ATRACK – Graduate Tracking Project

Definitions and explanations of the results

Population

The population includes graduates of the respective TU Graz degree programme in the academic years of 2008/09 to 2020/21. Please note that some reference dates for the most recent graduation years still lie in the future. Therefore, the number of graduations considered may vary. Only individuals under the age of 35 at the time of graduation are considered. Persons who had already obtained an equivalent or higher-level degree or who enrolled in other degree programme in the academic year following the degree under consideration are also excluded from the analyses. The comparison group consists of graduates who completed a master's or doctoral degree programme assigned to the respective ISCED field of education at a public Austrian university.

Labour market status

Labour market status: To determine the labour market status, the prepared datasets are merged and any overlapping datapoints are removed. For each day, each person is assigned a unique labour market status. Active employment dominates over temporary absences (e.g. maternity, parental, or educational leave), followed by marginal employment, unemployment, and additional education and training periods. If several forms of gainful activity overlap, the activity with the higher share of employment (full-time or part-time) or the higher income is prioritized. In this project, persons on military/civilian service, temporarily absent persons, and marginally employed persons are not treated as gainfully employed. Persons who were registered with the Public Employment Service Austria (AMS) as unemployed (AL), seeking an apprenticeship (LS), or in training (SC) were treated as unemployed persons. All persons who were neither employed, marginally employed, nor unemployed are treated as 'currently economically inactive persons'. This also includes persons in military/civilian service, as well as those who are temporarily absent, in training, or receiving a pension. Persons who are neither gainfully employed, unemployed, in training, nor otherwise socially insured in Austria and do not have a primary residence in Austria are assigned the labour market status of 'no primary residence in Austria'. The reference date for the labour market status is calculated from the exact graduation date by adding the corresponding number of months (e.g. labour market status 6 months after graduation: graduation date of 30.06.2010 + 6 months = 30.12.2010).

As additional information, the employment rate is shown in the diagram on labour market status (i.e. 'Status in the Austrian labour market') above the bars. This rate is calculated as the share of self-employed or employed persons in the population, excluding the group 'no primary residence in Austria'.

Q: STATISTIK AUSTRIA (2023), Graduate Tracking Project

Income

The income from employment is calculated from the gross income, not including special payments (such as holiday and Christmas bonuses). This is used to calculate a daily income, which is then multiplied by 365/12 to estimate the monthly income. To ensure the comparability of income between years, the income data are weighted using the 2019 price level of the consumer price index (CPI).

ISCED Fields of Education and Training

The UNESCO International Standard Classification of Education (ISCED) enables the classification of fields of education and training (ISCED-F 2013). All degree programmes are assigned to one of these fields of education. For more detailed information, please visit the homepage of STATISTICS AUSTRIA: https://www.statistik.at/KDBWeb/kdb_DownloadsAnzeigen.do?KDBtoken=ignore&&AUFRUF=klass&&NAV=EN&&KLASSID=10521&&KLASSNAME=ISCED

- ISCED 05 Natural Sciences, Mathematics and Statistics:
  Master's degree programmes at TU Graz: Advanced Materials Science, Biochemistry and Molecular Biomedicine, Chemistry, Geosciences, Geodesy, Geospatial Technologies, Environmental System Sciences / Climate Change and Environmental Technology, Mathematics, Molecular Microbiology, Plant Sciences, Space Sciences and Earth from Space, Technical Chemistry, Technical Physics
- ISCED 06 Computer Science and Communication Technology:
  Master's degree programmes at TU Graz: Computer Science, Information and Computer Engineering, Software Engineering and Management
- ISCED 07 Engineering, Manufacturing and Construction:
  Master's degree programmes at TU Graz: Architecture, Civil Engineering and Structural Engineering, Civil Engineering – Infrastructure, Biomedical Engineering, Biotechnology, Biorefinery Engineering, Chemical and Pharmaceutical Engineering, Electrical Engineering, Electrical Engineering and Audio Engineering, Electrical Engineering and Business, Geotechnical and Hydraulic Engineering, Mechanical Engineering, Production Science and Management, Chemical and Process Engineering, Construction Management and Civil Engineering, Mechanical Engineering and Business Economics.

ÖNACE 2008

The top 5 sectors presented are based on the ÖNACE 2008, the Austrian version of the international NACE classification of economic activities. For the employed persons, the ÖNACE of the main activity at the workplace or of the enterprise is shown. For more detailed information, please visit the homepage of STATISTICS AUSTRIA: https://www.statistik.at/KDBWeb/kdb_DownloadsAnzeigen.do?KDBtoken=ignore&&AUFRUF=klass&&NAV=EN&&KLASSID=10501&&KLASSNAME=OENACE

Quartile/Median

Quartiles divide ordered datasets into four groups of equal size. The median is defined as the value in the middle. In the case of income data, 50% of persons earn more than this median value and 50% earn less. The lower quartile means that one-quarter of the values are lower than the quartile value and three-quarters are greater. Vice versa, three-quarters of the values are lower the upper quartile and one-quarter are greater. The median is more robust than the mean value to extreme scores (i.e. outliers) which can arise when the data distribution is highly uneven.

Registry linking and data protection

The dataset contains data on formal education, occupational career, and income that are extracted from the labour force register of the Austrian Federal Statistical Office, as well as from the central population register and the coordinated employment statistics. In these databases, data from the central population register, the umbrella organisation of the Austrian social health-, accident- and pension insurance institutions, the Austrian Public Employment Service, the register of enrolled pupils and students, current education data, pay slip data and the business register of enterprises and their local units brought together and processed in an anonymised form with the branch-specific personal identification number for official statistics (bPIN-OS) (in German: *bereichsspezifischen Perso-nenkennzeichens Amtliche Statistik, bPK AS*) in accordance with sections 15 and 26 of the Federal Statistics Act 2000.

Thanks to the E-Government Act, register linking can be carried out while complying completely with data protection laws. This linking is performed with the branch-specific pseudonymous personal identification number for official statistics (the bPIN-OS), which is generated by the data protection authority as the source PIN register authority, and which does not allow any conclusions to be drawn about the person.

To ensure data protection, Statistics Austria used the "target record swapping" method to present the results (factsheets). This involves first searching for so-called "risky records", i.e. data records with rare combinations of characteristics that make them potentially easier to identify. Specific features for these individuals are then swapped with the features of other individuals. Care is taken to ensure that the most important key figures are not distorted. Due to the use of the target record swapping method, it is not possible to draw general conclusions, and especially for cell populations ≤ 30. Therefore, no values are shown for numbers of cases ≤ 30 (n.a.).