

Metadata

Earnings

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0. Registration entry for subjects

0.1 Name

Earnings

0.2 Subject area

Wages, salaries and income

0.3 Responsible authority; office, division, person etc.

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Wages, income and education

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0.4 Purpose and history

The purpose of data on "Earnings" is to provide information about employees' earnings, distribution and wage structure. New time-series now includes data for 2014-2021. The intention is to publish back-data for the years 2008-2013. Until these time-series are complete it is possible to partly use time-series in the section "Earlier tables" to compare data between years. The new time-series contains information on more subgroups than previous data and tables on occupational groups and occupations include both employees in the public and private sector, where as older time-series only included the private sector. Data on basic earnings, number of observations and weighted observations have been added and the definition of full-time employees has been narrowed.

Data on earnings were first published in 2005. However, in 2008, a few changes were made in the methodology and the time series were therefore republished from 1998.

When comparing data it has to be kept in mind that, the methods have been slightly changed and data have been added.

Data is provisional.

0.5 Users and application

The main users of the data are individuals, private business enterprises, national and international organisations, employees' organisations and employers' associations, ministries, public institutions and the media. The aim with data on earnings is to inform on salaries, distribution of salaries and structure of salaries. Data are not intended for indexation, like the wage index, as changes can be due to changes in earnings, changes in the composition of the labour market and changes in the survey sample. Data is also used in collective agreements and in European and international enquiries.

0.6 Sources

Earnings in the labour market are based on the data collected through the Statistics Iceland Icelandic survey on wages, earnings and labour costs (ISWEL). The survey is based on a sample of private companies and municipalities (local government) with 10 or more employees. In addition, data are collected directly from the central government for all its employees. The data is collected monthly directly from the employers' payroll systems and contains all labour costs and paid hours as well as background information on employees and employers. Validations checks are performed in accordance to predefined rules in order to eliminate or fix data items that are incorrect. The ISWEL is in accordance with regulations on surveys on earnings and labour in the European Economic Area. The ISWEL sample and weights are based on the PAYE (Pay as your Earn) data.

0.7 Legal basis for official statistics

[Act on Statistics Iceland No 163/2007.](#)

0.8 Response burden

The survey, ISWEL, is based on a lengthy tradition of collecting data directly from employers by using the pay-roll software. Monthly, each employer sends a data file containing detailed information on earning structure and cost items, together with background data on the employee and the employer. Taking advantage of data collection by direct access minimises the bias caused by recording. Moreover, the expense and nuisance employers might associate with data collection and the time lost through reporting is kept to a minimum. This is important, as it improves data quality and helps maintaining a representative sample. In order to collect metadata on each employer and its pay structure, great effort is spent on the inclusion process as the employer enters the survey. Feedback to the employer is given during data collection, if necessary, to maintain quality of data.

0.9 EEA and EU obligations

No specific EEA or EU regulations apply. However, Statistics Iceland takes notice of regulations No 530/1999 from March 9th 1999, No 1916/2000 from September 8th 2000 and No 530/1999 regarding economic reports and the construction of ISWEL.

1. Contents

1.1 Description of content

The purpose of Earnings is to provide information about employees' earnings, distribution and wage structure. Average earnings are based on individuals' earnings with in certain groups,

where an individual is defined as an employee working with the same business unit, in the same economic activity and in the same occupation for a certain period of time. Data is broken down by sectors and occupational groups, by economic activities and occupational groups and by occupations. Furthermore, data are provided for men and women.

For full-time employees' basic earnings, regular earnings, total regular earnings and total earnings are calculated, thus composition of earnings can be determined. Earnings for part-time employees are adjusted to full-time hours. Only basic earnings and regular earnings are calculated for part-time employees.

The following tables are published in the subject area "Earnings":

- [Earnings for full-time employees by occupation and sex](#)
- [Earnings by sector, occupational group and sex](#)
- [Earnings by economic activity, occupational group and sex](#)
- [Distribution of earnings for full-time employees by sector, occupational group and sex](#)
- [Distribution of earnings for full-time employees by economic activity, occupational group and sex](#)

Older time-series are available in the subject area "Earnings - older tables" and can be partly used to compare new and older data.

The data tables contain two different datasets:

Data tables for the whole labour market 2008-2014:

- [Earnings for the private and public sector by sex](#)
- [Earnings by economic activity \(NACE rev.2\) and sex](#)
- [Distribution of earnings for full-time employees in the private and public sector](#)
- [Distribution of earnings for full-time employees by economic activity \(NACE rev.2\)](#)

Data tables only containing the private sector 1998-2014:

- [Earnings in the private sector for full-time employees by occupation and sex](#)
- [Earnings in the private sector for full-time employees by occupational group](#)
- [Earnings in the private sector by economic activity \(NACE rev.1.1\) and sex 1998-2011](#)
- [Distribution of earnings in the private sector for full-time employees by occupational group](#)
- [Distribution of earnings in the private sector for full-time employees by economic activity \(NACE rev.1.1\) 1998-2011](#)

1.2 Statistical concepts

Earnings are based on employees' earnings by sector, economic activity, occupational group or occupation.

Population

The population is defined as all employees working in business units with minimum of 10 employees, with exception that data on central government includes all employees. Data on earnings are based on a subset of employees 18 years and older. The population frame is based on the monthly PAYE (Pay as You Earn) data register.

Sample

Data are based on the following economic activities in the private sector: Manufacturing (C), Electricity, gas, steam, and air conditioning supply (D), Water supply; sewerage, waste management and remediation activities (E), Construction (F), Wholesale and retail trade; repair of motor vehicles (G), Transportation and storage (H), Accommodation and food services (I), Information and communication (J), Financial and insurance activities (K). In the economic activity J, small enterprises and enterprises in the IT business are missing.

The economic activities Public administration and defence; compulsory social security (O), Education (P), and Human health and social work activities (Q) are only based on employees in the public sector. In O, employees in the public sector are about 95% of the population; in P, about 90% and 80% in Q. Employees in the public sector working in other economic activities are included in the dataset.

When comparing data over time it has to be kept in mind that the ISWEL sample has evolved over time and thus data is not fully comparable between time-periods. In the table below, information on the inclusion of economic activities in the sample is provided.

ÍSAT08/NACE rev.2.2	Private sector	Public sector
Manufacturing (C)	From 1998	
Electricity, gas, steam and air conditioning supply (D)	From 2008	From 2008
Water supply; sewerage, waste management etc. (E)	From 2008	From 2008
Construction (F)	From 1998	
Wholesale and retail trade; repair of motor vehicles (G)	From 1998	
Transportation and storage (H)	From 1998	From 2008
Accommodation and food services (I)	From 2018	
Information and communication (J)	From 1998/2002	From 2008
Financial and insurance activities (K)	From 2005	
Professional, scientific and technical activities (M)*		From 2008
Administrative and support service activities (N)*		From 2008
Public administration and defence; compulsory social security (O)		From 2008
Education (P)		From 2008
Human health and social work activities (Q)		From 2008
Arts, entertainment and recreation (R)*		From 2008

*Data on economic activity is not published as data on the private sector is missing, which constitutes for more than half of the economic activity.

Variables

Earnings: Basic wages and salaries, additional allowances, bonus payments, shift premium, sickness pay, overtime pay, piecework, irregular bonuses, lump-sum payments, and other irregular payments.

Hours paid: Normal hours, hours with shift premium, hours in piecework and overtime hours.

Background factors: Local activity, employee, occupation, economic activity, sex and age.

Statistical variables

Weights: Weights are based on sectors and economic activities as recorded in the monthly PAYE (Pay as You Earn) data register. In addition, an individual weight is assigned based on the number of working months during the year.

Mean: The mean is the weighted mean, taking into account weights.

Median: The median is a weighted median and divides the distribution of an ordered group by wages or working hours into half.

Quartiles: The quartiles are weighted quartiles and divide the distribution of an ordered group by wages or working hours into quarters.

Deciles: The deciles are weighted deciles and divide the distribution of an ordered group by wages or working hours into 10 groups.

Decile share ratio: The decile share ratio is the ratio between the total sums of earnings of employees in the 10th decile divided by the total sum of earnings by employees in the first decile.

Quartile share ratio: The quartile share ratio is the ratio between the total sums of earnings by employees in the fourth quartile divided by the total sum of earnings by employees in the first quartile.

Percentage under the mean: Percentage of employees receiving salaries under the mean.

Observations: Number of observations in the dataset.

Weighted observations: Weighted number of observations in the dataset. The weight is based on the number of observations and the ISWEL weight. Each employee gets the weight of the employer and a weight based on number of months worked. This is necessary in order to let the sample reflect the population that is employees working for employers with 10 or more employees.

Distribution: The distribution is estimated using the mean, median, quartiles, deciles, decile share ratio and quartile share ratio. Data is more distributed as the quartiles and deciles are further apart. If the mean is higher than the median, it can be estimated that some individuals in the group have considerable higher earnings than the majority in the group. These individuals contribute to a higher mean, which is very sensitive to outliers. If the mean and median are

similar, it can be estimated that few outliers are in the data. Percentage under the mean gives also an estimation of distribution. If the mean and median were the same, 50% of employees would have earnings under the mean. As the percentage under the mean gets higher, more outliers are in the data that affect the mean.

Groupings

Sectors: Sectors are based on the ESA 2010 classification of National Accounts. The public sector only consists of the General Government (S.13). Others belong to the private sector.

Economic activities: Economic activities are based on ISAT08 (i.e. the Icelandic version of NACE rev.2).

Occupational groups and occupations: Occupational groups and occupations are based on ISTARF95 (i.e. the Icelandic version of ISCO-88). In addition there are two occupational groups: Craft workers, defined as those belonging to occupational groups 7, 8 and 9 and having 5th digit (Icelandic addition) 2 and 3 (skilled craft workers and skilled foremen); general, machine and specialized workers, defined as those belonging to occupational groups 7, 8 and 9 and having the 5th digit 0 and 1 (general workers, and foremen).

Full-time employees: Full-time employees are defined, as employees whose total daytime, shift work and piece work hours are equal to or exceed 90% of normal working hours. Contractual working hours vary between collective agreements but are usually between 159.3 and 173.3 hours. It is worth mentioning that the shortening of the work week generally came into force for the private sector in 2020 but in 2021 for the public administration. In older tables, overtime-hours are also part of the full-time definition.

Definitions

Basic earnings: Basic earnings are the remuneration for regular daytime working hours without any supplements. Basic earnings for part-time employees are full-time equivalent.

Regular earnings: Regular earnings are the remuneration for regular working hours that is ordinary working hours according to collective agreements. This includes daytime, shift-work and piecework hours. Regular earnings for part-time employees are full-time equivalent.

Total regular earnings: Total regular earnings are the total remuneration per month including over-time. Total regular earnings are only calculated for full-time employees.

Total earnings: Total earnings are the total remuneration per month including piecework, irregular bonuses and various other irregular payments, excluding payments in kind. Employees' benefits are excluded. Total earnings are only calculated for full-time employees.

Hours paid: Hours paid are monthly working hours for full-time employees, whether being daytime, shift-work, piecework or overtime hours. To obtain weekly hours the hours paid is divided by (52/12). Hours paid are usually a good estimator of hours worked. However, in some occupational groups, for example among managers and professionals, fixed-wage contracts are common. Thus, employees are not paid overtime, and their working hours might be underestimated. Hours paid are only calculated for full-time employees.

A minimum of 50 employees in three local units are required in order to publish data on sub-groups. In data on occupations a minimum of 30 employees are required.

2. Time

2.1 Reference periods

Earnings in the labour market are based on individual's average monthly earnings over one year.

2.2 Process time

Earnings in the labour market are published on the web page of Statistics Iceland within 6 months from the reference year if possible.

2.3 Punctuality

Data on Earnings is published at 09:00 at the date in the release plan on the web page of Statistics Iceland, <http://www.statice.is/>

2.4 Frequency of releases

Annually.

3. Reliability and security

3.1 Accuracy and reliability

The Icelandic survey on wages, earnings and labour costs (ISWEL) is a sample survey. The sample is a stratified cluster sample where the sample unit is the employer and the observation unit is the employee. The target population of companies contains all employers with 10 or more employees. The population frame is based on monthly PAYE data. The PAYE data reflects the sum of wages reported to the tax authorities. The population frame and the sample are revised yearly in order to adjust it to changes in employer's environment from the last revision, but a systematic sample refresh has not yet been implemented due to lack of coverage.

Companies in the private sector are stratified in divisions according to NACE Rev. 2 (two first digits). Big companies, defined as companies with more than A/m employees where A is the total number of employees in the stratum and m is the number of selected companies in the stratum, are selected with probability of one. The rest of the companies are further split into medium size and small size companies within each section and selected randomly from the corresponding stratum. Municipalities are stratified according to location and size and selected in a similar way. All employees with an employer in the sample are included in the survey, and thus they get the same weight as their employer.

During visits to employers in the sample, technical aspects concerning the software for wage calculations are addressed along with details on entering records such as classification of occupations according to the ÍSTARF95 and ÍSAT2008 standards. The employer's wage structure is examined assigning payroll items to the wage items of the survey to ensure coordination with other employers. Efforts are continuously made to improve data quality through feedback to the employers and through updating and improvement of the validation checking system. Validation checks are made continuously and data is edited by using a set of predefined rules.

Standardized data correction and editing procedures are applied to the data. There are not fixed cut-offs regarding outliers in the data, but predefined rules are used to handle and examine the outliers.

3.2 Sources of errors

Various errors can occur in datasets like the ISWEL data, both sampling errors and non-sampling errors.

Sampling errors can arise if employers are incorrectly registered according to their economic activity classification in the sample frame, in cases of employers operating in more than one economic activity but only registered in one of it, if newly established companies are not a part of the survey's pool, etc. Data on earnings is subject to challenges because of lack of data coverage and due to inadequate sample refresh.

Non-sampling errors such as none-response errors and measurement errors are errors that occur in the data collection process. By maintaining a constant partnership with the sampled business units, these errors are minimized.

The measurement of paid hours is especially prone to measurement errors as in many business units fixed-wage contracts are common. Thus, employees are not paid for overtime work, and their working hours might be underestimated.

3.3 Measures on confidence limits/accuracy

The statistical uncertainty is not calculated.

4. Comparison

4.1 Comparison between periods

When comparing data between periods one must take into account that the sample structure and the quality of data handling has changed because of the extending survey coverage which is still taking place.

4.2 Comparison with other statistics

Older time-series are found in "Earlier tables". Data on sectors and economic activities are comparable, but data and methods have been improved. Data on occupational groups and occupations are only partly comparable as data on the public sector is missing in earlier time series.

Regular earnings can be extrapolated by the wage index, which is published monthly. The wage index is based on hourly regular earnings that are comparable to monthly regular earnings.

4.3 Coherence between preliminary and final statistics

Data is preliminary because data on certain groups are missing from the dataset.

5. Access to information

Statistics Iceland operates in accordance with the [United Nations Fundamental Principles of Official Statistics](#), the [European Statistics Code of Practice](#) as well as [the Act on the Protection of Privacy](#) regarding the processing of personal data. Furthermore, Statistics Iceland has laid down its own [Rules of Procedure for Treating Confidential Data](#).

5.1 Forms of dissemination

- News, released on Statistics Iceland's website
- Statistics, categorised statistical web tables
- Statistical Series, Hagtíðindi

5.2 Basic data; storage and usability

The data used for production on earnings in the labour market relies mostly on data collected directly from employers' pay-roll system. The data is stored in Statistics Iceland database and are confidential. The following variables are collected.

Some data are not obtainable with all local activities like sickness payment when their payroll system does not include that information.

5.3 Reports

Changes and development of Earnings are reported alongside the publishing of new data. In the spring of 2019, Statistics Iceland published a [working paper](#) on official earnings statistics.

5.4 Other information

The department of Wages, income and education provides further information.