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the third heathrow runway – the need for clarity

Sally Cairns considers some crucial questions left unanswered in the decision to build a third runway at Heathrow Airport



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On 25 October, the Government announced a decision – in principle – in favour of a third runway at Heathrow. The Government is planning to produce a draft National Policy Statement containing details of the scheme for public consultation early in 2017, and for subsequent parliamentary vote.

In announcing the scheme, Transport Secretary Chris Grayling described the decision as 'long overdue' and sending 'a clear message today that Britain is open for business'. Indeed, much of the positive commentary around the new runway has focused on the benefits of expansion for business travellers. This is surprising since at the five biggest airports in the UK, including Heathrow, the number of flights made for business has been relatively static in absolute terms over the last

15 years (see Fig. 1, overleaf, and page 70 of the *Airports Commission: Final Report*¹). Instead, growth in air travel has been for leisure activities.

Since the nature of the trend in visits to family and friends overseas must be in question post-Brexit, the only clearly growing market in the future is likely to be holiday travel. On this basis, the case that capacity increases are needed *urgently* is unclear – instead, it is crucial that any expansion of commercial activities is balanced with a full understanding of the impacts. Since the Heathrow runway announcement, one of the key revelations has been the number of unanswered questions surrounding the proposed expansion. Some of these are discussed in this article.

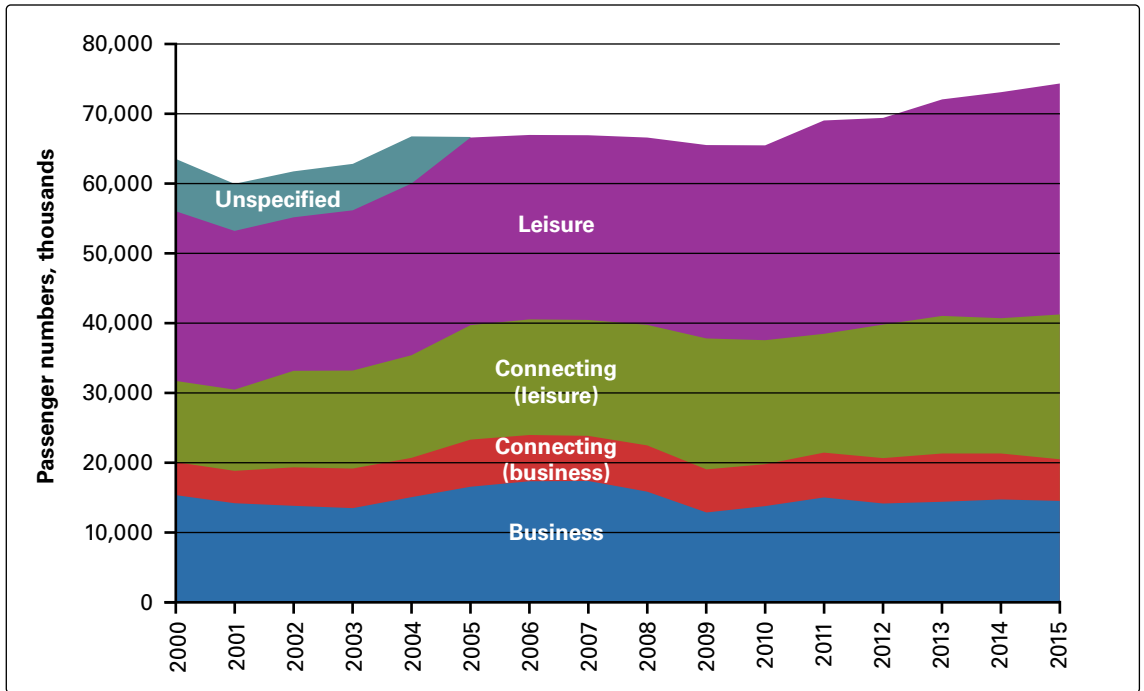


Fig. 1 Passengers at Heathrow

Source: Data taken from the Civil Aviation Authority passenger survey reports, available at www.caa.co.uk/Data-and-analysis/UK-aviation-market/Consumer-research/Departing-passenger-survey/Survey-reports/

Does the economic case stack up?

When the decision was announced, the proposed new runway was praised for potentially bringing economic benefits worth up to £61 billion (excluding costs) over 60 years. The basis for this assessment is illustrated in Fig. 2. As shown there, the largest component of benefits is lower fares for passengers.

However, various commentators,² together with the Chair of the House of Commons Treasury Select Committee,³ have previously queried who will pay the costs of the capacity expansion, whether passengers can be insulated from fare increases, and whether the economic model proposed is robust to any variation in forecast passenger demand. It is therefore of particular concern that Department for Transport sensitivity testing found that as little as a 1% change in either the monetised costs or benefits of the Heathrow proposals might be enough to change the overall economic case from positive to negative.⁴

Another concern is the omission of the tourism deficit from any calculations. As shown in Fig. 3, every year British people going abroad spend more money overseas than overseas visitors spend in the UK, and, over time, the gap is widening. In 2015 the difference was £16.9 billion.⁵ In 2001, when there was a general reluctance to fly after the attack on the World Trade Center on 11 September, the UK tourism industry actually benefited in the

short term.⁶ Over 60% of flights from UK airports are made by UK residents, and over 80% of those flights are for leisure.⁷ Given this context, do the potential impacts on the UK tourism industry need further consideration?

What are the real surface transport impacts and costs, and who will pay for required improvements?

Ensuring that a higher proportion of people reach the airport without driving is central to the case for mitigating the environmental effects of expansion. In 2015, the House of Commons Environmental Audit Committee found significant differences in estimates of the volume of surface travel that will be generated by the expansion, and in the likely costs of required infrastructure.⁸

Heathrow Airport Ltd was reported to have allocated over £1 billion in funding for public transport improvements. However, the Airports Commission estimated that capital costs would be around £5 billion, while Transport for London estimated that £15-20 billion would be required.

There was also debate about how far the airport's responsibility for surface access traffic should extend. It is crucial that the impacts of any generated travel are understood; that the real costs of catering for those journeys are properly identified, together with who will pay them; and that, if public money is involved, there is a

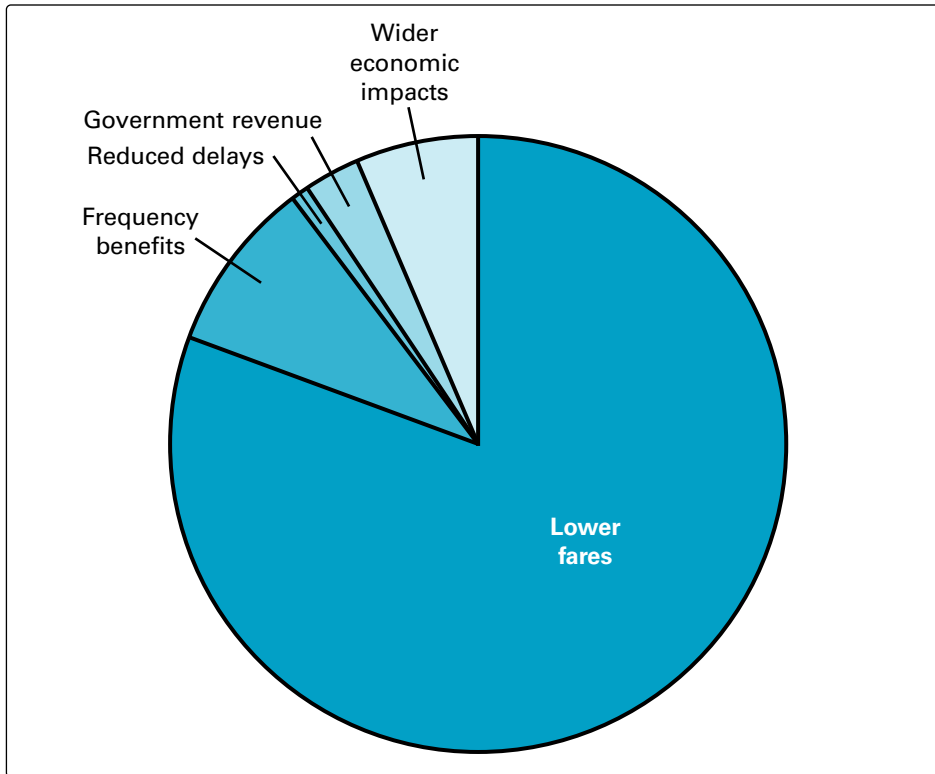


Fig. 2 Breakdown of the forecast economic benefits from Heathrow expansion
 Source: *Further Review and Sensitivities Report: Airport Capacity in the South East*. Department for Transport, Oct. 2016. www.gov.uk/government/publications/airport-expansion-further-review-and-sensitivities-report. Data for the London Heathrow Northwest Runway (pp.9 & 21) are present value, £2014 prices, in billions of pounds, assessment of need, carbon-traded scenario – maximum value for 'wider economic impacts' used

discussion about whether this is the best use for this resource.

What are the environmental safeguards?

The aviation and automotive industries are impressive in their drive for environmental mitigation through technological improvement. However, ambitions are not always achieved.⁹ For example, for cars, recent Department for Transport work has shown that real-world emissions of nitrogen oxides (NOx) from Euro 5 and 6 vehicles are typically six times higher than the respective emissions test standards that those vehicles have met.¹⁰ The Environmental Audit Committee has raised a number of fundamental points in relation to the environmental case for airport expansion, stating that the Government:

*'will need to set out, before making the final decision to go ahead, clear and binding responsibilities and milestones to ensure environmental standards are enforced and measures can be implemented, monitored and evaluated in a timely way. Failure to do so could see the project caught up in protracted legal disputes, lead to environmental standards being missed and introduce an element of commercial risk.'*⁸

When announcing the Heathrow decision, the Government released new analysis to show that a

new runway at Heathrow would be deliverable within air quality limits.¹¹ However, this analysis was partly based on assumptions relating to the December 2015 national Air Quality Plan, which has since been judged as inadequate and over-optimistic by the High Court.¹²

Meanwhile, with noise from Heathrow already affecting at least three-quarters of a million people to some extent,¹³ the question of future impacts is controversial, not least as they will depend on decisions about flight times, flight paths and the type of aircraft used. Heathrow Airport Ltd has offered £700 million of noise insulation measures. However, the Environmental Audit Committee noted evidence suggesting that a previous £4.8 million programme to provide noise insulation in schools and community buildings around Heathrow took ten years to deliver – raising questions about the likely speed of programme delivery. In particular, it is unclear why any airport expansion should start *before* air quality has been consistently met at all nearby sites, planes are quieter, or schools have been protected from noise. Once building work starts and billions of pounds are spent, will any government realistically stop the development if environmental limits are not met?

There is a particular lack of clarity in relation to the climate change impacts of the proposals. Work for the Airports Commission has suggested that total operational emissions will increase by between 259,604,192 and 308,860,409 tonnes of carbon

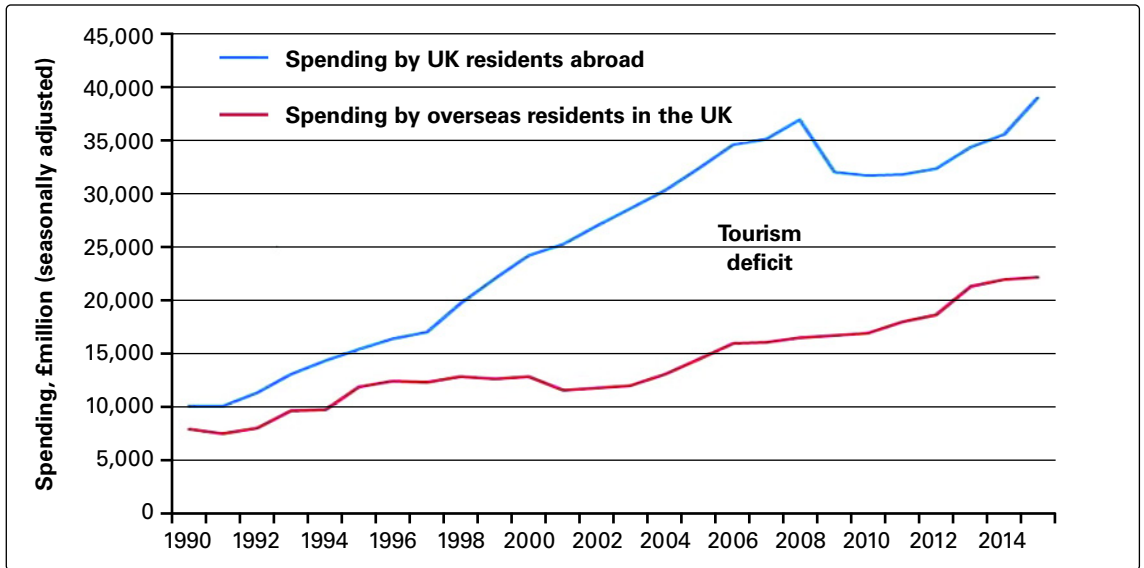


Fig. 3 Spending by UK residents abroad, and overseas residents visiting the UK

Data taken from the Office for National Statistics' International Passenger Survey, available at www.ons.gov.uk/peoplepopulationandcommunity/leisureandtourism

dioxide at Heathrow (depending on the option chosen) over 60 years, compared with the situation if the new runway is not built.¹⁴ Some commentators have suggested that these figures are too low, and that assumptions that such emissions can be offset through an emissions trading scheme are flawed.¹⁵ Presumably, the non-carbon-dioxide emissions from aircraft which affect climate change (not currently included in the calculations) will also increase dramatically.

Forecasts suggest that, even without a new runway, UK aviation emissions may exceed those envisaged to deliver the commitment set out in the Climate Change Act.¹⁶ The Committee on Climate Change immediately responded to the runway announcement by calling for strategic action to limit aviation emissions¹⁷ and has subsequently requested clarity about how the proposed expansion will fit with overall national carbon targets.¹⁸ Meanwhile, some have questioned whether such expansion can ever be compatible with the Climate Change Act and the more demanding requirements of the UK's commitment to the Paris Agreement.¹⁹

Are demand management measures needed anyway?

For road transport, it is clearly established that providing additional capacity can generate extra traffic.²⁰ Increasing airport capacity is likely to encourage people to build cheap air flights into future decision-making – encouraging, for example, trends towards more exotic holidays, second homes abroad, and more geographically dispersed networks of families and friends.

Aviation enjoys a privileged tax status, in that flights do not incur fuel tax or VAT. Air Passenger Duty – a special aviation tax partly invented to compensate – is estimated to cost less than a third of those taxes if they were applied at the same rates as for motoring.²¹ There is evidence that much of the growth in flying has been driven by the real reductions in air fares that have occurred.⁶

Increasing the cost of flying via more appropriate taxation measures would arguably help to manage demand – with the leisure market likely to be most affected, thereby potentially freeing up capacity for business flights. At the moment, Heathrow provides direct routes to places like Ibiza, Tenerife and the Bahamas. If part of the argument for expansion is to ensure that the airport supplies business-critical routes, cannot more be done with the existing capacity – and what mechanisms will be in place post-expansion to ensure that this happens?

What are the social equity implications?

Every year, just over half of the population does not fly.²² Meanwhile, 10% of the population flies four or more times per year. At Heathrow, about 70% of flights are for leisure purposes, and the mean household income of these leisure travellers is £61,111 per year.²³ Presumably, the direct passenger benefits in the economic impact assessment of the new runway will accrue primarily to those who take flights. Meanwhile, environmental pollution is typically experienced more by poorer households.²⁴

A key issue, therefore, is how the costs and benefits of the new runway stack up for different social groups. The Prime Minister has pledged to

make Britain a fairer country that works for all – will the new runway contribute to meeting this commitment? And if not, what are the implications?

● **Dr Sally Cairns** is a senior researcher working jointly at the Transport Research Laboratory and University College London. The research for this article has been funded by the TRL Academy, building on a major study conducted in 2006 by Sally Cairns and Carey Newson, with Brenda Boardman and Jillian Able, for the UK Energy Research Centre at the Environmental Change Institute of the University of Oxford (S. Cairns and C. Newson: *Predict and Decide: Aviation, Climate Change and UK Policy*. Environmental Change Institute, University of Oxford, 2006). Grateful thanks are due to the Aviation Environment Federation for expert input. The views expressed are personal.

Notes

- 1 *Airports Commission: Final Report*. Airports Commission, Jul. 2015. www.gov.uk/government/uploads/system/uploads/attachment_data/file/440316/airports-commission-final-report.pdf
- 2 See, for example, B. Sewill: *Who Would Pay for a New Runway?* Aviation Environment Federation, Mar. 2014. www.aef.org.uk/uploads/Who-would-pay-for-a-new-runway.pdf; and *High-level Commercial and Financial Assessment of Selected Potential Schemes*. Airports Commission Interim Report. KPMG, Dec. 2013. www.airportwatch.org.uk/wp-content/uploads/0-Paper-High-level-Commercial-Financial-Assessment-of-Selected-Potential-Schemes.pdf
- 3 Letter to George Osborne, Chancellor of the Exchequer, from the Chairman of the House of Commons Treasury Committee, 25 Jan. 2016. www.parliament.uk/documents/commons-committees/treasury/Correspondence/Letter-from-Treasury-Chair-to-Chancellor-Heathrow-25-01-2016.pdf
- 4 *Further Review and Sensitivities Report: Airport Capacity in the South East*. Department for Transport, Oct. 2016. www.gov.uk/government/publications/airport-expansion-further-review-and-sensitivities-report (Results of sensitivity testing are set out on pp.43-44)
- 5 *Travel Trends: 2015*. Office for National Statistics, May 2016. www.ons.gov.uk/peoplepopulationandcommunity/leisureandtourism/articles/traveltrends/2015
- 6 S. Cairns and C. Newson: *Predict and Decide: Aviation, Climate Change and UK Policy*. Environmental Change Institute, University of Oxford, 2006. www.eci.ox.ac.uk/research/energy/downloads/predictanddecide.pdf
- 7 Based on 2015 Civil Aviation Authority surveys conducted at 11 major UK airports
- 8 *The Airports Commission Report: Carbon Emissions, Air Quality and Noise*. HC 389. First Report of Session 2015-16. House of Commons Environmental Audit Committee. TSO, Dec. 2015. www.publications.parliament.uk/pa/cm201516/cmselect/cmenvaud/389/389.pdf
- 9 P. Peeters, J. Higham, D. Kutzner, S. Cohen and S. Gössling: 'Are technology myths stalling aviation climate policy?'. *Transportation Research D: Transport & Environment*, 2016, Vol. 44, 30-42
- 10 *Vehicle Emissions Testing Programme*. Cm 9259. Department for Transport, Apr. 2016, pp.22-23. www.gov.uk/government/publications/vehicle-emissions-testing-programme-conclusions
- 11 *Air Quality Re-analysis: Impact of New Pollution Climate Mapping Projections and National Air Quality Plan*. WSP/Parsons Brinckerhoff, for the Department for Transport, Oct. 2016. www.gov.uk/government/uploads/system/uploads/attachment_data/file/562180/air-quality-re-analysis-impact-of-new-pollution-climate-mapping-projections-and-national-air-quality-plan.pdf
- 12 P. Rincon: 'Green group wins air pollution court battle'. *BBC News*, 2 Nov. 2016. www.bbc.co.uk/news/science-environment-37847787
- 13 *Module 5. Noise: baseline*. Jacobs, for the Airports Commission, Nov. 2014. www.gov.uk/government/uploads/system/uploads/attachment_data/file/372770/5_Noise-Baseline.pdf The report provides (on p.58) a range of metrics for calculating the number of people affected by noise, with controversy about the most meaningful metric to use
- 14 *Module 8: Carbon: Further Assessment*. Jacobs, for the Airports Commission, May 2015. www.gov.uk/government/uploads/system/uploads/attachment_data/file/437260/carbon-further-assessment.pdf
- 15 L. Barasi and L. Murray: *Air Traffic Controls: The Hidden Costs of a New London Runway*. Report for Campaign for Better Transport, and Fellow Travellers, Aug. 2016. www.bettertransport.org.uk/sites/default/files/pdfs/Air%20Traffic%20Controls%20report.pdf
- 16 *The Aviation Emissions Policy Gap: The Ongoing Need for Government Action to Deliver the Climate Change Act*. Aviation Environment Federation, Oct. 2016. www.aef.org.uk/uploads/The-MBM-the-Climate-Change-Act-and-the-emissions-policy-gap.pdf
- 17 'UK aviation emissions must be consistent with UK climate change commitments, CCC says'. News Story. Committee on Climate Change, 25 Oct. 2016. www.theccc.org.uk/2016/10/25/uk-aviation-emissions-must-be-consistent-with-uk-climate-change-commitments-ccc-says/
- 18 Letter from Lord Deben, Chairman of the Committee on Climate Change, to the Secretary of State for Business, Energy and Industrial Strategy, 22 Nov. 2016. www.theccc.org.uk/wp-content/uploads/2016/11/CCC-letter-to-Rt-Hon-Greg-Clark-on-UK-airport-expansion-November-2016.pdf
- 19 G. Monbiot: 'Climate change means no airport expansion – at Heathrow or anywhere'. *The Guardian*, 18 Oct. 2016. www.theguardian.com/commentisfree/2016/oct/18/climate-change-airport-expansion-heathrow
- 20 *Trunk Roads and the Generation of Traffic*. Standing Advisory Committee on Trunk Road Assessment. HMSO, 1994. <http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/economics/rdg/nataarchivedocs/trunkroadstraffic.pdf>
- 21 J. Lees: 'Air Passenger Duty: strengths and limitations'. Webpage. Aviation Environment Federation, Nov. 2014. www.aef.org.uk/2014/11/06/air-passenger-duty-what-is-it-good-for/
- 22 *Public Experiences of and Attitudes towards Air Travel: 2014*. Statistical Release. Department for Transport, Jul. 2014. www.gov.uk/government/uploads/system/uploads/attachment_data/file/336702/experiences-of-attitudes-towards-air-travel.pdf
- 23 Data taken from the Civil Aviation Authority passenger survey reports, available at www.caa.co.uk/Data-and-analysis/UK-aviation-market/Consumer-research/Departing-passenger-survey/Survey-reports/
- 24 J. Barnes and T. Chatterton: 'An environmental justice analysis of exposure to traffic-related pollutants in England and Wales'. *WIT Transactions on Ecology & the Environment*, 2016, Vol. 210 (in press). <http://eprints.uwe.ac.uk/28882/>