

THE ECONOMIC IMPACT OF REDUCED ACTIVITY AT HEATHROW AIRPORT

June 2020

Oxford Economics is delighted to present the Heathrow Community Engagement Board with a proposal to quantify the economic impact of reduced activity at Heathrow. Our study will deliver a thorough and robust analysis of the direct, indirect, and induced impacts that typically arise from the presence and operation of Heathrow airport on the local economies of Ealing, Hillingdon, Hounslow, Spelthorne, Slough and South Bucks. We will then estimate how these impacts are likely to change over the short-term (to 2025) as the airport and the airline sector recover from the worst effects of the coronavirus outbreak, and adjust to new ways of working.

We are currently undertaking a similar project for the London Borough of Hounslow and hence have advanced knowledge of the available data and issues facing this study. In addition, our track record of providing high-quality quantitative analysis of London and the South East, along with our previous work on the impact of airports on local economies (we have examined many of these in the UK and internationally), together with our extensive work on the macroeconomic impacts of coronavirus on the UK and its regions, means we are ideally placed to assist you with this project. Furthermore, we produce socio-economic forecasts for all local areas in the UK and hence already hold a considerable amount of data that we need for the study. With over 250 full-time economists we can deliver a comprehensive impact study to you by the end of August.

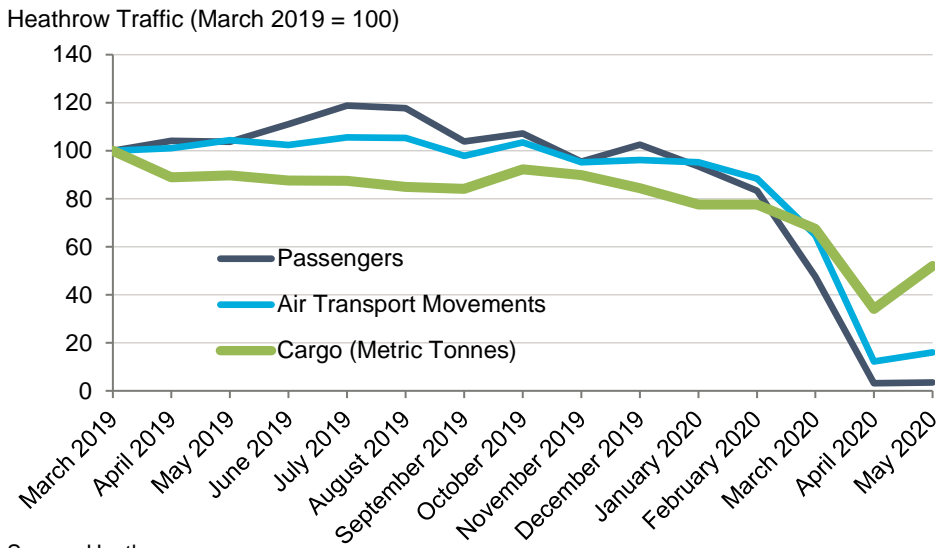
This proposal document outlines a high-level approach and associated costs and timings. We can of course provide more detail on the approach, along with CVs and recent examples of relevant experience.

UNDERSTANDING YOUR REQUIREMENTS

The coronavirus outbreak has had an unprecedented impact on national and local economies. As the government introduced social distancing and lockdown measures to contain the spread of infection, all sectors of the economy have suffered. Amongst the most impacted has been air travel. Data for May 2020 shows that compared to the same month a year ago, passenger numbers at Heathrow were 96.6% down.¹ In addition, air transport movements were down over 84.7% and cargo movements were down 42%.

¹ <https://www.heathrow.com/company/investor-centre/reports/traffic-statistics>

Fig. 1. Heathrow traffic from March 2019 to May 2020



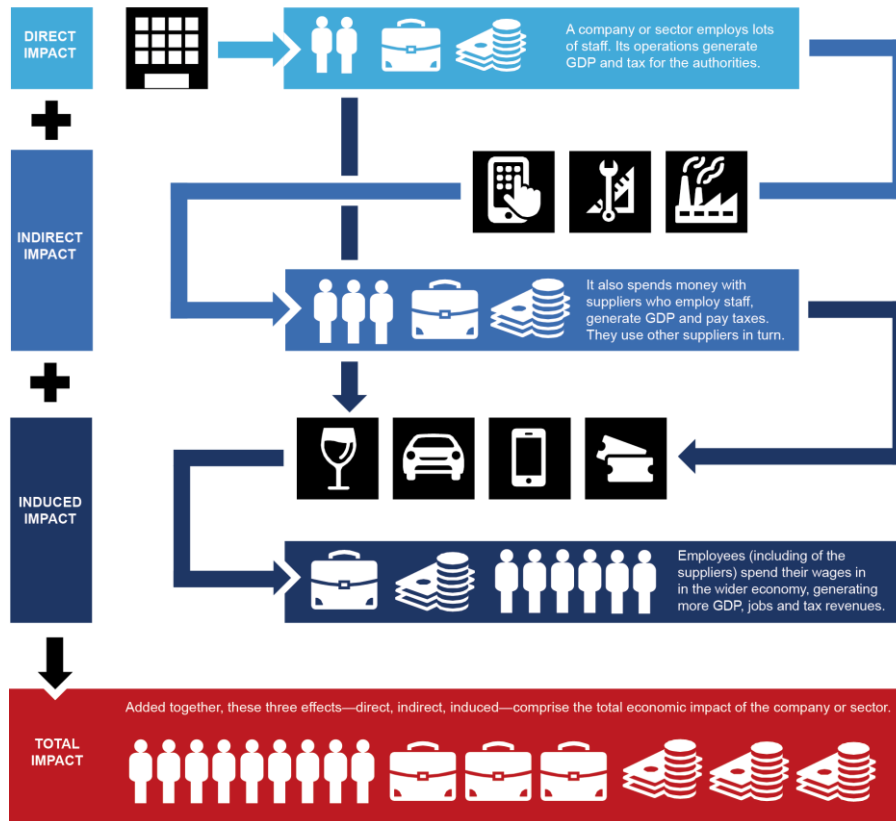
The dramatic fall in air travel is a significant shock for the airport where over 76,000 people work and which accounts for 94% of international passenger flows in and out of the UK². Understandably, given the importance of Heathrow to the local economies of Ealing, Hillingdon, Hounslow, Spelthorne, Slough and South Bucks, the Heathrow Community Engagement Board are keen to understand the likely impacts now and as the airport recovers.

OUR APPROACH

We will use our well-established economic impact methodology to assess the economic impact associated with the reduced activity at Heathrow. Economic impact assessments quantify the total economic shock through four main channels. The first three are the standard channels through which economic impact is usually quantified: direct operational effects, supply chain effects, and the impact of employees spending their wages in the wider consumer economy.

² Heathrow Airport Ltd

Fig. 2. Overview of economic impact methodology



A fourth channel, known as ‘catalytic’ or ‘dynamic’ impacts looks at larger decisions by businesses and households about where to invest, whether or not to set up (or in this case close down or relocate) a business, where to live, whether to enter (or leave) the labour market, and so on. Whilst we will comment on the catalytic impacts in this work, it will be a relatively minor part of the work. We discuss this in more detail later in the proposal document.

1. Project inception meeting

The project will commence with an inception meeting to formally introduce the team and to confirm details on project scope and timelines. We already have access to numerous studies on Heathrow’s contribution to the local economies, however it would be useful to check if there is anything that we are not aware of (for example a study or survey commissioned by you or one of the Council areas covered in the study). By collecting this information, we will ensure that we capture your insight and knowledge at an early stage of the project.

Throughout the project, we will keep in regular contact with you to communicate progress.

2. The Economic Contribution of Heathrow pre-lockdown

Using a mix of existing evidence and published data we will estimate the 2019 contribution of Heathrow to the local economies covered in the study. It is against this benchmark that we can understand the impact of reduced activity on the economies of Ealing, Hillingdon, Hounslow, Spelthorne, Slough and South Bucks.

To arrive at our 2019 estimates of the direct on-airport jobs and direct off-airport jobs we will draw on past estimates contained in reports such as the Parsons Brinckerhoff and Berkeley Hanover Consulting 2013 report “Heathrow Employment Impact Study”, the Optimal Economics 2011 paper “Heathrow Related Employment”, and the Regeneris 2013 study “London Heathrow Economic Impact Study”. We will also utilise past Heathrow employment surveys as they can provide information on the number of jobs at Heathrow, their type and who takes them (e.g. where employees reside), though these are restricted to the five boroughs of Ealing, Hillingdon, Hounslow, Spelthorne, and Slough, which means we will have to estimate direct jobs filled by residents of South Bucks. We will also use published data sets like the Business Register Employment Survey (BRES) which provides measures of sectoral employment growth in each local economy to arrive at more timely estimates of Heathrow’s local contributions.

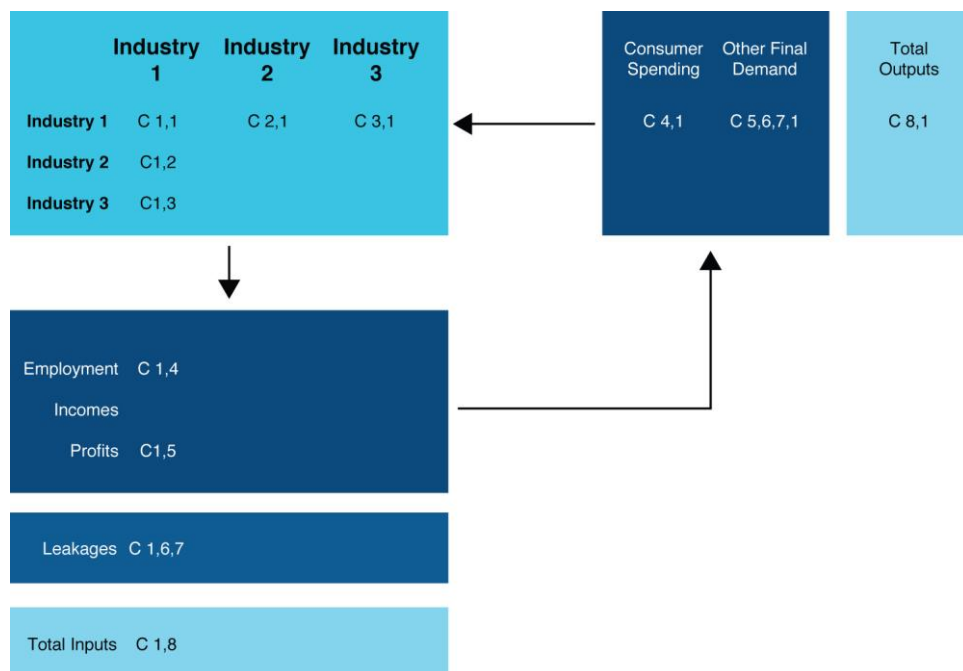
At the end of this stage we will have established the number of direct jobs in each local economy, and for the direct on-airport jobs in Hillingdon, the shares that are taken by residents of each of the five authorities. We will also have estimates of these jobs by sector which will help the Council’s understand the types of jobs and workers supported by Heathrow in their local economies. Our next task is to estimate the associated indirect and induced impacts.

3. Estimating indirect and induced impacts

A considerable amount of supply chain activity is based in Hillingdon and Council areas neighbouring Heathrow. The 2011 Optimal Economics paper “Heathrow Related Employment” estimated indirect jobs in Ealing, Hillingdon, Hounslow, Spelthorne and Slough at 11,000 in 2010. They also estimate that induced impacts stood at 18,600.

To estimate more up to date impacts, we will build on the economic impact model that we have designed for our Hounslow study. This model will allow us to estimate our own indirect and induced impacts given the scale and sectoral distribution of the direct impacts. Our model is based on an Input-Output modelling framework. Figure 3 presents a stylised version (showing just three sectors for presentation purposes) of our Input-Output model which is a framework that traces how economic activity flows through an economy as one sector makes purchases from another sector.

Fig. 3. Stylised input-output model



We use the latest UK input-output tables for the analysis. To develop a model for each of the local economies covered in the study we adjust the UK input-output tables to account for both the characteristics (i.e. the sectoral structure) and size of each economy. In doing so, we typically follow the approach set out in papers such as Flegg and Tohmo (2013)³. Therefore, our approach accounts not just for their sector structure, but also their size relative to the UK economy.

The input-output tables will provide us with an estimate of indirect output by sector. We can convert the output back into sectoral GVA and then into sectoral jobs to provide a range of sectoral impact measurements. Applying average sectoral salaries allows us to estimate the income effect. We will provide estimates of the net supply chain impacts to fit with our presentation of the direct impacts.

The induced impact is economic activity and employment supported by those directly or indirectly employed spending their income on goods and services in each economy. This helps to support jobs in the sectors that supply these purchases, and typically includes jobs in retail and leisure outlets, companies producing consumer goods and in a range of service industries. From the work above we will have estimates of direct jobs filled by residents of Ealing, Hillingdon, Hounslow, Spelthorne, Slough and South Bucks. We also have estimates of indirect jobs in each area. We will use this to produce an estimate of income and consumption, allowing for the fact that some spending by residents will occur in neighbouring boroughs and indeed much wider afield, and equally that residents from outside will spend within each of the local economies covered in the study. Using our Input-Output model will be able to estimate the wider sectoral induced impacts.

4. Catalytic impacts

Catalytic impacts are very difficult to measure and require a detailed survey of local businesses which we are not proposing to do. We would therefore suggest relying on previous estimates for this work (like those in the Parsons Brinckerhoff paper). In addition, we would argue that catalytic businesses already located in Ealing, Hillingdon, Hounslow, Spelthorne, Slough and South Bucks are unlikely to move in the short to medium term due to reduced levels of passenger flows or cargo volumes. Assuming the UK air travel policies are not materially different from others in the world, businesses are unlikely to benefit from moving elsewhere. Should a catalytic business decide to reduce its workforce, it is likely this is a reaction to the economic impact of the coronavirus outbreak and associated lockdown, rather than Heathrow Airport itself having to recover over the coming three or four years.

However, should the lower passenger numbers and cargo make some air routes no longer viable at Heathrow, a reduction in destinations served by Heathrow might have a determinantal impact on existing businesses that have decided to locate in 'locally' based on the assumption they would have access to these and other markets. Though even if this was to happen it is likely that it would take a considerable time for catalytic businesses to relocate away. It is more likely that reduced air travel, cargo volumes or a reduction in destinations served by Heathrow Airport would impact on future potential investments. This is however very difficult to measure.

As such we don't anticipate having to model the impacts on catalytic activity.

5. The direct impact of reduced activity at Heathrow now and over the next 5 years

The next step is to understand how activity at the airport has been affected by the outbreak. The outlook for the airline industry and Heathrow is uncertain. Much will depend on when social distancing measures are relaxed, not just in the UK, but in key trading nations and tourism markets. This is a matter that we are monitoring globally on a weekly, indeed daily basis, as part of our extensive global, UK and regional forecasting services, and our global travel forecasting service (we forecast passenger air travel city pairs,

³ Flegg, A. T. and Tohmo, T. (2013) "Regional input-output tables and the FLQ formula: A case study of Finland" (Regional Studies, 47 (5). pp. 703-721).

globally).⁴ We will estimate how quickly and how completely activity at the airport could return and how this might feed through into direct jobs and GVA.

We propose to provide three alternative recovery scenarios - a base case, an upper scenario where passenger numbers and trade recover quicker, and a lower scenario where the impacts are more prolonged. We will develop these by drawing on Tourism Economics (Oxford Economics' sister company) and IATA passenger flows as well as Oxford Economics trade forecasts. In addition, we will draw on recent announcements by the airline industry. For example, major aviation businesses have announced their intention to cut their workforces. British Airways (BA)⁵, Virgin⁶ and EasyJet⁷ have all suggested they might cut their workforce by around 30%. All of this information will inform our scenario assumptions which will be shared with you.

The three alternative scenarios will feed through to our direct on-airport and off-airport employment estimates for 2020 to 2025. Running these through our impact model will estimate the indirect and induced impacts for each of the local economies. Therefore, we will be able to show the direct, indirect and induced impacts (relative to the 2019 benchmark) on jobs, wages and GVA by sector in each of the five local economies covered in the analysis.

In reporting the results, we will use a mix of workplace based and resident based indicators. As you know, this is particularly important in this work as although many of the direct jobs are located in Hillingdon, a significant amount is taken by non-residents. Therefore, a straight count of job losses in each local economy, will underestimate the impact in Ealing, Hounslow, Spelthorne, Slough and South Bucks. To capture what job losses at Heathrow mean for each local economy we also need to consider resident based jobs (i.e. the count of residents in employment, regardless of where the job is located).

6. Considering who might be most vulnerable

At this stage of the work we will also have estimates of the direct, indirect and induced impacts by sector. By analysing the characteristics of the jobs and workers in these sectors we can infer which types of people might be most vulnerable to reduced activity at Heathrow. For example, young people, lower paid, and those working part-time in retail, accommodation and catering or males in manufacturing. In undertaking this analysis will draw on available published data from the LFS and BRES.

We can also draw on the Heathrow employment survey that provides some information on where employees reside, if they have kids and if they live with other Heathrow staff. Though its coverage is limited and up to 5 years old. It is also only available for direct on-airport jobs and for the five boroughs of Ealing, Hillingdon, Hounslow, Spelthorne, and Slough. Consequently, we won't know where those employed in the supply chain or in induced jobs live below local authority / borough boundaries. In addition, we also won't know if they have kids or their household status.

7. Reporting

We understand that you would like to discuss the tone of the report before we start drafting. You are keen that the narrative, although covering short-term job loss and reduced GVA, also provides a positive message around local recovery. Consequently, we propose to discuss this with you once we have emerging results from the modelling.

⁴ See <https://www.oxfordeconomics.com/coronavirus>; <https://www.oxfordeconomics.com/country-and-city-tourism>

⁵ <https://www.ft.com/content/abc6355a-3801-4e32-a992-f55e475d4454>

⁶ <https://www.bbc.co.uk/news/business-52542038>

⁷ <https://www.theguardian.com/business/2020/may/28/easyjet-plans-to-cut-up-to-30-per-cent-of-staff-because-of-covid-19-crisis>

At this stage we envisage the report being delivered in Oxford Economics' house style and format. It will incorporate both written and visual content, in the form of charts and figures that help to explain results and methodology. We will provide a concise and jargon-free report highlighting the key metrics and findings. It will include an executive summary of the headline findings and break out boxes identifying key metrics.

PROJECT TIMINGS

In terms of timings, we would aim to have a set of emerging findings in the first week of August, at which point we would present the results and discuss the how we will approach the report. We will provide you with a draft report by the end of August as requested and final report before the 9th September Forum.

We very much appreciate this opportunity to quote for the work and welcome any comments or questions that you might have regarding this proposal. To discuss further, or for examples of previous relevant studies or CVs, please free to contact:

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ABOUT OXFORD ECONOMICS

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