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Logib – step-by-step

Instructions for using Logib

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Logib step-by-step

Instructions for using Logib

Logib is a tool which works by using Excel. This document describes the different steps leading to the result of the analysis and its interpretation:

- [1. Downloading Logib](#)
- [2. Preparing the data](#)
- [3. Starting Logib](#)
- [4. Starting the analysis](#)
- [5. Interpreting the analysis](#)

What is Logib?

Logib, the federal government's equal pay self-test tool, enables the verification of whether a company is ensuring wage equality – in other words, equal pay for work of equal value – between women and men. The calculation is performed through a regression analysis that takes into account objective factors predicting salary, including personal characteristics named “human capital” (training, professional experience, tenure) and other factors related to the job itself (level of qualifications required for the job, professional position). Sex is included in the regression as an additional independent variable. In the absence of discrimination, this variable has no significant influence on pay. The data necessary for the calculation can be imported or entered manually in Logib.

Employees who should be entered in the system

In principle, everyone in the company – i.e. from all business units and places of activity – who received a salary in the reference month should be entered in the system, including:

- Direction members
- Part-time employees
- Employees who are paid per hour
- Frontier commuters
- Seasonal workers
- Employees affected by short-time working arrangements, even those whose work has been stopped due to partial or total unemployment
- Employees who have been hired during the reference month

Employees who should not be entered in the system?

The following people are in a special employment situation. In order to avoid a distortion of the results of the analysis, they are not entered into the system:

- Apprentices and trainees completing a training course
- Company owners and their family members working without an employment contract
- Employees paid exclusively on a commission basis
- Temporary agency staff

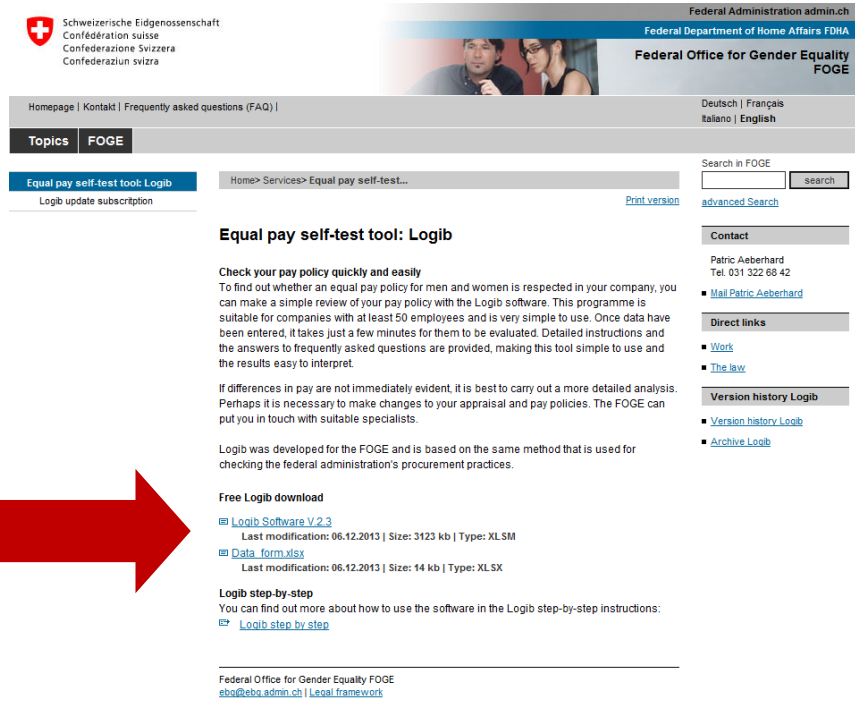
- Home workers
- Employees whose remuneration is reduced throughout the reference month because they are not working due to an illness or accident, are drawing a disability pension, are in military service or on maternity leave.
- Employees who carry out the main part of their professional activities abroad (with the exception of employees whose day-to-day work is organised from Switzerland, such as airline or international transport employees, etc.).

Contact

- Helpline: 0800 55 99 00
- Email: logib@ebg.admin.ch

1. Downloading Logib

Downloading Logib and the Excel form from Internet



The screenshot shows the website of the Federal Office for Gender Equality (FOGE). The page title is 'Equal pay self-test tool: Logib'. A large red arrow points to the 'Free Logib download' section, which contains two links: 'Logib Software V.2.3' (Last modification: 06.12.2013 | Size: 3123 kb | Type: XLSM) and 'Data_form.xlsx' (Last modification: 06.12.2013 | Size: 14 kb | Type: XLSX). Below this, there is a 'Logib step-by-step' section with a link to 'Logib step by step'.

1. Go to www.logib.ch and click on “Logib Software V.2.3” to download the Logib file. Save it on your computer.
2. Do the same with the “Data_form”.

Tip: always keep an unused version of the Logib file and save all the versions you work with under a new name. This will save you from having to download Logib again.

For more detailed explanations on the functional requirements for Logib: see [FAQ](#).

FAQ – Functional requirements for Logib

What are the functional requirements for Logib?

The functional requirements of Logib are the following:

- The availability of data on wages and the different factors taken into consideration in the analysis (personal characteristics and job related factors) for all employees
- A minimum of 50 employees, with at least a 10% share of either men or women

What are the system requirements for Excel?

Logib is a Windows application that runs in Microsoft Excel. The supported Excel versions are:

- Excel 2000
- Excel XP
- Excel 2003
- Excel 2007
- Excel 2010
- Excel 2013

It is recommended to use a version of Excel that has been updated with the latest Service Pack. Use of Beta or Test versions of Excel is not suggested.

Supported languages: German, French, Italian, English
Country setting (Windows): Switzerland

How do I configure the macro security level in Excel 2000, XP and 2003?

For Logib to work, you should choose the “Medium” level of security in the Excel settings. You can change the security level in “Tools/macros/security”. In the tab “Security level”, select the option “Medium security level”.

How do I configure the macro security level in Excel 2007 and 2010?

For Logib to work you must enable, at least temporarily, the use of macros. There are four options for configuring macro security in the menu “Macro development/Macro security /Macro parameters”:

- Disable all macros without notification
- Disable all macros with notification
- Disable all macros except digitally signed macros
- Enable all macros

If the first or third option is selected, Logib will not work and you will not receive a message asking you to activate the content. Solution: choose the second or fourth possibility, close Excel and reopen the file you have downloaded.

If the second option is selected, a security warning will appear above the entry bar. If you are using Excel 2007, click on the “Options” button, then in the dialog box click on “Enable content” and then on “OK”. If you are using Excel 2010, just click on “Enable content”.

If the fourth option is enabled, everything is ready for Logib to work.

2. Preparing the data

Options for importing and entering data

There are four options for entering data into the programme:

1. Data import from the “data form” file

To do this, follow the instructions on the following page ([Enter employees data using the file “data form”](#)).

2. Data import from the Swiss Earnings Structure survey

This option is only valid for data collected for the Swiss Earnings Structure surveys up until 2010. In this case, you can directly import the Excel file containing the relevant data from the Earnings Structure survey. There are no other steps to be taken. Continue with [Starting Logib](#).

3. Data import from your own Excel files or text

In this case, the structure of the columns must match perfectly with the one of the “Data_form” sheet. In particular, ensure that:

- The data appear on the first sheet if you are using Excel
- Column labels/headers are entered in the first row
- Data entries begin in the second row and first column.

To find out which information should be entered in each column, please read the [Explanatory notes on compulsory columns](#).

4. Manuel data entry

Instead of importing files, data can also be entered manually into the programme (see [importing or entering data](#)).

Entering employees data from the “data_form” file

| C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S |
|------|-----------------|---|-------------|-------------------------------|-----------|---------------------------|------------------------|----------|--|---|------------------|----------------|-------------|---|--------------------|-------------------|
| Sex* | Marital status* | Years of service, date or year of entry into service* | Nationality | Place of employment/Post code | Training* | Required level of skills* | Professional position* | Activity | Employee's monthly wage : level of employment* | Employee's hourly wage : paid hours during the reference month* | Salary agreement | Form of salary | Gross wage* | Allowances* (Shift, Sunday and night work and other hard work bonus) | 13th monthly wage* | Special payments* |
| 1 | | 12 | | | 8 | 1 | 2 | | 100 | 0 | | | 8'400 | 0 | 700 | 1'000 |
| | | | | | | | | | | | | | | | | |
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The first row serves as an example and should be replaced with your own data

Open the “data_form” file. Delete the sample data provided and enter your employee data. Ensure that the format of all data cells is “standard”.

1. In order for the analysis to be run, columns with a header containing an asterisk must be filled in. For the base regression analysis, the following columns are compulsory:

- [Key](#)
- [Date or year of birth](#)
- [Sex](#)
- [Years of service, date or year of entry into service](#)
- [Training](#)
- [Employment level](#) or [hours paid](#)
- At least one of the columns [Gross wage](#), [Allowances](#) or [Special payments](#).

The extended regression requires additional information in the two following columns:

- [Level of qualifications required for the job](#)
- [Professional position](#)

The non-compulsory columns, i.e. without asterisk, can be left empty.

Explanations on each column are provided in the [Explanatory notes on table columns](#).

Explanatory notes on table columns

Key

The system accepts numbers or a combination of letters and numbers.

Date or year of birth

The system accepts the four-digit year of birth (YYYY), or, alternatively, the complete data of birth (DD.MM.YYYY).

Sex

The system requires the coding male = 1, female = 2.

Years of service, date or year of entry into service

The system accepts the number of years as an integer or the year of entry (YYYY) or the complete date of entry (DD.MM.YYYY).

Training

The system accepts numbers from 1 to 9 corresponding to the definitions below. Only the highest education level should be entered. It must be certified by a certificate or diploma. For trainings that have been completed abroad, please enter the code of the Swiss equivalent.

1 = University, federal institute of technology (Uni, EPF).

2 = University of applied sciences (HES), university of teacher education (HEP): at least three years of full-time training and education. Technical college (ETS), School of Economics and Administration (business economy ESCEA), School of Applied Arts (ESAA), school for social work or special educational needs (CSESS/CSEES), Institute of Applied Psychology, Swiss Red Cross Management School, Swiss Federal Institute for Vocational Education and Training (SFIVET, formerly SPIVE), Institute of Remedial Education, other educational training courses, college of home economics (ESEF) and other specialised schools.

3 = Higher vocational training and education: at least two years of full-time training and education. Apprenticeship followed by complementary training usually leading to a federal-level examination (Federal Certificate, diploma or master craftsman diploma, diploma awarded by a technical school (ET), diploma from a higher institute of business management or from a higher hotel and catering school as well as other comparable courses.

4 = Teaching certificate at various levels: teacher training college (primary teaching) higher teacher training college, teaching college for kindergarten teachers, etc.

5 = Academic Matura, vocational Matura.

6 = Completed vocational training and education usually leading to a federal or cantonal certificate of proficiency: vocational apprenticeship, commercial apprenticeship,

commercial college or upper secondary specialised school, nursing college, college of agriculture or home economics, recognised basic training, etc.

7 = In-house vocational training not recognised by the State Secretariat for Education, Research and Innovation (SERI).

8 = Compulsory schooling without professional qualification.

9 = Other trainings which do not fall within the established Swiss education system.

Reminder: apprentices and trainees completing a training course must not be entered into the system.

Level of qualifications required for the job

The system accepts the numbers 1 to 4. Here are the corresponding definitions:

1 = Extremely demanding and difficult tasks

2 = Independent and skilled work

3 = Work requiring professional/technical skills

4 = Simple and repetitive tasks

Professional position

The system accepts the numbers 1 to 5. Here are the corresponding definitions:

1= Senior and higher management

Director or involvement in the management of the company:

- Shaping or helping to shape policy at corporate level
- Responsibility or joint responsibility for the achievement of the company's goals
- Coordination of various management functions
- Responsibility for policy and achievement of objectives in a specific area

2 = Middle management

Management of a department within the company, high level support roles:

- Responsibility for the planning and organisation of a specific area
- Involvement in the development of long-term action plans.

3 = Lower management

Performance-oriented management of a sub-area, qualified support roles:

- Responsibility for carrying out tasks in own area of activity
- Involvement in planning and organisation.

4 = Lowest management

Supervision tasks according to specific instructions:

- Supervision of work in progress
- Occasional involvement in planning and organisation.

5 = No management function.

Employee's monthly wage: level of employment

The system accepts decimal numbers from 0 to 150. This number should correspond to the level of employment that corresponds to gross wages, excluding any overtime (as gross wages are also indicated without the payment of any overtime).

If a person has not received their whole pay for the reference month due to taking unpaid leave or joining or leaving the company, working hours should be entered in accordance with the agreed level of employment (because gross wages are indicated in accordance with the agreed level of employment).

On the other hand, in the case of short-time work due to partial unemployment, please indicate the level of employment actually worked during the reference month (because gross wages are indicated in accordance with the actual level of employment, without any short-time working compensation payments).

Reminder: the number 0 should be entered in this cell if there is an entry under "Hours paid".

Employee's hourly wage: paid hours during the reference month

The system accepts decimal numbers from 0 to 300. This number should correspond to the total number of hours paid by the company for the reference month.

Hours that should be included:

- Hours worked and paid in full (excluding overtime hours)
- Fully paid "lost" hours, e.g. due to doctor's appointment, military service, vacation, absence due to an accident or illness, etc.

The following should not be included:

- Overtime
- Hours paid out through short-time working compensation payments unemployment insurance in case of short-time working.

Reminder: the number 0 should be entered in this cell if there is an entry under "Level of employment".

Gross wage

The system accepts decimal numbers from 0 to 199,999.

Employees paid by the month:

Please indicate the gross wage corresponding to the working hours indicated under "Level of employment".

If a person did not receive their full wage for the reference month due to unpaid leave or joining or leaving the company, the components of the salary for the whole month should

be entered (reflecting the agreed level of employment and indicated in the cell “Level of employment”).

The gross wage should be entered, including:

- The amount of variable pay paid during the reference month (e.g.: premiums related to the amount of work carried out, commission on sales, etc.). If this figure fluctuates significantly, an average amount should be indicated (a twelfth of the annual amount paid)
- The amount of social contributions (compulsory and above-minimum contributions) paid by the employee(s) (AVS/AI, APG, AC, AANP, occupational pension plan)
- The amount of benefits in kind refers to the reference month.

But excluding:

- Allowances for shift/night/Sunday work and other hardship allowances (these are entered separately in the “Allowances” column)
- Pro rata 13th (14th, etc.) monthly wage
- Special payments such as bonuses which are paid annually or quarterly (these payments are entered separately in the “Special payments” column)
- Remuneration for overtime
- Family and child allowances
- Wages in lieu of vacation
- Reimbursement of expenses
- Short-time working compensation payments.

Employees paid by the hour

Please indicate the gross wage paid for the reference month by following the instructions for employees paid by the month. Please note that the following should not be included:

- Paid vacation and public holidays
- Pro rata 13th (14th, etc.) wage
- Compensation for lost hours which were not fully paid.

Allowances (Shift, Sunday and night work and other hard work bonus)

The system accepts decimal numbers from 0 to 199,999. Please indicate allowances for shift/Sunday/night work and other hardship allowances paid during the reference month.

13th monthly wage

The system accepts decimal numbers from 0 to 49,999. Please indicate as 13th monthly wage, 14th or nth wage (unless these payments can be characterised as premium payments), the amount corresponding to the level of employment (or number of hours paid, for employees paid by the hour) in the reference month (e.g. a twelfth, i.e. 8.33% of the gross monthly wage in the reference month if a 13th wage equal to one month's pay is paid).

Special payments

The system accepts decimal numbers from 0 to 199,999. Payments that are not directly

related to the work carried out in the reference month are considered to be special payments.

Please note that this does not include:

- The 13th (14th, etc.) wage (unless it can be characterised as a premium)
- Remuneration for overtime, short-time working compensation payments
- Wages in lieu of vacation
- Severance payments, marriage allowances, contributions to relocation expenses.

As these are usually annual or bi-annual payments, please indicate the proportionate amount for one month of work (for the level of employment in the reference month if this rate has varied during the year).

Tip: wage and level of employment (or number of hours paid) are closely related to the regression calculation and must therefore match perfectly.

FAQ – Preparing the data

Which employees should be entered in the system?

In principal, everyone in the company – i.e. from all business units and places of activity – who received a wage in the reference month should be entered in the system, including:

- Direction members
- Part-time employees
- Employees who are paid per hour
- Frontier commuters
- Seasonal workers
- Employees affected by short-time working arrangements, even those whose work has been stopped due to partial or total unemployment
- Employees who have been hired during the reference month

Which employees should not be entered in the system?

The following people are in a special employment situation. In order to avoid a distortion of the results of the analysis, they are not entered into the system:

- Apprentices and trainees completing a training course
- Company owners and their family members working without an employment contract
- Employees paid exclusively on a commission basis
- Temporary agency staff
- Home workers
- Employees whose remuneration is reduced throughout the reference month because they are not working due to an illness or accident, are drawing a disability pension, are in military service or on maternity leave.
- Employees who carry out the main part of their professional activities abroad (with the exception of employees whose day-to-day work is organised from Switzerland, such as airline or international transport employees, etc.).

How should persons be entered who started work or left the company during the reference month?

For these persons, indicate the salary corresponding to the whole month and to the level of employment agreed. For example, a person employed at 80% from the 15th of the reference month is entered with a wage of 80% for the whole month although only half a wage at 80% has actually been paid.

Can I include in the same analysis employees who are paid by the month and those paid by the hour?

Yes. For employees who are paid by the hour, the number of hours worked during the reference month should be entered in the column “Hours paid in the reference month”. For employees who are paid monthly, the level of employment should be entered in the column “Level of employment”. **Caution: only one of the two columns should be filled in.**

If I employ teachers whose working hours are broken down into number of lessons, can I indicate the number of lessons instead of the number of hours in the column “Hours paid in the reference month”?

This is possible but only if the same unit is used for all employees. It is not possible to combine lessons and hours.

In our company, the employees’ training and education are not taken into consideration. Can I omit this variable?

No, because Logib has been programmed to use this variable. In fact, the regression analysis carried out by Logib is based on the theory of human capital; in this theory, training and education are considered to be an important determinant of wage level.

Our company has clearly defined pay categories. Can I set the required level of skills using the pay category information?

It is important to set the required level of skills on the basis of an evaluation of the work to be carried out, i.e. on the basis of the job description.

Why are the scales for the required level of skills and professional position so broad (only four or five categories)? Can I use more levels?

No, because in Logib the categories are hard-coded and are identical to those used by the Swiss Federal Statistical Office in its Earnings Structure Survey (ESS). A statistical software would enable you to use a greater number of levels. However, the more fine-tuned the categories are, the greater the risk that only identical or very similar types of work will be compared with one another. The principle of equal pay for work of equal value, anchored in the Constitution, can only be monitored by using fairly broad categories.

For larger companies, the data from the Swiss Earnings Structure Survey represent only a sample of all wage data. Can I still use them?

In order to avoid sampling errors, it is advisable to use data from all of your employees.

3. Starting Logib


Opening Logib

Avertissement de sécurité Du contenu actif a été désactivé. Options...

A1

Schweizerische Eidgenossenschaft
Confédération suisse
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Eidgenössisches Departement des Innern EDI
Eidgenössisches Büro für die Gleichstellung von Frau und Mann EBG



**Lohngleichheits-
instrument Bund –
LOGIB**

LOGIB ist ein Excel-Tool zur (Selbst)Überprüfung der Lohngleichheit zwischen Frau und Mann

Herausgeberin
Eidg. Büro für die Gleichstellung von Frau und Mann

Technische Konzeption und Entwicklung
Silvia Rothen | ecotronics Bern

Weiter zur Einführung

1. Before opening Logib, ensure that the macros are either enabled or that they are disabled and that you will receive notification allowing you to enable them (see [How to configure the level of macro security](#)).
2. Open the file “logib_V.2.3” (to download the file from the internet, see [Download Logib](#)).
3. After opening the “logib_V.2.3”, click “OK” to confirm that you accept the licence agreement and acknowledge the disclaimer.
4. If you receive a security warning above the entry bar, activate the content (see [How to configure the level of macro security](#)).
5. Click on “Move on to the introduction”.

Language selection

LOGIB - Equal pay self-test tool

Version 2.3
01.10.2013

Selection of language

Logib (Equal pay self-test tool) serves to check the wage equality between women and men. With the help of statistical methods of regression analysis, it is investigated how certain personal and workplace-related characteristics effect salary. In addition, a variable "gender" is considered. If the wage equality is maintained, this gender variable should not have any significant influence on the salary.

More information on the method used and on the subject of wage equality on the internet:

www.ebg.admin.ch

www.logib-step-by-step.ch

Technical requirements

Windows:

- country setting Switzerland

Excel:

- Version 2007 SP3, 2010 or 2013, 32 and 64 bit (not compatible with Excel 2008 for Mac)

- Language version: German, English, French or Italian

- Macros must be activated in Excel.

Attention:

LOGIB requires at least 16 valid data records for the calculation and at least 50 for plausible results.

Move on to entry of the general information

1. Logib is available in four languages: German, French, Italian and English. Choose the language required in the "Selection of language" drop-down.
2. Read the notes on this page, as required, and click on "Move on to entry of the general information".

General information

Address

Please fill in the address and general information in the following fields.

[It is not necessary to do this if you import the data from the Swiss earnings structure survey.](#)

Firm/institution :

Address:

Contact person : Tel. :

E-Mail:

1. General information

The columns designated with an * are mandatory.

Reference month

Data entered for (Month) * year

Size of company

Employees *

Usual weekly working hours during the reference month

Hours per week (at 100% employment) * Hours

1. Complete at least the following fields on the “General information” (data_head) sheet:
 - Row 17: indicate the month and the year from which the employee data originated
 - Row 20: indicate the number of employees; this number can be rounded up
 - Row 23: indicate the number of hours per week for a full-time position.
2. Depending on the method you have chosen, click on one of the three buttons to import or enter data:
 - Data import from and Excel file or text
 - Data import from a file completed for the Swiss Earnings Structure Survey
 - Manual data entry on Excel worksheet.

Importing or entering data

Continuation

You can enter the data in the following 3 ways :

Data import from file (Excel, text, data form.xlsx)

Please note:

You can import a maximum of one file!

The number and order of the columns is fixed (see sample files).

Following the import, you can revise and complete the data manually on a worksheet.

Data import from file (Swiss earnings struct. surv. 2004/06/08/10, Template data.xlsx)

Please note:

You can import a maximum of one file!

Following the import, you can revise and complete the data manually on a worksheet.

Manual data entry on Excel worksheet

1. Data import from file (Excel, text)
 - a. Indicate the appropriate formats for your data with respect to:
 - Year of birth: year of birth (e.g. 1982), date of birth (e.g. 24.03.1982), or age in years (e.g. 23)
 - Sex: symbol or number for “Male” (e.g. 1) and for “Female” (e.g. 2)
 - Years of service: year of entry (e.g. 2000), date of entry (e.g. 01.06.2000), or number of years of service (e.g. 5).
 - b. Next, click on "Start import" and select the file you have prepared with the employee data ([Preparing the data](#)).
2. Data import from file (Swiss Earnings Structure Survey):
 - a. Indicate the year for which the Earnings Structure Survey data were obtained (2004, 2006, 2008 or 2010)
 - b. Click on “OK” and select the file you have compiled with the employee data see ([Preparing the data](#))
 - c. Wait until the message “The import is now completed” appears and confirm the message by clicking “OK”.

You can only import **one** file. If you wish to evaluate several files together, merge the files into one Excel file **before** importing them.

Once you have carried out the import, you can revise and complete the data on a worksheet, but you can not delete rows.

3. Manual data entry

You can enter data manually into the program. By clicking on “Manual data entry on Excel worksheet” the program will take you to the “data_form” sheet where you can enter data.

FAQ - Starting Logib

In my company, we have more than one category of usual weekly working hours. How can I take this into account?

Only one category of usual weekly working hours can be entered in the “General information” sheet. This is then carried forward into column T on the data sheet. This column can be edited manually for employees whose usual working hours differ from the default value.

Tip: In the import file, ensure that employees with the same usual working hours are grouped together.

When I try to open Logib, Excel 2003 crashes. What can I do?

Under certain configurations, Logib cannot be opened in Excel 2003. This problem stems from an error in Excel 2003 which was rectified in Service Pack 3 for Office 2003. Please update your version of Excel with the latest Service Pack.

I cannot change the language or I cannot import or enter the data. What can I do?

For Logib to work correctly, you have to enable the macros, at least temporarily. All instructions relative to the management of security levels and macros can be found under [How to configure the level of macro security with Excel](#).

The import data come from a Macintosh, a Linux PC or a Unix system. Can I still use the data?

Yes. If the data are available in Windows format (or ANSI format), you can import them directly. If they are in a different format, you can use the import assistant to help you complete the import process (see next question).

What should I bear in mind when importing a text or CSV file?

If you import a tab-delimited text file or a CSV file, you will be asked if you want to launch the import assistant. Click “Yes” if:

- The delimiter used in the file is not a tab (.txt) or semi-colon (.csv)
- The file was created in a different operating system (Macintosh, Linux, Unix, Dos)
- Dates are not in the standard DD.MM.YYYY format, or
- Decimal numbers in the files are written with a comma instead of a decimal point.

In all other cases, answer “No” to this question.

If you want to use the import assistant, you will need to confirm your file selection again in the “Open” dialogue box. In step 1, specify the file origin, e.g. Macintosh or Dos. If your data do not start in row 1, you can also specify the start row number here. In step 2, you will specify the delimiter information. In step 3, you can correct the date format and then change comma to the decimal point format by clicking on “More”. When you have completed step 3, click “Finish”.

How can I tell whether the import file is in the correct format?

Open the file in Excel or in a text editor program. If the diacritical characters (accents, umlauts, etc.) are displayed, the file is in ANSI format, which you can import directly. If the diacritical characters are not displayed, the file is probably from a Macintosh, DOS, Linux or Unix system. Find out from the person who created the file which system was used.

It is important for decimal numbers in the file to be written with a decimal point and not a comma (as customary in Germany). Dates should be written in day, month, year (four-digit) format, i.e. DD.MM.YYYY.

Why can I not import a file?

If an import file does not match the required file structure, in certain cases it cannot be imported. A message will be generated indicating the reason for the import failure. This will be, for example, if a file does not have the correct number of columns, or if the data area does not start in the first row. In these cases, you will need to check the import file and possibly make changes to it.

Why should I avoid using copy and paste to transfer my data?

It is better to import data into Logib from an existing file by using the buttons « Data import from file (Excel, text, data_form.xlsx) or “Data import from file (Swiss Earnings Structure Survey 2004/2006/2008/2010, data_model.xlsx)“. However, if you do choose to enter data manually and you are transferring data using the “copy and paste” function, you should go to the “Edit” menu and select “Paste Special”. Then under the heading “Paste” select “Values” in order to prevent links being copied together with the values.

4. Starting the analysis

| 2. Indications individuelles: | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------------|-----------------|--|-------------------|-------------|----------------------|--------------------|-------------------------|--------------------------|--------------------|---|--|-----------------|---|--------------|---|-------------|--------------------|---------------------------------------|--------------------------------------|--|--|--|--|--|
| Veuillez insérer les indications pour chaque personne occupée. | | | | | | | | | | | | | | | | | | | | | | | | | |
| Les colonnes signalées par un * sont obligatoires. | | | | | | | | | | | | | | | | | | | | | | | | | |
| Toutes les autres peuvent être laissées vides, elles peuvent être utiles pour des analyses supplémentaires. | | | | | | | | | | | | | | | | | | | | | | | | | |
| Après une importation, vérifiez et complétez les données signalées en couleur avant de démarrer l'analyse. | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="button" value="Démarrer l'analyse"/> <input type="button" value="Agrandir la zone de données"/> <input type="button" value="Recommencer la saisie"/> <input type="button" value="Exporter les données"/> | | | | | | | | | | | | | | | | | | | | | | | | | |
| No | Caractéristiques personnelles | Lieu de travail | Formation, caractéristiques de la place de travail | | | | Horaire de travail | | Type de salaire | | Gain en francs correspondant au taux d'activité dans le mois de référence | | | Colonnes d'aide technique: ne pas remplir | | | | | | | | | | | |
| Numéro courant | Année de naissance | Sexe | Etat civil | Années de service | Nationalité | Lieu de travail /NPA | Formation | Niveau qualif. requises | Position professionnelle | Domaine d'activité | Employé-e-s rémunéré-e-s au mois: taux d'activité | Employé-e-s rémunéré-e-s à l'heure: Heures payées dans le mois de réf. | Accord salarial | Forme de salaire | Salaire brut | Indemnités (travail en équipe, le dimanche ou de nuit ou autres primes de pénibilité) | 13e salaire | Palements spéciaux | Durée hebdomadaire normale de travail | Gain total standardisé sur 40 heures | Variable filtre Exclusion Régression de base | Variable filtre Exclusion Régression étendue | Gain total calculé pour tests de plusibilité | Ecart en % entre gain total effectif et gain total calculé | |
| Ex. | 1950 | 2 | 1 | 5 | 4 | 3001 | 6 | 3 | 5 | 10 | 100.00 | 0.00 | 1 | 1 | 4896 | 250 | 408 | 300 | | | | | | | |
| 1 | 1960 | 2 | 1 | 7 | | | 1 | 2 | 5 | | 100.00 | 0.00 | | | 7925 | 0 | 469 | | 40 | 8'394 | 1 | 1 | 8'564 | -2.0% | |
| 2 | 1976 | 1 | 7 | | | | 6 | 2 | 5 | | 100.00 | 0.00 | | | 6'547 | 0 | 546 | | 40 | 7'093 | 1 | 1 | 7'136 | -0.6% | |
| 3 | 1972 | 1 | 7 | | | | 1 | 1 | 2 | | 100.00 | 0.00 | | | 8'900 | 0 | 742 | | 40 | 9'642 | 1 | 1 | 9'935 | -3.0% | |
| 4 | 1980 | 2 | 7 | | | | 1 | 1 | 3 | | 50.00 | 0.00 | | | 3'887 | 0 | 324 | | 40 | 8'423 | 1 | 1 | 8'399 | 0.3% | |
| 5 | 1971 | 1 | 7 | | | | 1 | 1 | 2 | | 100.00 | 0.00 | | | 9'054 | 0 | 754 | | 40 | 9'808 | 1 | 1 | 10'037 | -2.3% | |
| 6 | 1981 | 1 | 7 | | | | 6 | 3 | 3 | | 70.00 | 0.00 | | | 3'795 | 0 | 316 | | 40 | 5'874 | 1 | 1 | 5'987 | -1.9% | |
| 7 | 1970 | 2 | 6 | | | | 6 | 2 | 5 | | 100.00 | 0.00 | | | 7'263 | 0 | 605 | | 40 | 7'869 | 1 | 1 | 7'512 | 4.8% | |
| 8 | 1978 | 1 | 6 | | | | 1 | 1 | 3 | | 100.00 | 0.00 | | | 7'775 | 0 | 648 | | 40 | 8'423 | 1 | 1 | 8'859 | -4.9% | |
| 9 | 1977 | 2 | 6 | | | | 5 | 3 | 5 | | 100.00 | 0.00 | | | 5'200 | 0 | 520 | | 40 | 5'720 | 1 | 1 | 5'814 | -1.6% | |
| 10 | 1984 | 2 | 6 | | | | 1 | 1 | 3 | | 50.00 | 0.00 | | | 4'731 | 0 | 394 | | 40 | 10'251 | 1 | 1 | 10'048 | 2.0% | |

- Once imported, verify the data on the data_form data sheet. The filter columns (V and W) will show you whether a person's data are valid and whether or not they can be used for base/extended regressions (valid data records are marked with "1", invalid data records with "0").
- Orange cells indicate entry errors. Correct the errors and add any missing data. Please note:
 - In the particular case of the "Gross wage", "Allowances" «13th wage" and "Special payments" columns, cells are marked in orange if you have left them empty instead of entering the figure 0. The system does not exclude these persons from the analysis as long as you have indicated at least one amount in either the "Gross wage", "Allowances" or "Special payments" column (the system automatically allocates the value 0 to empty cells).
 - Similarly, for the two columns regarding working hours, "Level of employment" and "Hours paid", the cells are marked orange if you have left them empty instead of putting the number 0. The system does not exclude these people from the analysis as long as an amount has been indicated in one of the two columns (the system automatically allocates the value 0 to empty cells) (*reminder: for each row, only one of the two columns has to be completed with, depending on the case, an indication of the percentage or a number of hours; the other column should contain a 0*).
 - Data that have been imported in text format instead of number format are also marked in orange; you must convert these data into number format in the import file.

- The columns T to Y cannot and must not be filled in; they are calculated by Logib.
3. Click on “Start analysis”. Depending on the amount of data involved the analysis will take some seconds or even minutes.
 4. Please wait until a message appears telling you that the analysis is now finished. Confirm by clicking on “OK”.
 5. Once the analysis has been carried out, you can revise data in the data_form table and start a new analysis. However, by doing this, you will lose the existing analysis. You should, therefore, first save the Logib file under a new name.

FAQ – Starting the analysis

My computer keeps freezing. What is the problem?

Data import and the analysis only take a short time. If your PC is frozen, check that you have installed the most recent Service Packs available. Furthermore, using Logib with Beta or Test version of Excel is not recommended.

What should I do if I receive a message similar to the following?: “There are a total of 150 observations but not all are valid and therefore suitable for statistical calculations. Should you wish to cancel the analysis in order to first revise your data, click on “cancel“. Do you wish to continue with the analysis?”

Only valid rows are included in the regression calculation. You will receive this message even if just one row of data cannot be included.

It is advised to cancel the analysis and to correct or complete the cells marked in orange on the data_form data sheet. If the whole Date of birth or Years of service column is orange, you probably indicated the wrong format when you imported your Excel file (by selecting the format “year of birth, e.g. 1982” for example, if the data in your Excel file are in DD.MM.YYYY format).

Columns V and W state whether a row (or observation) is valid (1) or not (0). An observation can only be used if it contains all the data required for the regression calculation. For the base regression these are:

- Key
- Year of birth
- Sex
- Years of service
- Training
- Level of employment or paid hours
- At least one of the following columns: gross wage, allowances or special payments

For the extended regression, the system also needs:

- Level of qualifications required for the job
- Professional position

From a technical point of view, the regression can be calculated from the following number of observations:

- Base regression : 7 observations
- Advanced regression : 16 observations

However, in order to obtain a statistically significant result, a minimum of 50 observations is required.

How can I delete rows of incorrect data?

It is not possible to delete whole data rows from the data_form sheet. However, you can leave incomplete data rows in the data_form sheet as these rows will be automatically

identified by the system during the analysis (*valid rows are identified by a 1 in the columns V and W, invalid rows by a 0*) and are not included in the regression analysis. If all rows are incorrect, however, you will have to start the operation again and reimport data into a new Logib file, this time using the correct parameters.

5. Interpreting the analysis

Results of the analysis

Bilan

| | Régression de base | Régression étendue |
|---|--|---|
| | Sont prises en considération Caractéristiques personnelles - Années de formation - Années (potentielles) de vie active - Années de service | Sont prises en considération Caractéristiques personnelles - Années de formation - Années (potentielles) de vie active - Années de service Caractéristiques de la place de travail - Niveau qualifications requises - Position professionnelle |
| A conditions par ailleurs égales, les femmes gagnent | 5.1% de moins | 1.4% de moins |
| L'égalité salariale au sens strict entre femmes et hommes | | est respectée |
| Le seuil de tolérance de 5%, appliqué dans le cadre des marchés publics | | est respecté |
| R2 | 0.754 | 0.926 |
| Interprétation de R2 | La variabilité des salaires est expliquée à 75% par le modèle | La variabilité des salaires est expliquée à 93% par le modèle |
| Chiffres clé statistiques | | |
| Coefficient de discrimination | -0.053 | -0.014 |
| Erreur-type du coefficient de discrimination | 0.028 | 0.017 |
| Nombre total d'observations | 99 | 99 |
| Nombre d'observations valides | 79 | 79 |
| dont nombre de femmes | 24 | 24 |
| Degrés de liberté | 73 | 68 |
| Test pour savoir si le différentiel de salaire diffère significativement de zéro | | |
| H0: diff. de salaire = 0%; HA: diff. de salaire <> 0 | 0% | 0% |
| Valeur critique t (Alpha = 5%, bilatéral, N = degré de liberté) | 1.993 | 1.995 |
| Test statistique t | 1.884 | 0.863 |
| Significativité | Non | Non |
| Test pour savoir si le différentiel de salaire dépasse significativement le seuil de tolérance | | |
| H0: diff. de salaire = 5% en défaveur des femmes; HA: diff. de salaire > 5% en défaveur des femmes | 5% | 5% |
| Valeur critique t (Alpha = 5%, unilatéral, N = degré de liberté) | 1.666 | 1.668 |
| Test statistique t | 0.095 | -2.129 |
| Significativité | Non | Non |

Lieu, date

Signature(s)

Société/institution

1. "rpt-fazit" sheet : explanation of rows

When the analysis is completed, the "rpt_fazit" sheet will appear, containing the key results. This page will tell you:

- The extent of the gender wage-gap (row 3)
- Whether or not wage equality in the stricter sense is respected (row 4)
- Whether wage equality with regard to the procurement tolerance threshold of 5% is respected (row 5)
- R2 and the interpretation of R2: The closer R2 is to 1, the more wage variability in the company can be explained by the factors taken into account in the model (rows 6 and 7, see also [What is R2?](#)).
- The number of valid observations and therefore the number included in the analysis (row 12). To obtain statistically significant results, a minimum of 50 valid

observations are required. The greater the number of employees, the more reliable the results will be. An equal proportion of men and women also increases reliability. (row 13 indicates the number of women).

2. The “rpt-fazit” sheet: explanation of columns

Two regression analyses are performed :

- Base regression (first result column), which only considers personal characteristics: training, professional experience and years of service
- Extended regression, which also considers the requirements of the job: level of qualifications required for the job and professional position.

If the discriminatory wage differential shown in the base regression is significantly higher than the difference in the extended regression, this means that with equal qualifications, women are under-represented in higher positions and very demanding jobs. This additional information can help you to identify occupational discrimination, which is also prohibited under the Gender Equality Act.

3. “data_form” sheet: explanation of column Y

Column Y in the “data_form” sheet indicates the percentage deviations of actual wages compared with the calculated wages. A positive value means that the actual wage is higher than the calculated wage, while a negative value means that the actual wage is lower than the calculated wage. Values which deviate by more than 20% are marked in red. Should you find any errors in the data entered, you can correct them and restart the analysis.

Results in the form of tables and figures

Tableaux récapitulatifs et graphiques

Base de données: observations valides de la
Caractéristiques explicatives utilisées

régression étendue

**Années de formation, Années (potentielles)
de vie active, Années de service, Niveau
qualifications requises, Position
professionnelle**

Valeurs moyennes des caractéristiques explicatives et salaire brut mensuel par sexe

| | Valeurs moyennes | | Différence en % de Ø des hommes |
|--|--------------------|--------------------|---------------------------------------|
| | Hommes (N = 55) | Femmes (N = 24) | |
| Âge (en années) | 37.2 | 39.7 | 6.8% |
| Années de formation | 15.2 | 15.0 | -1.4% |
| Années potentielles de vie active | 16.0 | 18.8 | 17.1% |
| Années de service | 4.1 | 4.6 | 14.1% |
| Niveau des qualifications requises | | | |
| 1 Travaux les plus exigeants et tâches les plus difficiles | 45.5% | 29.2% | -35.8% |
| 2 Travail indépendant et qualifié | 30.9% | 50.0% | 61.8% |
| 3 Connaissances professionnelles spécialisées | 23.6% | 20.8% | -11.9% |
| 4 Activités simples et répétitives | 0.0% | 0.0% | |
| Position professionnelle | | | |
| 1 Cadre supérieur | 1.8% | 0.0% | |
| 2 Cadre moyen | 5.5% | 8.3% | 52.8% |
| 3 Cadre inférieur | 29.1% | 12.5% | -57.0% |
| 4 Responsable de l'exécution des travaux | 0.0% | 0.0% | |
| 5 Sans fonction de cadre | 63.6% | 79.2% | 24.4% |
| Salaire brut (standardisé sur un plein temps) en francs | 8'153 | 7'820 | -4.1% |

[Retour à la vue d'ensemble des analyses](#)

1. The upper table on the “rpt_regr2_1” sheet shows an overview of the distribution of women and men according to the characteristics used in the regression analysis. Row 10 displays the total number of men and women on whom the analysis is based. Row 26 shows the average standardised full-time gross wage and the percentage wage differential between women and men.
2. In the figure below, the wages of each employee are represented by dots and the straight line represents the wages predicted by the model. In an ideal scenario, all of the dots would be on the straight line, i.e. the predicted wage would always correspond exactly to the actual wage. Small deviations are normal; greater deviations suggest either data errors, outliers or discrimination.
3. The following sheets (“rpt_regr2_2” to “rpt_regr2_7”) show descriptive results and figures for personal characteristics : age, training, professional experience, years of service, level of qualifications required for the job and professional position.

FAQ – Interpreting the analysis

I have obtained a clear result, but I believe it to be incorrect. What should I do?

1. Check whether the data are correct. Column Y in the data sheet “data_form” shows you the percentage deviations of actual wages compared with calculated wages. Marked deviations may be an indication of errors. (Result of the analysis, point 3).
2. Information on employee qualifications often has to be entered manually from personnel files and is therefore not always up to date. Update this information.
3. Logib automatically calculates years of training and professional experience. This calculation is based on assumptions regarding the length of the specified training. If you think that there is a considerable difference between the professional experience calculated and actual professional experience, you can ascertain and enter the actual number of years of professional experience of your employees. However, you will no longer be able to work with Logib and will have to use a statistical software package to process the data. The data entered can, however, be exported from Logib (see the question below [Can I export data?](#)).
4. You may have made a mistake when defining the level of qualifications required for the job, the professional situation, or both, on the basis of the wage categories. If this is the case, correct the columns “Required level of skills” and “Professional position” by referring to the job description for the required level of skills and to the organization chart for professional position. By using the four levels for the required level of skills and the five grades for the professional position, the explanatory value of these characteristics will be increased.
5. The result can be incorrect if wage components, for example the 13th monthly wage figure has not been entered correctly (1/12 of the 13th monthly wage amount), if there are several different categories of working time, or if hourly and monthly wages are not converted correctly (see [Can I include in the same analysis employees paid monthly and those paid by the hour?](#)).
6. Other factors influencing wages may not have been considered in the models (e.g. location-dependent allowances). If such a factor is not potentially discriminatory, you have two options:
 - Remove this information (in the case of allowances) from the wage details
 - Or include an additional explanatory variable in the regression calculation. In order to this, you will have to use a statistical software package.

If you are some doubts, do not hesitate to ask a specialist.

What additional conclusions do the regressions calculated by Logib provide?

If the discriminatory wage differential shown in the base regression is significantly higher than the difference in the extended regression, this means that with equal qualifications, women are under-represented in higher positions and very demanding jobs. This additional information can help you to identify occupational discrimination, which is also prohibited under the Gender Equality Act.

Why does the number of valid observations differ between the base regression and the extended regression?

If the number of valid observations in the base regression differs from the one of the extended regression, it is likely that information on the professional position or the level of qualifications required for the job has not been correctly entered (or not entered at all) for some employees. You can check and correct this information on the “data_form” sheet.

Why am I getting almost the same analysis on two different sheets?

If the number of valid observations in the base regression differs from the one of the extended regression, an analysis will be provided once for the base regression and – on a separate sheet – once for the extended regression.

What is the purpose of the tolerance threshold?

The 5% tolerance threshold was introduced to use the tools for controlling the public sector within the Confederation. It is possible that the standardised control conducted by Logib does not consider all factors influencing a company’s wages. The tolerance threshold enables this fact to be taken into consideration and to avoid companies being wrongly sanctioned.

Important: The Swiss Federal Constitution and the Gender Equality Act prescribe that women and men shall receive equal pay for work of equal value. Here, there is no tolerance threshold. If you suspect systematic or individual discrimination in your company, please contact a specialist in order to conduct an in-depth analysis and to introduce the appropriate corrections to wages.

If a wage gap of more than 5% is calculated, why does Logib confirm that the tolerance threshold of 5% is nevertheless respected?

The wage gap calculated by Logib is situated within a statistical range (area of imprecision) as it can be affected by random factors – just like any statistical calculation or estimate. The measure for this distribution is the standard error (conclusion sheet, row 10).

Based on this standard error, Logib calculates whether the wage gap lies above the 5% tolerance threshold with a probability of 95%. If this is the case, the tolerance threshold is deemed to have been significantly exceeded. If this probability is not detected, the tolerance threshold is deemed to have been respected – although the absolute value is higher than 5%.

For statistical reasons, the lower the number of employees and the smaller the R2, the greater the standard error is (i.e. the quality of the model, see next question [What is the R2?](#)).

What is the R2?

R2 is the coefficient of determination (= R^2). You will find the R2 value on row 6 of the “rpt_fazit” conclusion sheet.

R2 shows how well the model is able to reproduce the wage structure in a company. R2 can only accept values between 0 and 1. The higher the R2 value, the better wage variability in the company is explained by the factors considered in the model.

Can I export the data?

Use the “file/save as” option to save data in the data format of your choice supported by Excel. You can also select data and then paste them in a new Excel file.

TIP 1: Do not forget to save the Logib file before saving your data with “save as” in a different format. If you do not do this you may lose all your work in Logib so far.

TIP 2: If you choose to use the second method and your data selections include calculated columns (e.g. the standardised total earnings), you must use the “Edit – Paste Special – Values” menu option. If you do not do this you will not obtain the correct values for columns containing formulas.