

Matter 2 – University of York

2.2 How many jobs are projected to be created by the University of York in the Plan period?

1. The response to this question needs to be read in conjunction with the University’s response to MIQ 2.1. The response has been prepared on behalf of the University by Nicol Economics.

Baseline estimate

2. Previous work and evidence supplied to the EiP [Ref: HS/P2/M3/ED/2 APPENDIX B)] set out current economic role and estimates of jobs supported by the University in York. This work estimated that in 2021/22 the University directly supported around 5,000 jobs (4,500 FTEs) in York in respect of staff on its payroll, with a further 2,250 FTE jobs supported elsewhere in the city by the spend by students and visitors to the University and around 700 via further multiplier effects or a total of around 7,400 FTEs (or of the order of 7.3% of all City of York jobs on a comparable FTE basis). (See Table 1)
3. As noted in the previous work, on average, the jobs supported by the University are well paid and offer above average wages compared to the rest of the economy. The University is now one of the two largest employers in York¹.

Table 1: Current economic footprint of UoY in City of York, 2021/22, FTEs, 000s jobs				
Source of jobs	Base estimate 2021/22	UoY share of all City of York**....		
		Total employees	Total FTE employees	All FTE jobs
A Direct employment at UoY*	4.44	4.2%	5.2%	4.4%
B Indirect from UoY purchases with suppliers and student/delegate spend	2.25	2.1%	2.6%	2.2%
C Total 1 st round effects (A+B)	6.70	6.3%	7.9%	6.7%
D Further multiplier effects	0.66	0.6%	0.8%	0.7%
Total all rounds (C+D)	7.36	7.0%	8.6%	7.3%

*Notes: * updated version of Table 3 in earlier work which used a different direct staff FTE figure to be consistent with previous estimates and methodology. The numbers shown are now consistent with reported FTEs for University of York via HESA returns; ** assumed levels for all of York are 106,000 total employees, 85,000 FTE employees and 100,000 total FTE jobs including self-employed;*

4. In addition, there are an estimated c. 1,000 FTE jobs located at the Science Park that are not included in the above totals (excluding indirect/induced jobs).

Methodology for forecasting jobs impact

5. The methodology used in this note to forecast the future employment impact of the University consistent of the following:
 - a. The direct extra jobs on campus associated with the planned IIP and other projects associated with the effective completion of development on Campus East and West and subsequent growth to the end of the Local Plan period (2038). This has been modelled for simplicity with respect to overall student numbers.

¹ According to information from City of York Council, as of September 2019 it was one of only two employers with over 4,000 staff (the other was York Teaching Hospital NHS Foundation Trust)

- b. The potential extra employment impact associated with additional growth under scenarios for 1.5% and 2.0% pa growth in student numbers, but taking account potential productivity changes.
- c. The indirect jobs associated with extra students numbers and supply spend
- d. To be cautious we have taken the higher end of recorded past “productivity growth” of up to 1.0% pa to translate extra students to direct employment by the UoY and a mid-range of 0.5% pa². We would also expect productivity/efficiencies in the impact of students and supplier spend on jobs across York so have applied the same range of productivity factors.
- e. Then we have added the potential on-campus employment associated with the collaboration projects. This will depend on the relationship between space and employment that in turn depends on the type of facilities developed.

Assessment of future employment impacts

Potential increase in students and staff and so jobs

- 6. The result of this “forecasting exercise” is shown in Annex A attached. As can be seen there is a range of potential jobs growth in terms of direct staff employed by the University and indirect spend arising from supplier spend and student spend in York. The change from 2021/22 ranges from around 600 to up to 1,500 extra FTE jobs to the end of the plan period. These figures exclude further local multiplier effects which, based on previous research, might be of the order of an extra 10%. However, over this period multiplier relationships are likely to change (eg due to greater use of internet based activity).

Collaboration and R&D projects

- 7. The second source of extra jobs is the extra collaboration projects which are expected to occupy space on the existing and expanded campus. These are described in the University’s response to Matter 2.1. Again, it is important to note there are inherent uncertainties about the timing, space needs and jobs associated with these projects. Table 2 sets out indicative estimates of jobs were all these projects to come to fruition as presently indicated. There is specific uncertainty linked to jobs forecasts with these projects/ opportunities for the reasons given above, but also, looking into the future, the relationship between space and employment becomes harder to predict with any certainty.

² It is important to note that this productivity measure is separate from more efficient use of space. It is also affected by the future balance between research based and teaching activity at the University

Table 2: Estimated potential job effects of collaboration projects					
Element of collaboration	GIA sqm	NIA sqm	Jobs Density ⁽²⁾	Potential max jobs	Less vacancy ⁽³⁾
A Fusion Campus ⁽¹⁾	8,401	7,778	12	648	583
B BioYorkshire (excluding GBI)	13,765	11,700	10	1,170	1,053
C Robotics and AI collaborations	10,000	9,258	30	309	278
D Biomedical collaboration	10,000	9,258	30	309	278
Total potential collaboration projects	33,765	30,217		2,435	2,192
Rounded				2,400	2,200
<i>Notes: (1) excludes c. 9,700 sqm for the machine hall, includes office space for private developer and UKAEA; (2) jobs density for C and D based on 2015 HCA Employment Density Guidance for incubator units, for Fusion campus for offices (mid) and for BioYorkshire for offices (higher); (3) assumed to be 10%</i>					

Interpreting these numbers

8. Of interest to CoYC and the EIP is the implications of this growth on overall employment (and housing) in York. It is worth making several points:
 - a. First, there is no necessary linear correspondence between these potential increases and the overall number of jobs in York as much of this growth is arguably part of the re-focused economy that unpinned the CoYC scenarios for economic change. This is particularly true of the collaboration projects where the jobs would broadly fall in the “professional, scientific and technology” category which is where much of the forecast growth is expected to arise in York
 - b. Second, the growth in those employed directly by the University would be classified as the Education sector. We have already made representations that the overall growth in this sector is almost certainly significantly understated by the forecasts used by the City of York Council.
 - c. Third, it is worth pointing out that these are forecasts for growth from 2021/22 to 2038 and so do not correspond with the period used in the evidence for the Local Plan to calculate growth (2017 to 2038).
 - d. Finally, given the critical importance of the University as a driver of the local economy and direct and indirect creator and supporter of jobs, its success or otherwise will inevitably have an impact on overall housing need.

Annex A: Forecast of Jobs Associated with Direct UoY Activities and Student and Supplier spend

Table A1: Estimates of Potential Future FTE Jobs Supported by UoY Activity						
ELEMENT OF GROWTH	Lower growth, 1.5% pa			Higher growth, 2.0% pa		
	FTE students	FTE jobs	FTE jobs	FTE students	FTE jobs	FTE jobs
"Productivity" growth, % pa *		0.5%	1.0%		0.5%	1.0%
Direct jobs (UoY FTEs)						
2021/22	21,250	4,443	4,443	21,250	4,443	4,443
2026/27	22,478	4,584	4,469	22,478	4,584	4,469
2037/38	26,478	5,109	4,714	27,949	5,393	4,976
Total change in FTE jobs and students	5,228	666	271	6,699	950	533
% change	25%	15%	6%	32%	21%	12%
Indirect** impact FTE jobs						
2021/22		2,252	2,252		2,252	2,252
2026/27		2,383	2,383		2,383	2,383
2037/38		2,669	2,538		2,818	2,679
Total change in FTE jobs		417	286		565	427
% change		19%	13%		25%	19%
Total direct and indirect FTE jobs						
2021/22		6,695	6,695		6,695	6,695
2026/27		6,966	6,852		6,966	6,852
2037/38		7,779	7,252		8,211	7,655
Total change in FTE jobs		1,083	557		1,516	959
% change		16%	8%		23%	14%
<p><i>Source: Nicol Economics estimates. Notes: this exercise only considers the 1.5% and 2.0% pa FTE student growth scenarios from 2026/27 onwards.* The assumed productivity growth is applied from 2022/23 onwards for direct staff and from 2026/27 onwards for indirect impacts. It measures the ratio of FTE staff to FTE students. ** Indirect impact includes student and delegate spend effects in the local economy as well as from local purchasing by the University</i></p>						