Forwarding Armenian Statistics through Twinning

AM09/ENP-PCA/TP/04

MISSION REPORT

on

Component A
Quality Management

ACTIVITY A.2
Options for Solution

Mission carried out by
Jolanta Minkevica, Central Statistical Bureau of Latvia

Armenia, 6 – 10 June 2011

Version: 2nd draft

National Statistical Service
Republic of Armenia

Central Statistical Bureau of Latvia

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List of Abbreviations and Acronyms

A.1	Twinning Activity A.1 “Identification of issues to raise quality in statistics”
A.2	Twinning Activity A.2 “Options for solution”
A.3	Twinning Activity A.3 “Implementing Solutions”
B.2	Twinning Activity B.2 “Implementation Plan”
BC	Beneficiary Country
CSB	Central Statistical Bureau of Latvia
Component A	Component A “Quality Management” of Twinning
Component B	Component B “Business Register, Structural Business Survey, and Respondent Burden“ of Twinning
DST	Statistics Denmark
ESS	European Statistical System
EU	European Union
IT	Information Technologies
Mission	Dispatch of MS expert(s) to a BC to participate in the Twinning activity;
MS	Member State
NACE	Statistical Classification of Economic Activities
NSI	National Statistical Institute
NSSRA	National Statistical Service of Republic of Armenia
ONS	Office for National Statistics (United Kingdom)
RA	Republic of Armenia
RTA	Resident Twinning Advisor
SBS	Structural Business Statistics
SRC	State Revenue Committee of Armenia
Twinning	Twinning “Forwarding Armenian Statistics through Twinning”
QWG	NSSRA Working Group on Quality

1. General comments

This report was prepared as the result of the mission to the National Statistical Service of the Republic of Armenia. It was the second activity within the Component A, and it was devoted to quality reports and quality metadata systems. It covered also discussions on classifications used for production of statistics in the state institutions and on administrative data, and included a follow up on the A.1 Mission Report.

The MS Expert would like to express her thanks to all officials and individuals met for the kind support and valuable information which was received during the stay in Armenia, and which highly facilitated the work.

The views and observations stated in this report are those of the MS Expert, and do not necessarily correspond to the views of Central Statistical Bureau of Latvia.

2. Actions and results

2.1. Actions

During the mission the expert was involved in different kind of actions:

- Meeting with RTA and BC Component Leader: overview of actions done since previous activity and agreement on the work programme for the week.
- Presentation to Heads of statistical units of NSSRA of:
  - content and expected output of Twinning Component A,
  - introduction to the term „quality in statistics",
  - CSB quality metadata system,
  - next steps.
- Presentation to the employees of NSSRA Business Statistics unit, Finance Statistics unit and Methodology unit on Structural Business Statistics.
- Presentation to NSSRA IT staff on administration of CSB Quality metadata system.
- Discussion with NSSRA Methodology unit about next steps.
- Development of draft roadmap for the Component A.
- Meeting with State Revenue Committee of Armenia.
- Meeting with the BC Component Leader: summary, presentation of results and recommendations. Agreement on next steps.

2.2. Results

The following results were achieved during the mission:

Overall results

- Co-ordinator of quality issues in NSSRA nominated => Head of Statistical Work Methodology and Classifications Division, Ms. Lilit Petrosyan.
- Decision taken to establish *NSSRA Working Group on Quality (QWG)*, involving participants from:
  - Methodology unit
  - International Statistical Co-operation unit
  - Mathematician (sampling specialist)
  - Bussiness statistics (industry & agriculture)

- Social statistics (labour force)
- Price statistics
- Dissemination unit

QWG will be used as the main tool to discuss and implement goals of Component A internally in NSSRA between the activities (missions).

- An agreement was reached on information flows. Since successful communication means staff awareness and understanding of the duties, NSSRA staff should be informed about quality activities within the NSSRA during the Twinning project.

  NSSRA Heads of statistical units will be informed about all existing and forthcoming NSSRA quality activities:

  => by MS Experts - at meetings during the missions (MS Experts during each mission of Component A will have a meeting with Heads of statistical units of NSSRA in order to inform them about planned quality activities within the mission);

  => by Ms. Lilit Petrosyan – at monthly meetings about work done by QWG.

  Furthermore, NSSRA Heads of statistical units should deliver received information to their employees.

2.2.1. Quality reporting

- Presentation of CSB quality metadata system was made to NSSRA middle level managers;
- Discussion with NSSRA Methodology unit about next steps, introduction to DST, CSB and Australian Bureau of Statistics examples of quality reports. Discussion about ESS Standard for Quality Reports and Handbook for Quality Reports.

2.2.2. Classifications

Problem identification was done. In Armenia, state institutions do not use the same/unified classifications. Currently many classifications, e.g., NACE, are not used by state institutions in their everyday work. NSSRA aims to establish a list of classifications that should be used in production of administrative information as well as of official statistics. Therefore the goal is to introduce unified/harmonised classifications which are used in all government institutions.

NSSRA organises inter-institutional meetings (e.g., with Ministry of Agriculture) and explains the benefits of usage of unified classifications. The first official step has already been taken by NSSRA through a submission for approval by the government of a draft government decision on obligatory use of NACE rev.2 national version by State Revenue Committee[1]. The next step after adoption of this decision would be the preparation of similar decisions to introduce NACE and other classifications in all state institutions.

BC confirmed that within the Twinning there are no special actions needed regarding this issue. MS Experts should put emphasis on use of harmonised classifications throughout the state administration, and whenever meetings on different topics is organised with other governmental institutions.

2.2.3. Metadata

- During the mission the MS Expert concentrated on quality metadata. Presentation of administration of CSB quality metadata system was made to NSSRA IT staff, followed by a discussion about practical arrangements (creation of standardised items/lists (e.g. classifications used), user rights, export and search functions, info status (item never deleted but status changed: active or not) etc.).

[1] The decision also says that NSSRA is responsible for methodological explanations on correct use of NACE. If the decision will be adopted, SRC is expected to start using NACE in autumn 2011.

- Due to the fact that the expert on statistical metadata from DST was unable to participate in the mission as it was originally envisaged, this topic was post-poned to activity A.3. Nevertheless Mr. Vanush Davtyan, Member of RA State Council on Statistics responsible for IT, explained the need for implementation of a new modern software for the Windows and Internet environment in order to disseminate statistics and present statistical information in a user friendly way. PC-AXIS Family products could be a possible option.

2.2.4. Joint activities with B.2

- B.2 MS Expert presentation on Structural Business Statistics to NSSRA staff. Presentation covered a general overview and EU requirements concerning SBS, and aspects of practical implementation of SBS in EU countries and, in particular, in Latvia.
- Meeting with State Revenue Committee of Armenia. This high level meeting was aimed to foster further co-operation between NSSRA and SRC, and especially to an establishment of a good quality administrative register and a use of administrative data for statistical purposes. SRC distributed the agenda of the meeting to their structural units, so middle level managers interested in the issue also were given a possibility to attend the meeting. In the meeting the goals of Twinning were shortly presented, and an emphasis was put on alignment of RA concepts and definitions to EU, and on the European Statistics Code of Practice saying that NSI shall use administrative data in order to reduce response burden. As well, Danish experience of usage of administrative registers for statistical purposes was presented.

2.2.5. Roadmap

A draft roadmap for the Component A was developed and agreed with the top management of NSSRA.

- Actions before next activity (A.3) - see section 4 of this report.
- During A.3:
  - MS experts presentation about metadata & dissemination systems;
  - BC decision on chosen system for dissemination of statistics (e.g., PC-Axis);
  - review of filled 5 quality reports, adjustments of the template, if needed;
  - review of a list of statistical products;
  - follow-up of the recommendations included in A.1 and A.2 Mission Reports.
- Afterwards:
  - to purchase the chosen system for dissemination of statistics;
  - to introduce the system in NSSRA and to train NSSRA staff to use it;
  - to discuss the environment for filling in quality reports;
  - to make NSSRA work plan for production of quality reports for all statistical products (according to a list of products);
  - to publish quality reports on the web.

When planning next Twinning activities, it should be taken into account that BC Experts could be very busy/unavailable starting mid-September 2011 because of the preparation to Population Census that will take place in October 2011.

3. Findings and recommendations

Top management support is a crucial prerequisite for successful quality initiatives within the organisation. Leadership shall provide vision of the organization regarding quality in statistics and inspire employees to achieve this vision. Leadership shall be committed to quality, encourage initiative and delegate, push responsibility down the organisation. During the mission, the MS Expert gained confidence that the BC Leader of Component A, Mr. Stepan Mnatsakanyan, is fully committed to achieve goals of the Twinning. The President of NSRAA opened the meeting on quality reporting, and in his speech put emphasis on the importance of documentation and standardisation. He supported the determination of responsibilities and powers and communication of those through the whole organisation.

During the mission the MS Expert observed that NSSRA staff members are very responsive and competent, and willing to improve their work. It was noticed that administrative procedures within the organisation, e.g., preparation and adoption of an order, may take a long time, even up to 3 weeks. Nevertheless, NSSRA employees are flexible and goal oriented, and they are able to start working on a subject even before administrative procedures are established.

The MS Expert was told that:

- BC institutions have difficulty to understand why European concepts should be followed if RA is not EU MS. In such cases NSSRA explains about Memorandum concluded between EU and RA saying that NSSRA shall follow EU standards.
- BC state institutions do not have unambiguous concept of an administrative register. In many cases the register is perceived as information on community level and not as individual data. Data which have to be sent by other institutions to NSSRA and vice versa[2] are included into annual statistical/work programme. Still no SRC data are included in the programme. NSSRA checks all administrative data comparing them, if possible, to similar statistical indicators.
- Users of statistical data often do not distinguish between oficial statistics, administrative data and poll results. There is a delusion in the society that NSSRA has data on any phenomenon, like independence of court system, abidance of human rights, rating of ministries etc.
- Users tend not to not trust data acquired by sampling methods, and want NSSRA to gather and publish individual information.

In order to improve the BC Experts' knowledge of EU Quality terms, like „quality report", „statistical product", and their definitions and contents, the MS Expert during the mission A.2 devoted time for an explanation of every term used and provision of examples. It is suggested that MS Experts taking part in the next missions put their attention on the BC Experts' continued familiarzation of these concepts and definitions, and provide the NSSRA staff with clear and exhaustive information and examples.

According to the A.1 Mission Report, before the A.2 activity, NSSRA were asked to prepare the following draft material:

1. A template for quality report based on the EU MS examples.

[2] NSSRA provides just summary/aggregated information.

2. A list of statistical domains that would be suitable for being described in quality reports; the list should exhaust all statistical activities and group them in 100-250 domains.
3. An inventory of actually used and potentially useful administrative sources, and their relations to branches of statistics.

Because of uncertainty of BC experts whether a product approach or a process approach should be used, a template for quality report was not prepared. To clear this issue, the MS Expert provided examples of quality reports from three different countries, explained different approaches, and suggested to follow ESS Standard on Quality Reports[3].

Due to a conceptual misunderstanding a list of all the variables of all the statistical surveys of NSSRA was prepared in Armenian language instead of the suggested list of statistical domains. The list of NSSRA statistical output/products will be prepared before next mission.

The information about use of administrative sources was prepared in Armenian by all NSSRA statistical units according to the detailed template provided in the A.1 Mission Report. Altogether 1,264 variables from administrative sources are used by NSSRA. The MS expert suggested that this information to be used in the Component B as well, when discussing the issues on response burden.

Recommendations:

- In the order about establishment of the QWG, NSSRA shall nominate leader and members of the QWG, and point out specific tasks with deadlines (see point 2.2 and section 4 of this report).
- When producing a list of NSSRA statistical outputs, a decision should be taken by NSSRA about data which are produced by other institutions and published by NSSRA. Criteria shall be established to classify whether such data are included in the list or not. Usually, when the data of other institutions are republished by NSI, they are not included into NSI list of products. If data are changed and adjusted to statistical definitions, a new product is produced which is then included into the list.
- When elaborating a template for quality reports[4], NSSRA shall take into account that quality reports differs. The most detailed reports are prepared for NSI internal use. Also user oriented quality reports could differ according to a level of statistical literacy of the specific user group. As a first step towards quality reporting in the web, short (2-3 pages), user friendly (simple language; explanation of statistical terms) quality reports can be produced for publishing in the website.

[3] http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/quality_reporting

[4] Examples of quality reports:

a) http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/qual-info-economic-social-and-bus-stats/quality-reports-for-business-statistics/index.html
b) http://www.destatis.de/jetspeed/portal/cms/Sites/destatis/Internet/EN/Content/Publikationen/QualityReports/NationalAccounts/NationalAccountsQR,property=file.pdf
c) http://www.dhsspsni.gov.uk/quality_report_for_childrens_statistics-3.pdf
d) http://www.cso.ie/surveysandmethodologies/documents/pdf_docs/stillbirths_registration_quality_report.pdf
e) http://www.dst.dk/HomeUK/Guide/documentation/Varedeklarationer.aspx
f) http://www.csb.gov.lv/en/dokumenti/kvalitates-zinojumi
g) http://epp.eurostat.ec.europa.eu/portal/page/portal/government_finance_statistics/publications/quality_reports

- To develop quality reporting system that can be integrated in the data dissemination system;
- To provide training on production of quality reports and quality indicators for NSSRA staff.
- To elaborate a glossary of statistical terms[5].
- To strenghten and popularize the term „official statistics", its content, methods and use.

[5] Example: http://metaweb.ine.pt/sim/conceitos/Detalhe.aspx?cnc_cod=3365&cnc_ini=27-05-2002

4. Actions before next activity

During the meeting with BC project leader and MS Experts on 10 June 2011 the below mentioned actions and a time table were agreed and approved by NSSRA President Mr. Stepan Mnatsakanyan.

Preliminary dates of activity A.3: 26-30 September 2011.

Tasks to be done by NSSRA before the next activity:

1) To prepare a State Council on Statistics order establishing NSSRA Working Group on Quality => the order approved before end June 2011;
2) To prepare a template for quality report, including some quality indicators (e.g., nonresponse rate) => the template elaborated, translated and sent by e-mail to MS Experts of Component A for comments end of July 2011 (MS Experts comments to be provided to NSSRA before end of August 2011);
3) To prepare quality reports for 5 different statistical products (one in each field - industry, agriculture, prices, social statistics, e.g., labour force, macroeconomics,e.g., gross domestic product) => until end of August 2011;
4) To prepare an exaustive list of NSSRA statistical products (~200 items) to be described by quality reports, and group them by topic (e.g. Agriculture, Demography, Industry etc) => until end of August 2011;
5) To prepare NSSRA written reflection on recommendations provided in A.1 and A.2 Mission Reports => before next mission.
6) To inform NSSRA Heads of statistical units about tasks and progress of QWG in monthly meetings.

All above listed documents should be provided to RTA in electronic format keeping mentioned deadlines. RTA within a week ensures the translation into English and electronical transfer to MS experts involved in the Component A.

Annexes in the report

Annex 1. Terms of Reference

Activity A2 Options for solution

1. Purpose of activity
The activity will follow up on the report from A1 and on the related material on quality declarations and on administrative data that is to be provided to the MS Esperts by NSSRA. Furthermore, the activity will focus on classification systems and metadata systems.

2. Expected output of the activity
The expected outputs of the activity are:
- Implementation of a workshop on quality declarations
- Implementation of a workshop on classification data bases
- Implementation of a workshop on metadata
- A meeting with the State Revenue Committee in order to further develop the co-operation with NSSRA with respect to using administrative data for statistical purposes (in co-operation with component B)
- A roadmap including an internal work plan for NSSRA for the component
- A decision of the preferred timing of the next activity

3. Project Participants
Mr. Stepan Mnatsakanyan, President of NSSRA (*BC Component Leader*)
Mr. Artashes Shaboyan, Head of Methodological Unit, Member of State Council of Statistics
Ms. Anahit Safyan, Head of International Statistical Cooperation Division
Mr. Lars Thygesen, Director, Statistics Denmark (*MS Component Leader*)
Ms. Jolanta Minkevica, Head of Methods and Organisation, Central Statistical Bureau of Latvia

Other NSSRA staff members taking part in the activity
Mr. Gagik Ananyan, Member of State Council on Statistics
Mr. Vanush Davtyan, Responsible for IT, Member of State Council on Statistics
Ms. Lilit Petrosyan, Head of Methodological Division
Ms. Narine Musheghyan, Head of Dissemination Division
Ms. Natalia Poghosyan, Head of IT Department

External Stakeholders taking part in the activity
The State Revenue Committee

Annex 2. Programme for the mission

6 June (Monday) – 10 June (Friday)

Time	Place	Event	Purpose / Detail of event
Monday, morning	Congress Hotel	Meeting with RTA	Discussion of the programme of the week
Monday, afternoon	NSSRA	Meeting with the BC Component Leader and BC Experts	General introduction and news. Summary of results from A1. Status of work in NSSRA: o Template for quality declarations o List of statistical domains covering all statistical activities o Inventory of actually used and potentially useful adm. sources
Tuesday	NSSRA	Workshop	General introduction to the concept of Quality Management for all NSSRA's Heads of Divisions
Wednesday, morning	NSSRA	Workshop	Demonstration of the IT solution related to Quality Management at CSB to the IT Division of NSSRA
Wednesday, afternoon	NSSRA	Ad-hoc meetings	Discussions with the Methodology Division on quality declarations
Thursday, morning	NSSRA	Meeting with RTA	To discuss the preliminary results and the structure of the report
Thursday, afternoon	NSSRA	Ad-hoc meetings	Working on a preliminary road map for the remaining part of the project period
Thursday, afternoon	State Revenue Committee	Meeting (joint with Business Statistics)	To demonstrate how the co-operation between the NSI and the Tax Authorities can be to the advantage of both institutions
Friday, morning	NSSRA	Ad-hoc meetings	Finalizing road map and internal work plan for NSSRA
Friday, afternoon	NSSRA	Meeting with BC Project Leader and Experts	Presentation of results, agreements of analysis and recommendations and of the implied work programme for NSSRA

Annex 3. Persons met

Mr. Stepan Mnatsakanyan, President of NSSRA (*BC Component Leader*)
Mr. Gakik Ananyan, Member of Sate Council of Statistics
Ms. Anahit Safyan, Head of International Statistical Cooperation Division
Mr. Vanush Davtyan, Responsible for IT, Member of State Council on Statistics
Ms. Lilit Petrosyan, Head of Methodological Division
Ms. Narine Musheghyan, Head of Dissemination Division
Ms.Lusya Khachatryan, Head of Macroeconomic indicators and National Accounts
Ms. Haykush Titizyan, Head of financial statistics division
Ms. Anahit Harutyunyan, Head of Trade and Other Services Division
Ms. Lusine Kalantaryan, Head of Labour force division
Ms. Julietta Mirzoyan, Advisor to the President of NSS RA
Mr. Laert Harutyunyan, Business register division head
Mr. Ashot Ananyan, Industry division head

External stakeholders: State Revenue Committee

Annex 4. Example of List of NSI products (CSB)

ECONOMY AND FINANCE

BUSINESS TENDENCY

BUSINESS TENDENCY SURVEY - MANUFACTURING - monthly

BUSINESS TENDENCY SURVEY - MANUFACTURING - quarterly

BUSINESS TENDENCY SURVEY - CONSTRUCTION - monthly

BUSINESS TENDENCY SURVEY - RETAIL TRADE - monthly

BUSINESS TENDENCY SURVEY - SERVICES - monthly

BUSINESS TENDENCY SURVEY - INDUSTRIAL INVESTMENTS – semiannual

BUSINESS TENDENCY SURVEY - CONSTRUCTION INVESTMENTS – semiannual

BUSINESS TENDENCY SURVEY - LOCAL GOVERNMENTS - yearly

CONSUMER PRICES

CONSUMER PRICE INDEX - monthly

IHARMONISED CONSUMER PRICE INDEX - monthly

HARMONIZED CONSUMER PRICE INDEX OF CONSTANT TAX RATE - monthly

ENTERPRISE FINANCES

BASIC INDICATORS OF FINANCIAL ACTIVITY OF MERCHANTS (COMMERCIAL COMPANIES) - yearly

BASIC INDICATORS OF FINANCIAL ACTIVITY OF MERCHANTS (COMMERCIAL COMPANIES) - quarterly

FINANCIAL ASSETS, LIABILITIES, PROFIT OR LOSS OF COMPANIES BELONGING TO CENTRAL AND LOCAL GOVERNMENT SECTOR - quarterly

FINANCIAL ASSETS, LIABILITIES, PROFIT OR LOSS OF OTHER FINANCIAL INTERMEDIATION AND ACTIVITIES AUXILARY TO FINANCIAL INTERMEDIATION COMPANIES - quarterly

LEASING PORTFOLIO - quarterly

STRUCTURAL BUSINESS STATISTICS - yearly

EKONOMICALLY ACTIVE ENTERPRISES - yearly

LOCAL UNITS OF ECONOMICALLY ACTIVE ENTERPRISES - yearly

GROUP OF ECONOMICALLY ACTIVE ENTERPRISES - yearly

DEMOGRAPHY OF ENTERPRISES - yearly

DEMOGRAPHY OF COMPANIES - THE EMPOYERS - yearly

GOVERNMENT FINANCES

GENERAL GOVERNMENT ANNUAL FINANCIAL ACCOUNTS - yearly

GENERAL GOVERNMENT QUARTERLY FINANCIAL ACCOUNTS - quarterly

GENERAL GOVERNMENT DEBT - quarterly

GOVERNMENT DEFICIT AND DEBT NOTIFICATION - yearly

GENERAL GOVERNMENT QUARTERLY NON - FINANCIAL ACCOUNTS - quarterly

FINANCIAL INSTITUTIONS SECTOR - quarterly

NATIONAL ACCOUNTS, GROSS DOMETIC PRODUCT

GDP FLASH ESTIMATE - quarterly

GDP BY INCOME APPROACH AT CURRENT PRICES - quarterly

GDP BY EXPENDITURE APPROACH AT CURRENT AND CONSTANT PRICES - quarterly

ANNUAL SECTOR ACCOUNTS - yearly

QUARTERLY SECTOR ACCOUNTS - quarterly

GROSS NATIONAL INCOME - quarterly

REGIONAL VALUE ADDED AND GROSS DOMESTIC PRODUCT - yearly

INVESTMENTS

NON - FINANCIAL INVESTMENTS - yearly

NON - FINANCIAL INVESTMENTS - quarterly

PRODUCER PRICES

PRODUCER PRICE INDICES IN INDUSTRY SECTOR - monthly

EXPORT UNIT VALUE INDICES - monthly

IMPORT UNIT VALUE INDICES - monthly

CONSTRUCTION COST INDICES - monthly

PRODUCER PRICE INDICES FOR SERVICES IN SERVICES SECTORS - quarterly

POPULATION AND SOCIAL PROCESSES

CULTURE

CIRCUS - yearly

ZOO - yearly

MOVIE RENTAL - yearly

VIDEO - yearly

RADIO/TV - yearly

CABLE TV - yearly

FILM PRODUCTION - yearly

EDUCATION

VOCATIONAL SCHOOLS - yearly

UNIVERSITIES AND COLLEDGES - yearly

INNOVATIONS - yearly

RESEARCH - yearly

RESEARCH IN HIGHER EDUCATION SECTOR - yearly

EMPLOYMENT ADN UNEMPLOYMENT

LABOUR FORCE SURVEY - quarterly

LABOUR FORCE SURVEY - yearly

HEALTH

HEALTH CARE ACCOUNTS - yearly

SURVEY ON POPULATION HEALTH - single

HOUSEHOLDS

HOUSEHOLD BUDGET SURVEY- yearly

COMMUNITY STATISTICS ON INCOME AND LIVING CONDITIONS (EU-SILC) - yearly

HOUSING

REAL ESTATE MARKET - quarterly

BUILDING PERMITS - quarterly

PRIVATE RENTAL APARTMENTS - quarterly

HOUSING STOCK - yearly

LABOUR COSTS

COSTS OF LABOUR FORCE - once every 4 years

STRUCTURE OF EARNINGS - once every 4 years

NUMBER OF EMPLOYEES BY WAGES AND SALARIES - monthly

OCCUPIED JOBS - quarterly

HOURS WORKED - quarterly

WAGES AND SALARIES - quarterly

LABOUR COST INDEX - quarterly

VACANCIES - quarterly

TOTAL LABOUR COSTS AND THEIR STRUCTURE - yearly

LABOUR COSTS - quarterly

TAX RATE ON LOW WAGE EARNERS, LABOUR COSTS TAXES - yearly

EMPLOYEES BY INCOME - monthly

POPULATION

VITAL STATISTICS - yearly

LONG - TERM MIGRATION - yearly

NUMBER OF POPULATION - yearly

LIFE EXPECTANCY - yearly

CITIZENSHIP, ASYLUM SEEKERS AND REFUGEES - yearly

INDUSTRY, CONSTRUCTION, TRADE AND SERVICES

CONSTRUCTION

CONSTRUCTION PRODUCTION - quarterly

CONSTRUCTION PRODUCTION INDICES - quarterly

FOREIGN AFFILIATES TRADE IN SERVICES

FATS STATISTICS - yearly

INDUSTRY

VOLUME INDICES OF INDUSTRIAL PRODUCTION - monthly

TURNOVER INDICES - monthly

INDICES OF NEW ORDERS - monthly

PRODUCTION AND SALES OF INDUSTRIAL OUTPUT - yearly

PRODUCTION OF DAIRY PRODUCTS - yearly

PRODUCTION OF DAIRY PRODUCTS - monthly

TRADE

TURNOVER INDICES OF RETAIL TRADE - monthly

SERVICES

ICT USAGE IN HOUSEHOLDS - yearly

TURNOVER INDICES OF RETAIL TRADE - monthly

TURNOVER INDICES OF SERVICES - quarterly

TURNOVER OF COMMERCIAL SERVICES BY PRODUCT TYPE - yearly

ICT AND E-COMMERCE - BUSINESSES - yearly

STATISTICS OF ICT SECTOR - yearly

AUTOMOBILE AND MOTORCYCLE SALES BY PRODUCT TYPE - yearly

TRANSPORT AND TOURISM

TOURISM

TOURISM SATELLITE ACCOUNTS - yearly

TRANSPORT

AIR TRANSPORT - yearly

RAIL TRANSPORT - yearly

RAIL TRANSPORT - monthly

AIRPORTS - monthly

PORTS - monthly

TRANSPORT BY PIPELINES - monthly

URBAN ELECTRICAL TRANSPORT - quarterly

ROAD TRANSPORT - quarterly

INVESTMENTS IN TRANSPORT INFRASTRUCTURE - yearly

TOUR OPERATORS - yearly

RURAL TOURISM - yearly

HOTELS AND OTHER HOLIDAY ACCOMMODATIONS - monthly

RECREATIONAL AND BUSINESS TRIPS - quarterly

TRAVELERS SURVEY (LATVIAN CITIZENS AND ADMITTED FOREIGN VISITORS) - quarterly

FOREIGN TRADE

FOREIGN TRADE

TRADE IN GOODS WITH EU MEMBER STATES (INTRASTAT) - monthly

TRADE IN GOODS WITH THIRD COUNTRIES (EXTRASTAT) - monthly

QUANTITATIVE DATABASE OF THE LATVIAN SOCIAL SECURITY SYSTEM (IN ACCORDANCE WITH ESSPROS METHODOLOGY) - yearly

ESSPROS (EUROPEAN INTEGRATED SOCIAL PROTECTION STATISTICS) MODULE "NUMBER OF PENSION RECIPIENTS" - yearly

AGRICULTURE, FORESTRY AND FISHING

AGRICULTURE

AGRICULTURAL OUTPUT INDICES - quarterly

SOWN AREA OF AGRICULTURAL CROPS, CROP PRODUCTION - yearly

LIVESTOCK AND FUR ANIMALS - yearly

FARM ANIMAL SLAUGHTER AND PROCUREMENT - yearly

FARM ANIMAL SLAUGHTER AND PROCUREMENT - monthly

OUTPUT OF LIVESTOCK PRODUCTS - yearly

FLORICULTURE - yearly

PRODUCTION NAD SALES OF AGRICULTURAL PRODUCTS - quarterly

GRAIN PROCUREMENT - yearly

GRAIN PROCUREMENT - monthly

FLAX PROCUREMENT - yearly

USE OF FERTILIZERS - yearly

FORECAST OF TOTAL AREA AND YIELD OF AGRICULTURAL CROPS - monthly

PRICES AND INDICES OF AGRICULTURAL PRODUCTS - yearly

FISHERY - yearly

FISHERY - quarterly

ENVIRONMENT AND ENERGY

ENVIRONMENT

AGRICULTURAL WASTE - yearly

FORESTRY COSTS - yearly

TIMBER PROCUREMENT - semiannual

ENVIRONMENTAL ACCOUNTS - ENVIRONMENTAL TAXES - yearly

ENVIRONMENTAL ACCOUNTS - NAMEA AIR EMISSION ACCOUNTS - yearly

EXPENDITURE FOR ENVIRONMENTAL PROTECTION - yearly

ENERGY

HEAT AND POWER PRODUCTION - yearly

PURCHASE AND USE OF ENERGY RESOURCES - yearly

SUPPLY OF NATURAL GAS - yearly

PRODUCTION AND DISTRIBUTION OF ELECTRICITY - yearly

ENERGY BALANCE - yearly

IMPORT, PRODUCTION AND CONSUMPTION OF ENERGY RESOURCES - monthly

STOCK OF ENERGY RESOURCES ON OCTOBER 1 - yearly

Annex 5. Example of Quality Report (ONS)

Summary Quality Report for Output in the Construction Industry

Media Office 0845 6041858
Business Area 01633 456662
construction.statistics@ons.gov.uk

1 Introduction

This report is part of a rolling programme of quality reports being introduced by the Office for National Statistics (ONS). The full programme of work being carried out on Statistical Quality[1] is available on the ONS website. Summary Quality Reports are overview notes which pull together key qualitative information on the various dimensions of quality as well as providing a summary of methods used to compile the output.

The Monthly Business Survey for construction (also known as the Construction Output Survey) collects information from UK businesses in the construction industry. The survey's results provide estimates of Output in the Construction sector of the economy, and are used by National Accounts, Eurostat and industry professionals.

The Monthly Business Survey for construction is a new survey, introduced from January 2010 that replaces the earlier Quarterly Inquiry of Activity for Construction and Allied Trades and the Building and Civil Engineering Employment and Output Inquiry. The change, part of the development of Construction Statistics, follows the transfer of responsibility from the Department for Business Enterprise and Regulatory Reform (BERR), now the Department for Business, Innovation and Skills (BIS) to ONS.

This report relates to output estimates at current price, constant price and seasonally adjusted constant price produced from the Monthly Business Survey and published in the Output in the Construction Industry[2] release.

The key users of data from The Monthly Business Survey's output are:
- National Accounts, where estimates are fed into GDP at M1, M2 and M3
- Eurostat, in order to comply with statutory requirements
- Industry analysts requiring estimates of the UK construction industry output
- Trade associations making UK and international comparison
- Other Government departments including; Department for Business, Innovation and Skills (BIS), HM Treasury (HMT) and the Department for Communities and Local Government (DCLG).

2 Summary of Quality

2.1 Relevance

The degree to which the statistical product meets user needs for both coverage and content.

What It Measures	Value of output of contractors by sector.
Frequency	Monthly
Sample Size	8,000
Period Available	1955-present period (at sector level), 1980-present period (at type of work and regional level)
Sample Frame	The Inter-Departmental Business Register (IDBR).

	All businesses classified to construction under Standard Industrial Classification (2007) Section F, Divisions 41 – 43, excluding 41.1 – (Development of Building Projects).
Sample Design	The sample population is all businesses classified to construction with register employment less than 100 Full Time Equivalent (FTE). Businesses with register employment greater than or equal to 100 FTE are always selected. Division 41.1 (property developers) is excluded from the survey as it is not directly involved in the construction process. The population is divided into 14 SIC classification groups and each group is split into four size bands, resulting in 56 strata. An additional stratum in each SIC classification is created for all businesses of 10- 99 FTE with turnover in excess of £60m. This brings the total number of strata to 70. Simple random sampling is then carried out within the strata.
Weighting and Estimation	Returns are weighted using the following: 1. Design weight based on the cell in which a business resides 2. Calibration weight based on register turnover.
Imputation	A link factor, based on growths of returns from businesses in the same industry, is calculated and applied to previous returns for each non-responder. The original construction for a never-responding business is calculated from a ratio (calculated from other respondent previous returns or register turnover values in the same industry) being applied to the register turnover.
Outliers	Outliers are detected automatically and are treated by applying a weight based on Winsorisation outliering methodology[3], thereby reducing the outliers' impact on the overall estimate.
Forecasting	None

The change in periodicity from quarterly to monthly is a key development of the survey following the transfer of ownership from BERR to ONS. Development also includes the sample design moving from the Builder's Address File (BAF) to the Interdepartmental Business Register (IDBR). All businesses are classified to Standard Industrial Classification (SIC 2007) as opposed to SIC 2003. The IDBR includes those that are PAYE or VAT registered. The BAF did not include PAYE registered businesses. An overview of the changes including changes to the sample and how a continuous series was constructed can be viewed in the March 2010 edition of the Economic and Labour Market Review.[4]

The following changes have resulted in discontinuities which need to be treated:
- Periodicity – quarterly survey to monthly survey
- Questionnaire redesign, including questions on new work sectors
- Frame – Builders' Address File (BAF) to IDBR (inclusion of PAYE only businesses)
- Introduction of SIC(2007)
- Sample design
- Weighting – use of turnover rather than employment as an auxiliary variable
- Outlier method - use of Winsorisation
- Removal of estimates of unrecorded output
- Direct Labour Organisations (DLO) output no longer collected
- Improved deflators which deflate current price estimates to constant (2005) price estimates

A document referring to the impact and treatment of the above discontinuities can be found on the Output Homepage[5]

2.2 Accuracy

The closeness between an estimated result and the (unknown) true value.

The survey obtains its samples from the IDBR which is a database of UK businesses that is maintained by ONS. The sample is periodically reviewed and optimised. Targeted response rates are set at 70% at the provisional stage. Respondents are sent reminder letters to encourage response, and are also contacted by telephone to achieve the response targets. Enforcement of persistent non-responders has also been introduced

Estimates from the survey are subject to various sources of error that can be categorised into sampling and non-sampling error.

Sampling error
This occurs because estimates are based on a sample rather than a census. Sampling error is minimised for the Monthly Business Survey through the use of a scientifically chosen sample which is reviewed and refined periodically. Sampling error is continually monitored with standard errors and coefficients of variation calculated for each output question asked.

Non-sampling errors
Non-sampling errors can occur due to errors of coverage, measurement, processing and non-response. Response rates give an indication of the presence of non-response errors on the estimates (e.g. bias). Non-sampling error is minimised through comprehensive input and output editing processes. The Monthly Business Survey uses the IDBR as its sampling frame and uses it to calculate the design and calibration weights used in the estimation process (see section 3 for further information). The IDBR is updated frequently but inevitably suffers from some frame error. Responses are checked for internal consistency, and compared with those for similar units. Quarter-on-quarter comparisons are made at respondent level and aggregate level. Disparities are investigated to ensure consistent returns. The definition of output is complex and it is possible that measurement errors result from businesses returning turnover data or another measure of activity which better matches their accounting processes. For smaller businesses, where there is little sub-contracting, turnover will equate to output. Further discrepancies may occur if figures provided are based on invoices, which may lag actual activity rather than confirm work carried out in a particular period.

Reliability
Assessing the difference between the first published estimate and the final revised figure provides an indication of reliability. The survey revises up to 12 previous periods by taking on late responses or cases where a business revises its own return. A late response replaces a previously imputed value, which can be quite different. The reason for revising 12 previous periods is the possible need to revise the previous year if, when querying a year on year movement, the business realises that last year's return was incorrect. Revisions are monitored on a monthly basis.

2.3 Timeliness and Punctuality

Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the time lag between the actual and planned dates of publication.

Provisional results produced from the Monthly Business Survey are delivered on the second Friday of the month, two months after the reporting month. Revised results are published for the following twelve months on the same date as the latest provisional data.

The provisional data are published in the Output in the Construction Industry Statistical Bulletin. Provisional data and the revised data are also available in MS Excel format on the Output Homepage[5]

For more details on the survey releases, the UK National Statistics Publication Hub[6] is available online and provides twelve months advanced notice of release dates. In the unlikely event of a change to the pre-announced release schedule, public attention should be drawn to the change and the reasons for the change should be explained fully at the same time, as set out in the Code of Practice for Official Statistics[7]

2.4 Accessibility and Clarity

Accessibility is the ease with which users are able to access the data, also reflecting the format(s) 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.

Access to data at the individual business level is restricted. The confidentiality of the data is legally enforced by the Statistics of Trade Act 1947 in Great Britain and in Northern Ireland the Statistics of Trade and Employment (NI) Order 1988.

An Output in the Construction Industry Statistical Bulletin is published every third month via the ONS website, accompanied by a full set of estimates in MS Excel format. For interim months, MS Excel data is published at current and constant price only. A longer run of series at current price, constant price and constant price seasonally adjusted (from 1955) is also available on the ONS website.

Tables showing Output Survey figures are also published in the Monthly Digest of Statistics[8],and the Construction Statistics Annual[9].

2.5 Comparability

The degree to which data can be compared over time and domain.

The Output Survey began in 1955, with the Board of Trade (later BERR) having responsibility for producing the data. Ownership of responsibility transferred to ONS in March 2008. The subsequent redevelopment of the Output statistics has meant that a revised back series of data at sector level to 1955 and at type of work and regional level to 1980 has been produced. These are available on the Output Homepage [5]

2.6 Coherence

The degree to which data that are derived from different sources or methods, but which refer to the same phenomenon, are similar.

To ensure that the Output series is coherent, period-on-period growths are analysed appropriately but no comparison is made with other surveys.

Employment data are collected from the survey on the third month of every quarter. This will feed into Short Term Employment and Vacancies Statistics and is expected to be used from the Q2 2011 publication.

3 Summary of Methods Used to Compile the Output

Coverage and Sample

There are 24 construction industries in the Monthly Business survey, as defined by the Standard Industrial Classification (SIC 2007)[10], covering 11 sectors. Output is collected in £ thousands for all industries. In 2010 approximately 96,000 questionnaires will have been sent out to businesses in Great Britain (Northern Ireland is not included) collecting data on Construction Output. The sampling frame used is the Inter-Departmental Business Register (IDBR). The number of employees recorded in the register is used as the basis for stratification; businesses with 100 or more employees are fully enumerated every month.

A random sample is selected in each of the other strata. The strata used for all industries are: 0-4, 5-19, 20-99 employees. An additional band was defined covering businesses with low employment and exceptionally large turnover; these were defined as having 10-99 employees with an annual turnover of £60 million or more. All businesses that meet these criteria are fully enumerated. The sampled industries (those with fewer than 100 employees) are selected for the survey for approximately 27 months, except for businesses with 0-9 employees which are only included for 15 months, after which they are guaranteed not to be selected for another three years.

Weighting and estimation

As it is not possible to survey every business in the population, it is necessary to weight the data from a sample of businesses to provide estimates for the full population. In strata that are not fully enumerated there are two weights applied to data collected in the Monthly Business Survey
1. 'a' weight. This covers the inclusion probability of the sample, taking into account the ratio of the size of a sample to the size of the population from which the sample is selected.
2. 'g' weight. This takes into account how representative a sample's register turnover is compared to the register turnover of the population from which the sample is selected.
Estimates are produced using a ratio estimation method, which uses an auxiliary variable (register turnover, obtained from VAT survey data or PAYE imputed data).

Imputation
Returns for businesses that don't respond are imputed. Imputation is based on the pattern of responses for similar businesses. A link factor, based on growths of returns from businesses in the same industry, is calculated and applied to previous returns for each non-responder. The original construction for a never-responding business is calculated from a ratio (calculated from other respondent previous returns or register turnover values in the same industry) being applied to the register turnover.

Disclosure
Statistical disclosure control methodology is applied to Output data. This ensures that information attributable to an individual or individual organisation is not identifiable in any published outputs. The Code of Practice for Official Statistics[11], and specifically the Principle on Confidentiality, set out practices for how we protect data from being disclosed. The Principle includes the statement that ONS outputs should "ensure that official statistics do not reveal the identity of an individual or organisation, or any private information relating to them, taking into account other relevant sources of information". More information can be found in National Statistician's Guidance: Confidentiality of Official Statistics[12] and also on the Statistical Disclosure Control Methodology[13] page of the ONS website.

Deflation
ONS receives a deflator for each of the sectors published from the Building Cost Information Service (BCIS) on a quarterly basis. The supplied deflators are Tender Price Indices. These are converted to Output Price Indices (OPIs) by ONS by applying weights to the received quarterly sector TPIs, based on the typical duration of development for each sector. Although the TPIs are received on a quarterly basis, the calculated OPIs are 'grown' using regression analysis. Once provisional TPIs are received from BCIS, the constant price series is revised and a further revision is applied one quarter later when revised TPIs are confirmed by BCIS.

Seasonal Adjustment
The constant price series is seasonally adjusted using a seasonal adjustment software tool called X12-ARIMA. Constant Price Seasonally Adjusted (KPSA) estimates are produced on a quarterly basis. Once sufficient monthly data have been received (about three years worth) the KPSA series will be published on a monthly basis.

4 References

	Title of Reference	Website Location
1.	Statistical Quality	http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/index.html
2.	Output in the Construction Industry	http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=725
3.	Winsorisation outliering methodology	http://www.unece.org/stats/documents/1997/10/data_editing/33.e.pdf
4.	Economic and Labour Market Review	http://www.statistics.gov.uk/elmr/03_10/downloads/ELMR_Mar10.pdf

5.	Output Homepage	http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=725
6.	UK National Statistics Publication Hub	http://www.statistics.gov.uk/hub/release-calendar/index.html
7.	Code of Practice for Official Statistics	http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html
8.	Monthly Digest of Statistics	http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=611
9.	Construction Statistics Annual	http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=284&Pos=&ColRank=1&Rank=272
10.	Standard Industrial Classification (SIC 2007)	http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=14012
11.	Code of Practice for Official Statistics	http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html
12.	National Statistician's Guidance: Confidentiality of fficial Statistics	http://www.statisticsauthority.gov.uk/national-statistician/guidance/confidentiality-of-official-statistics.pdf
13.	Statistical Disclosure Control Methodology	http://www.statistics.gov.uk/about/data/methodology/general_methodology/sdc.asp

Annex 6. Example of Quality Report (DST)

Declarations of content: Labour Force Survey

0 Administrative Information about the Statistical Product

0.1 Name
Labour Force Survey

0.2 Subject Area
Labour market

0.3 Responsible Authority, Office, Person, etc.
Michael Frosch, phone 39 17 34 34, email: mif@dst.dk
Sammy Lauritsen, phone 39 17 34 47, email: ssl@dst.dk
Irina Bernstein, phone 39 17 34 98, email irb@dst.dk
Annette Gewecke Nancke, phone 39 17 34 03, email: agp@dst.dk
Wendy Takacs Jensen, phone 39 17 34 02, email: wta@dst.dk

0.4 Purpose and History
The purpose of the Labour Force Survey is giving a description of the labour market status of the Danish population. This description includes a classification of people into employed, unemployed or outside the labour force (economically inactive). The Labour Force Survey also manages to measure information like how many people are working part time; how many hours men in their 30s or 40s usually work; or how many elderly people outside the labour market would like to have a job.

The survey follows international guidelines from the International Labour Organization (ILO) on statistics on labour market status of populations.

Labour Force Surveys are carried out in every European country as well as in many other countries around the world following common concepts and guidelines. This makes the Labour Force Survey the best Danish survey for international comparisons on labour market statistics.

The Danish Labour Force Survey has been conducted yearly since 1984, and from 1994 the survey has been conducted continuously throughout the year. From January 2007 the survey has been expanded considerably and the data collection process has been outsourced.

0.5 Users and Application
The Labour Force Survey is used by a number of users, among others by ministries, research institutes, international organizations, journalists, and curious citizens.

The survey is used for monitoring and analyzing the labour market, as well as in research projects, public debate, and contributes to Denmark always having updated knowledge on labour market issues.

0.6 Sources
The Labour Force Survey is based on approximately 89,000 conducted interviews a year with people aged 15 to 74 years. The interviews are conducted by telephone.

Different administrative resources are used to select the sample. Administrative sources are also used to obtain various background information on the people interviewed, for example on educational level or workplace.

These registers are being used for the Labour Force Survey:
Central Population Register (CPR)
Population Register
The Register of Labour Market Statistics (RAM)

Educational Classification Module (BUE)
Register based-labour force statistics (RAS)

0.7 Legal Authority to Collect Data
The Act on Statistics Denmark.

The processing of data must be approved by the Danish Data Protection Agency, which is responsible for the general supervision and administration.

0.8 Response burden
The survey is not included in the calculation of Statistics Denmark's index of response burden.

0.9 EU Regulation
The Council Regulation (EC) No 577/98 of 9 March 1998 on the organisation of a labour force survey in the Community.

Regulation (EC) No 2257/2003 of the European Parliament and of the Council of 25 November 2003 amending Council Regulation (EC) No 577/98 on the organisation of a labour force survey in the Community to adapt the list of survey characteristics.

1 Contents

1.1 Description of Contents
The Labour Force Survey describes the labour market status of the Danish population. The population is classified into employed, unemployed or economically inactive people (outside the labour force).

Furthermore, the survey provides detailed data on for example hours worked, conditions of employment, job search, and participation in courses and other education, for example in-service training or school courses. Consequently the survey can, among other things, estimate the number of employed people who work at home regularly; how many self-employed people who work during weekends; or how many people have found their job with the help of a public employment office.

Starting with Q3 2010 the main figures of the Danish LFS are seasonally adjusted. The main figures are: Employed, unemployed and persons outside the labour force, giving the general labour market attachment of the population. The series go back to Q1 1995, and the entire period is used for the seasonal adjustment. The programme used is X-12-Arima, and logarithmic transformation is applied on all three series. Only aggregate levels are seasonally adjusted.

1.2 Statistical Concepts
The main variable in the Labour Force Survey is the labour market status of the population.

The survey classifies people into two main categories: people in the labour force and people outside the labour force. Furthermore, people in the labour force are categorized as either employed or unemployed. Conscripts are considered as employed.

The classification of respondents is based on their labour market status and follows EU definitions and recommendations from the International Labour Organization (ILO) definitions: Every respondent is interviewed about one specific *reference week*. All questions on work, working hours, unemployment etc. relates to this specific week.

Employed are all people, who in the reference week worked for payment or worked as self-employed or family workers for at least one hour. People temporarily absent perhaps due to vacation, illness, or maternity leave are considered to be employed.

Unemployed are all people without employment, who have actively been looking for work in the past four weeks prior to the reference week and who are able to begin a job within two weeks

after the reference week ends. Active job-search methods include contact with a public employment office, applications to employers, contact with friends, relatives or trade unions, or for example studying or answering advertisements in newspapers or journals. Looking for permits, licences, financial resources, land, premises or equipment for potential self-employment are also considered as active job search.

Everyone else is categorized *outside the labour force*.

Labour force reserve
The labour force reserve is made up of persons who are available to the labour market, i.e. employed persons, who wish to work more, and unemployed persons. The labour force reserve rises if more people become unemployed or the employed persons wish to work more. More people are unemployed if the employed lose their job or inactive persons start looking for one.

The labour force reserve contains the number of hours that the employed wish to work more than their current weekly working hours, added to the number of hours the unemployed wish to work pr. week. This number is multiplied by the 52 weeks of the year and converted to full time equivalents of 1 924 hours (the Danish standard full time equivalent).

If the respondent is unable to give the nunber of hours he/she normally works pr. week, the contractual number of hours is used. For employees with flexitime systems, the contractual hours are always used, since overtime is expected to be compensated by reduced work in other weeks. Unemployed persons are divided depending on their wish for full-time or part-time work. Dependending on the amount of work they look for, they are weighted according to the average hours worked by the corresponding employees in the current quarter.

The labour force reserve is split into economic activity areas according to the following criteria: For the employed part of the reserve, the economic activity is taken from their main job. For the unemployed part, the economic activity is taken from the main job they had, when they were last employed.

Socio-economic status
Socio-economic status is related to the traditional classification into employees, self-employed and family workers.

Employees are classified as top managers, employees at upper level, at intermediate level, and at basic level, or other employees.

Employees are, furthermore, classified into occupation, for example nurse, teacher or mechanic, on the basis of skills or qualifications necessary for exercising their work function. These skills or qualifications can be achieved either by formal education or informal training and experience.

The classification of employee es complies with the Danish nomenclature DISCO-88*,* the Danish version of ISCO88.

The classification socioeconomic status is furthermore described in the publication SOCIO, Danmarks Statistiks Socioøkonomisk Klassifikation 1997.

Classification of industry groups
People in the Labour Force Survey are also classified into industry groups, i.e. based on the businesses, they work in, for example in wholesale and retail trade, hotels and restaurants, or in manufacturing.

From 1st quarter 2009 the Danish nomenclature Dansk Branchekode 2007 (Danish Industrial Classification of All Economic Activities), (DB07) has been applied to classify the industry group of the respondents. The nomenclature DB07 is based on the definitions of the European Union's nomenclature NACE rev. 2 from January 2008.

From 2003 until 2008 Dansk Branchekode 2003 (Danish Industrial Classification of All Economic Activities), (DB03) was applied and from 1994 until 2002 Dansk Branchekode 1993

(Danish Industrial Classification of All Economic Activities), (DB93) was applied. Before 1994 the classification of industries of 1st April 1977 was used.

2 Time

2.1 Reference Period
Every respondent is interviewed about one specific reference week (Monday to Sunday). All questions on work, working hours, unemployment etc. relates to this specific week. Interviews are conducted every day all year.

2.2 Date of Publication
The results are published every quarter in News from Statistics Denmark (Nyt fra Danmarks Statistik).

Furthermore, yearly results are published every spring in News (Year) from Statistics Denmark (Nyt fra Danmarks Statistik).

2.3 Punctuality
The statistics are usually published without delay to the scheduled date.

2.4 Frequency
News from Statistics Denmark are published quarterly.

Statistical News is published once a year with reference to the following year.

3 Accuracy

3.1 Overall accuracy
The Labour Force Survey is a reliable survey. In other European countries where similar Labour Force Surveys are carried out, the official unemployment figures come from the Labour Force Survey. In Denmark the most used unemployment figures deprives from administrative registers (see paragraph 4.2 on RAM). However, when a Danish unemployment rate is to be used for international comparison, usually the unemployment rate from the Labour Force Survey is being used.

Results from the Labour Force Survey are also being used for labour market analysis, in research projects and in the public debate.

3.2 Sources of inaccuracy
Equivalent to other surveys based on sample sizes the results of the survey have some sampling errors attached. The sampling errors are related to the sample selection and the patterns of non-response. Non-response occurs when an interview with a selected person is not carried out. Non-response increases the inaccuracy rate because the probability of conducting an interview with all selected people is uneven. In other words, it is the same kind of sections of the populations where interviews are not being carried out at the same extent as other sections of the population. Consequently the level of representativity is affected.

Sample size:
The Labour Forces Survey is based on a quarterly sample of approximately 37,000 people aged 15 to 74. The sample is divided into 13 sub-samples of equal size, one for each week in the interview quarter, and people are interviewed with reference to one of the reference weeks.

The survey entity is individuals.

Data collection:
The Labour Force Survey is based on telephone interviews and are conducted every day, every week, all year.

The survey is a rotating panel survey including four waves each quarter. Due to the design respondents participate in the survey several times. During one and a half years respondents participate four times. First in two quarters in a row, then an interval of two quarters and then participations in two quarters again. The purpose is to be able to measure both quarterly and yearly changes of employment and unemployment.

Stratified sampling and weighting:
In order to measure unemployment adequately, former unemployed people are selected with a higher probability than others. The sample size consists of approximately one fifth earlier registered unemployed, due to the coherence between people registered as unemployed in an earlier quarter and in the present one. The purpose is to ensure a sufficient number of observations of unemployed people to be able to make proper analysis of them. This stratification is taken into account in the weighting of the results.

Furthermore, in weighting the following distributions are taken into account: gender, age, registered unemployment, income, socio-economic status, education, immigration, region and mobility.

Sampling error:
Sampling errors are a matter of concern especially for small observations. Consequently published results are always disseminated rounded to the nearest 1,000 persons. Furthermore, some of the results are based on annual averages to increase the number of interview responses and from that derive more reliable results.

Besides this some of the results are complemented with information of the corresponding standard errors, illustrated by intervals of confidence in the following way: +/- sampling error (interval of confidence). The sampling error is calculated as 1.96*standard error, and 1.96 corresponds to the 97.5 quantile in the standardized normal distribution.

The sampling error depends on the sample size. For example, the sampling error for estimates is approximately halved when the sample size is doubled by four. Therefore in several cases it will be an advantage to use data from the last four quarters in stead of only the present one.

Information on the sampling errors is important, because it enables the user to assess to what extent, e.g. a change in the level of employment is merely a result of the corresponding sampling error, or a significant decrease or increase.To give a description of the corresponding sampling error for small or large groups in a survey, intervals of confidence are often applied rather than standard errors of variances. In the Danish Labour Force Survey it has been decided to apply intervals of confidence at a 95 significance level. This means: if the survey was repeated 100 times s, in 95 out of 100 cases the estimate would be bounded by this interval, while only in 5 cases the estimate would range above or beneath these limits.

Until now the inaccuracy has only been calculated on the main estimates of the Labour Force Survey, i.e. the figures for employment, unemployment, size of the labour force and those not in the labour force. As from 2008 onwards the inaccuracy will also be calculated on the quarterly variations. If the quarterly variations are outside the calculated inaccuracy interval, the change is statistically significant at a 95 p.c. significance level. This increases the transparency of the survey and improves the ability to interpret the results.

Non-response and response rate:
Each quarter a sample size of approximately 37,000 people are selected from the Population Register. However, around 15 percent of the sample size cannot be contacted either because they have chosen the option in the Central Population Register law to refuse participation in surveys, have passed away, or have emigrated.

Of the remaining group the response rate is usually between 63 to 68 percent.

3.3 Measures on accuracy
See section 3.2, Sources of inaccuracy.

4 Comparability

4.1 Comparability over Time
1984 was the first time Denmark started a large survey on the populations labour market status. Though, it was conducted only once a year during spring time.

In 1994 the Labour Force Survey was established as we know it today. From this time the survey has been conducted continuously every day all through the year. In 2000 the questionnaire was changed significantly, however the changes did not affect the main indicators such as the number of employed, unemployed and outside the labour force.

From January 2007 the survey has been changed and expanded considerably. Until this time the survey was based on approximately 40,000 interviews yearly. But in order to reduce sampling errors of survey results it was chosen to more than double the number of conducted interviews. Today the survey is based on approximately 89,000 interviews. Besides this the rotation pattern was changed from three to four waves.

Furthermore, the data collection process which Statistics Denmark had been in charge of so far was outsourced.

4.2 Comparability with other Statistics

International statistics:
The Labour Force Survey is the Danish contribution to the co-European Labour Force Surveys. Topics, categories, definitions and so on are laid down by the European Union which makes the surveys suitable for both overall and very specific international comparisons of labour market issues.

Lots of countries outside the EU also carry out similar Labour Force Surveys. This means that the Danish Labour Force Survey is the best Danish survey for international comparisons of labour market statistics.

Other employment statistics

Register based-labour force statistics (RAS):

Both the Labour Force Survey and RAS examine the populations labour market status. The Labour Force Survey is based on interviews, while RAS is based on administrative sources. Due to the fact that it takes time to gather information from several of the administrative registers the data processing time is a bit more than a year for RAS. This means, that information on people registered as full time unemployed in November 2005 will be published in the spring of 2007.

RAS publishes results only once a year, but publishes very detailed information.
The degree of consistency between the Labour Force Survey and RAS is usually high with respect to the key results, for example the number of employed and unemployed people in Denmark. However, for some variables for example - full-time/ part-time employees - significant differences appear. This is due to completely different compilation methods.
Some information on the populations labour market relations is better collected by RAS than by the Labour Force Survey, because RASs base is the total population, whereas the Labour Force Survey is based on a sample size of the population. In a sample, small groups - like immigrant groups - can be unreliable due to too high sampling error. In these areas RAS is a good substitution. However, if the wish for example is to know of how many part-time employed who would like to work full-time; how many people that work at home regularly; or how many people that have found their job with the help of a public employment office, the Labour Force Survey is the best statistics.

ATP-employment statistics (ATP):
Another source of employment statistics is the ATP-employment statistics. It is a fast quarterly register-based employment indicator. The purpose of the statistics is to measure the number of full-time wage-earners in Denmark. It is measured from the wage-earners payment of ATP (Labour Market Supplementary Pension). The number of employed people is measured in the number of "full-time equivalents", meaning that two half-time employees "half" payments will be calculated into one full-time employed. This means that the ATP-employment statistics cannot give information on the development in the number of part-time or temporary employed people. The Labour Force Survey should be used for that. The same is true for the number of self-employed people in placecountry-regionDenmark. Self-employed people do not pay in ATP and are consequently not included in the ATP-employment statistics.

The general trend of the employment indicator and the Danish Labour Force Survey on the number of wage-earners in Denmark is usually more or less consistent.

The Register of Labour Market Statistics, Unemployment (RAM)
The most used unemployment statistics in Denmark is RAM. RAM is based on the information from every public employment office and unemployment insurance funds in Denmark. The purpose is to measure the number of unemployed people in Denmark and an unemployment rate is published every month. RAM measures the number of unemployed people in "full-time equivalents". This means that part-time unemployed for example a person with a small job, who also receives complementary unempl loyment benefit from the local jobcentre under the Danish Social Assistance Act are calculated as a certain percentage of a full-time unemployed. A half-time unemployed person will for example count as ½ full-time unemployed.

In the Labour Force Survey and according to the Statistical Office of the European Communities, Eurostat, people are defined as employed if they have worked for at least one hour in the reference week. A person who works 15 hours a week and who also receives complementary unemployment benefit will be defined as employed in the Labour Force Survey. In RAM-unemployment statistics this person will be included in the group of unemployed people, because the complementary unemployment benefit reflects registration as unemployed at a public employment office.

The issue whether or not a person has to be registered as unemployed at a public employment office to be considered unemployed or not is a distinct difference between the Labour Force Survey and RAM.

In RAM a person *has* to be registered as unemployed at a public employment office to be included in the unemployment statistics.

The Labour Force Survey and the European statistical bureau Eurostat do not have that requirement. This is because of the different labour market models around placeEurope. Not all countries have a policy where people register oneself when unemployed. For the sake of international comparison, the important issue is therefore whether or not people have been working or not, not whether people are registered or not.

According to the Danish Labour Force Survey, even in Denmark, only approximately half of the unemployed people are receiving unemployment benefit. The other half consists among others of students without work and early retired people who are actively looking for a job and declare that they can start a job within two weeks.

At the same time some of the people included in RAMs unemployment statistics is not considered unemployed in the Labour Force Survey. For example people, who do not actively look for a job or who are not able to start a job within two weeks. If people do not meet these criteria they are defined as outside the labour force regardless if they are registered at a public employment office or not.

Due to the different definitions of unemployment, the results from RAM and the Labour Force Survey can vary some.

4.3 Coherence between provisional and final statistics
Only final figures are published.

5 Accessibility

5.1 Forms of dissemination
The Danish Labour Force Survey is published in the news release Nyt fra Danmarks Statistik (News from Statistics Denmark), in Arbejdsmarked (Labour market) in the series Statistiske Efterretninger (Statistical News), in Konjunkturstatistik (Main Indicators), Statistisk Årbog (Statistical Yearbook of Statistics Denmark).

Statistical data are also available at the homepage of the Labour Force Survey: and in Statistikbanken (Statbank Denmark): .

In 2003 and 2004 a couple of publications on specific themes have been published in Danish also.

5.2 Basic material: Storage and usability
Data are based on individuals, and contain both survey and register variables.

5.3 Documentation
See *Arbejdsmarked* (Labour market) in the series *Statistiske Efterretninger* (Statistical News).

5.4 Other Information
Other information is not available.

Supplementary documentation
No supplementary documentation is available