Statement of Administrative Sources

Journey Time Database – Highways Agency Managed Roads

Collection
Data about journey times on motorways and A roads managed by the Highways Agency are generated from the following sources:

- Highways Agency Motorway Incident Detection Automatic Signalling (MIDAS) inductive loops, built into the road surface on approximately 30% of the motorway network.

- National Traffic Control Centre Automatic Number Plate Recognition (ANPR) cameras, spaced approximately 25km apart on all trunk A roads and motorways.

- Trafficmaster ANPR cameras, spaced approximately 4km apart on average on most trunk A roads and some motorways.

- Trafficmaster in-vehicle Global Positioning Systems (GPS), installed in a fleet of around 60,000 probe vehicles.

Data from each source are processed and combined into the form of a single historic journey time database for Highways Agency managed roads.

Application
Data from the first two sources are used by the Highways Agency to monitor real-time traffic conditions on the network and respond to incidents and congestion as necessary. Data from the final two sources are used by Trafficmaster Ltd, the data supplier, to monitor the network and allocate the fastest moving routes to vehicles equipped with their satellite navigation system.

Access and Dissemination
Each data source is used in real-time by the relevant supplier to monitor live traffic conditions on the network and respond accordingly. Once data from the four separate sources have been processed and combined into the form of a single historic journey time database, only key Highways Agency personnel have access before the data are used to derive official statistics. This access is required so that timely operational decisions can be made in relation to the management of the network. The data are not shared outside the Department or the Highways Agency until they are processed and converted into official statistics.

Non-statistical Publication
None

Statistical publication
The data provided within the journey time database are used in the calculation of the following national statistics:

- *Reliability of journeys on Highways Agency's motorway and A road network (monthly)*

Synergies
There are no public manifestations of the data before publication as official statistics.

Security/Data Protection arrangements
The data are provided to the Department on a monthly basis on encrypted media and are then imported into a SQL database, where access to the data is strictly controlled.

Statistical End-Products
Reliability of journeys on Highways Agency's motorway and A road network (monthly)
> Published by the Congestion Statistics Branch, Department for Transport. Contact Point: congestion.stats@dft.gsi.gov.uk

Administrative/Management Source or System
Title: Highways Agency Traffic Information System (HATRIS)
Owner: Highways Agency (with some data provided by Trafficmaster Ltd)
Purpose: Each component source within HATRIS is used to monitor live conditions on the road network take action accordingly
Unit of Inquiry: Vehicles
Intended coverage: All motorways and A roads managed by the Highways Agency
Completeness: The exact coverage varies from month to month based on the availability of the component data sources
Geographical coverage: England
Lowest level of geographical coverage: Junction to junction road links
Extent to which statistical end-producers can influence the system: The Department is a key stakeholder for HATRIS and are consulted whenever changes to the system or processes are considered.
Data definitions used: Provided in congestion statistics bulletins
Classification systems used: Provided in congestion statistics bulletins
Periodicity/Timing: Data from each source are collected on a constant basis. The data are then processed within HATRIS and provided to the Department every month.
Validation procedures: The data are checked by both the source provider and the Department before being used for statistical analyses. A validation report is also made available with each release of HATRIS, highlighting any areas requiring investigation. All statistical outputs are thoroughly quality assured before release.
Access arrangements: The raw data behind each source are in constant use in order to monitor and manage the network. Once combined and processed into a single historic journey time database, any access prior to publication is limited to a number of key Highways Agency personnel for operational purposes. Within the Department, access to the statistical outputs is limited to 24 hours and only for those involved in ministerial briefing

Dissemination procedures: Statistical outputs are released through monthly web publications, in accordance with the National Statistics code of practice
Timing/Periodicity of public release: Monthly, around 6 weeks after the end of the period to which the data refer
Nature of changes to the system/source which can impact on the statistics: The version of the road network behind HATRIS is updated as physical changes (eg. bypasses) to the network are made. The make up of each data source can also change over time (eg. new or moved ANPR cameras, change in number of GPS-equipped probes).

Change Process
Definitions are kept constant over time.

The subsequent statistical production process
Validation procedures: The raw data are checked by the source providers, the Highways Agency and the Department before being used for statistical analyses. All statistical outputs are thoroughly quality assured before release.
Quality assessment: Not yet been assessed
Periodicity of release: Monthly
Potential impact of changes to the administrative/management system on the statistics: Changes in the suppliers of journey time data or the way the raw data are processed and mapped to the network can result in break-points to the statistical series.
Procedures for mitigating such discontinuities: Any significant changes in the make-up of the sources behind HATRIS and their potential impact on the statistics are discussed at a regular HATRIS Technical Users Group.

Last updated: November 2011