

Monthly Pay in the Austrian LFS

Gross and Net Monthly Pay from the Main Job of Employees

Miriam Bach
Daniela Gumprecht
Katrin Baumgartner

Statistics Austria
Social Statistics
Labour Market and Education

Lisbon, 2023-05-25

www.statistik.at

Contents

- Introduction and preliminary notes
- Definitions
- Data source and data linking
- Plausibility checks and imputation
- Gross and net monthly income
- Output

Introduction and preliminary notes

- Monthly income of employees in the LFS
 - To measure the effects of individual (sex, age, etc.) and labour market characteristics (professional status, occupation, activity, etc.) on monthly income
 - Income from work only (no income from investments, no severance pay)
- Changes over time at European level
 - 2009: Net income “take-home pay”, deciles order
 - 2021: Gross income, amount in Euro
- ...at national level
 - 2009: Net income (in Euro)
 - 2021: Gross and net income (in Euro)

Definitions

Income components

Monetary component of the remuneration of employees in cash payable by employer to employee¹

- ✓ Regular overtime, extra compensation for shift work, seniority bonuses, regular travel allowances, per diem allowances, tips and commission, compensation for meals in cash
- ✓ Proportional part of special payments (e.g. Christmas or holiday bonus)
- ✗ Severance and termination pay
- ✗ Payments in kind, reimbursements (from employer) for work-related expenses, union strike pay
- ✗ Income from investment (assets, savings, stocks and shares)

→ Gross income

- Including social insurance contributions and income tax

→ Net income

- Take-home pay

1) after deduction of employers' social insurance contributions

Data sources

Administrative data

- Tax register:
 - For each job with an Austrian employer
 - Pay slips: annual income of a job (certain income components, social security contributions, income taxes)
- Social insurance register:
 - For each job with an Austrian employer
 - Employment relationships: job characteristics (begin and end of a job, occupational status)

Survey data

- Labour force survey:
 - For each person living in an Austrian private household
 - Personal information on the working situation

Data linking

1. Linking social security data and tax data

- Social security data: all jobs of a person at the same employer are merged together
- Tax data: all pay slips that belong to these jobs are merged together
- Compute “totals” of these job units: income, number of working days, etc.

2. Linking administrative data and LFS survey data

- Using branch-specific personal identification number for official statistics (bPIN-OS)
- Select only those job units, that hit the LFS reference week

Income of the main job

3. Computing incomes of all selected job units

- Annual: sum of all relevant pay slips (belonging to the job unit)
- Daily: using days of employment in job unit (sum of days of all jobs of the unit)
- Monthly: daily income multiplied by employment days

4. Selecting the main job income

- Administrative main job: unit with the highest monthly income

- i** The same procedure is applied for both net and gross income
- Until 2020: net income only
 - From 2021: gross income and net income

Missing values and implausible income



Administrative income data are available, plausible and useable

Missing values and implausible income

Administrative income data are available, plausible and useable

...in most cases

- No pay slips in the tax register for approx. **10%** of all LFS employees²
 - bPIN-OS missing
 - bPIN-OS available but no match in administrative data
- Implausible administrative income data
 - Smallest 0.4%** and **highest 0.1%** of hourly incomes are not plausible
- Furthermore:
 - Highest 1% of monthly incomes are replaced by median

2) Without persons in parental leave and quasi freelancer, INCGROSS “not stated” (Blank).

Imputation

Depending on the actual situation of missing values:

Estimation

- Linear model (gross income)
- Separate regression models for five groups of employees (salaried earners, wage earners, civil servants, contract employees, apprentices) with different independent variables
- Predicted value plus a random error

Calculation

- Net-to-gross and gross-to-net conversions
- Simplified rules for calculating payroll taxes and social security contributions (formula plus correction factor for 13th and 14th month pay)

Gross and net monthly income

Tax data and social security data available and plausible

- Gross income \leq gross income - severance pay
- Net income \leq gross income - severance pay - social insurance contribution - income tax

Tax data missing but social security data available

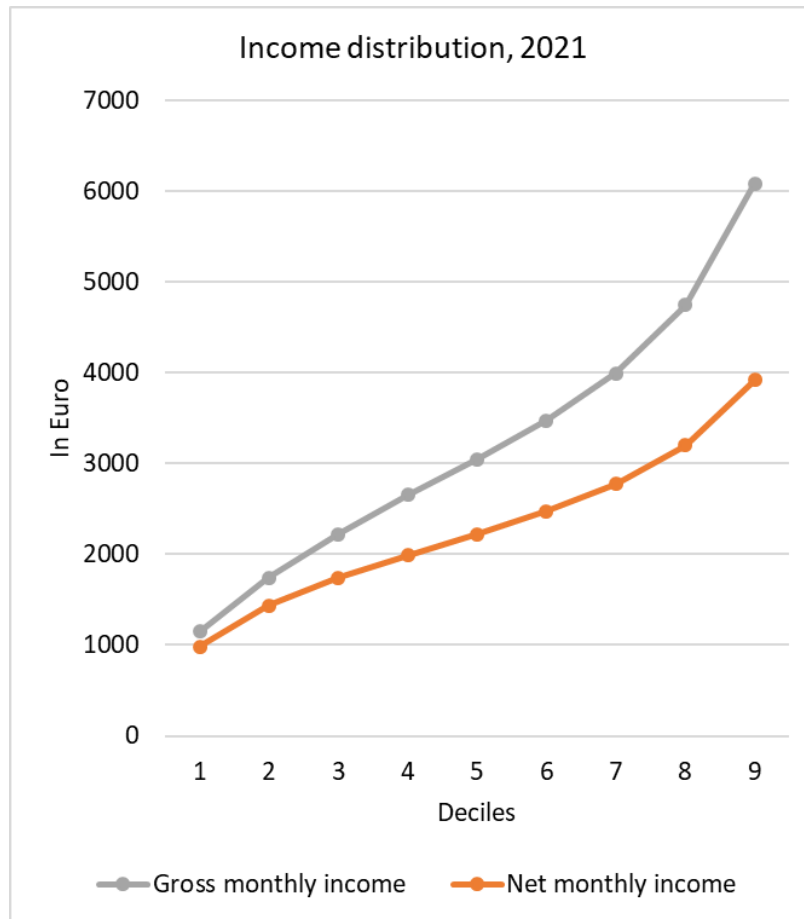
- Net income \leq calculated using “contribution base” from social security data
- Gross income \leq net-to-gross conversion

Tax data available but implausible

Tax data and social security data are missing

- Gross income \leq random regression imputation
- Net income \leq gross-to-net conversion

Output



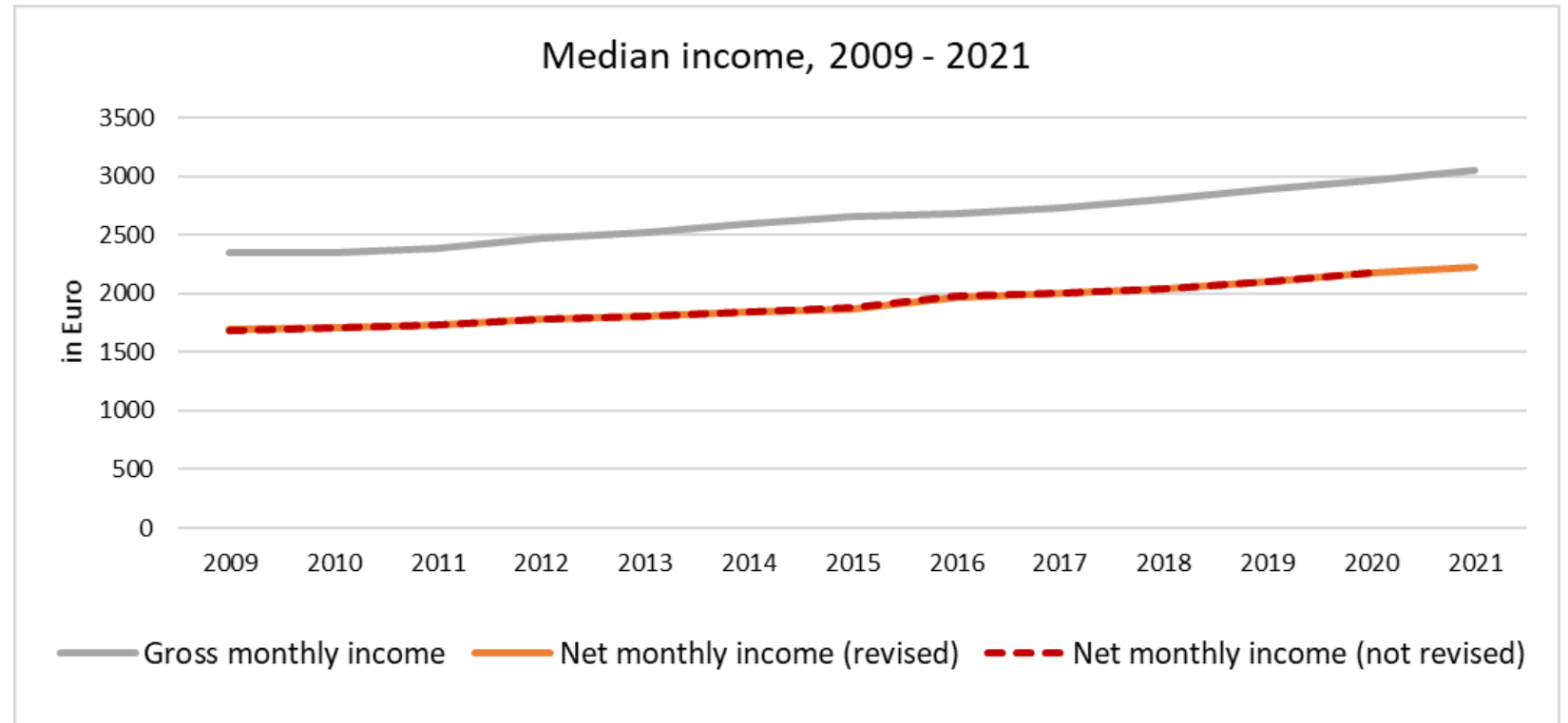
Monthly income 2021

- Median gross monthly income: 3 050 Euro (+83 compared to 2020)
- Median net monthly income: 2 224 Euro (+42 compared to 2020)

Output

Gross and net income data

- Gross income from 2009 onwards
- Net income will continue
 - From 2021 slightly different approach (no break in time series)
 - Already published net income was not revised



Output

Gross and net income data

Website with main info and highlights

<https://www.statistik.at/en/statistics/population-and-society/income-and-living-conditions/monthly-income>

Several more detailed tables

<https://www.statistik.at/fileadmin/pages/336/Monatseinkommen.ods>

Please address queries to

Daniela.Gumprecht@statistik.gv.at

Miriam.Bach@statistik.gv.at

[Katrин.Baumgartner@statistik.gv.at](mailto:Katrिन.Baumgartner@statistik.gv.at)

STATISTIK AUSTRIA
Guglgasse 13, 1110 Wien

Independent statistics for evidence-based decision making