

Understanding Error in UK Travel and Tourism Estimates

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Tuesday, 24 September 2024



Overview

- Review
- Sample design
- Weighting
- Modelling
- Error Estimation

Travel and Tourism Review

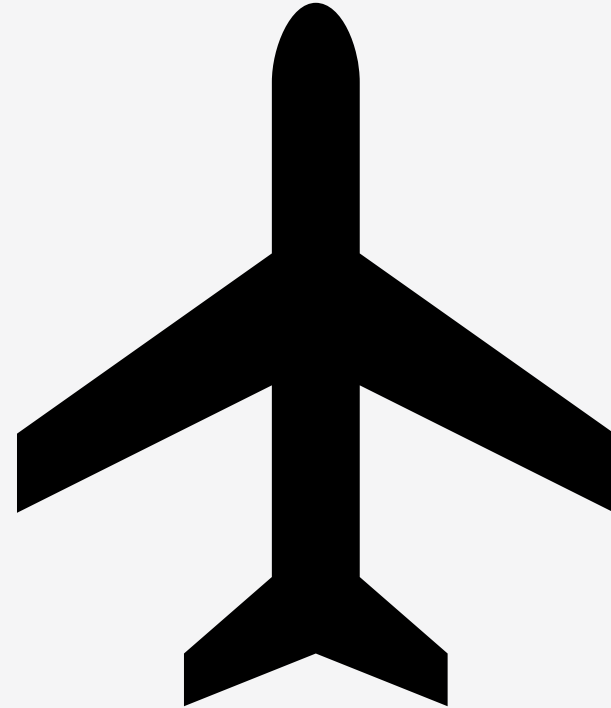
Travel and Tourism Review

- [Travel and tourism review: final report](#)
- Harmonisation of the IPS and CAA Departures Surveys
- Redevelopment of the IPS Departures Survey to include:
 - An increased sample size and,
 - Introduce sampling of flights as an additional stage of sampling
- Ceasing the IPS Arrivals Survey
- Collecting post-departure overseas expenditure and other trip-related variables from UK residents on Great Britain Tourism (and Day Visits) Survey(s)

Sample Design

Civil Aviation Authority (CAA) Survey Sample

- Departures only
- Shift-based design
- Sample flights within shifts
- Sample passengers on sampled flights



International Passenger Survey (IPS) Sample

- Departures only
- Shift-based design
- Seaports
- Eurotunnel
- Eurostar
- Airports



Sampling Flights

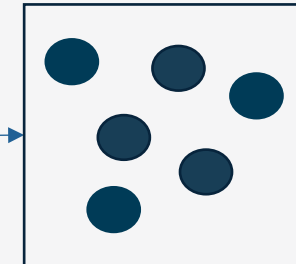
Shifts

02/07/2024 AM
02/07/2024 PM
03/07/2024 AM
03/07/2024 PM
04/07/2024 AM
04/07/2024 PM
05/07/2024 AM
05/07/2024 PM

Flights

16:00 Dallas
16:10 Paris
16:30 Madrid
17:00 Singapore
17:15 Istanbul

Passengers



Weighting

Weighting

- Design weights
- Non-response adjustment
- Core weights
- Non-core weights

Modelling post departure expenditure

Aim

- Utilise existing survey data to create a regression model of expenditure for GB residents spend abroad
- Apply the regression models to the new IPS survey data to generate estimates of post-departure expenditure

Data sources

- Great Britain Travel Survey and Great Britain Day Visit Survey
- Collected by Visit Britain
- Panel survey 12 weeks after the return date
- ONS added questions for post-departure expenditure

Method

- Various modelling approaches have been tested on early cuts of data
- Generalised Linear Model currently likely

Error Estimation

Requirements

- Publications require confidence intervals for estimates for UK, Overseas and all residents.
- These include:
 - Number of visits
 - Expenditure
 - Number of nights
- Broken down by:
 - Total (world)
 - Purpose
 - Country
 - Region

Things to explore

- How to calculate standard errors in a framework using composite calibration
- How to calculate standard errors for estimates made up of a combination of observed variables and predicted variables

Any Questions / Comments?

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