Quality Report for Essential Skills Enrolments and Outcomes in Northern Ireland Statistical Bulletin

Introduction

<u>Essential Skills Enrolments and Outcomes in Northern Ireland</u> statistics are published annually by the Department for the Economy (DfE). The latest publication includes statistics on Essential Skills (ES) enrolments, qualifications and performance from 2002/03 to 2017/18.

This data quality report comments on the European Statistical System's Dimensions of Quality. There are five dimensions which aim to give a broad understanding of the quality of a statistical output. These are:

- 1. <u>Relevance</u>
- 2. Accuracy and Reliability
- 3 Timeliness and Punctuality
- 4. Accessibility and Clarity
- 5. Comparability and Coherence

Furthermore, Eurostat asks the producers of official statistics to comment on the following four principles when reporting quality:

- 1. <u>Trade-offs between output quality components</u>
- 2. Assessment of user needs and perceptions
- 3. Balance between performance, cost and respondent burden
- 4. Confidentiality, transparency and security

The enrolment and qualification information presented in the *Essential Skills Enrolments and Outcomes in Northern Ireland* statistical bulletin is sourced from a series of data returns listed below.

- Essential Skills Enrolment Return (ESER) for the years 2002/03 2012/13.
- Consolidated Data Return (CDR) for the years 2013/14 2017/18.
- Essential Skills enrolment extract from the Client Management system (CMS) for the years 2002/03 2017/18.
- Essential Skills Qualifications Return for the years 2002/03 2017/18.

Enrolments within FE colleges during academic years 2002/03 to 2012/13 have been derived from the ESER. From 2013/14 onwards, the CDR is used for FE College enrolments. ES enrolments that are part of an individual's programme of study through one of the department's training or employment programmes, such as Training for Success, are recorded on the department's Client Management System (CMS). The qualification statistics have been derived from the Essential Skills Qualifications Return, with data collected quarterly from Awarding Organisations.

DfE statisticians adhere to the UK Statistics Authority's <u>Code of Practice for</u> <u>Statistics</u>.

Quality Report

Dimension	Assessment by the author
Relevance	The degree to which the statistical product meets user needs in both coverage and content.
	The statistical bulletin presents a range of analysis regarding ES enrolments and qualifications covering academic years 2002/03 to 2017/18. The bulletin is divided into three sections: enrolments; qualifications issued; and performance.
	The information presented in this statistical bulletin is of interest to a variety of stakeholders, both internal and external. For example, these statistics are crucial to DfE policy officials in monitoring policies, allocating funding, and planning for the future. They are also of interest to prospective students in considering their options around ES courses.
	It is with the stakeholders in mind, and considering any feedback or queries that are received from users, that decisions are made with regards to what is included in the bulletin each year. This ensures that the published material continues to be relevant and meets user's needs.
	Further information on how customers' needs are assessed can be found in the section below entitled 'Assessment of User Needs and Perceptions'.
Accuracy and Reliability	The proximity between an estimate and the unknown true value.
	Data Collection
	The information presented in the <i>Essential Skills Enrolments</i> <i>and Outcomes in Northern Ireland</i> statistical publication are based on four statistical datasets returned to the department.
	These returns cover all enrolments and qualifications, therefore issues relating to sampling error and estimates are not relevant to this data. Instead, the accuracy of the information returned and the scale of missing data are more important. Such issues are kept to a minimum by having in place stringent data quality checks and validations procedures.

The data supplier is responsible for the quality of the enrolment data contained within the data returns. Although each supplier has its own validation checks which are performed on the data, numerous validation checks are also performed for DfE purposes. These checks ensure that the data are accurate in terms of format and logic.

Since 2013/14, FE Colleges receive a daily CDR file to manage their data quality. A CDR and an automated CDR validation report is produced four times a year and submitted to DfE. This provides DfE with an in-year look at the quality of the FE enrolment data. Any issues arising from the in-year or end of year validation stages, in terms of quality assurance, are returned to the college to verify and comment on.

To ensure the CMS data are accurate, the administrative system has built-in validation checks to minimise user error. For example, dates entered must be logical, including start dates having to be earlier than end dates.

The Awarding Organisations have checks on the qualification data, for example ensuring that variables are entered in the correct format.

In terms of missing data items, the majority of data items are collected for all students. Not all data items are mandatory for a student to provide, and some data items may include categories for 'unknown' or 'information refused'. The level of unknown entries within data items are routinely monitored during the data collection process and address with the data supplier if necessary.

DfE statisticians regularly attend meetings with FE College Management Information System (MIS) managers. These meetings provide FE Colleges with a platform to interact with each other, and with DfE, to discuss data issues and to work towards continually improving data quality.

Production of statistics

On receipt of the data, DfE statisticians produce a single dataset for all Enrolments and a separate dataset for all ES qualifications. These datasets are cross-verified, across a range of variables, with previously published ES data. Once the dataset is generated and verified it is then used to prepare the *Essential Skills Enrolments and Outcomes in Northern*

	<i>Ireland</i> statistical bulletin. Prior to publishing, DfE statistics undergo rigorous checking procedures including peer review of syntax used to analyse data, parallel production of data tables using statistical software packages, and extensive proof reading of commentary, tables, notes to readers and definitions. Finally, publications also require senior statistician sign-off before release.
Timeliness and Punctuality	Timeliness refers to the time gap between publication and the reference period. Punctuality refers to the gap between planned and actual publication dates.
	Awarding Organisations collate qualification data on a quarterly basis and provide DfE with the data within the first 1-2 weeks of the following quarter.
	CMS provides data from the start of the strategy (2002/03) up until the date of the data return. The entire data are returned each period as it is possible for there to be changes to the CMS dataset from previous years, such as cancelled qualifications.
	The final CDR (FE College) enrolment data for an academic year are extracted in the October after the end of the academic year. Accounting Officers in FE Colleges sign off the mid-October extract as reflective of the provision delivered over the course of the previous academic year, and it is then supplied to DfE statisticians. CMS data are extracted on the same date.
	DfE statisticians then proceed to create and verify the ES enrolment and ES qualification datasets, as well as developing and quality assuring the <i>Essential Skills Enrolments and</i> <i>Outcomes in Northern Ireland</i> statistical bulletin
	DfE's Further Education publication dates are pre-announced through the <u>publication schedule</u> on the DfE website and on the <u>GOV.UK</u> statistics release calendar.
	It is not expected that there will be any gap between planned and actual publication dates. In the event that a pre- announced publication date cannot be met, then this will be announced on the DfE and GOV.UK websites along with the reasons for the delay.

Accessibility and Clarity

Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.

DfE's ES statistical publications are made available on the Department's <u>website</u> and through <u>GOV.UK</u>. In addition to a general press release, announcements are issued on the DfE <u>Twitter</u> feed and on the Northern Ireland Statistics and Research Agency's <u>Facebook page</u> and <u>Twitter</u> feed.

Shortly after release, customers who have registered their details with the department receive an email containing a web link to the bulletin. Paper copies of the publications are also made available to users on request.

To allow users to carry out further analysis, data tables are published on the DfE website in Excel and OpenDocument formats. Users can also request further analysis of the data from the department. Analysis and statistical bulletins are provided free of charge.

Each statistical bulletin includes a section of explanatory notes, as well as annexes of definitions and technical notes. A metadata tab accompanies the data tables, covering definitions and methodology.

The bulletin is extensively illustrated throughout with suitable charts.

Coherence and Comparability Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain.

> CMS records of students enrolled through DfE training and employment providers, and CDR records of students enrolled in FE Colleges, are merged into one coherent dataset, with a process in place to remove any duplicate records.

Awarding Organisations data comes from four Awarding Organisations - Council for the Curriculum, Examinations and Assessment (CCEA), City and Guilds, Open College Network

	 (OCN) and Pearson. The data returns from the four providers are formatted and merged into one coherent dataset for analysis. In each of DfE's Further Education statistical bulletins comparisons are made over time and between FE Colleges.
	Statistics can be directly compared year on year from 2002/03 to present. Any changes occurring during that period that have had a significant influence on the statistics are explained within the bulletin, for example the full rollout of ICT courses in August 2009.
Trade-offs between	Trade-offs are the extent to which different aspects of quality are balanced against each other.
Output Quality Components	A trade-off between timeliness and accuracy is considered with producing the <i>Essential Skills Enrolments and Outcomes</i> <i>in Northern Ireland</i> bulletin.
	FE Colleges submit their data to DfE about two months after the end of each academic year. DfE gives FE Colleges this time to get their data as 'fit for purpose' as possible and in line with the stringent validation procedures. To enable timely data collection, the data collection process allows some tolerance of missing values for certain variables.
	The mid-October extract and November/December publication allows customers to have information which is fit for purpose, yet available promptly after the reference period.
Assessment of User Needs and	The processes for finding out about users and uses, and their views on the statistical products.
Perceptions	In the development of ES publications, DfE statisticians give careful consideration to the needs of its customers.
	DfE statisticians are in regular contact with departmental policy officials. This ensures that the bulletins are fit for purpose, allowing officials to effectively carry out their role in developing and monitoring policies and ES provision.
	Contact details for the lead statistician are provided at the front of the bulletin, providing all customers with the opportunity to

	give feedback or raise issues relating to the publication. Feedback and ad hoc queries received throughout the year are monitored. This influences what analyses are included in the bulletin each year and ensures that the published material continues to be relevant and meets user's needs.
Performance, Cost and Respondent Burden	 The effectiveness, efficiency and economy of the statistical output. All the data in the publication are derived from administrative sources and are captured and maintained regardless of whether the ES bulletin is produced or not. Therefore the cost of production is limited to the staff time that is involved in the bulletin's development and publication. The investment in the production of the bulletin has been of benefit to many stakeholders and has enabled the development and monitoring of ES policy and provision since its outset. Respondent burden on each student is minimal. This is because the information used to produce these statistical bulletins is collected as part of the application and enrolment process.
Confidentiality, Transparency and Security	 The procedures and policy used to ensure sound confidentiality, security and transparent practices. FE College data are supplied to DfE via a secure web-based transfer system created and maintained by the Two College Model Unit within South Eastern Regional College. Data are automatically extracted from an electronic data warehouse, which holds a copy of the FE College data held on the Northern Ireland College Information Systems (NICIS). The enrolment data on NICIS are uploaded every hour to the data warehouse. Data extracted from CMS are transferred to DfE statisticians by placing the file on the DfE server via a secure data transfer process by Fujitsu. This is carried out on pre-arranged dates aligned with the data lift from the FE colleges. Within DfE, the data are held on a secure server, accessible only to DfE FE statisticians. If required, data sharing

agreements are used to pass information on to third parties commissioned by DfE to undertake specific ES research.

All data presented in the publications are anonymous, with procedures in place to prevent the potential for identification, for example where data are sensitive, or where there are counts of less than three individuals.

A list of individuals who have pre-release access to ES statistics is published on the department's website.

DfE statisticians adhere to the UK Statistics Authority's <u>Code</u> of <u>Practice for Statistics</u>.