

# Background Notes (Updated January 2024)

## (i) About the Northern Ireland Annual Business Inquiry

The Northern Ireland Annual Business Inquiry (NIABI) collects both financial and employment information from businesses and other establishments and covers approximately two thirds of the economy. This includes the production, construction, distribution and service industries in Northern Ireland but excludes public sector activity for the most part. The coverage of the survey is detailed at section (iv) below.

Each year the NIABI samples approximately 10,000 businesses in Northern Ireland from a population of approximately 59,000 businesses in the sample frame: the Inter-Departmental Business Register (IDBR). The IDBR consists of companies, partnerships, sole proprietors, public authorities, central government departments, local authorities and non-profit making bodies in the UK. The NIABI is reliant on the IDBR receiving accurate and timely updates and providing a true reflection of the Northern Ireland business population. Businesses not registered for either Pay As You Earn (PAYE) or Value Added Tax (VAT) are excluded from the frame. Additional information about the IDBR and the characteristics of the businesses covered by the IDBR is available at the link:

<https://www.nisra.gov.uk/statistics/business-statistics/inter-departmental-business-register>

The NIABI statistics are classified as Accredited Official Statistics. Accredited official statistics are a sub-set of official statistics that have been independently reviewed by the Office for Statistics Regulation and confirmed as complying with the standards of trustworthiness, quality and value in the [Code of Practice for Statistics](#).

## (ii) Survey reference period

For each survey reference period, businesses are asked to make returns for the calendar year. Where this is not possible, returns for business years ending between 6 April of the survey reference year and 5 April the following year are accepted.

Returns covering fewer than twelve months are accepted for businesses that had started or ceased trading during the year. Estimates are made for those firms providing returns for more than six months whilst firms providing less than six months are treated as closures in the results process. These only account for a small proportion of all business that return each year.

## (iii) NIABI sample

Following user feedback and consultation with the Statistics Advisory Committee and the NISRA official statistics user group, the NIABI sample size was boosted from approximately 5,000 in the 2010 survey reference year to approximately 9,000 in 2011. In recent years the sample has ranged between 10,000 – 11,000 businesses. This has resulted in improvements to the precision of the estimates, as indicated by the quality indicators for recent years. This improvement should also be borne in mind when interpreting annual trends.

To maximise survey precision, the Neyman allocation approach to sampling is utilised. Neyman allocation is a sample allocation method that may be used with stratified samples. The purpose of the method is to maximize survey precision, given a fixed sample size. The survey universe is stratified by 2 digit SIC code and employee size band, and **all businesses with 50+ employees, or 20+ employees and more than one local unit (see section (vi) for full definition) are fully enumerated**. The current NIABI sample design also includes **all manufacturing businesses with 6 or more employees and those with a turnover of £10 million or larger**. Businesses falling below the threshold of complete enumeration are selected on a stratified random basis. In addition, some companies of special interest to policymakers and government agencies (for example, certain

Invest NI clients) are added to the sample.

#### (iv) Standard Industrial Classification and the coverage of the NIABI

NIABI results are classified according to the [Standard Industrial Classification of Economic Activities \(SIC\) system](#). A review of the system was completed in 2007 and implemented in 2008. UK SIC 2007 is divided into 21 sections, each denoted by a single letter from A to U. Below this, further levels of detail are provided at division (denoted by 2 digits), groups (three digits), classes (four digits) and subclasses (five digits).

The SIC 2007 sections covered by the NIABI are as follows:

Section letter	Section description	Sector
A	Agriculture (support activities), forestry and fishing	Agriculture
B	Mining and quarrying	Production
C	Manufacturing	Production
D	Electricity, gas, steam and air conditioning supply	Production
E	Water supply, sewerage, waste management and remediation activities	Production
F	Construction	Construction
G	Wholesale and retail trade; repair of motor vehicles and motor cycles	Distribution
H	Transport and storage	Services
I	Accommodation and food service activities	Services
J	Information and communication	Services
L	Real estate activities	Services
M	Professional, scientific and technical activities	Services
N	Administrative and support service activities	Services
P	Education (excludes local authority and central government bodies)	Services
Q	Human health and social work activities (excludes local authority and central government, and medical and dental practice activities (group 86.2))	Services
R	Arts, entertainment and recreation	Services
S	Other service activities	Services

Following a decision by the Office for National Statistics to discontinue the publication of figures covering insurance & re-insurance industries (Section K) due to ongoing volatility of the estimates, NIABI publications also excludes estimates for this series.

The other main areas that are *excluded* are Public Administration and Defence (section O) while Agriculture, Forestry and Fishing (section A) excludes farming (groups 01.1, 01.2, 01.3, 01.4 and 01.5). Local authority and central Government bodies in Education (section P) and Human Health and Social Work Activities (section Q) are also excluded from publications, as is 86.2 (Medical and Dental Practice Activities) within section Q.

## (v) Data collection, validation and calculation of NIABI results

Approximately 11,000 forms are issued from the NISRA Economic and Labour Market Statistics Branch in March and the returned forms are subjected to a range of validation and congruency checks.

Data validation is carried out on the returned forms ensuring internal consistency within the form, checking data fell within expected limits or by contacting the company for clarification where appropriate. For non-returns above a selected employment threshold, data is imputed using a methodology that takes account of previous returned data and the performance of other similar businesses. This information is then grossed up to the reporting unit population, to ensure that results are representative of the sampled population.

Please note that the information presented throughout NIABA bulletins is based on reporting unit information, and is therefore not directly comparable with earlier NIABI bulletins which are based on local unit information. Reporting and local unit definitions can be found in part (vi) below.

In addition, to better meet user needs, and in consultation with ONS Methodology Consultancy Service, NISRA produces these results using Statistics Canada's Generalized Estimation System for grossing results. This allows the production of estimates with an associated measure of their quality. For more detail of the estimation methodology, please consult:

<https://www.nisra.gov.uk/publications/abi-quality-improvement-fund-project>

Users are advised to take into account the quality indicators associated with the estimates when considering the significance of annual changes. These indicate that some results have quite large margins of statistical error associated with them. Users should exercise caution when interpreting the annual changes associated with such results.

Ongoing development of the methodology will be informed by user feedback, both in terms of the usefulness and reliability of the estimates and their comparability with other sources. Any comments should be sent to [abihelpline@finance-ni.gov.uk](mailto:abihelpline@finance-ni.gov.uk)

## (vi) Definitions

### *Reporting and Local Units*

An enterprise *reporting unit* reports for all the *local units* within the enterprise (for example, the reporting unit for a large supermarket chain will respond with aggregate figures incorporating all its Northern Ireland shops). A *local unit* is an individual site (factory, shop, office, etc.) at which an enterprise conducts its business. For example, a supermarket chain may have shops in Newtownards, Bangor, Limavady, etc, these are local units.

**Approximate Gross Value Added at Basic prices** represents the income generated by businesses, out of which is paid wages and salaries, the cost of capital investment and financial charges before arriving at a figure for profit. It includes taxes on production (e.g. business rates), net of subsidies but excludes subsidies and taxes on products (e.g. VAT and excise duty). This is an output-based measure of aGVA. All published aGVA is given at basic prices. The calculations applied to derive aGVA are noted overleaf.

The calculations used in the NIABI are:

- aGVA AT MARKET PRICES: Total turnover + insurance claims + change in stocks + own account capital expenditure + Computer software programs and databases : developed by own staff for business use – total purchases

- aGVA AT FACTOR COST: aGVA at market prices + subsidies – total taxes + customs & excise drawback
- aGVA AT BASIC PRICES: aGVA at factor cost + business rates + vehicle excise duty

(Please note that **aGVA at basic prices is the only published aGVA from the NIABI.**)

**Turnover** is defined as total sales and work done. This is calculated by adding to the value of sales of goods produced, goods purchased and resold without further processing, work done and industrial and non-industrial services rendered.

**Purchases** represent the value of all goods, materials and services purchased during the year.

#### **(vii) NIABI “Approximate Gross Value Added” and “Regional Gross Value Added”**

The financial information from the NIABI provides a measure of approximate GVA, which is ultimately used to contribute to the picture of the whole economy to be built up for National Accounts purposes at the United Kingdom level. When regional economic accounts are subsequently derived, the resulting measure of Regional Gross Value Added (GVA) is a much broader based measure relating to the whole economy in a region, taking into account information from a series of economic and labour market surveys. The results of the NIABI only comprise one element of the regional economic account figures, and a number of adjustments are made in line with National Accounts methodologies before estimates of Regional GVA are produced. ONS’ most recent Regional GVA estimates for Northern Ireland at industry level can be found here:

[Regional economic activity by gross domestic product, UK - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk/regional-economic-activity-by-gross-domestic-product-uk)

#### **(viii) Comparability with statistics from other sources**

The NIABI is conducted by the NISRA and while the survey process is similar to that for Great Britain, it is not identical. ONS receive data from NISRA in August and January of each survey year. These data are processed with the Great Britain data to produce UK-wide and regional estimates. NISRA separately process the Northern Ireland data to produce their own regional estimates. These differ from the ONS estimates for a number of reasons:

- Calculation of the weights used to estimate figures for the total population:
  - **Calculation of the design or a-weights:** The ONS National System computes the design weights for all UK data using the sample design of the GB sample. The NI sample design is quite different from that used by the ONS. The design weights calculated by the ONS system for NI units can therefore differ from those calculated by the NI system.
  - **Calculation of the g-weights:** The ONS National System computes two sets of g-weights: one based on IDBR turnover and another based on IDBR employment. The latter is used for employment costs, whereas the former is used for all the other variables. The Regional System computes g-weights based on local unit employment. In the NI methodology there is no distinction between national and regional weights: estimates at all levels are based on the same weights, with the g-weights computed with respect to local unit register employment but using a different calibration method to that used in the ONS regional system.

- **Regional apportionment:** ONS collects all ABS data at reporting unit (RU) level; the regional system apportions RU returns between local units using factors obtained from models. The NIABI no longer collects employment data at local unit level but uses local unit employment data from the Business Register Employment Survey; data of other variables are collected at RU level and then apportioned between the local units. When NI data are processed in the ONS system, new apportioned local unit values, based on the ONS methodology, are obtained and used to produce estimates.
- **The NIABI does not collect data for all the variables in the GB questionnaire;** in the ONS system, values are derived for the missing variables using a model, and these values contribute towards the estimation of some derived variables.

**(ix) Comparability with other NISRA ELMSB publications**

Within the relevant sectors the turnover figures provided by the NIABI are the most up to date available from ELMSB statistical publications, and ultimately contribute to updating the Inter - Departmental Business Register (IDBR). However, for a more comprehensive measure of turnover within the NI economy users are recommended to refer to the IDBR. The IDBR contains information on all businesses in the UK which are VAT registered or operate a PAYE scheme; consequently the IDBR provides a more complete picture of the Northern Ireland business population. IDBR statistics can be accessed through the NISRA website at <https://www.nisra.gov.uk/statistics/inter-departmental-business-register/idbr-background-information>

**(x) Other sources of information**

The latest UK national estimates from the Annual Business Survey can be found at [Non-financial business economy, UK and regional \(Annual Business Survey\) - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/businessandtrade/business/businessservices/datasets/uknonfinancialbusinesseseconomyannualbusinesssurveyregionalresultssectionsas) while ONS' regional estimates from the Annual Business Survey are available at: <https://www.ons.gov.uk/businessandtrade/business/businessservices/datasets/uknonfinancialbusinesseseconomyannualbusinesssurveyregionalresultssectionsas>

The latest DfE Economic Commentary provides an overview of the state of the Northern Ireland economy, setting it in a global context. This can be found at

<https://www.economy-ni.gov.uk/publications/dfe-economic-commentary>

Estimates of the changes in employment and employee jobs are provided by the Labour Force Survey (LFS), Quarterly Employment Survey (QES) and Business Register and Employment Survey (BRES). As dedicated employment surveys, the LFS, QES and BRES provide more frequent and accurate measures of the change in employment. By utilising internationally recognised definitions the LFS provides employment figures consistent with international standards. The LFS, QES and BRES can be found at the links below:

Labour Force Survey

<https://www.nisra.gov.uk/statistics/labour-market-and-social-welfare/labour-force-survey>

Quarterly Employment Survey

<https://www.nisra.gov.uk/statistics/labour-market-and-social-welfare/quarterly-employment-survey>

Business Register and Employment Survey

<https://www.nisra.gov.uk/statistics/labour-market-and-social-welfare/annual-employee-jobs-surveys>

Information relating to NI sales and exports is available from the [Northern Ireland Economic Trade Statistics \(NIETS\)](#), (formerly known as Broad Economy Sales and Exports Statistics). These are Accredited Official statistics which provide an annual measure of local businesses' trade with markets inside and outside Northern Ireland and measures both the sales and purchases of goods and services by businesses in the non-financial industry sectors. The data for the NIETS is collected via the NIABI survey form but is a standalone dataset.

Further information on the output of manufacturing, along with electricity, gas, water and mining & quarrying industries is available from the Northern Ireland Index of Production (<https://www.nisra.gov.uk/statistics/economic-output-statistics/index-production>) while the Northern Ireland Index of Services (<https://www.nisra.gov.uk/statistics/economic-output-statistics/index-services>) provides a general measure of changes in the output of the private sector service industries in Northern Ireland.

The Construction Output Statistics published in the Northern Ireland Construction Bulletin are intended to provide a general measure of quarterly changes in the volume and value of construction output in Northern Ireland. These statistics can be accessed at <https://www.nisra.gov.uk/statistics/economic-output-statistics/construction-output-statistics>

The Composite Economic Index provides a weighted measure of output by broad industry sector and employee jobs in the public sector to provide an overall measure of change in the Northern Ireland economic activity <https://www.nisra.gov.uk/statistics/economic-output-statistics/ni-composite-economic-index>

#### **(xi) Uses of the NIABI**

- The central structure and periodicity of the NIABI is driven by the legal requirements to provide data for the UK Annual Business Survey, UK National Accounts and European Structural Business Statistics (SBS)
- Additionally the NIABI is used by the Government as a means of monitoring the progress of economic policy and to help set and measure economic targets.
- Outside government the data is used by a variety of different private sector and academic analysts to assist with industrial and investment decisions.

For a more comprehensive explanation of customers' use of the NIABI please follow the link below:

<https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/summary-of-usage-of-the-niabi.pdf>

#### **(xii) User feedback**

Development of the NIABI is designed to meet the needs of data users as identified during statistical user group meetings. Enhancements to the survey, including an increase in sample size, have been driven by feedback received through these consultations. Minutes of the meetings are available using the link below:

<https://www.nisra.gov.uk/statistics/nisra-economic-and-labour-market-statistics-elms/statistical-protocols-and-compliance>

### **(xiii) Quality reporting**

A summary quality report for the NIABI can be found at:

<https://www.nisra.gov.uk/publications/usage-methods-and-quality-and-revisions-policy-abi>

This report describes in detail the quality of the statistics presented in publications (in terms of relevance, accuracy, timeliness and punctuality, accessibility and clarity, coherence and comparability, trade-offs between output quality components, assessment of user needs and perceptions, performance, cost and respondent burden and confidentiality, transparency and security).

### **(xiv) Status of figures in current bulletin**

It is normal practice to revise the data from the previous year based on ongoing data validation and clarification of responses from individual businesses.

The NIABI revisions policy can be accessed at

<https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/niabi-revisions-policy.pdf>

NIABI reporting unit results are published in November, while local unit results are published the following summer. The Economic and Labour Market Statistics Branch statistics publication schedule is available at <https://www.nisra.gov.uk/statistics/nisra-economic-and-labour-market-statistics-elms/about-nisra-elms> The list of people given pre-release access to this publication is available at: <https://www.nisra.gov.uk/statistics/nisra-economic-and-labour-market-statistics-elms/statistical-protocols-and-compliance>

### **(xv) Disclosure**

The NIABI is conducted under the Statistics of Trade and Employment (Northern Ireland) Order 1988 and great care is taken to avoid disclosing information about individual enterprises (in line with the stipulations in Article 7 of the Order). Figures which would be likely to disclose particulars relating to an enterprise are not published (i.e. they are suppressed) unless prior written consent for their publication has been obtained directly from the business. The Northern Ireland Statistics & Research Agency - Economic & Labour Market Statistics confidentiality statement can be accessed at the following link: <https://www.nisra.gov.uk/publications/dof-confidentiality-statement>

### **(xvi) Provisional estimates**

Figures published in the ABI are provisional and subject to revision, an inevitable consequence of the trade-off between timeliness and accuracy, though revisions are typically small.

The most common reason for revisions is late responses to the survey after the survey has closed for the current reporting period. These late responses will be included in the following publication whereby estimates will be replaced by actual data.

Over time, as more information becomes available, estimates can be revised to improve quality and accuracy, which will provide a better picture of the parameter being measured. Users require good quality data that are timely and can be accessed as close to the event that the data measures as possible. A policy of accepting revisions enables statisticians to provide users with data close to the event, but also improve the accuracy of that data as other information becomes available. Revisions are therefore a standard practice when producing official statistics.

## **(xvii) Key variables**

The published estimates include the total value of sales and work completed by businesses (turnover); the value of the purchase of goods, materials and services and approximate Gross Value Added (aGVA) at basic prices. These estimates are further disaggregated at industry level, providing users with an insight into the size and evolution of the overall non-financial business economy over time as well as a measure of the contribution made by different industry sectors. The financial estimates are collected and presented as monetary values. All financial data are reported at current prices (effect of price changes included).

## **(xviii) Interpretation**

The non-financial business economy is constantly changing, as businesses merge, are taken over, or change the main focus of their activity. These changes can result in the industry classification of a business changing over time. In industries where movements are common, or where large businesses are involved, these changes can themselves cause large changes in the NIABI estimates. This should be taken into consideration when changes over time are being considered.

## **(xix) Quality Indicators**

When interpreting NIABI results, users are advised to refer to the coefficient of variation quality indicators provided with the estimates in the tables, details of which are provided in the accompanying data tables. These indicate that a small number of results have quite large margins of statistical error associated with them. Users should exercise caution when interpreting the annual changes associated with such results. Users should also be aware that methodological improvements governing the treatment of business closures were introduced for the 2011 report. These improvements have been implemented to all data since the 2010 reference year. Consequently, although 2008 and 2009 figures are included in this report, users should exercise caution when making comparisons.

## **For further information**

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