovation

32. Although innovation as a concept is hard to measure, we can see from the LCR business survey that, on average, 65% of LCR businesses said that they have undertaken some form of innovation in the past year. This is a strong reflection of innovation in the region but York-specific data in this area is difficult to locate.
33. York St John University has engaged in a number of innovation projects through the York Business School. Notable amongst these is their successful application for the Police Innovation Fund which has seen them develop new methods of developing crime prediction data.¹⁹ York Business School has also generated data on the microbrewery boom and the purchasing habits of millennials.
34. The University of York continues to have a wide range of facilities and resources for both private sector research and academic innovation. In particular, UOY has a £12 million grant for their Assured Autonomy programme working towards driverless cars with Jaguar and Land

¹⁶ Government Office for Science, Future of cities: Graduate Mobility, 2016 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/510421/gs-16-4-future-of-cities-graduate-mobility.pdf)

¹⁷ The University of Manchester, Manchester named top UK university for graduate employability, 2019 (https://www.manchester.ac.uk/discover/news/manchester-named-top-uk-university-for-graduate-employability/#utm_source=Facebook&utm_medium=Social&utm_campaign=News)

¹⁸ Savilles, Leeds Office Market, 2018 (https://www.savills.co.uk/research_articles/229130/240759-0)

¹⁹ York Business School, Current Research Projects, 2019 (<https://www.yorks.ac.uk/schools/york-business-school/research/current-research-projects/>)

Rover. Additionally, UOY has thriving bio-economic research facilities managing innovations in areas waste disposal.

35. Levels of innovation for York businesses have been recorded in the LCR business survey. The most common form of innovation for York businesses was participating in a cross-business knowledge transfer with 44% of York respondents saying that they had done this. This will contribute towards the knowledge economy because it will share the abundance of commercial knowledge within York.
36. For York, the least common form of innovation was improving the goods that businesses supplied, with only 19% of the city's businesses saying that they had improved the goods that they sell. Similarly, only 25% of York businesses invested in research and development.²⁰ These are similar to numbers across the board.
37. This indicates that the market is stable for the majority of York businesses as they have not seen the need to develop the products they sell which could contribute to the notion that York's economy does not demand innovation. On the other hand, this lack of commercial innovation may need further investigation to ensure that they are not being left behind as the economy changes.
38. Innovation is also important for individuals. Job advertisements most commonly request candidates who have digital skills. These include programming skills such as JavaScript, C#, SQL and general software development.²¹ Higher skilled jobs are expected to be the most resistant to automation provided that those employed in them are educated with these necessary technical skills.

Apprenticeships

39. There were 25,300 apprenticeship starts in the LCR during the 2017/18 academic year, a fall of 7,900 (24%) from the 33,140 starts in 2016/17. This follows a 5% decline the previous year. The apprenticeship decline was across the region but York's decline was at 20% compared to LCR and the country's 24%.²² The decline in

²⁰ LCR Local Enterprise Partnership & West Yorkshire Combined Authority, Leeds City Region Business Survey, 2019 (<https://www.the-lep.com/media/2876/leeds-city-region-business-survey-2019.pdf>)

²¹ Leeds City Region Local Enterprise Partnership, People: overview of key messages, 2019, (<https://slideplayer.com/slide/17510481/>)

²² Leeds City Region Local Enterprise Partnership, People: overview of key messages, 2019, (<https://slideplayer.com/slide/17510481/>)

apprenticeships, which are spread across NVQs 2 to 4, may be caused by the increase in the availability of university level education with the ever growing intake of both of York's universities.

40. In York, 1,150 apprentices started in the 2017/2018 academic year, down from 1,720 in 2015/16. The 2017/18 intake comprised 350 under 19 year olds; 340 19-24 year olds and 460 over 25 year olds.²³ This fall is significant because it is undermining the role of high-skills educational courses outside of university which puts more pressure on universities to deliver the skills that apprenticeships may be better able to provide.
41. However, York St John University does offer degree-level apprenticeships in Business, Medical Science and Data Science which suggests that the growth of universities' intake may not be a factor in the decline of apprenticeships.²⁴ Indeed, the University of York is also in the process of recruiting apprentices due to its enrolment in the apprenticeship levy.²⁵
42. The main reason that apprenticeships are declining is that 71% of York businesses do not have and do not plan to have apprenticeships.²⁶ Businesses The main concerns of businesses around apprenticeship programmes are associated with cost and bureaucracy. Of York's business only 23% currently offer apprenticeships and 22% plan to offer them, which includes both first-time hirers and expanding apprenticeship businesses.²⁷ However this data highlights the problems with using regional statistics to draw local conclusions, as only 2% of York businesses were consulted in the survey. There is a strong case to be made for local research into apprenticeship demand from the business community.

²³ Leeds City Region Local Enterprise Partnership, People: overview of key messages, 2019, (<https://slideplayer.com/slide/17510481/>)

²⁴ York St John, Degree Apprenticeships, 2019 (<https://www.yorks.ac.uk/study/degree-apprenticeships/>)

²⁵ University of York Human Resources, Appointing an apprentice, 2019 (<https://www.york.ac.uk/admin/hr/contracts-and-appointments/appointing-staff/apprentices/appointing/>)

²⁶ LCR Local Enterprise Partnership & West Yorkshire Combined Authority, Leeds City Region Business Survey, 2019 (<https://www.the-lep.com/media/2876/leeds-city-region-business-survey-2019.pdf>)

²⁷ LCR Local Enterprise Partnership & West Yorkshire Combined Authority, Leeds City Region Business Survey, 2019 (<https://www.the-lep.com/media/2876/leeds-city-region-business-survey-2019.pdf>)

43. In York, disadvantaged pupils are more likely to take up an apprenticeship, with 7% doing so compared to 5% in England.²⁸ This is a strong performance from York but lends weight to the notion that there is a shortage of apprenticeships and the businesses offering them. Disadvantaged pupils who may not get the chance to go to university are the prime targets of apprenticeship schemes so this number should be higher.

Options

44. Having considered the information provided in this report and at the meeting, Members can agree which issues they wish to take forward on the Committee work plan.

Analysis

45. This is an information report and there is no analysis.

Council Plan

46. The new Council Plan is to be considered by the Executive on 24 October 2019 but it is likely that issues considered in this report will impact across a range of priorities.

Implications

47. There are no Financial, Human Resources (HR), Equalities, Legal, Crime and Disorder, Information Technology (IT), Property or other implications associated with the recommendation in this report)

Risk Management

48. There are no risks associated with the recommendation in this report.

Recommendations

49. Having considered the information provided in this report and at the meeting Members are asked to agree which issues they want to take

²⁸ Leeds City Region Local Enterprise Partnership, People: overview of key messages, 2019, (<https://slideplayer.com/slide/17510481/>)

forward to their work plan either through further update reports or by a scrutiny review into a specific topic.

Reason: So the committee has a balanced and effective work plan.

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Report Approved



Date 7/10/2019

Wards Affected

All

For further information please contact the author of the report

Abbreviations:

- YSJ: York St John University
- SOC: Standard Occupational Code
- NVQ: National Vocational Qualifications
- STEM: Science, Technology, Maths and Engineering
- SQL: Structured Query Language
- UOY: University of York
- LCR: Leeds City Region
- City REDI: City Region Economic and Development Institute