STAGE 2 REPORT

JOINT EVIDENCE BASE AND INFRASTRUCTURE STUDY

Contents

1   Introduction and Brief

This draft report is part of the Joint Evidence Base and Infrastructure Study, prepared jointly by Arup and Quod. This work is in draft. The findings and conclusions in this draft report represent the views of consultants. They do not form part of the evidence base for any current or draft Local Plans. No policy conclusions can be drawn from this report; it is necessary background work to inform joint working associated with a potential Development Consent Order (DCO) application relating to the expansion of Heathrow Airport.

a)   Introduction

1.1   The Joint Evidence Base and infrastructure Study (JEBIS) has been commissioned by Heathrow Airport limited (HAL) and the Heathrow Strategic Planning Group (HSPG).

1.2   The intention of the Study is to provide an evidence base for the authorities in the study area, in the context of the wider region and sub-region, concerning the potential impacts of the expansion of Heathrow Airport. The evidence base looks principally at potential impacts on the local economy, labour market and associated demand for employment land and housing. It will assess associated infrastructure requirements to support this level of development.

1.3   It is not intended to provide a planning framework for the authorities – it will be up to them individually and collectively as to how they wish to use the evidence base. The work is intended to be 'non-spatial' in that it will not make any specific recommendations on the distribution of any growth – this will again be a choice for the authorities arising from the evidence, their own evidence and local plans and future joint working.

1.4   As agreed by the HSPG, the JEBIS will cover two main parts:

- assessment of the potential impact of the Heathrow proposals on local economic development, demand for employment floorspace and on demand/need for housing resulting from increased employment;
- Infrastructure and infrastructure funding to support this development.

1.5   The JEBIS is a five-stage study. It is an iterative process, with the findings of each stage tested through consultation and formal workshop sessions with HSPG partners, both to ensure that all key data is being considered and to further define the required outputs from each stage influenced by the findings of the completed stages. The intention is for an effective and useable evidence base is produced as a final output, supported by the interim reports. This Draft Report is the second of the five interim reports and follows directly from the Draft Stage 1 Report.

1.6   Stages 1 and 2 are about defining the economic development scenarios for the area, bringing together current projections with those for Heathrow, to produce some combined scenarios and identify potential labour and property demand. Stages 3 and 4 are about testing the implications of these scenarios for their economic impacts and the planning of the local area. Stage 5 is about identifying what infrastructure is planned and might be required based on these implications.

1.7   The aim of Stage 1 was to define growth scenarios. It firstly set out the most appropriate study areas for the JEBIS, comprising a Core Area covering the nine HSPG invited authorities together with a wider sub-regional context area. It then reviewed several assessments of current and projected future employment

produced by Heathrow Airport and other bodies since 2010 in order to establish an agreed central scenario for the scale of employment growth following Heathrow expansion. Finally, it reviewed Local Authority evidence bases on housing and employment within the Core Area and Wider Area in order to establish an initial analysis of the growth assumptions from each of the authorities in their individual or joint evidence bases. The full findings of Stage 1 are detailed in the Draft Stage 1 Report.

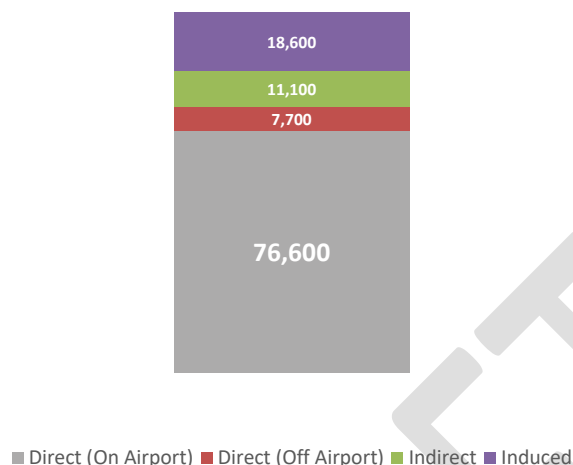### b) Stage 2: Combined Employment Growth Forecasts

a) Brief

1.8 The brief for Stage 2 of the JEBIS as agreed by HSPG aimed to bring together the spatial scales, the baseline and the forecasts which were reviewed and established in Stage 1. The aim for Stage 2 is to create combined employment growth forecasts. This will enable work at Stages 3 and 4 to consider the implications of growth for labour and property markets.

1.9 The JEBIS is concerned with growth arising from Heathrow expansion. A key element of Stage 2 is understanding 'additionality' as a result of Heathrow. This entails building an understanding of how growth as a result of Heathrow will exist above and beyond expected baseline growth that would occur regardless. Not all of the implied Heathrow demand will be additional and it can be expected that markets will adjust through changes in labour market participation, commuting patterns and other factors. Stage 2 will estimate the additionality present in the combined employment growth forecasts, which will be crucial for estimating property, labour and housing market impacts through Stages 4 and 5.

b) Heathrow Employment Impacts

1.10 Stage 1 reviewed how much employment is currently generated by Heathrow and set out a central baseline of 114,000 direct, indirect and induced jobs in 2011, based on HAL employment surveys. This will serve as the baseline figure for Stage 2. The table below shows that baseline employment breakdown.

1.11 Heathrow Airport Limited undertakes employment surveys broadly every five years. This involves an 'employer' survey which uses Heathrow's employer database to identify companies who are then surveyed to identify their total employment headcount and other characteristics. This informs the basis of an 'employee' survey where a sample survey (face to face and or written questionnaire) are undertaken to identify more detailed employee characteristics including where they live and how they travel to work. The 2013/14 survey[1] provided an update on the 2008/9 survey and identified a headline total employment of 75,780, broadly consistent with the 76,600 figure established by Optimal Economics (2011). Due to changes in methodology the figures are not directly comparable.

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[1] https://www.heathrowexpansion.com/wp-content/uploads/2017/08/TBF-Volume-2-72dpi-jm.pdf

Figure 1: Baseline employment (2011)

Direct (On Airport) ■ Direct (Off Airport) ■ Indirect ■ Induced

Source: Optimal Economics (2011)

1.12 Stage 2 will also establish how to model the breakdown of Heathrow-related employment into direct, indirect and induced categories for the purposes of combined employment growth forecasts. This work will be used as an input into the modelling of employment forecasts through the Oxford Economics model (see below). This will also be crucial in helping to understand the spatial distribution of employment as a result of Heathrow expansion, which will have important implications for Stages 3 and 4.

1.13 The breakdown of future Heathrow employment into direct, indirect and induced categories may be estimated and modelled in more than one way and different scenarios will be tested. In particular, two options will be discussed for modelling indirect employment – one based on projecting current sectoral relationships, and one based on Oxford Economics modelling.

c) **Oxford Economics Model**

1.14 The expansion of Heathrow will take place against the background of a 'moving' local baseline. Both the local economy and local population (and local households) are projected to increase. In order to integrate the growth analysis with this moving baseline the JEBIS study has commissioned Oxford Economics to produce a baseline assessment of the 'Core Area' and 'Wider Area' authorities, and then to run alternate scenarios in which sectoral growth resulting from Heathrow is added in.

1.15 To support this, as part of Stage 1 an initial review of Local Authority evidence bases on housing and employment within the Core Area and Wider Area was undertaken in order to establish an initial analysis of the growth assumptions from each of the authorities in their individual or joint evidence bases. This work is summarised in the Stage 1 Report, and this Stage 2 study builds on this.

1.16 It has been agreed by the HSPG that the JEBIS will adopt 5-year periods from 2016 (2016, 2021, 2026, 2031, 2036, 2041), which would be consistent with both the Oxford Economics data and Greater London Authority

projections, as well as significant Heathrow expansion time periods. The Oxford Economics data covers each year from 2016 to 2041 so can be used to gain a full understanding of changes over this period.

2 Heathrow Employment Impacts

a) Developing a model for employment impacts

2.1 This section examines the inputs required to create a combined employment growth forecast. This will also establish how to model the breakdown of Heathrow-related employment into direct, indirect and induced categories for the purposes of combined employment growth forecasts
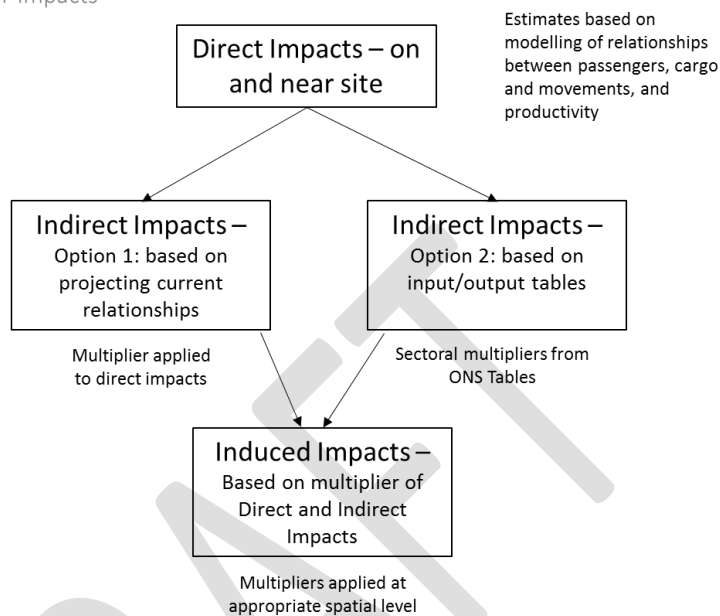
b) Inputs

2.2 Previous studies of the employment impacts of Heathrow split employment into direct (on and near the airport itself), indirect and induced employment using variations on the standard practice adopted from a series of Government guidance documents the most recent of which is the HCA Additionality Guide (4th edition)[2]. The *baseline* jobs figure from Stage 1 also assigns jobs on this basis, as shown in Figure 1 previously. However, a number of interlinked methods can be used to model how employment *growth* as a result of Heathrow expansion can be split into these categories.

2.3 Impacts on direct employment may be estimated based on modelling of relationships between passengers, cargo and air traffic movements (ATMs), and productivity. There are two options for modelling indirect impacts which will be discussed below, based either on projecting current relationships between sectors or on sectoral multipliers and input/output tables. Induced impacts may be modelled based on applying multipliers to direct and indirect impacts. These methods are summarised in Figure 2 below.

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[2] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/378177/additionality_guide_2014_full.pdf

Logic Tree for Impacts

Direct Impacts – on and near site

Estimates based on modelling of relationships between passengers, cargo and movements, and productivity

Indirect Impacts – Option 1: based on projecting current relationships

Multiplier applied to direct impacts

Indirect Impacts – Option 2: based on input/output tables

Sectoral multipliers from ONS Tables

Induced Impacts – Based on multiplier of Direct and Indirect Impacts

Multipliers applied at appropriate spatial level

c) **Direct jobs**

2.4 As set out in Stage 1, this study has established a baseline figure for direct employment at Heathrow of approximately 76,000 jobs, based on HAL employment survey data. This is reflected too in Office for National Statistics (ONS) data from the Business Register and Employment Survey (BRES) for the areas containing Heathrow airport and its surrounds.

2.5 HAL's employment surveys provide a sectoral breakdown of jobs at Heathrow, according to broad categories. ONS BRES data also breaks down employment into standard industrial sectors. These two measures of the sector breakdown of jobs at Heathrow use some different sector definitions; however, they can broadly be matched up to each other to indicate how jobs at Heathrow break down into standard industrial sectors, as shown below.

Table 1: Jobs breakdown by sector in BRES and HAL survey data

BRES (2016)		Heathrow Survey (2013/14)	
H Transportation and Storage	66%	Management / Professional - Airport Specific	2.4%
		Pilots / ATC / Flight Operations	5.5%
		Security / Passenger Search / Access Control	9.8%
		Maintenance Tradesmen	7.4%
		Air Cabin Staff	21.3%
		Apron, Ramp and Cargo, Drivers and Baggage Staff	11.1%
		Sub Total	*58%*
N : Administrative and support service activities	9%	Passenger Services, sales and clerical	18%
Total H+N	75%	Total	76%
G Wholesale and retail and I Accommodation and Food	12%	Catering and Retail	11%
M : Professional, scientific and technical activities (incl. J IT and K Fin)	7%	IT	1.3%
		Management / Professional - General	6.9%
		Sub Total	*8%*
O : Public administration and defence; compulsory social security	4%	Customs / Immigration / Police and Fire	3%

2.6   This indicates that approximately three-quarters of jobs at Heathrow are in transportation, storage and administrative services, with the remainder in retail and catering, followed by professional and technical activities and public administration activities such as customs and policing.

2.7   Combining these assessments together gives the following indicative sectoral breakdown for baseline current direct jobs at Heathrow:

Table 2: Indicative sectoral assumptions for model (on-airport)

Sector	
A : Agriculture, forestry and fishing	0%
B : Mining and quarrying	0%
C : Manufacturing	1%
D : Electricity, gas, steam and air conditioning supply	0%
E : Water supply; sewerage, waste management and remediation activities	0%
F : Construction	1%
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	4%
H : Transportation and storage	66%
I : Accommodation and food service activities	7%
J : Information and communication	0%
K : Financial and insurance activities	1%
L : Real estate activities	0%
M : Professional, scientific and technical activities	6%

N : Administrative and support service activities	9%
O : Public administration and defence; compulsory social security	4%
P : Education	0%
Q : Human health and social work activities	0%
R : Arts, entertainment and recreation	0%
S : Other service activities	0%
Total	100.0%

2.8 Two-thirds of employment falls in the Transportation and Storage sector, with smaller concentrations in Administrative and Support Services, Accommodation and Food Services and Professional, Scientific and Technical Activities. This provides a basis to model how future direct employment growth could fall into different sectors. It should be noted that none of the forecasts of employment reviewed in the Stage 1 report included a sectoral breakdown of jobs, although it is likely that sectors will have different productivity changes which alter the balance between them in the increased Heathrow workforce. However, given the preponderance in the transportation and storage sector (three quarters of all jobs) it is reasonable to use the breakdown in Table 2 as a basis for allocating direct jobs to employment sectors for input to the Oxford Economics model.

d) **Indirect and induced jobs**

2.9 There are two potential options for modelling indirect employment which this report will examine. The first option consists of projecting forward current relationships based on survey data and modelling of current indirect employment, including its geographical distribution. The second option involved modelling indirect employment using the Oxford Economics model. The report will use both and compare the results. Both assume a 'policy-off' approach and do not account for potential policy interventions.

2.10 Option 1 involves using HAL survey-based data to understand the scale of indirect employment in the five 'local' districts around Heathrow (Ealing, Hillingdon, Hounslow, Slough, Spelthorne), as well as using modelled data from input/output tables to understand sector purchases and multipliers and BRES data to identify sectors in local districts. The input-output tables model how each sector purchases goods and services, and how these purchases drive indirect employment.

Figure 3: Example of input/output table

Purchases by Sector

2014 Input-Output Analytical Tables			
Combined use table at purchasers' prices (product by industry)			
£ million			
MENU			
	51	52	53
	Air Transport	Warehousing And Support Activities For Transportation	Po
01 Products of agriculture, hunting and related services			
02 Products of forestry, logging and related services			
03 Fish and other fishing products; aquaculture products; supp			
05 Coal and lignite			
06&07 Extraction Of Crude Petroleum And Natural Gas & Mining Of			
08 Other mining and quarrying products		3	
09 Mining support services			
10.1 Preserved meat and meat products	3	7	
10.2-3 Processed and preserved fish, crustaceans, molluscs, fruit	19	33	
10.4 Vegetable and animal oils and fats		1	
10.5 Dairy products	8	15	
10.6 Grain mill products, starches and starch products			
10.7 Bakery and farinaceous products	10	7	
10.8 Other food products	17	3	
10.9 Prepared animal feeds			
11.01-6 Alcoholic beverages & Tobacco products	7		
11.07 Soft drinks	7	31	
13 Textiles	4	8	
14 Wearing apparel			
15 Leather and related products		1	
16 Wood and of products of wood and cork, except furniture; a		10	
17 Paper and paper products	3	1	
18 Printing and recording services	1	92	
19 Coke and refined petroleum products	299	58	
20A Industrial gases, inorganics and fertilisers (all inorganic chen	2	1	
20B Petrochemicals - 20.14/16/17/60		1	
20C Dyestuffs, agro-chemicals - 20.12/20		2	
20.3 Paints, varnishes and similar coatings, printing ink and mastic		3	
20.4 Soap and detergents, cleaning and polishing preparations, pe	12	1	
20.5 Other chemical products		1	
21 Basic pharmaceutical products and pharmaceutical preparat			
22 Rubber and plastic products	1	103	
23OTH Glass, refractory, clay, other porcelain and ceramic, stone a	9	8	
23.5-6 Cement, lime, plaster and articles of concrete, cement and pl	1	8	
24.1-3 Basic iron and steel			

Multipliers by Sector

2014 Input-Output Analytical Tables			
Multipliers and effects (product)			
MENU			
Products	Output Multiplier	Rank	Employment Cost Multiplier
20A Industrial gases, inorganics and fertilisers (all inorganic chen	1.651	49	2.165
20B Petrochemicals - 20.14/16/17/60	1.756	30	2.530
20C Dyestuffs, agro-chemicals - 20.12/20	1.717	42	1.745
20.3 Paints, varnishes and similar coatings, printing ink and mastic	1.561	74	1.603
20.4 Soap and detergents, cleaning and polishing preparations, pe	1.811	24	2.122
20.5 Other chemical products	1.488	93	1.755
21 Basic pharmaceutical products and pharmaceutical preparat	1.345	116	1.485
22 Rubber and plastic products	1.476	97	1.410
23OTH Glass, refractory, clay, other porcelain and ceramic, stone a	1.718	41	1.636
23.5-6 Cement, lime, plaster and articles of concrete, cement and pl	1.979	12	2.189
24.1-3 Basic iron and steel	1.727	39	2.237
24.4-5 Other basic metals and casting	1.404	109	1.751
25OTH Fabricated metal products, excl. machinery and equipment ar	1.506	90	1.360
25.4 Weapons and ammunition	1.581	66	1.673
26 Computer, electronic and optical products	1.521	87	1.498
27 Electrical equipment	1.548	78	1.543
28 Machinery and equipment n.e.c.	1.623	55	1.655
29 Motor vehicles, trailers and semi-trailers	1.592	63	1.950
30.1 Ships and boats	1.768	29	1.643
30.3 Air and spacecraft and related machinery	1.711	43	2.086
30OTH Other transport equipment - 30.2/4/9	1.724	40	1.943
31 Furniture	1.622	57	1.546
32 Other manufactured goods	1.536	84	1.561
33.15 Repair and maintenance of ships and boats	1.595	62	1.469
33.16 Repair and maintenance of aircraft and spacecraft	1.819	23	1.842
33OTH Rest of repair; Installation - 33.11-14/17/19/20	1.625	54	1.648
35.1 Electricity, transmission and distribution	2.389	1	4.605
35.2-3 Gas; distribution of gaseous fuels through mains; steam and	1.859	19	2.135
36 Natural water; water treatment and supply services	1.473	99	1.514
37 Sewerage services; sewage sludge	1.458	103	1.446
38 Waste collection, treatment and disposal services; materials	1.773	27	2.148
39 Remediation services and other waste management services	1.544	80	1.365
41-43 Construction	1.859	20	2.063
45 Wholesale and retail trade and repair services of motor vehic	1.527	86	1.427
46 Wholesale trade services, except of motor vehicles and mot	1.700	44	1.638
47 Retail trade services, except of motor vehicles and motorcyc	1.605	60	1.457
49.1-2 Rail transport services	1.966	13	1.809
49.3-5 Land transport services and transport services via pipelines	1.632	52	1.609
50 Water transport services	1.874	18	2.112
51 Air transport services	1.486	95	1.748
52 Warehousing and support services for transportation	2.000	10	2.025
53 Postal and courier services	1.580	67	1.450
55 Accommodation services	1.554	75	1.469

2.11 These methods are used to produce a multiplier that can be applied to direct employment. This resulting indirect employment can be assigned to the five local districts based on existing sector breakdowns within each of the five districts.

Table 3: Sectoral employment breakdown apportioned by district (BRES, 2016)

Sector	Ealing	Hillingdon	Hounslow	Slough	Spelthorne
A : Agriculture, forestry and fishing	22%	67%	11%	0%	0%
B : Mining and quarrying	5%	45%	45%	1%	4%
C : Manufacturing	39%	24%	11%	21%	5%
D : Electricity, gas, steam and air conditioning supply	9%	52%	0%	39%	1%
E : Water supply; sewerage, waste management and remediation activities	15%	14%	18%	38%	15%
F : Construction	30%	30%	17%	11%	13%
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	26%	29%	23%	15%	7%
H : Transportation and storage	10%	32%	41%	12%	5%
I : Accommodation and food service activities	24%	38%	24%	7%	7%
J : Information and communication	13%	15%	48%	17%	7%
K : Financial and insurance activities	18%	27%	36%	8%	10%
L : Real estate activities	33%	20%	29%	8%	10%

M : Professional, scientific and technical activities	24%	33%	26%	13%	5%
N : Administrative and support service activities	16%	38%	26%	14%	5%
O : Public administration and defence; compulsory social security	23%	41%	23%	7%	6%
P : Education	26%	31%	21%	15%	8%
Q : Human health and social work activities	27%	29%	25%	14%	5%
R : Arts, entertainment and recreation	26%	21%	31%	9%	13%
S : Other service activities	31%	27%	22%	11%	8%

2.12   By contrast, Option 2 models indirect and induced employment using the Oxford Economics model, which is explained below in more detail.

2.13   Previous assessments of Heathrow employment have also assessed indirect and induced employment, with differing methodologies. These provide a comparison for the multipliers generated and a guide to testing scenario ranges. Indirect employment uses similar multipliers in all models:

> **Commented [KO1]:** I think the tables below are more effective as tables than as figures

Table 4: Indirect employment multipliers

Total Indirect Multiplier	All	Local (5 Boroughs)
Optimal (Baseline)	1.6	1.14
HAL	1.6	
Airports Commision (2014)	1.6	
Input Output Tables (Air Transp	1.7	

2.14   This also indicates that about 25% of the indirect multiplier is local (within the five districts). Induced employment also uses similar multipliers in all models, with about 30% of the multiplier being local:

Table 5: Induced employment multipliers

Total Induced Multiplier	All	Local (5 Boroughs)
Optimal (Baseline)	0.6	0.19
HAL	0.66	
Airports Commision (2014)	0.66	

2.15   In terms of testing scenarios, as shown in Stage 1 different assessments have arrived at different final employment figures, which have been reviewed. Different assessments have different assumptions about the future use of the airport; some such as the Airports Commission high-end assessment predict that employment at an expanded Heathrow will peak faster. These assessments arrive at higher overall employment growth projections as a result. Using different growth scenarios (low versus high) allows testing of indirect and induced modelling:

Table 6: Scenario testing

	Low (AC1)	High (AC1)	Frontier
Direct 2030	17,500	41,000	17,900
Local Indirect	2,700	6,400	2,300
Local Induced	3,840	9,010	3,840
Local Total	**24,040**	**56,410**	**24,040**
Non Local	23,360	55,190	17,260
Total	**47,400**	**111,600**	**41,300**
	Low (AC1)	High (AC1)	Frontier (2040)
Direct 2050	23,700	40,100	35,600
Local Indirect	3,320	5,610	4,980
Local Induced	5,130	8,690	7,710
Local Total	**32,150**	**54,400**	**48,290**
Non Local	31,950	53,900	48,410
Total	**64,100**	**108,300**	**96,700**

2.16   Highlighted areas in the table above are extrapolations based on 'local' multipliers. The scenario testing below uses the Frontier Economics (2014) assessment on behalf of HAL as a low-end or 'slow build up' scenario, and a combined Airports Commission/Department for Transport high-end or 'fast build up' scenario:

Table 7: Illustrative inputs/assumptions

	HAL	AC/DFT
2017 to 2021	0	0
2021 to 2026	10%	50%
2027 to 2031	40%	50%
2031 to 2042	50%	0 (possible fall)
Total Direct	35,600	41,000
Total (Local) Indirect (Option 1)	6,400	7,710
Indirect (Option 2) and Induced	Output from Oxford Economics Model	

2.17   The total number of end-state direct and indirect additional jobs in these two scenarios is reasonably similar; however, the timing of jobs represents the important divergence.

3   Employment Growth and Projections

3.1   This section details the creation of a combined employment growth forecast, building on the baseline set out in Stage 1 and the methods established in the previous section. In particular, it builds upon the Oxford Economics model which has been commissioned for this study.

e)   The Oxford Economics model

3.2   The Oxford Economics model has been specially developed for commercial use by Oxford Economics. It makes use of a number of standard baseline statistics including ONS measures of populations and households. A simplified scheme of the model is shown below:

Figure 4: Oxford Economics model simplified scheme (Oxford Economics, 2017)
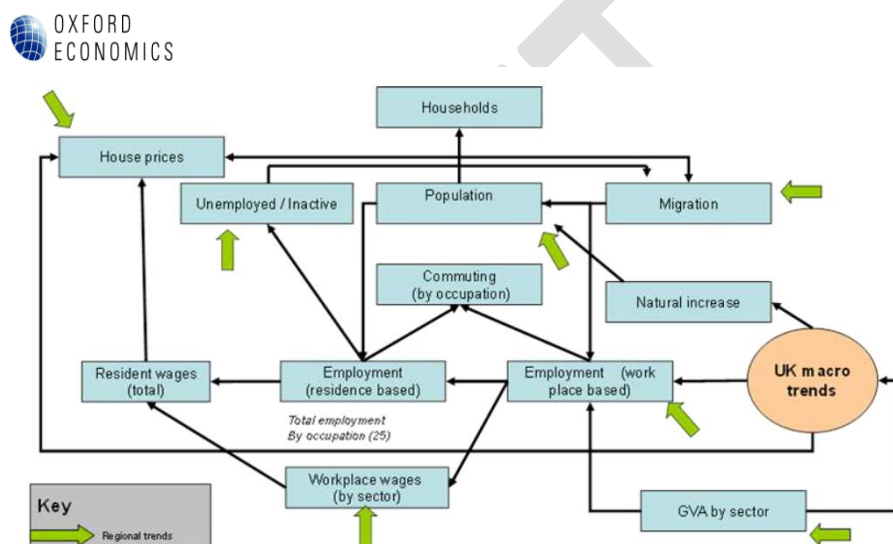
3.3   Through input/output tables, this model produces direct, indirect and induced impacts by sector for both employment and output. It also models who takes these jobs, based on assumptions and trends among local residents, commuting and migration.

3.4   Outputs from the Oxford Economics model show that there will be baseline forecast employment growth in the Transportation and Storage sector in Hounslow, London and the South East (Figure 5).

Figure 5: Baseline forecast change in Transportation and Storage, 2016-41 (Oxford Economics model)
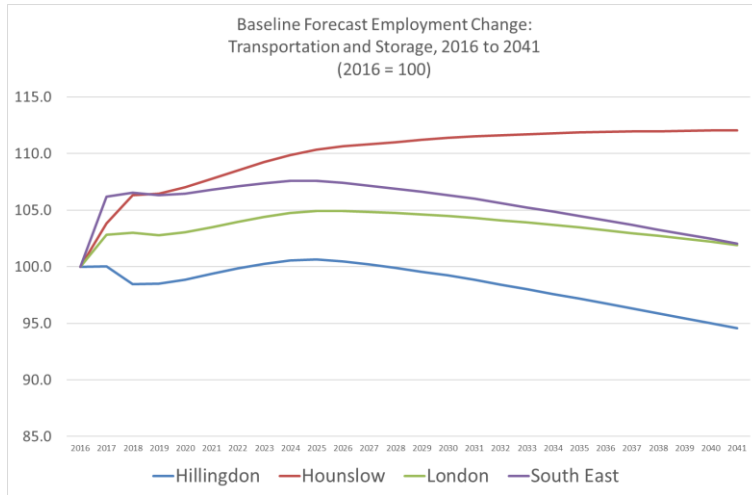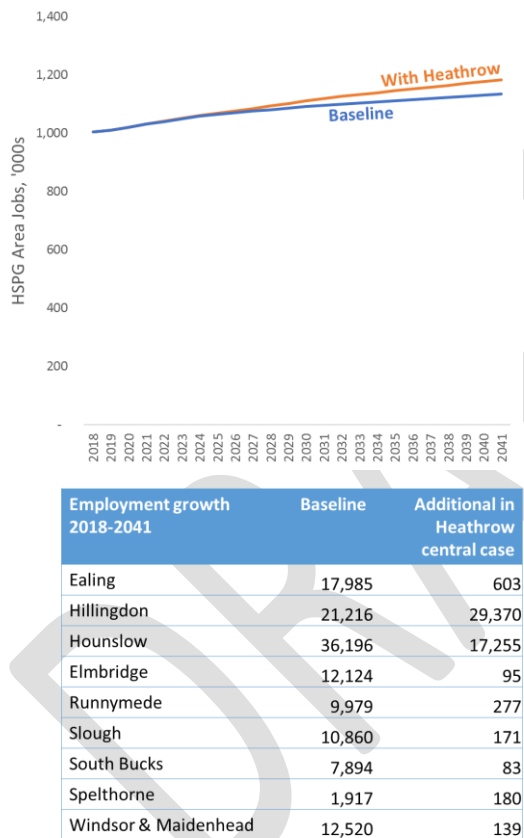

3.5   However, jobs in this sector are forecast to fall in Hillingdon. This is likely to reflect methodological changes in underlying BRES data, which shows jobs in the Air Passenger Transport subsector falling in Hillingdon and rising in Hounslow between 2014 and 2015 by similar amounts (see Figure 6 below); this changes the baseline for the two boroughs and in turn pushed up projected jobs in Hounslow and pushes down projected jobs in Hillingdon.

Figure 6: Air passenger transport in Hillingdon and Hounslow (BRES, 2016)
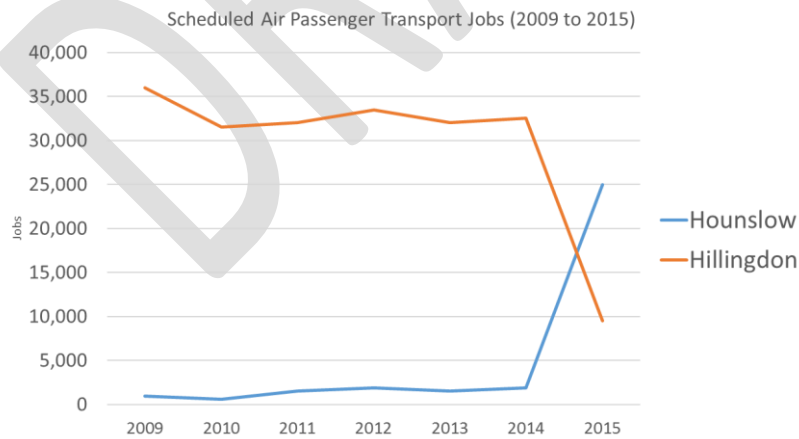
3.6 This highlights the importance of baseline growth. The model outputs are 'policy off' and do not assume any policies which may seek to change the location of jobs, such as efforts by local planning authorities to capture employment uplift. It also refers to workforce jobs, rather than the origin of employees. Overall, the model predicts that employment uplift from Heathrow will consist of approximately 48,175 jobs within the JEBIS Core Area. This is predominately likely to fall within Hillingdon and Hounslow:

Figure 7/Table 8: Oxford Economics modelled employment growth (baseline and additional)

| Employment growth 2018-2041	Baseline	Additional in Heathrow central case
Ealing	17,985	603
Hillingdon	21,216	29,370
Hounslow	36,196	17,255
Elmbridge	12,124	95
Runnymede	9,979	277
Slough	10,860	171
South Bucks	7,894	83
Spelthorne	1,917	180
Windsor & Maidenhead	12,520	139

Workplace-based. Direct, indirect and induced

3.7 As shown in the previous section, these jobs are likely to predominately be in the Transportation and Storage sector:

Figure 8: Employment growth by sector (Oxford Economics model)
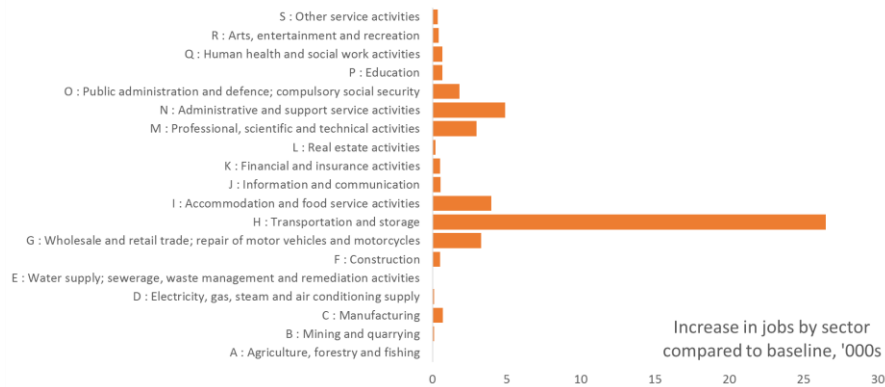
3.8 The Oxford Economic model has also been used to test different scenarios, as described previously. This enables a comparison between the assumptions on speed of employment growth between a central or 'slow build up' scenario and a 'fast build up' scenario:
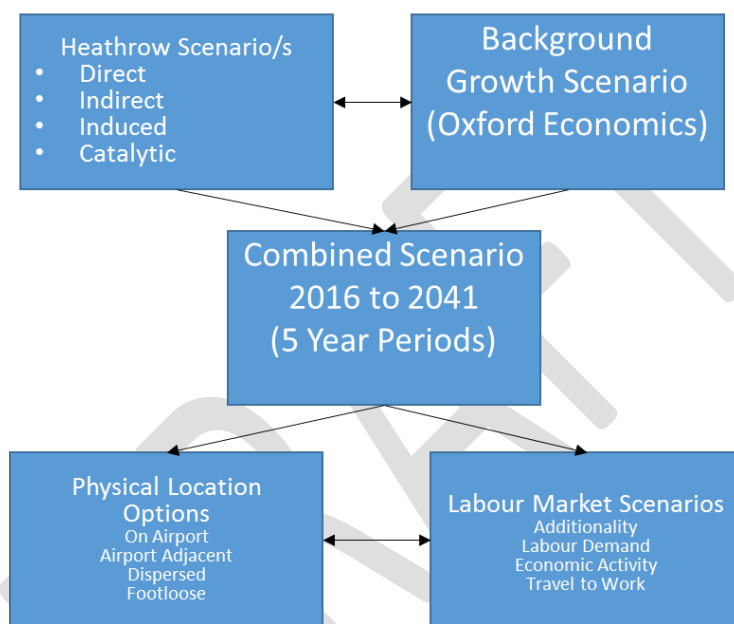
Figure 9: Jobs growth scenarios (Oxford Economics model)
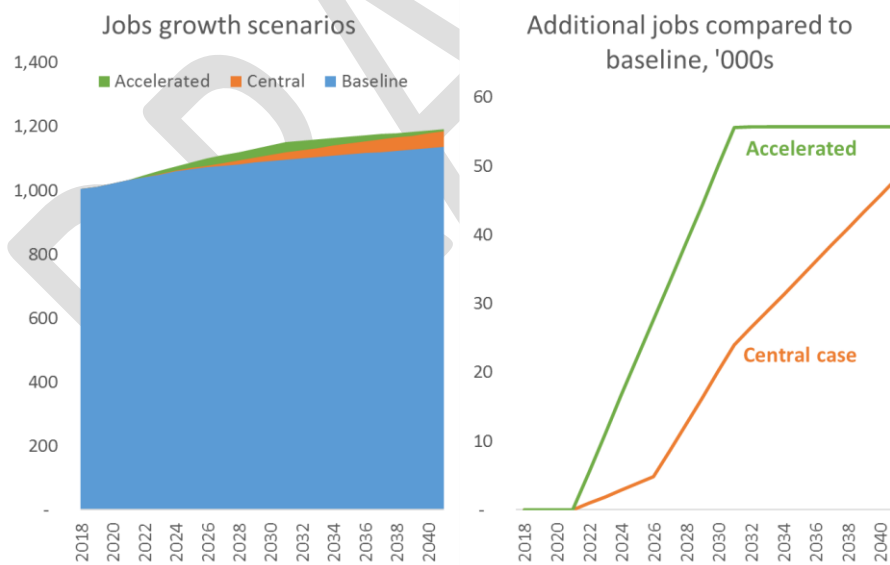
4 Conclusion and next steps

4.1 This report has set out a methodology for a combined employment growth forecast to assess the effects of Heathrow expansion. This draws on baseline work set out to establish the breakdown of current Heathrow employment. It also uses the Oxford Economics model and the outputs of Stage 1 to establish a baseline and model future baseline growth. This work will provide a basis for Stages 3 and 4 to consider the labour and housing market effects of Heathrow employment growth.

Figure 10: Model and next steps