

Quality Assurance of Administrative Data Sources

Heavy Goods Vehicle International Operator's Licences Statistics on International Road Freight

Summary

The Department for Transport (DfT) is responsible for collecting information regarding the activity of UK registered Heavy Goods Vehicles (HGVs) in the United Kingdom (UK) and internationally and the goods they move and publishing subsequent statistics on road freight.

Road freight statistics are an indicator of the performance of the road freight industry and of the wider economy. They are important for providing an understanding of freight transport trends; for example, they support a better understanding of the load on the road network, impact on emissions, and the effectiveness of the freight industry.

The collection of statistics on road freight is required and governed by European Regulation (EU) No 70/2012 and is used to support EU competition policy and regulation of the European market. Statistics have been collected in this area since the 1950s, using powers under the Statistics of Trade Act 1947.

The DfT collect this data through three continuous road freight surveys:

- the Continuing Survey of Road Goods Transport (Great Britain) (CSRGT GB)
- the Continuing Survey of Road Goods Transport (Northern Ireland) (CSRGT NI)
- the International Road Haulage Survey (IRHS)

All three of these surveys rely on the use of "Administrative data" to produce their statistics which can be defined as:

"Data that are collected for administrative or operational purposes, with statistical use being a secondary purpose."

This document focusses on the administrative data used by the International Road Haulage Survey (IRHS):

Records of standard International licences issued to operators of HGVs to allow them to haul freight domestically and abroad.

This licence information is collected and compiled by the Office of the Traffic Commissioner (OTC) on an Operator Licence Database and supplied to the DfT through the Driver and Vehicle Standards Agency (DVSA) who provide administrative support to the Traffic Commissioners.

This document seeks to provide users of the road freight data with information regarding how this administrative data source is used in the survey and what impact DfT considers this to have on quality of the final statistical output. The Department for Transport is keen to receive views of users of Road Freight Statistics about this administrative data and we invite you to contact us at: ROADFREIGHT.STATS@dft.gsi.gov.uk

Assessment of the data:

Our assessment of the administrative data was carried out using guidance as provided in the Quality Assurance Toolkit, developed by the United Kingdom Statistics Authority (UKSA), but reflects the opinions of DfT. The toolkit is designed to help statistical producers inform users about the quality assurance arrangements for administrative data.

The toolkit uses a matrix approach to assessing administrative data which compares risk surrounding quality concerns of the administrative data (rated as low, medium or high) against the level of public interest in the statistics (rated as low, medium or high). Combining these helps producers of statistics to determine what they feel is an appropriate level of assurance required regarding the impact of the administrative data on the statistics and document this accordingly.

There are 3 levels of assurance that statistics producers should seek to deliver regarding administrative data: basic, enhanced and comprehensive. Information on each of the three levels of assurance are detailed below:

- **Basic assurance:** The statistical producer has reviewed and published a summary of the administrative data QA arrangements
- **Enhanced assurance:** The statistical producer has evaluated the administrative data QA arrangements and published a fuller description of the assurance
- **Comprehensive assurance:** The statistical producer has investigated the administrative data QA arrangements, identified the results of independent audit, and published detailed documentation about the assurance and audit.

Assurance is sought across four areas of practice regarding the administrative data:

- Operational context and the administrative data collection processes
- Communication the DfT has with data supply partner
- The Quality Assurance principles, standards and checks applied by data suppliers
- DfT's Quality Assurance investigations on the data & the subsequent documentation.

Further information about these areas and the levels of assurance can be found on the UKSA's website¹.

How the data are used by DfT

The International Road Haulage Survey (IRHS) is a business-level survey of road freight activity. It collects information on international journeys made by HGVs (3.5 tonnes and over) registered to firms in GB transporting freight by road internationally. This data is combined with international trip data from the CSRG NI survey to build a picture of all international activity by UK registered vehicles.

Hauliers transporting road freight internationally are asked to provide details of all trips that left the UK on specified days and are legally required to provide this information to the DfT under legislation set out in the Statistics of Trade act 1947. Not all hauliers who make an international trip are asked to report their activity. Only HGV operators, possessing a standard International operator's licence are within the scope of this survey. The activities of these operators are recorded at intervals of varying lengths over a two year period and the data are grossed up to produce an overall picture of international road freight activity undertaken by UK registered HGVs. More information on this sampling methodology be found on the [methodology page](#).

In order to know which road haulage firms in the UK, have a Standard International Operators Licence and so should be contacted to take part in the survey, DfT use licensing records of operators in the UK who are registered to transport freight internationally. This list is compiled and held by the Office of the Traffic Commissioner.

There are eight traffic commissioners (TCs) in the UK who are appointed by the Secretary of State for Transport and have responsibility in their region or country for the licensing of the

¹ <https://www.statisticsauthority.gov.uk/monitoring-and-assessment/monitoring/administrative-data-and-official-statistics/>

operators of heavy goods vehicles (HGVs) and of buses and coaches (public service vehicles or PSVs); the registration of local bus services; and regulatory action against drivers of HGVs and PSVs. As independent regulators, they are also independent data controllers as notified to the Information Commissioner's Office (ICO). In addition to this, the Senior Traffic Commissioner, who is a serving traffic commissioner has additional data controller responsibilities in that role and is an additional notified body to the ICO.

If an individual or business in the UK wants to operate a vehicle with a gross vehicle weight rating above 3.5 tonnes, domestically or internationally, they need a number of authorisations and permits to do this which are obtained from the OTC. The OTC maintains records of when licences were granted, who they were granted to, what type of licence was granted and when it expired and as such these records provide a list of all operators registered to operate an HGV.

In accordance with the data sharing arrangements put in place through the Memorandum of Understanding (MoU) between TCs, DVSA and the Northern Ireland regulator (as their data is also stored in the same systems), this information is passed by DVSA to the DfT who use it to select HGV operators to be included in the international road freight survey - the IRHS. The selected operators are given questionnaires to complete for each international trip they undertake and this information is then used by the DfT to produce the road freight statistics.

Level of assurance

The road freight statistics series are required under European legislation which means they are technically deemed to have a high level of public interest. However, while the statistics themselves are extremely important they are not as high profile as, for example, GDP or employment statistics nor do they have the same potential impact if errors are found in the data. Therefore should the statistics ever have reason to be withdrawn (e.g. because of the discovery of an error in the data) while this would have local ramifications for the department, there wouldn't be severe wider political or economic considerations as suggested by the matrix.

With regards to quality, the relatively small role the administrative data play in producing the statistics (their use as a sampling frame rather than contributing to the outputs themselves) and the very low risk of the data being incomplete mean that their quality poses less of a risk.

Consequently DfT consider the level of assurance required for this series is **basic** and assurance appropriate to that level or above has been ascertained and set out in this document.

In general DfT is satisfied that the quality of the data received from DVSA combined with the separate checks DfT conducts on the data mean that the statistics output are of a sufficiently high standard as required to meet National Statistics status.

Practice area: 1 Operational context & administrative data collection

HGV Operator Licence data background

In the UK, a goods vehicle operator's licence is required if a business uses a goods vehicle in excess of the following weights:

- a gross plated weight (the maximum weight that the vehicle can have at any one time) of over 3,500 kilograms (kg)
- an unladen weight of more than 1,525 kg (where there is no plated weight)

Goods vehicles in excess of these weights are known as Heavy Goods Vehicles (HGVs) while goods vehicles under these weights are known as Light Goods Vehicles (LGVs) and do not require these licences and so are outside the scope of this data.

The licence needed to operate an HGV depends on where the operator intends to transport goods to and from, and who they do it for. There are 3 different types of operator's licence available:

- Restricted licence
- Standard national licence
- Standard international licence

It is the information on the last of these licences that DfT uses for statistical purposes.

Operators need to hold a licence for each Traffic Commissioner's traffic area where they have an operating centre and each licence issued remains valid as long as operators pay a continuation fee every 5 years and operate within and according to the terms of their licence. To ensure details remain valid, the operator is contacted every 5 years to ensure their licence shows the correct information and is up to date.

The difference between each licence type is set out in the following table:

Licence type	Operators are permitted to carry			
	Their own goods		Others' goods	
	In the UK	Internationally*	In the UK	Internationally*
Restricted	Yes	Yes	No	No
Standard national	Yes	Yes	Yes	No
Standard international	Yes	Yes	Yes	Yes

***International travel** Operators who are issued with a standard international licence are also issued with a "community licence" free of charge which allows drivers to use a single permit for trips between all 28 EU member states, the 4 member states of the European Free Trade Association (EFTA) (Iceland, Liechtenstein, Norway and Switzerland) transit traffic through to and from non-member countries.

In order to travel outside these countries, the operator must obtain either a bilateral permit or the relevant permission from the embassy of the country concerned. The UK has agreements with several non-EU countries, which allow hauliers to travel to or through those countries as long as they hold a permit for the country with which the bilateral agreement has been made.

Data collection and processes

In order to apply for an operator's licence, applicants are required to complete a form available on Gov.uk. Once complete, application forms are sent via post to a central office of the Traffic Commissioner based in the Leeds office.

All applications are processed in line with the Senior Traffic Commissioner's statutory guidance. The applicants must meet the criteria set out by the legislation, which includes, repute, finance, professional competence, maintenance and advert (application for goods vehicles only). The applicants must demonstrate that they meet the criteria by submitting the relevant documentation, details of which are given in the statutory documents. The statutory documents are available to everyone on-line. <https://www.gov.uk/government/publications/application-for-a-goods-vehicle-operators-licence-gv79>

All documentation provided by hauliers in relation to their application is scanned to the Operator Licence Business System (OLBS) and this information is then checked and manually entered by a dedicated team. A new system is planned to be introduced in November 2016 which will allow hauliers to directly scan documents and input their application directly onto the system. It is estimated that approximately 80 per cent of applications require some form of follow up due to incomplete documentation being provided by the applicant haulier.

To ensure quality and consistency of the data being captured across applications, training manuals are provided to all staff and teams process the applications using a set template. Internal audits are carried out by OTC to ensure that these processes are working as intended and at the time of producing this document, the results from a recent audit rated the processes in place as outstanding and conclude no improvements could be made. No audits are currently carried out on the data itself but the OTC have said this is something they would now consider including as part of the audits.

In terms of coverage and completeness of the records, the majority of funding for the OTC to operate comes from the fees from the licencing and application process and as such they have a strong motivation to ensure all HGVs are licenced. Possessing a licence is a legal requirement to operating an HGV in the UK. In order to ensure adherence to this the DVSA conduct regular patrols and have the power to stop vehicles (HGVs, buses and taxis) at the roadside and conduct random inspections of HGVs checking for roadworthiness defects (e.g. suspension faults, unsafe loads etc.) as well as traffic offences (falsifying tachograph records, exceeding driving hours etc.). Examiners also visit operators' premises to inspect vehicles and documentation.

This rigorous enforcement regime, means the number of HGVs routinely moving freight in/out or around the UK that are unlicensed or operating without the relevant permits and therefore not included on the records data supplied to the DfT is likely to be extremely low. As such the data from the Office of the Traffic Commissioner can be considered to have good coverage and therefore be considered a good source on which to base HGV population estimates for the IRHS.

Potential changes in the context or collection arrangements of the licence data, especially cessation of the collection or changes in the licence types could have a noticeable impact on the DfT's ability to identify operators. However such changes are unlikely to occur without changes to legislation and this is therefore deemed to be a low risk

Practice area 2: Communication with data supply partners

In accordance with the data sharing arrangements put in place through the Memorandum of Understanding (MoU) between TCs, DVSA and the Northern Ireland regulator (as their data is also stored in the same systems), information is passed by DVSA to the DfT who use it to select HGV operators to be included in the international road freight survey - the IRHS. There is no end date to this MoU as the data collected and the way DfT uses it for its survey remain static each year. Changing either the data collected by OTC or the way DfT uses it as part of the survey methodology is likely to have a significant wide ranging impact both on the freight industry and the Road Freight statistics series potentially introducing a break in the statistical series. DVSA and OTC understand how this data is used by DfT as the MoU was set up specifically for DfT. The unchanging nature and needs of the data and the strict conditions imposed by the MoU mean there is little scope to quickly change the data supply processes and as such there is no requirement for routine discussions between DfT and DVSA/OTC regarding this. However DfT do occasionally contact DVSA if they have a question about the data or its delivery and have named contacts who can be approached.

An extract of Operator Licence Database, containing details of all Standard International Licences in issue, is e-mailed to DfT, via a secure government network, on the day of each month or the closest working day in Excel format. Before providing the data, the DVSA run a sample quality assurance check (1-2% of total records) on the extract. Once complete and DVSA are satisfied, the data are supplied to DfT where it is then stored on a secure internal network drive that is only accessible to members of the road freight team.

The data supplied to DfT contains the following fields:

- Operator ID
- Operating name
- Trading name
- Licence status
- Address details
- Licence number
- Licence type
- Licence start date, expiry date and surrender date.

The more sensitive fields including name and address of the HGV operator are all publically available on Data.gov.uk. The data from the OTC/DVSA is readily available in the public domain. A condition of an operator applying for a licence is that they publically announce this in local areas, must advertise the fact they are doing so and the fleet manager be of good reputation and standing in the community etc. All the hearings and applications decisions are made in public and so DVSA compiling and publishing this data does not constitute a breach of confidentiality.

The DfT only need up to date records of the licence data including details of new licences and the current status of the licence (e.g. whether it is expired, active or suspended etc.) in order to know who to target for its survey. The quality of the records is not relevant to this process and as such there are no errors to be identified or reported back to DVSA. Should the data not be supplied or the records contain missing variables, this would be raised immediately via named contacts at DVSA to investigate or resolve this.

End users of the Road Freight statistics data are continually invited, through the DfT website, contact details in statistical publications and tables and have opportunities through face-to-face engagement at events to comment on the statistics, give feedback on them and the processes used in their production. Any suggestions or comments made are taken seriously and responded to in a prompt manner.

Practice area 3: Quality Assurance Principles, standards and checks applied by data suppliers

The forms used to apply for an operator's licence are available on GOV.UK and are accompanied with detailed guidance and supporting documents. These explain each question clearly, provide definitions and explanations of terminology and contain a helpline for applicants to contact for further assistance. A dedicated team of the OTC, based in Leeds OTC check over the applications and approximately 80 per cent are either returned to the applicant or require some sort of follow up, giving an indication of the level of scrutiny the forms and the data undergo. More information on this, including the audit arrangements on the data collection process are outlined under Practice area 1.

The use of the licencing data in the Road Freight Statistics is solely to provide the DfT with a sampling frame. The main issue that may affect the quality of the freight statistics data is having incomplete records as this would mean the survey is not covering the entire population of firms who conduct international haulage activity. This would lead to inaccurate statistics and levels of freight activity being underreported. However as outlined under Practice area 1 this scenario is unlikely to occur.

Practice area 4: Producer's quality assurance investigations and documentation.

The following section outlines the investigations and checks applied by DfT to the data provided by DVSA to ensure that the quality of the statistics are kept high. At present the licence data are imported by DfT using an old bespoke administrative system. The system is somewhat inflexible and requires a lot of manual intervention and staff resource. DfT are building a new automated system to import the data and are aiming to use this from around the start of 2017. This will allow data to be imported much more easily and quickly than at present and will increase the quality of the data being imported by reducing inaccuracies or quality issues introduced in the data by human error e.g. duplication of firm records. It is impossible to presently and accurately quantify the scope or scale of the quality issues but they are of low significance and have a limited impact on the quality of the final statistics produced. Further information on these issues and their impact is set out below.

The general principles of the quality checks carried out on the data by DfT under the new system will remain the same as at present however some of the specific details as to how these are carried out and the outcome will vary slightly. Details of the quality checks undertaken by DfT are given below and any significant differences between the old and new systems and their effect on the data quality are highlighted.

Restrict licence data to GB registered firms:

Licensing data supplied by DVSA the whole of the UK but the IRHS survey only relates to firms based in GB as data on international freight from Northern Ireland (NI) is supplied from CSRG NI. To avoid collecting Northern Irish freight activity twice, firms registered to NI are filtered out from the DVSA data at the time it is imported. The registered addresses of firms on the DVSA data are examined for NI postcodes, using a scripted routine run as part of the import process and any addresses with a NI postcode are filtered out from the data.

Identifying new firms for inclusion in the survey

To keep the population list up to date, records of new firms acquiring licences must be added to the database. Firms operating in the jurisdiction of several OTC areas are required to possess a licence for each of these areas meaning a single firm may possess several operator licences but must still only be treated as one firm and sampled once, so unique firms must be identified despite multiple licences and addresses.

Under the new admin system, each licence is linked to the company via a unique identifier assigned by the OTC - the Operator ID. This variable was specifically added to the extract DfT receives for use in the new system. On importing the data, all records provided by the DVSA will be matched to the existing database using the unique licence number and Operator ID. Where imported firms have an operator ID which matches to existing records held by DfT, their licence details are updated however where firms cannot be matched with existing records, they are treated as a new firm. DfT then contact the firm through the registered address to acquire some information about the company to place them into a strata required for the survey's weighting and sampling purposes. This contact procedure is known as pre-enquiring of firms and is covered in more detail later in this document.

Under the old admin system, unique operator ID was not supplied to DfT making identifying single firms from multiple licences significantly harder which mean more complicated manual checks and matching processes were required.

The licences being imported were first sorted by start date to identify any licences that had been issued since the last time the data was imported. Details of the firms that the licences were assigned to, such as name and address, was then compared to those of existing firms on the IRHS admin database – essentially a “fuzzy” match. This was not a failsafe method as it relied on human

input which risked not identifying a pre-existing firm, which would mean duplicate records for that firm being created. Where this happened, this could lead to over reporting of that particular firm's activity although the overall impact on the statistics would have been minimal.

This risk was mitigated by checking the details of any "new" firms against an online records system provided by OTC. The system allowed DfT to access more detailed licence information than was provided on the extract. Although this added an extra layer of checking, it wasn't guaranteed to remove all duplicates and as such some firms in the IRHS survey may be duplicates. This is thought to only be a small proportion of the records and these duplicated firms will be removed when the new system goes live, using the operator ID.

Confirming firm details - pre-enquiries:

After new firms were identified, they are contacted by DfT – known as a pre-enquiry. The registered address of the licence, as provided by DVSA is used as the initial point of contact, however, the pre-enquiry form asks whether this address is suitable for correspondence address regarding future IRHS survey forms. Any amendments to the address were applied to the IRHS admin database and used for future correspondence. This was to reduce non-response rates and ensure that within large organisations the survey form is directed to the correct individual, allowing the completed form to be returned quicker and diminishing the risk of a long lag time and the survey being sent late or getting lost.

The firm is also asked to provide information on the number of employees it has and the number of international trips it expects it will conduct over the following year. This is used to allocate the firm to a sampling strata and ensure that the length, duration and frequency that the firm is surveyed over 2 years is consistent and not overly burdensome. This information is also requested each time a survey is sent out to the firm to ensure it is kept updated as the firm evolves. Firms are also able to notify DfT of changes of address etc. on the form. This ensures that the survey does not rely on "official contact details" that may not reflect reality of the trading/administrative environment.

From consulting with industry DfT established that that the application for a new licence often constitutes one of the first steps in starting a haulage company and that a company may apply for a licence some months before actually commencing trading. DfT therefore refrain from sending a pre-enquiry form to a new firm for a period of six months after the firm has been identified. This is again to reduce respondent during the initial start-up period and also reduce the risk of firms reporting that they are 'not currently trading' and the company being made prematurely exempt from the IRHS survey.

Strengths and weaknesses of the data:

The data supplied by DVSA is considered to be of good quality and coverage, for reasons set out in section 1. It is possible however that this sampling frame i.e. standard international licences isn't providing complete coverage of all international road freight activity in the UK. Operators with a standard international licence are permitted to carry their own goods ("Own account" operators) and those of others ("For hire" operators) internationally. However operators possessing restricted or standard national licences are still permitted to move their own goods internationally just not those of others and this international activity is not covered in the IRHS survey.

The decision to only sample standard international licence holder operators was taken on the basis of balancing cost, resources and time with coverage. Historical feedback from DVSA and OTC suggests that most international freight activity takes place on a Standard International licence and more recent, albeit, anecdotal evidence from these parties corroborates this. DfT understand from these conversations that among firms possessing Restricted and Standard National Licences are large proportions of firms who require and use these licences to move their

own personal goods which are not considered to be freight and so such activity would not be relevant to the survey. Examples of the items being moved under these Restricted and Standard National Licences include horses and motor vehicles for sporting and recreational competitions and activities, musical instruments and supporting equipment for touring musicians and theatrical shows, show stands for education and demonstration purposes etc.

While some operators will possess these licences to move freight and be relevant to the survey, many will not. Expanding the survey to cover these operations is likely to result in significantly increased costs to DfT to collect potentially little additional data and is likely to achieve high levels of “Nil return” responses (owing to the non-relevance of the activities of the hauliers being surveyed). Changing the collection is also likely to have an impact on the consistency of the long term data series and potentially introduce a break in series. Restricting coverage of the IRHS to just Standard International licences ensures that freight moved by all types of operator (Own Account and For Hire) are included while keeping the cost of the surveys down.

This approach may introduce bias if the characteristics or activity or type of work conducted by firms with standard international licences differs to those of firms carrying other licence types. However for the reasons outlined above, it is assumed that firms on restricted and standard licences tend to be smaller and move low amounts of freight internationally and therefore sampling these firms would not justify the resource required to include them or outweigh the negative impacts of the bias this may introduce.

In general DfT is satisfied that the quality of the data received from DVSA combined with the separate checks DfT conducts on the data mean that the statistics output are of a sufficiently high standard as required to meet National Statistics status.

Acronyms

CSRGT – Continuing Survey of Road Goods Transport

DfT – Department for Transport

DVSA - Driver and Vehicle Standards Agency

EFTA - European Free Trade Association

EU – European Union

HGV – Heavy Goods Vehicle

ICO - Information Commissioner's Office

IRHS – International Road Haulage Survey

MoU - Memorandum of Understanding

OTC - Office of the Traffic Commissioner

TC – Traffic Commissioner

UKSA - United Kingdom Statistics Authority