### London's airports

Data analysis

October 2025



LONDONASSEMBLY

**Research Unit** 

### **Overview**

This data analysis, produced by the London Assembly Research Unit, provides an overview of the primary airports that serve London. This includes London Heathrow Airport, London Gatwick Airport, London Stansted Airport, London Luton Airport, London City Airport and London Southend Airport.

The information presented in the report is based on published data from a range of sources, including the Department for Transport (DfT), Civil Aviation Authority (CAA) and data published by individual airports.

The analysis was undertaken in support of planned work by the London Assembly Environment Committee.

### **About the Research Unit**

The London Assembly Research Unit provides an impartial research and information service. We undertake research and analysis on key issues in London to inform the Assembly's work.

All of our publications are available at:

https://www.london.gov.uk/who-we-are/what-london-assembly-does/londonassembly-research-unit-publications

### This report was produced by Becka Storer.

With thanks to Kenny Oladimeji, Richard Clarke, Isobel Wilson, Gino Brand and Tim Gallagher.

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# 1 INTRODUCTION TO LONDON'S AIRPORTS

### Overview

This section provides a general overview of the location, size and operation of London's airports. This includes airports located within the Greater London Authority (GLA) boundary, and those in surrounding areas that serve London. Collectively these are known as London airports.

Data is presented on the location and physical attributes of London's airports, as well as on their primary operations such as the volume of flights, passengers and freight that pass through them.

### Source information

The data in this section comes from the Department for Transport's <u>Aviation Statistics</u>. Additional data comes from Visit London, Airport Coordination Limited, and the Civil Aviation Authority.

# London is served by six major international airports

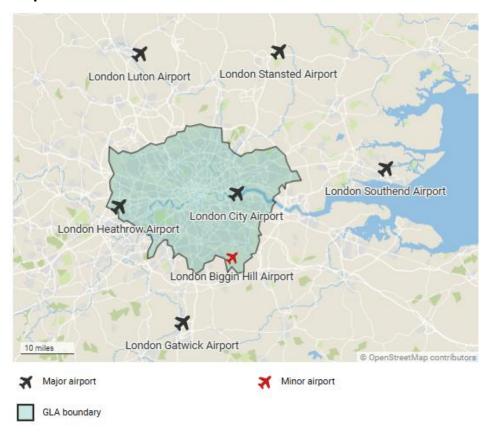
These six commercial airports are:

- London Luton Airport
- London Stansted Airport
- London Southend Airport
- London City Airport
- London Heathrow Airport
- London Gatwick Airport.

Heathrow and London City are the only two major international airports within the GLA boundary.

London is also served by a number of smaller private airports and airfields. The most significant of these is London Biggin Hill Airport. These smaller airports are not the focus of this data pack.

### **Airports that serve London**



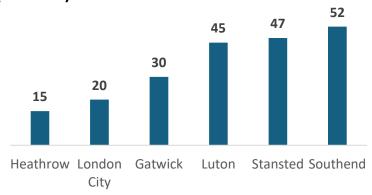
Source: Location information derived from <u>OpenStreet Map</u>. Map created by London Assembly Research unit on Datawrapper.

### **London City Airport is the shortest distance** from the centre of London

### Straight line distance of London's airports from city centre



### Travel time from airport to central London terminal on express train services (minutes)



Heathrow is the second closest airport to central London by straight line distance, but the shortest journey time on express train services to a central London station.

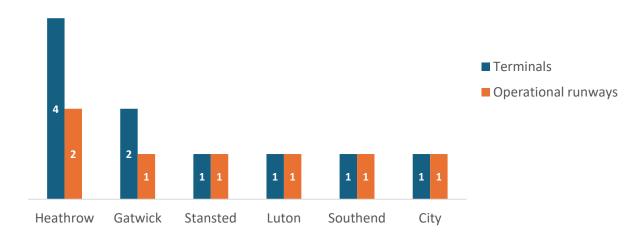
Source: Distances calculated using Mapdevelopers.com and mapped using geojson.io. For the purpose of straight-line distance calculation, Trafalgar Square is the centre of London. Travel time calculations use the relevant central London station. Distance map created by London Assembly Research unit using Datawrapper, August 2025. Journey time chart uses data from London & partners, London airports map, accessed September 2025.

# Heathrow is the only London airport with two operational runways

The majority of London's six main airports are single runway and single terminal. Gatwick Airport has two runways, but only one runway can be operational at any given time due to their proximity to each other.

There is variation in the length of the runways of London's airports, with Heathrow's Northern runway over three times the length of the runway at London City Airport. Runway length, alongside other factors, determines the size of aircrafts that can use a runway.

### Terminals and operational runways per London airport



### Operational runway length (metres)



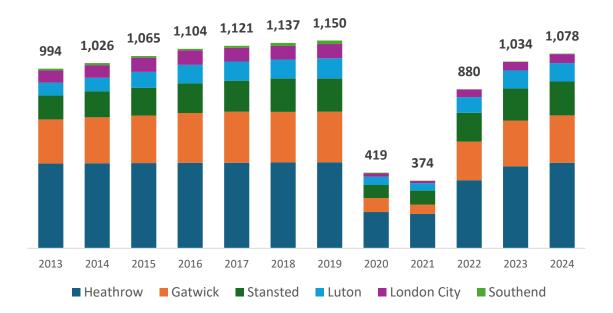
Source: Runway length data: NATS, <u>Airport Factsheets</u>, March 2023. Southend airport, <u>London Southend Airport</u>, accessed September 2025.

# Landings and take-offs have generally not returned to pre-COVID levels

The number of commercial take-offs and landings (known as air transport movements) from London's major airports increased steadily from 2013 to 2019. In 2022 to 2024, flights landing and taking off increased but are still 10 per cent lower than the 2019 peak.

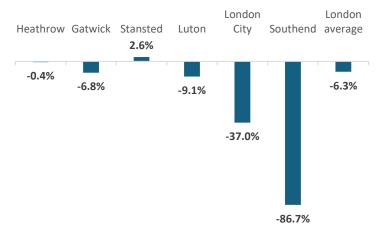
Heathrow is legally capped at 480,000 air traffic movements each year. For the past two years it has been operating close to this capacity: in 2024, it recorded 473,902 commercial movements (an average of 1,298 per day).

### Major London airports, landings and take-offs (thousands)



While most of London's six major airports reported less air transport movements in 2024 compared to 2019, smaller airports such as Southend and London City saw a bigger percentage decrease. London City recorded the largest absolute decrease over this period, with 29,400 fewer landings and take-offs in 2024 compared to 2019.

### Change in volume of landings and take-offs in 2024 compared to 2019

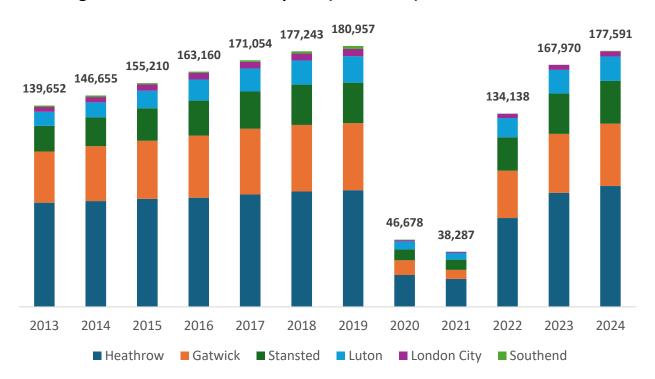


Source: Department for Transport, <u>Aviation Statistics</u>, Table <u>AVI0102</u>, December 2024. 2024 figures from CAA, <u>Annual airport data 2024</u>, <u>Table 03</u>, accessed August 2025. Data includes commercial flights only.

# By 2024, passenger numbers had almost returned to pre-COVID levels

The number of passenger arrivals and departures from London's major airports increased steadily from 2013 to 2019. In 2022 to 2024, passenger numbers increased but are overall 2 per cent lower than the 2019 high.

### Passenger numbers at London airports (thousands)



reported higher passenger arrivals and departures in 2024 compared to 2019, while other airports reported fewer. This was more pronounced for smaller airports such as Southend and London City. Gatwick saw the most significant decrease in overall passenger numbers, with 3,332,631 fewer passengers in 2024 compared to 2019.

### Change in volume of passenger arrivals and departures in 2024 compared to 2019

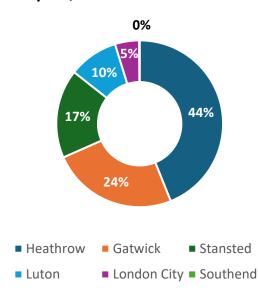


Source: Department for Transport, <u>Aviation Statistics</u>, Table <u>AVI0102</u>, December 2024. 2024 figures from CAA, <u>Annual airport data 2024</u>, <u>Table 09</u>, accessed August 2025.

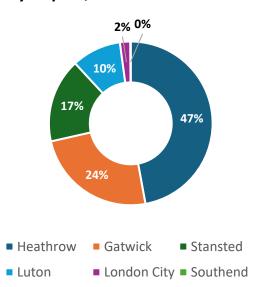
# Heathrow was the largest airport in London by number of flights and passengers in 2024

Heathrow accounted for 44 per cent of the 1.08 million take-offs and landings at London's airports in 2024, and 47 per cent of the 178 million passenger arrivals and departures. Gatwick was the second largest airport by volume of flights and passengers, accounting for 24 per cent of each. Southend Airport was the smallest, accounting for less than one per cent.

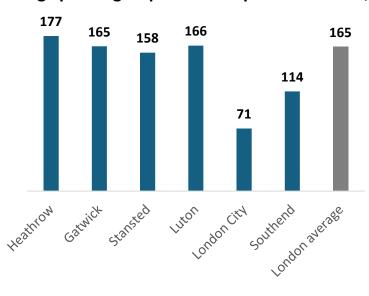
### Landings and take-offs by airport, 2024



### Passenger arrivals and departures by airport, 2024



### Average passengers per air transport movement, 2024



Of London's airports, London City had the fewest passenger arrivals and departures relative to air transport movements in 2024. Its average number of passengers per flight was 71, compared to Heathrow which had the highest average of 177.

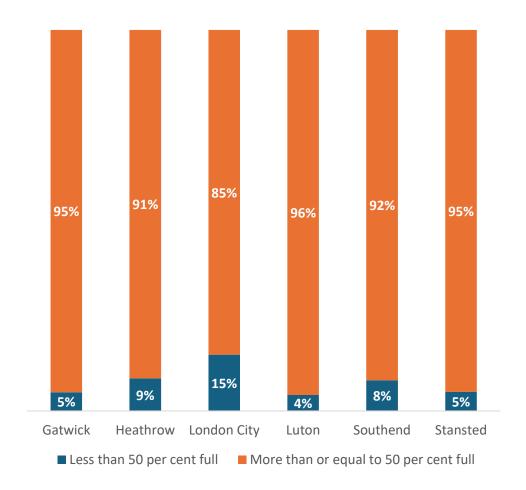
Source: Department for Transport, <u>Aviation Statistics</u>, Table <u>AVI0102</u>, December 2024. 2024 figures from CAA, <u>Annual airport data 2024</u>, <u>Table 03</u>, accessed August 2025. Data includes commercial flights only.

# In 2024, London City Airport had the highest proportion of flights with less than 50 per cent of seats filled

The Civil Aviation Authority (CAA) publishes reports detailing load factors at UK airports. Load factor represents the capacity being utilised on passenger flights. Across all six main London airports, most flights were 50 per cent or more full in 2024.

London City Airport reported the highest proportion of flights that were less than 50 per cent full (15 per cent of all arrivals and departures). Luton Airport reported the lowest proportion of flights that were less than 50 per cent full (4 per cent of all arrivals and departures).

### Load factor for flights to and from London airports in 2024

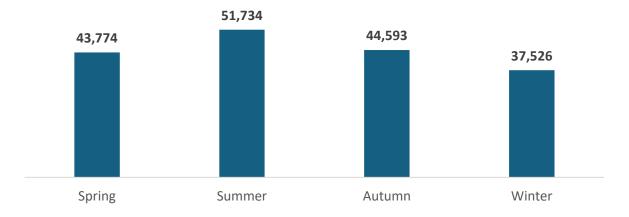


Source: CAA, <u>UK airport load factor data</u>, accessed September 2025.

# Passenger numbers at London's airports peak during the summer season

All six of London's major airports experience variation in passenger numbers through the year. Summer was the season with the most passengers in 2024 for every airport except London City, which saw marginally more passengers flying in Autumn.

### Number of passengers at six major London airports per season, 2024



Seasonal variation was highest for Southend Airport: it saw 148 per cent more passengers in its busiest season (Summer) compared to least busy (Winter). In London overall, the busiest season saw 38 per cent more passengers than the least busy. Heathrow saw the lowest percentage change (24 per cent) between the busiest and least busy season in 2024.

### Absolute and percentage increase in passenger numbers in busiest compared to least busy season, 2024



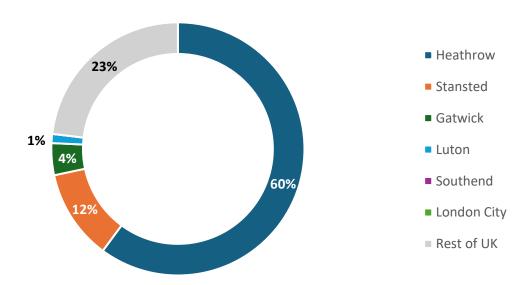
Source: CAA, <u>UK airport data 2024</u>, accessed August 2025. Seasonal variation has been calculated by dividing the difference in passenger numbers between the busiest and least busy season by the passenger numbers of the least busy season. Winter is Dec-Feb, Spring Mar-May, Summer Jun-Aug, Autumn Sep-Nov.

# Heathrow handled 60 per cent of freight handled by UK reporting airports in 2024

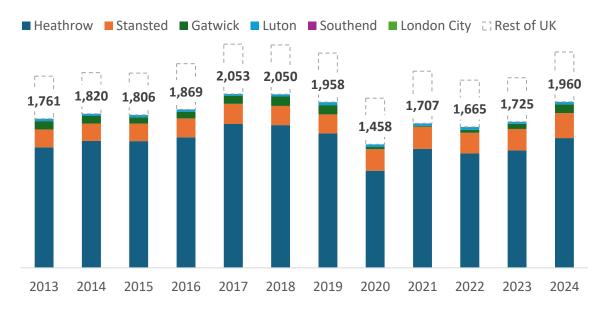
Airports transport freight through both passenger flights and specialist cargo flights. Heathrow handled 1,532,300 tonnes of freight in 2024. This was over four times as much freight as the next highest airport in the UK (East Midlands International).

London airports accounted for 77 per cent of freight handled by UK airports in 2024.

### Proportion of freight handled by London airports, 2024



### Freight handled by London airports, thousand tonnes



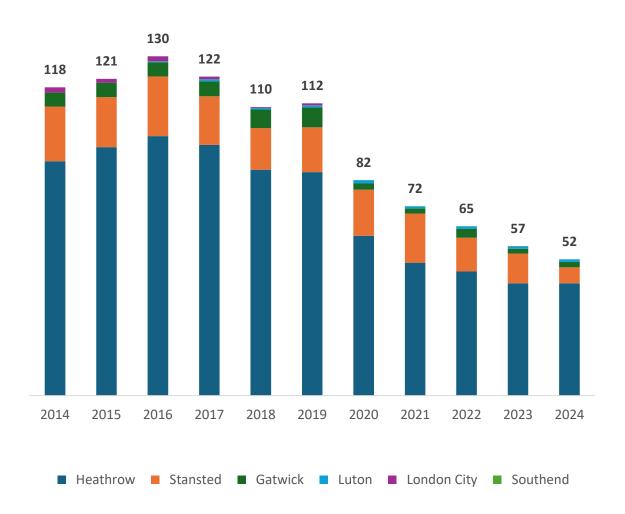
Source: Department for Transport, <u>Aviation Statistics</u>, Table <u>AVI0102</u>, December 2024. 2024 figures from CAA, <u>Annual airport data 2024</u>, <u>Table 13</u>, accessed August 2025. Southend and London City airports represent less than 1 per cent of freight handled and are not visible on these charts.

# The volume of mail handled by London airports has declined steadily since 2019

As well as passengers and freight, airlines transport international and domestic mail and parcels. Mail is flown on both passenger and cargo aircrafts. In 2024, most of the mail transported by Heathrow was via passenger aircraft, while Luton and Stansted transported mail almost exclusively by cargo aircraft.

Heathrow handled 82 per cent of mail handled by London airports in 2024, while Stansted accounted for 12 per cent. The volume of mail handled by London airports overall has declined by 53 per cent from 111,716 tonnes in 2019 to 52,118 in 2024.

### Mail handled by London airports, thousand tonnes



Source: CAA, <u>Annual airport data 2024</u>, <u>Table 16 2 Mail</u>, accessed August 2025. <u>Table 17</u> International and Domestic Mail.

# 2 FLIGHT AND PASSENGER CHARACTERISTICS

### **Overview**

This section looks at the characteristics of the flights and passengers arriving at and departing from London's airports. This includes details of the most popular routes and destinations, region of origin of passengers undertaking journeys, their method of transport to and from airports, and their purpose of travel. It also analyses data on passenger experience, including flight cancellations and delays.

### Source information

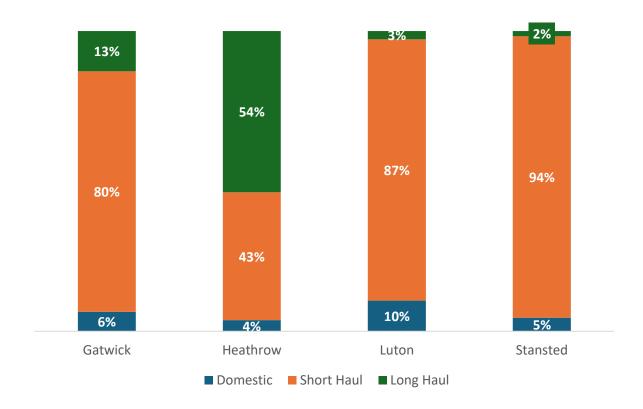
The data in this section comes from the Department for Transport's Aviation Statistics and the Civil Aviation Authority (CAA). Data on passenger characteristics and experience is sourced from the CAA's Departing Passenger Survey, last conducted in 2023. The survey ran continuously throughout the year at four London airports: Gatwick, Heathrow, Luton and Stansted. Survey size ranged in line with passenger numbers; passenger sample sizes are provided in the relevant footnote. Results of the survey were weighted by CAA to make them more representative of the passenger population at each airport.

# 54 per cent of surveyed Heathrow passengers in 2023 were flying to long-haul destinations

In 2023, the Civil Aviation Authority conducted a Departing Passenger Survey at five airports: Gatwick, Heathrow, Luton, Manchester and Stansted. The survey ran continuously throughout the year. The CAA reported that survey sizes ranged from 3,000 to 70,000 interviews, dependent on airport size. Results were weighted to make them more representative of the passenger population at each airport.

Heathrow was the only major London airport that had a majority of passengers departing on long-haul flights (54 per cent in 2023). The majority of passengers surveyed at other reporting airports were flying to short-haul destinations.

### Self-reported destination type of passengers surveyed in 2023

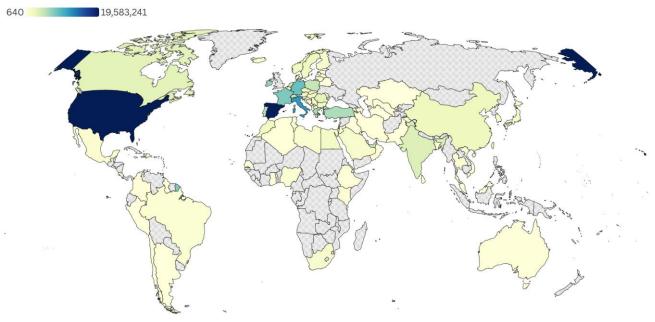


Source: Department for Transport, <u>Aviation Statistics</u>, <u>Table AVI0501</u>, December 2024. Departing passengers are selected for interview using a strict sampling system. Interviews were weighted to the two-way passenger flow, under the assumption that over the period, departing and arriving passengers would show the same characteristics.

# The USA was the top country for air passenger traffic to and from London airports in 2024

The Civil Aviation Authority releases data on air traffic routes for more than 60 UK airports. In 2024, there were flights between London airports and international airports in over 110 countries.

### International air passenger traffic to and from London airports, 2024



Source: World Bank Official Boundaries

Top foreign countries for air passenger traffic to and from London (passenger numbers)

- 1. USA (19.6 million)
- 2. Spain (19.3 million)
- 3. Italy (11.7 million)
- 4. Germany (8.5 million)
- 5. France (7.6 million)
- 6. Ireland (6.7 million)
- 7. Turkey (5.8 million)
- 8. Greece (5.6 million)
- 9. Portugal (5.4 million)
- 10. United Arab Emirates (5.1 million)

The USA accounted for the single biggest proportion of international air passenger traffic to and from London in 2024 (12 per cent). The vast majority of the top countries for air passenger traffic in 2024 were located in Europe.

Source: CAA, <u>Annual airport data 2024</u>, Table 12. Figures for Spain include flights to and from the Canary islands. Figures for Portugal include flights to and from Madeira. Data does not include Biggin Hill airport.

# The most popular domestic flight route from London airports in 2024 was between London and Edinburgh

In total, there were 11.6 million passengers on domestic flights to or from London's six major airports in 2024. The most popular of these domestic flight routes was between London and Edinburgh, which saw 28 per cent (3.3 million) of all domestic passengers flying to or from a London airport. Domestic air passenger traffic between London and Scotland, and London and Northern Ireland was much higher than between London and other UK regions.

### Domestic air passenger traffic to and from London airports, 2024



Source: CAA, Annual airport data 2024, Table 12. Data does not include Biggin Hill airport.

# Heathrow was the London airport with the largest proportion of transfer passengers in 2023

The vast majority of passengers at London's four largest airports in 2023 were terminating passengers (passengers starting or ending their journey via aircraft). Transfer passengers are passengers who change aircraft, for example on a connecting flight, and have no other reason for visiting the airport. Heathrow Airport had the largest proportion of transfer passengers (27 per cent) of London's four largest airports.

### Proportion of transfer passengers at selected London airports in 2023 (%)



The proportion of transfer passengers at Heathrow has reduced by ten percentage points from 37 per cent in 2013 to 27 per cent in 2023. However, from 2022 to 2023, the proportion of transfer passengers increased by two percentage points.

### Percentage point reduction in transfer passengers as a proportion of all passengers at Heathrow from 2013 baseline

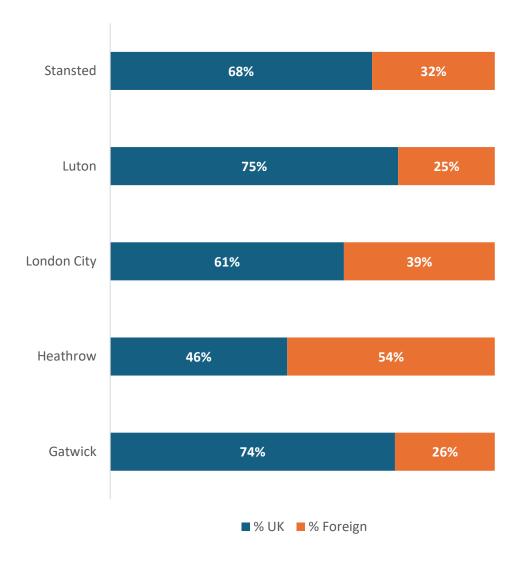


Source: Department for Transport, <u>Aviation Statistics</u>, Table AVI0106, December 2024. No data was collected in 2020 due to COVID-19. Data for 2021 is based on six months of data (Q3 and Q4).

# 59 per cent of terminating passengers surveyed at London airports in 2023 lived in the UK

According to the 2023 CAA Departing Passenger Survey, over half (59 per cent) of UK passengers surveyed at selected London airports resided in the UK. At every airport except Heathrow, the majority of surveyed passengers lived in the UK.

### Country of residence of surveyed passengers at selected airports, 2023

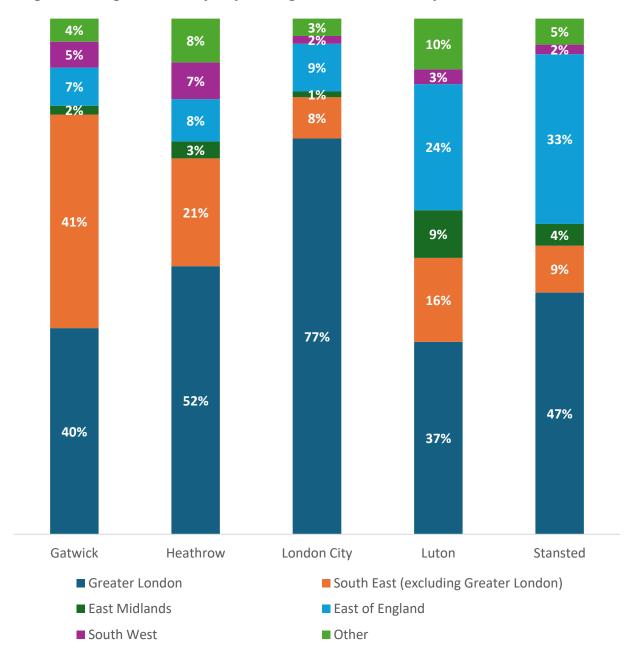


Source: CAA, <u>Passenger survey report 2023</u>, <u>Table 2</u>, accessed August 2025. The CAA survey is weighted to make it more representative of actual passenger traffic. Data does not include transfer passengers.

# 47 per cent of UK passengers surveyed at London airports in 2023 were from Greater London

The vast majority of UK passengers surveyed at selected London airports in the 2023 Departing Passenger Survey were from the South East region, including Greater London. London City was the airport with the highest proportion of passengers from Greater London (77 per cent), while Luton had the lowest proportion (37 per cent).

### Region of origin of surveyed passengers at selected airports, 2023

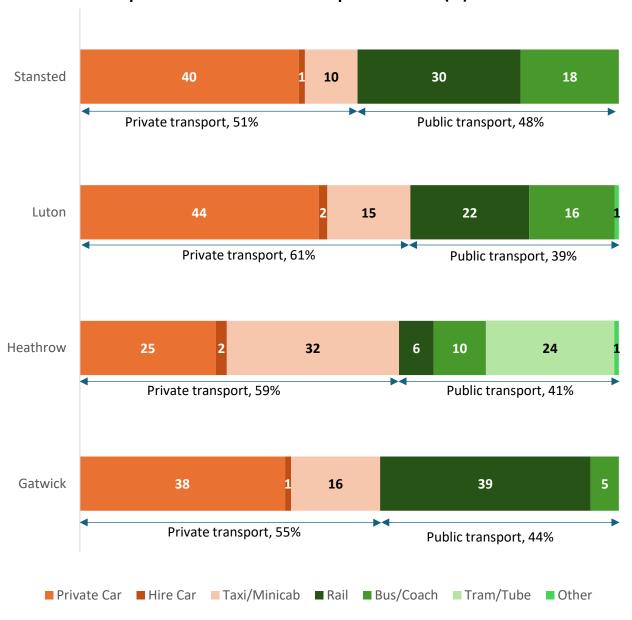


Source: CAA, <u>Passenger survey report 2023</u>, <u>Table 4</u>, and <u>Table 5</u>, accessed August 2025. The 'Other' region consists of North East, North West, Scotland, Wales, West Midlands, Yorkshire and the Humber, Northern Ireland and Eire. Data does not include transfer passengers.

# The majority of surveyed passengers in 2023 travelled to the airport via private transport modes

The CAA's Departing Passenger Survey recorded the mode of transport by which passengers arrived at Stansted, Luton, Heathrow and Gatwick airports. Across all four airports, the majority of passengers arrived at the airport via private transport modes such as car, taxi and minicab in 2023. Stansted Airport reported the largest proportion of passengers using public transport (48 per cent), while Luton reported the lowest (39 per cent).

### Mode of transport to selected London airports in 2023 (%)



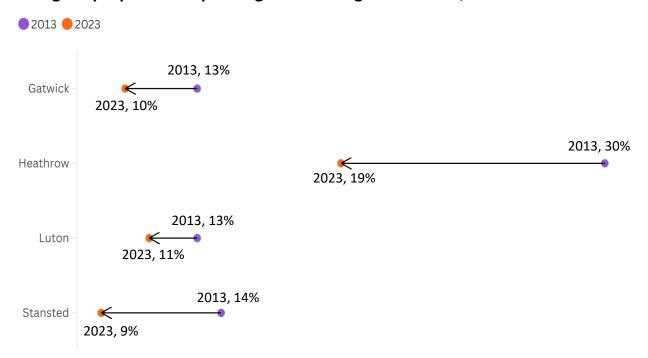
Source: Department for Transport, <u>Aviation statistics</u>, table <u>AVI0107</u>, December 2024. 'Rail' includes Heathrow Express and 'Tram/Tube' includes the Elizabeth Line. Sample size ranged from 8,067 at Luton to 35,707 at Heathrow. If multiple modes of transport are used to arrive at the airport, the final mode used is recorded. Data does not include transfer passengers.

# The proportion of passengers travelling for business has decreased from 2013 to 2023

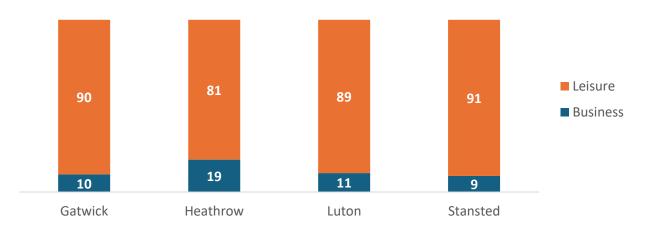
The majority of passengers travelling at selected London airports in 2023 were travelling for leisure rather than business purposes. Of the four largest airports, Heathrow had the largest proportion of business travellers (19 per cent).

From 2013 to 2023, the proportion of business travellers at Gatwick, Heathrow, Luton and Stansted reduced. This reduction was most significant for Heathrow, which went from 30 per cent of passengers travelling for business to 19 per cent.

### Change in proportion of passengers travelling for business, 2013 to 2023



### Purpose of travel for surveyed passengers in 2023 (%)



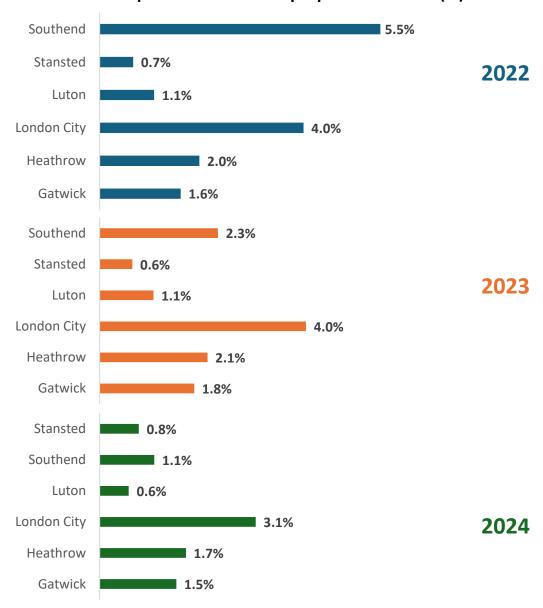
Source: Department for Transport, <u>Aviation statistics</u>, table <u>AVI0108</u>, December 2024. Passenger sample sizes in 2023 ranged from 8,430 at Luton to 49,652 at Heathrow. Data does not include transfer passengers.

# On average, 1-2 per cent of flights were cancelled at London's airports from 2022 to 2024

Across the three-year period from 2022 to 2024, approximately 1-2 per cent of flights at London's six major airports were cancelled. Generally, the proportion of cancelled flights reduced over this period. In 2024, 16,064 air traffic movements were cancelled out of a total 1.09 million (1 per cent).

In this period, Southend had the largest single year cancellation rate (5.5 per cent in 2022). However, London City was the only airport with a cancellation rate consistently over 3 per cent.

### Cancelled air transport movements as proportion of total (%)



Source: CAA, UK airport data, annual airport data 2022, 2023 and 2024, Table 04a, accessed August 2025.

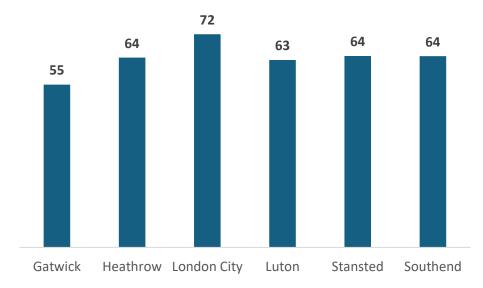
# Gatwick recorded the longest delays of the 23 reporting UK airports in 2023

The Department for Transport produces statistics on flight delays at selected UK airports. London City Airport recorded the highest percentage of flights on time (72 per cent) and the lowest average delay (13 minutes) of London's main airports in 2023. Gatwick Airport recorded the longest average delay (27 minutes) and the lowest proportion of flights on time (55 per cent) of all 23 reporting airports across the UK in 2023.

### Average flight delay at London airports in 2023 (minutes)



### Proportion of flights at London airports on time in 2023 (%)



Source: DfT, Aviation statistics: data tables (AVI), table AVI0103, December 2024.

# 3 SUSTAINABILITY AND ENVIRONMENT

### **Overview**

This section provides an overview of the environmental impact of London's airports. It includes data on aircraft noise and noise complaints, emissions of carbon dioxide ( $CO_2$ ), and air quality data with respect to nitrogen oxides ( $NO_x$ ) and particulate matter. Larger airports such as Heathrow publish a wider range of environmental data than smaller London airports.

### Source information

The data in this section comes from a range of sources. Noise quota data is published by the Civil Aviation Authority, while data on noise complaints and track keeping is published by individual reporting airports. Carbon dioxide and nitrogen oxide emissions are calculated by Airport Tracker, published by ODI and Transport and Environment with data provided by the International Council on Clean Transportation (ICCT) based on the Global Aviation Carbon Assessment.

Air quality statistics are published by Heathrow Airwatch, data analysis is based on data from four locally-managed automatic monitoring sites situated at London Heathrow.

# On average, aircraft at Gatwick were less noisy than at Heathrow and Stansted in a 2024 study

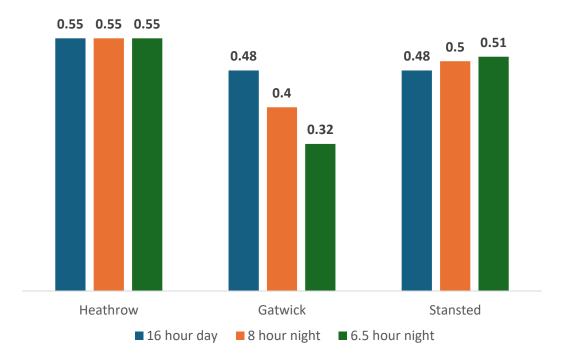
In 2024, the CAA published the results of a study commissioned by the Department for Transport into aircraft movements, fleet mix and noise quota usage at Gatwick, Heathrow and Stansted.

The Night Flying Restrictions at these airports specify a night period (11pm to 7pm) during which the noisiest types of aircraft may not be scheduled to land or take off. In addition, between 11:30pm and 6am aircraft movements are restricted by movement limits and noise quotas set by DfT.

Noise quotas are used to encourage the use of quieter aircraft. Higher noise quota count (QC) indicates a noisier aircraft type. All other things being equal, a 50 percent reduction in total noise quota is equivalent to a 3 decibel reduction in average noise exposure.

Across the three airports, Gatwick recorded the quietest aircraft types. It was also the only airport that had a lower average noise quota count per movement during the night period.

### Average noise quota count (QC) per movement, 2019-23

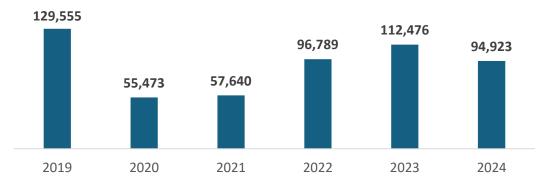


Source: Civil Aviation Authority, <u>Aircraft movements</u>, <u>fleet mix and noise quota</u> <u>usage at Gatwick</u>, <u>Heathrow and Stansted</u>, May 2025. Tables C1-3, C10-12, C19-21.

# Heathrow, Gatwick, Luton and Stansted recorded 94,923 noise complaints in 2024

Heathrow, Gatwick, Luton and Stansted publish data on the number of noise complaints they receive from members of the public. In 2024, total noise complaints decreased by 15.6 per cent on the previous year. Prior to this, the number of noise complaints had steadily increased since 2020 but had not reached pre-pandemic levels.

### Combined noise complaints at Heathrow, Gatwick, Luton and Stansted airports

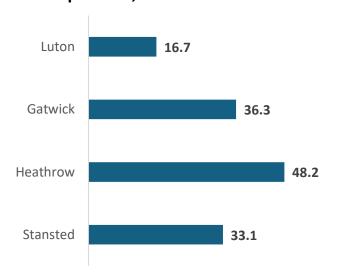


Heathrow received 70 per cent of the noise complaints received by selected London airports in 2024. It also reported the highest average noise complaints per complainant in 2024, with 48 complaints per complainant in the year.

### Noise complaints by airport, 2024

# Stansted Heathrow Gatwick Luton | 11884 | 5929 | 10324 | 11% | 13% | 66786 | 70% | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 | 10

### Average noise complaints per complainant, 2024

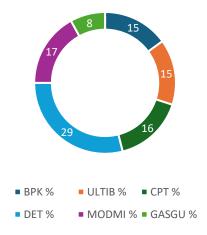


Source: Luton, <u>Quarterly Noise Report</u>, 2024, 2022, and 2020. Annual complaint data calculated from quarterly figures. Heathrow, <u>Heathrow Noise Complaints and Enquiries 2024</u>. Stansted, <u>Noise performance</u>. Gatwick, <u>Annual report</u>. All accessed September 2025.

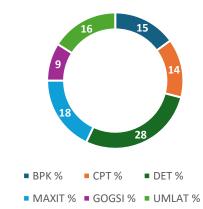
# Heathrow has twelve noise preferential routes for departing aircraft

Aircraft taking off from Heathrow follow pre-defined routes known as Standard Instrument Departures (SIDs). When SIDs were designed, the Government set corridors, known as Noise Preferential Routes (NPRs) which extend 1.5 kilometres either side of the SID centre line. Heathrow has twelve NPRs: six for easterly operations and six for westerly operations. The intention of these routes is to limit noise for nearby residents.

### Average route usage (%) for Heathrow easterly operations, 2024

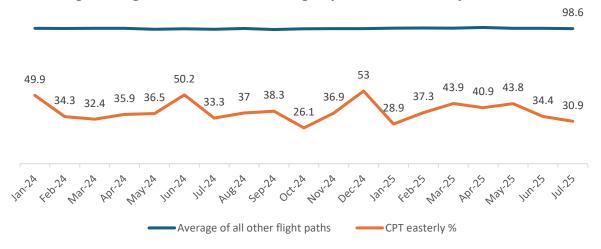


# Average route usage (%) for Heathrow westerly operations, 2024



Aircraft must be within the 3km wide NPR until they reach an altitude of 4,000 ft. Eleven of Heathrow's twelve flight paths consistently show tracking compliance above 95 per cent. The CPT easterly flight path recorded a much lower compliance of 39 per cent in 2024. According to Heathrow, this is due to the route being challenging to manage because of its proximity to arriving aircraft.<sup>1</sup>

### Percentage of flights within NPR for flight path CPT easterly



Source: Heathrow, <u>Operational data</u>, Monthly track keeping for easterly and westerly operations, accessed August 2025. <sup>1</sup>Heathrow, <u>Airspace Noise and ATM</u>, 2024

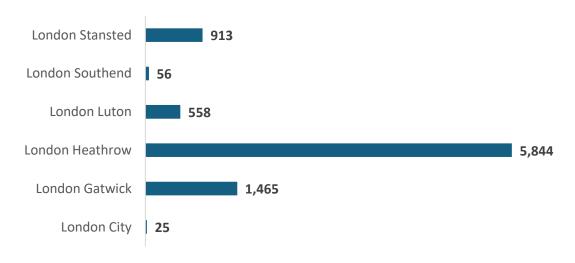
# Total flight CO<sub>2</sub> emissions at London's six major airports were estimated at 27.4 million tonnes in 2024

The Airport Tracker 2024 is a joint project by the International Council on Clean Transportation (ICCT), ODI and Transport and Environment. It estimates the carbon dioxide and nitrogen oxide emissions of airports around the world, using data derived from the Global Aviation Carbon Assessment (GACA).

### Total CO<sub>2</sub> flight emissions in 2024 (million tonnes)



### Total air pollution in 2024 (NO<sub>x</sub> tonnes)

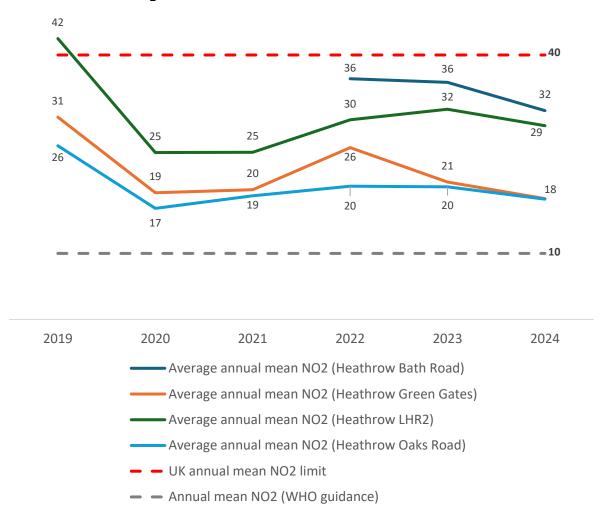


Source: ODI, Transport and Environment, <u>Tracker - Airport Tracker</u>, accessed August 2025. Data provided by International Council on Clean Transportation (ICCT) based on the Global Aviation Carbon Assessment. Full data methodology can be found at Graver, B., Rutherford, D., and Zheng, S., <u>CO2 emissions from commercial aviation</u>: 2013, 2018, and 2019, 2020.

# NO<sub>2</sub> concentrations measured at Heathrow were generally lower in 2024 than in previous years

Heathrow Airwatch reports on air quality data for the Heathrow area. There are four locally-managed automatic monitoring sites at London Heathrow. Nitrogen dioxide ( $NO_2$ ) is a gas that is mainly produced during the combustion of fossil fuels. The Air Standards Regulations 2010 require that the annual mean concentration of  $NO_2$  must not exceed 40 µg/m3. The World Health Organisation guidance recommends an annual mean concentration of 10 µg/m3 for  $NO_2$ .

### Average annual NO<sub>2</sub> across all four Heathrow monitoring sites

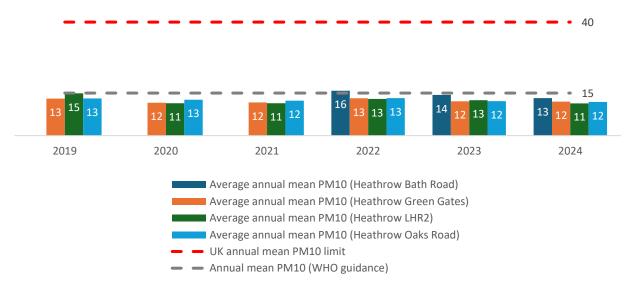


Source: Heathrow Airwatch, <u>Data Selector</u>, accessed August 2025. Pollutant selected Nitrogen Dioxide, Daily Mean, All Regions, Monitoring Sites: Heathrow Bath Road, Heathrow Green Gates, Heathrow LHR2, Heathrow Oaks Road. 2019, 2020 and 2021 data for Heathrow Bath Road is excluded as annual data capture is less than 75 per cent.

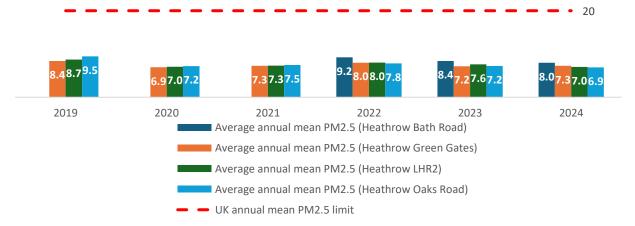
# Particulate matter levels recorded at Heathrow are below the UK legal limits

Particulate matter (PM) is tiny solid or liquid matter suspended in the air, some of which can be toxic. Due to their small size, they can be absorbed into the bloodstream, presenting a health risk. The UK measures particulates that are less than 10 micrometres in diameter (PM10) and less than 2.5 micrometres in diameter (PM2.5). The Air Quality Standards Regulations 2010 require that concentrations of PM in the UK must not exceed an annual average of  $40\mu g/m3$  for PM10 and  $20 \mu g/m3$  for PM2.5. The World Health Organisation guidance suggests an upper limit of  $15\mu g/m3$  for PM10.





### Average annual PM2.5 across all four Heathrow monitoring sites



Source: Heathrow Airwatch, <u>Data Selector</u>, accessed August 2025. Pollutant selected PM10 and PM2.5, Daily Mean, All Regions, Monitoring Sites: Heathrow Bath Road, Heathrow Green Gates, Heathrow LHR2, Heathrow Oaks Road. 2019, 2020 and 2021 data for Heathrow Bath Road is excluded as annual data capture is less than 75 per cent.

### **4 ECONOMIC IMPACTS**

### Overview

This section analyses data on the estimated economic impacts of London's airports. This includes estimates of direct and indirect job creation, gross value added (GVA) to the economy by airport activity and revenue and cost figures for London's two largest airports (Heathrow and Gatwick).

### Source information

The data in this section comes from the Department for Transport, Developing a framework for the local economic impact of airports, 17 August 2023. Commissioned by the DfT, this study by York Aviation developed a framework that produced estimations of jobs created and value added by London's six major airports.

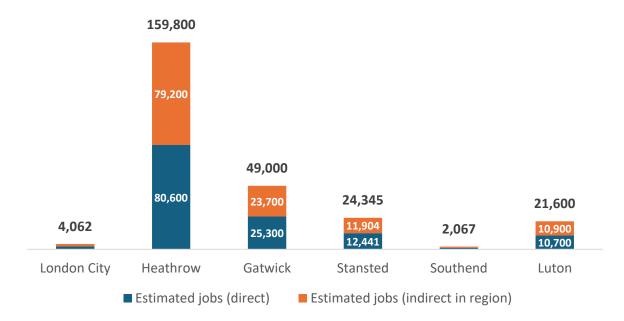
Additional financial data was sourced from the annual reports published by Heathrow and Gatwick airports.

# In 2023, London airports were estimated to directly account for 132,339 jobs

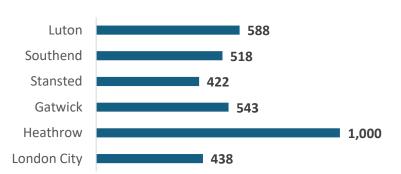
In August 2020, the Department for Transport commissioned York Aviation to carry out research into the economic impact of airports. This involved the development of a framework which produced estimations of jobs created and value added by London's six major airports.

Heathrow was estimated to generate 159,800 jobs, of which 80,600 were the result of employment directly related to the operation of the airport and 79,200 estimated to be the result of indirect supply chain impacts.

### Estimated jobs (direct and indirect) generated by airport



### Estimated direct employment density (jobs per million passengers per year)



Heathrow was also estimated to have the highest employment density, measured as jobs per million passengers per year. Employment density is dependent on factors such as size of airport and types of air traffic.

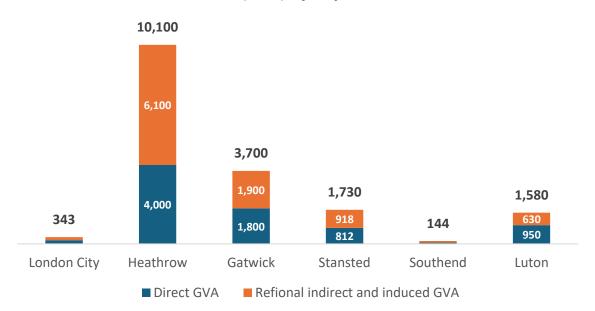
Source: Department for Transport, <u>Developing a framework for the local economic impact of airports</u>, 17 August 2023. Further detail on study methodology is available at <u>Developing a framework for the local</u> economic impact of airports final report, February 2023.

# Heathrow was estimated to contribute £10.1 billion to regional GVA per year

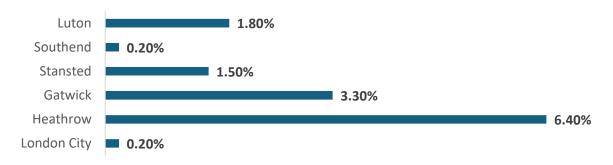
Gross Value Added (GVA) is the value added to an economy by an economic activity.

The DfT commissioned study estimated direct or operational GVA of £7.8 billion from London's six major airports, plus an additional £9.8 billion of indirect and induced GVA to the region.

### Estimated Gross Value Added (GVA) by airport, million £



### Operational GVA as proportion of sub-regional GVA (%)



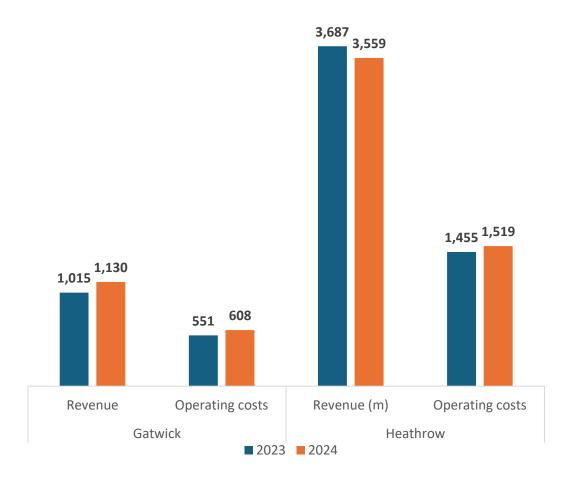
Source: Department for Transport, <u>Developing a framework for the local economic impact of airports</u>, 17 August 2023. Further detail on study methodology is available at <u>Developing a framework for the local economic impact of airports final report</u>, February 2023. Regional induced and indirect GVA includes GVA supported in the supply chain to direct airport activities, as well as secondary spending supported by the wages and salaries of direct and indirect activities. The regions and subregions for selected airports are outlined on p.26 of Developing a framework for the local economic impact of airports final report.

# Heathrow's income decreased by 3.5 per cent in 2024

Gatwick and Heathrow airports publish financial data, including revenue and cost figures, in their annual reports. Both recorded an increase in operating costs in 2024 compared to 2023.

Gatwick reported an 11.3 per cent increase in income from £1.015 million in 2023 to £1,130 million in 2024. Heathrow Airport reported a 3.5 per cent decrease in income between these years. Its 2024 annual report attributes this to a decrease in aeronautical revenue, driven by lower airline charges set by the Civil Aviation Authority.

### Revenue and operating costs of Gatwick and Heathrow airports, 2023 and 2024



Source: London Gatwick, <u>Annual report 2024</u> and Heathrow, <u>Annual report 2024</u>. London Stansted and Southend airports are owned by airport groups and therefore financial figures per airport are not available.

### Other formats and languages

If you, or someone you know needs this report in large print or braille, or a copy of the summary and main findings in another language, then please call us on: 020 7983 4100 or email assembly.translations@london.gov.uk

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#### Vietnamese

Nếu ông (bà) muốn nội dung văn bản này được dịch sang tiếng Việt, xin vui lòng liên hệ với chúng tôi bằng điện thoại, thư hoặc thư điện tử theo địa chỉ ở trên.

#### Greek

Εάν επιθυμείτε περίληψη αυτού του κειμένου στην γλώσσα σας, παρακαλώ καλέστε τον αριθμό ή επικοινωνήστε μαζί μας στην ανωτέρω ταχυδρομική ή την ηλεκτρονική διεύθυνση.

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#### Punjabi

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#### Hindi

यदि आपको इस दस्तावेज का सारांश अपनी भाषा में चाहिए तो उपर दिये हुए नंबर पर फोन करें या उपर दिये गये डाक पते या ई मेल पते पर हम से संपर्क करें।

### Bengali

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#### Urdu

اگر آپ کو اس دستاویز کا خلاصہ اپنی زبان میں درکار ہو تو، براہ کرم نمبر پر فون کریں یا مذکورہ بالا ڈاک کے پتے یا ای میل پتے پر ہم سے رابطہ کریں۔

#### Arabic

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#### Gujarati

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