INDICATORS FOR CHARACTERISING THE LABOUR MARKET OF CITIES AND FUNCTIONAL URBAN AREAS

According to the Lists of Personnel, in 2020, in the 16 Portuguese cities defined at European level, there were 1,133,890 employees working full-time and fully paid, representing 51% of the total. In the 12 Functional Urban Areas (FUA) defined at European level, there were 1,360,456 employees (61% of the total) and the FUAs of Lisboa and Porto alone accounted for 46% of the employees working in Portugal.

In general, cities are employment poles, attracting more employees than those who reside in these territories, and even considering the 12 FUAs, which include commuting zones in addition to the city, only the FUAs of Faro, Coimbra and Póvoa de Varzim have a higher number of resident employees than the employees who carried out their activity there.

In 2020, the mean monthly earning of employees in all cities (1 408 €) and FUAs (1 366 €) was higher than the national average (1 247 €), but disparities were also higher than in the country. The differences were also evident between the 16 cities and the 12 FUAs, with only six cities having higher mean monthly earning than the country. In the case of the FUAs, only the employees working in Lisboa (1 500 €) and Porto (1 302 €) had a mean monthly earning higher than the national average.

Introductory Note

As part of Statistics Portugal's Statslab, this press release presents a set of indicators for Cities and Functional Urban Areas based on the Lists of Personnel (Annex A of the Single Report) of the Ministry of Labour, Solidarity and Social Security (see technical note at the end of the press release). In this context, it is important to note that the Lists of Personnel correspond to administrative data, partially covering economic activity, including mainly workers from the private sector, and that in this exercise only full-time and fully paid employees are considered (see technical note at the end of the press release). The dimensions analysed in this press release regarding employment poles and employment structure may be revisited with the final results of the 2021 Census, but not the component referring to earnings.

This experimental exercise is part of a viability study on the calculation of employment indicators by place of work for Cities and Functional Urban Areas, carried out within the framework of a Eurostat grant dedicated to the collection of sub-national and city statistics[1]. The Portuguese Cities and Functional Urban Areas follow the definitions established in the European Regulation TERCET[2], which amended the Regulation of NUTS regions to include other territorial classifications, used as a reference for the territorially differentiated analysis of the European Union.

1. The European Geography of Cities and Functional Urban Areas for Portugal

In the context of the TERCET Regulation[3] a set of territorial typologies relevant for the classification of statistical units is defined, which are the basis within the European Statistical System for the collection, compilation and dissemination of harmonised regional statistics in the European Union. In the respective implementing regulation[4] the standard conditions for the harmonised implementation of the typologies on the basis of grid cells, on the basis of local administrative units and at NUTS III level are presented. In this framework, the following are defined:

Cities or *densely populated areas* (according to the DEGURBA typology – Degree of urbanization) correspond to local administrative units[5] (LAU) level territorial units where at least 50 % of the population lives in urban centres[6].

Commuting zones are local administrative units (LAU)[5] level territorial units from which at least 15 % of the employed population commutes to the city, whereby enclaves are included, and exclaves are excluded.

Functional Urban Areas (FUA) consist of a city and its commuting zone.

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[1] The data collection exercise (previously called Urban Audit) is carried out, regularly on a voluntary basis, jointly by the National Statistical Institutes, the Directorate General for Regional and Urban Policy (DGREGIO) and Eurostat. More information can be found in the metadata provided by Eurostat. The results of the viability study for 2019 were presented in June 2022 by Statistics Portugal at the Eurostat/DGREGIO meeting of the National Urban Audit Coordinators and that this press release now updates with results for 2020.

[2] Regulation (EU) 2017/2391 of the European Parliament and of the Council of 12 December 2017 amending, with regard to territorial typologies (TERCET), Regulation (EC) 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS).

[3] The territorial typologies complement the NUTS classification by assigning types of territorial units (Regulation (EC) 1059/2003 of the European Parliament and of the Council of 26 May 2003).

[4] Commission Implementing Regulation (EU) 2019/1130 of 2 July 2019 on the uniform conditions for the harmonised application of territorial typologies pursuant to Regulation (EC) No 1059/2003 of the European Parliament and of the Council.

[5] Although the local administrative unit in the Portuguese case is the parish, the "cities" and the "commuting zones" were defined considering the municipality in order to ensure a political-administrative base with adequate governance competences.

[6] Urban centres are defined based on contiguous (without diagonals) 1km² grid cells within the 'urban cluster' with a density of at least 1 500 inhabitants/km² and a minimum of 50 000 inhabitants in the cluster after gap filling. For more information, please see Eurostat's Methodological manual on territorial typologies.

In the case of Portugal [Figure 1], a set of **16 Portuguese cities** was defined - Aveiro, Braga, Coimbra, Faro, Funchal, Guimarães, Lisboa, Paredes, Ponta Delgada, Porto, Póvoa de Varzim, Setúbal, Sintra, Viana do Castelo, Vila Franca de Xira and Viseu - based on the Eurostat's harmonised methodology. The cities of Lisboa and Porto comprise, respectively, nine (Almada, Amadora, Barreiro, Cascais, Lisboa, Loures, Odivelas, Oeiras and Seixal) and five (Gondomar, Matosinhos, Porto, Valongo and Vila Nova de Gaia) municipalities, and the remaining cities being equivalent to the municipality.

Similarly, based on the Eurostat's harmonised methodology and the commuting data from the 2011 Census, **12 Functional Urban Areas (FUA)** were defined for the national context, comprising the city and its commuting zone - Aveiro, Braga, Coimbra, Faro, Funchal, Guimarães, Lisboa, Ponta Delgada, Porto, Póvoa de Varzim, Viana do Castelo and Viseu. In addition to other territories, the FUA of Lisboa includes the cities of Setúbal, Sintra and Vila Franca de Xira and the FUA of Porto includes the city of Paredes.

In this press release, results are presented by city and FUA, as well as for the total of cities, the set of territories not included in cities, the total of FUA, the set of territories not included in FUA and the commuting zones.

Figure 1. **Portuguese Cities and Functional Urban Areas within the European Territorial Typologies**
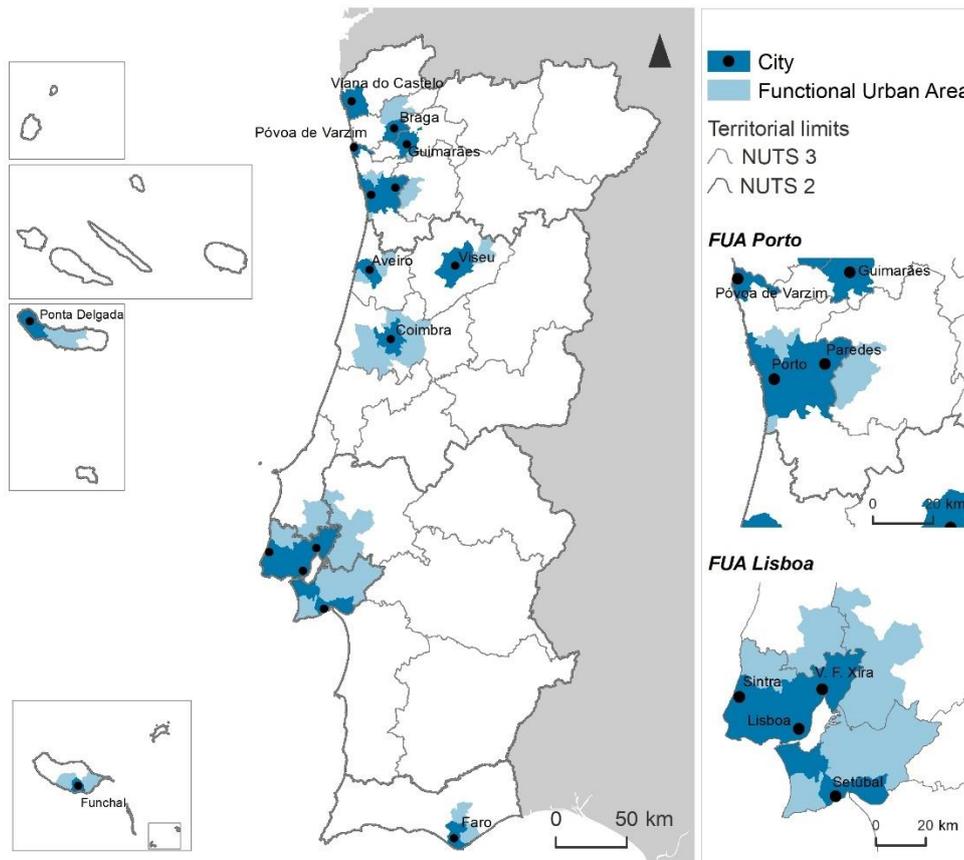
Source: Eurostat.

2. Elements of labour market differentiation in cities and functional urban areas (FUA)

Within the scope of the Lists of Personnel, in 2020, there were 2,244,715 full-time fully paid employees registered in Portugal. In the 16 Portuguese cities defined at European level, 1,133,890 employees were active, representing 51% of the total, and in the 12 FUAs 1,360,456 (61%). The FUAs of Lisboa and Porto alone accounted for 46% of the active employees in Portugal.

Cities are employment poles attracting more employees than those residing in these territories

The ratio between the number of employees by place of work and the number of employees by place of residence indicates the territories that are employment-generating poles and, therefore, attract more workers than those residing in the territory (values over 100). The results for 2020 show that this ratio was higher for cities (114) than for FUAs (108) and that it recorded values below 100 for territories not included in cities (95) and in FUAs (97) and for commuting zones (86).

In 2020, only the cities of Póvoa de Varzim (87), Paredes (85), Setúbal (75), Vila Franca de Xira (69) and Sintra (57) had a ratio below 100, with the cities of Funchal (151), Lisboa (138), Aveiro (130), Ponta Delgada (117), Coimbra (115) and Faro (114) recording the highest ratios and above the total observed for all 16 Portuguese cities. In the case of the FUAs, the highest values in this indicator were registered by the FUAs of Aveiro and Lisboa (112 in both).

Figure 2. **Ratio between the number of employees by place of work and place of residence, 2020**

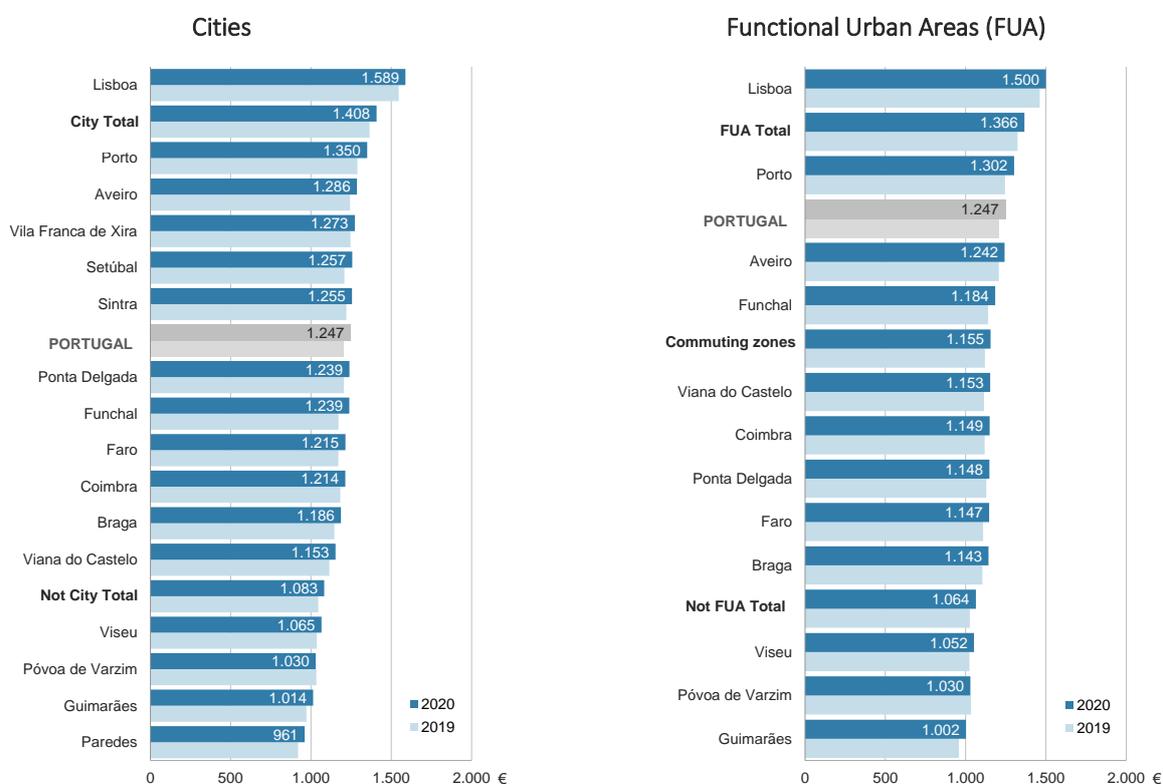CITIES AND FUNCTIONAL URBAN AREAS – 2020
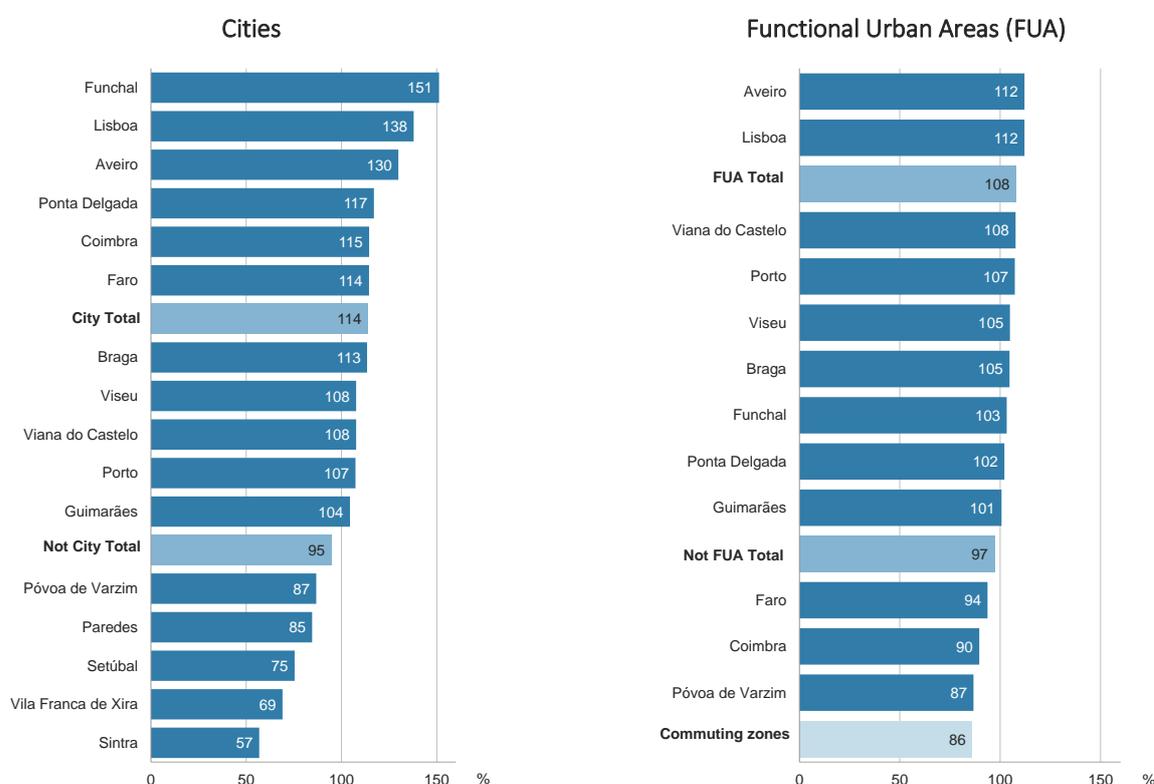
In 2020, the mean monthly earning of employees in cities and functional urban areas was higher than the national average

Compared to the situation observed in 2019, in 2020 there was an increase in the average monthly earning of employees for all 16 Portuguese cities and 12 FUAs, with the city and FUA of Póvoa de Varzim being the only exception, recording a slight decrease.

In 2020, the mean monthly earning of employees for the 16 Portuguese cities and the 12 FUAs was 1 408 euros and 1 366 euros, respectively, values that were above the national average (1 247 €), and only the city (1 589 €) and the FUA (1 500 €) of Lisboa registered mean monthly earnings above these benchmarks.

The results also show that the mean monthly earning of employees in the cities of Porto (1 350 €), Aveiro (1 286 €), Vila Franca de Xira (1 273 €), Setúbal (1 257 €) and Sintra (1 255 €) stood above the national average, and, on the other hand, the cities of Viseu (1 065 €), Póvoa de Varzim (1 030 €), Guimarães (1 014 €) and Paredes (961 €) recorded values lower than the mean monthly earning of employees in territories not included in cities (1 083 €). In the case of territories corresponding to functional urban areas, along with the FUA of Lisboa, only the FUA of Porto (1 302 €) had a mean monthly earning above the national average (1 247 €).

Figure 3. **Mean monthly earning of employees, 2019 and 2020**

The disparity in the monthly earning of employees was greater in cities and functional urban areas than in the country

Figure 4 presents a set of measures regarding the monthly earning of employees for the different territorial contexts under analysis and makes it possible to observe that, in 2020, Portuguese cities recorded a greater disparity in this indicator. The dispersion of the monthly earning was also higher in functional urban areas than the one observed for the national level and for commuting zones. In comparison, the territories not included in cities and in functional urban areas had, in 2020, a lower variability of the monthly earning of employees.

Figure 4. Average, median and percentiles of the monthly earning of employees, 2020
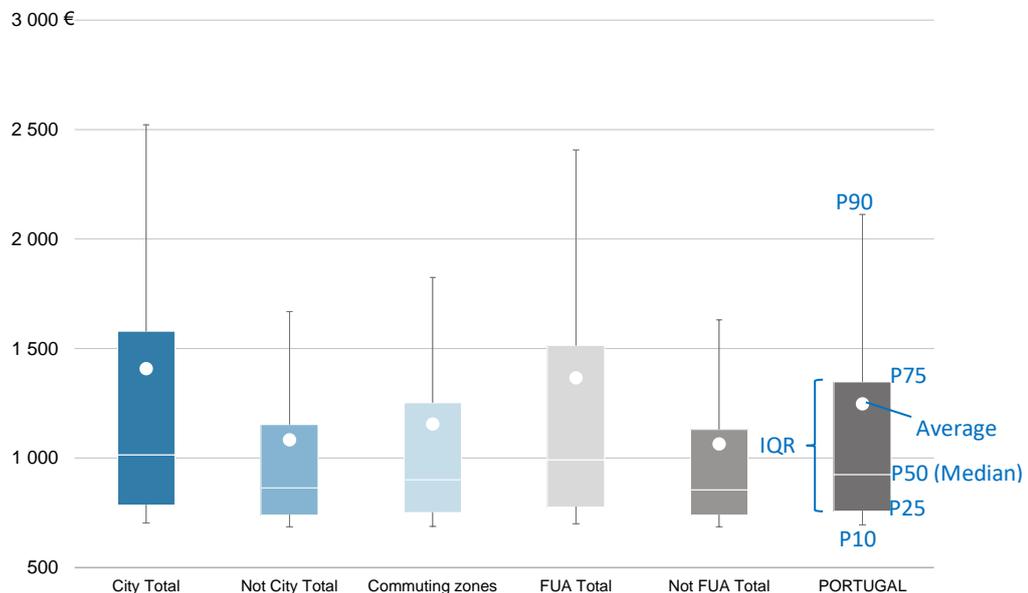
The figure represents the average and the 10th, 25th, 50th, 75th and 90th percentiles. The colour-shaded rectangle is delimited by the value of the indicator positioned at the 25th up to the 75th percentile, containing 50% of the total observations. The difference between the 75th percentile and the 25th percentile – Inter-quartile range (IQR) – allows the dispersion of the indicator to be analysed. The median (or P50, the value that separates the ordered set of data into two equal parts) is represented by the white line. The mean is represented by a circle. The position of the median in the shaded box and the distance between the mean and the median makes it possible to read the asymmetry of the indicator: in a distribution that tends to be symmetrical, the median is positioned in the centre of the box and the mean is on the median. Similarly, the distance between P90 and the median should be equivalent to the distance between P10 and the median.

The following figure presents the same set of measures for the 12 Portuguese FUAs and their respective cities and commuting zones.

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Figure 5. Mean, median and percentiles of monthly earnings of employees by FUA and respective city and commuting zone, 2020

Note: The FUA of Viana do Castelo and Póvoa de Varzim correspond to the respective city, i.e., they do not include commuting zones.

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### 3. The structure and valuing of work in functional urban areas (FUA)

The proportion of employees with tertiary education was highest in the FUAs of Lisboa and Porto

In 2020, the proportion of employees with tertiary education was higher in the functional urban areas of Lisboa (33.3%) and Porto (30.4%), the only ones with values above the average recorded for FUAs (29.8%). With values above the national average, the functional urban areas of Coimbra (26.9%), Aveiro (25.5%) and Braga (24.8%) also stand out. The functional urban areas of Ponta Delgada (15.3%) and Guimarães (14.6%) recorded the lowest values in this indicator, which also stood below the total for territories not included in FUA (15.6%).

In 2020, the FUA of Lisboa (2 208 euros) had the highest mean monthly earning of employees with tertiary education, a value that was both above the average for all the FUAs (2 042 euros) and for the country (1 925 €). The functional urban areas of Porto (1 900 €), Funchal (1 878 €) and Ponta Delgada (1 873 €) recorded values above the average for commuting zones (1 787 €), and the mean monthly earning of employees with tertiary education in the FUA of Guimarães (1 553 €), Póvoa de Varzim (1 522 €) and Viseu (1 460 €) stood below the total for territories not included in the FUA (1 580 €).

Overall, it is important to note that the average monthly earning of employees with tertiary education in 2020 was higher than for the total of employees, with this differential being more significant in the FUAs of Ponta Delgada (+724 €), Lisboa (+707 €) and Funchal (+694 €).

Figure 6. **Employees with tertiary education, 2020**
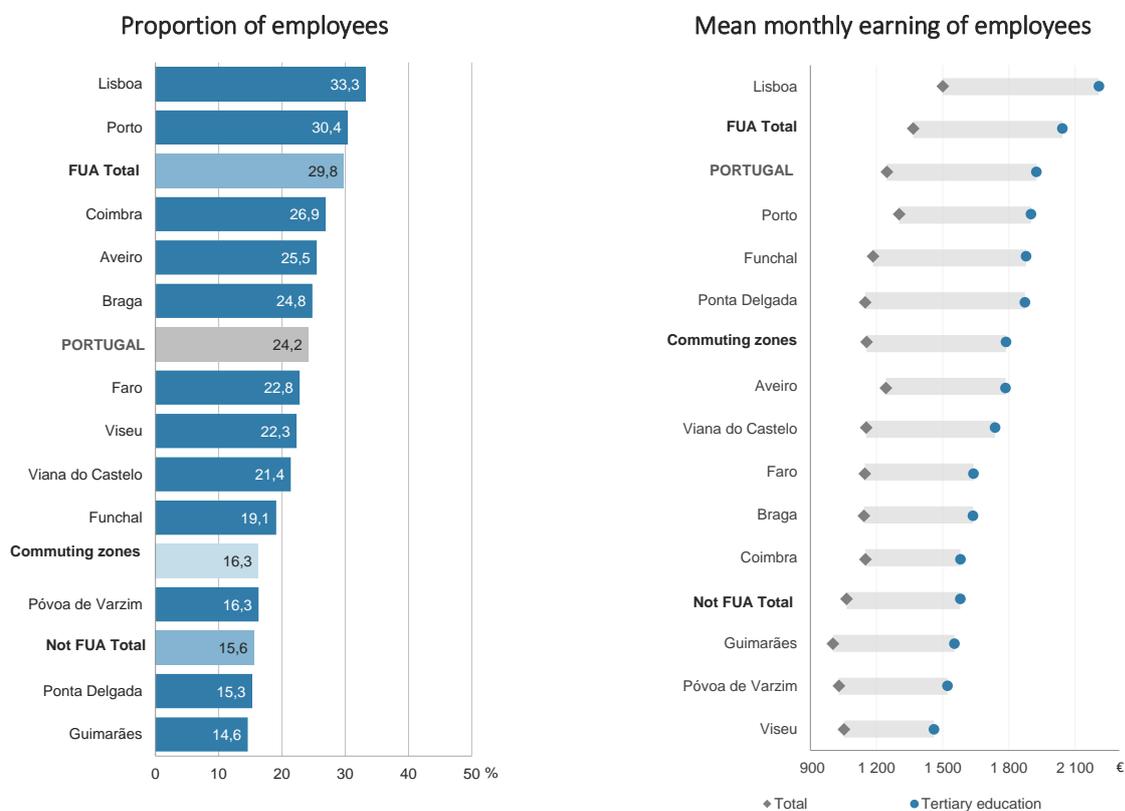
In functional urban areas the mean monthly earning of employees of EU27 nationalities was 42% higher than the average monthly earning of the total of employees

In 2020, the proportion of employees with foreign nationality (EU27 and Extra EU27) was highest in the functional urban areas of Faro (13.1%, of which 11.2% from an extra EU27 country) and Lisboa (10.1%, of which 8.3% from an extra EU27 country), with these two territories recording higher values than the average for FUA (7.1%), Portugal (6.4%), commuting zones (5.6%) and territories not included in FUA (5.5%).

Although employees from the EU27 represent a minority, their mean monthly earning in 2020 was systematically higher than the mean monthly earning of the total of employees, as well as higher than the mean monthly earning of employees with a non-EU27 nationality. For the national level and for the functional urban areas, the mean monthly earning of employees with a nationality from an EU27 country was, respectively, around 40% and 42% higher than the mean monthly earning of the total of employees. The functional urban areas of Ponta Delgada and Viana do Castelo recorded the most significant differential, where the mean monthly earning of employees with a nationality from an EU27 country corresponded to more than double the total mean monthly earnings.

Figure 7. Employees with foreign nationality, 2020

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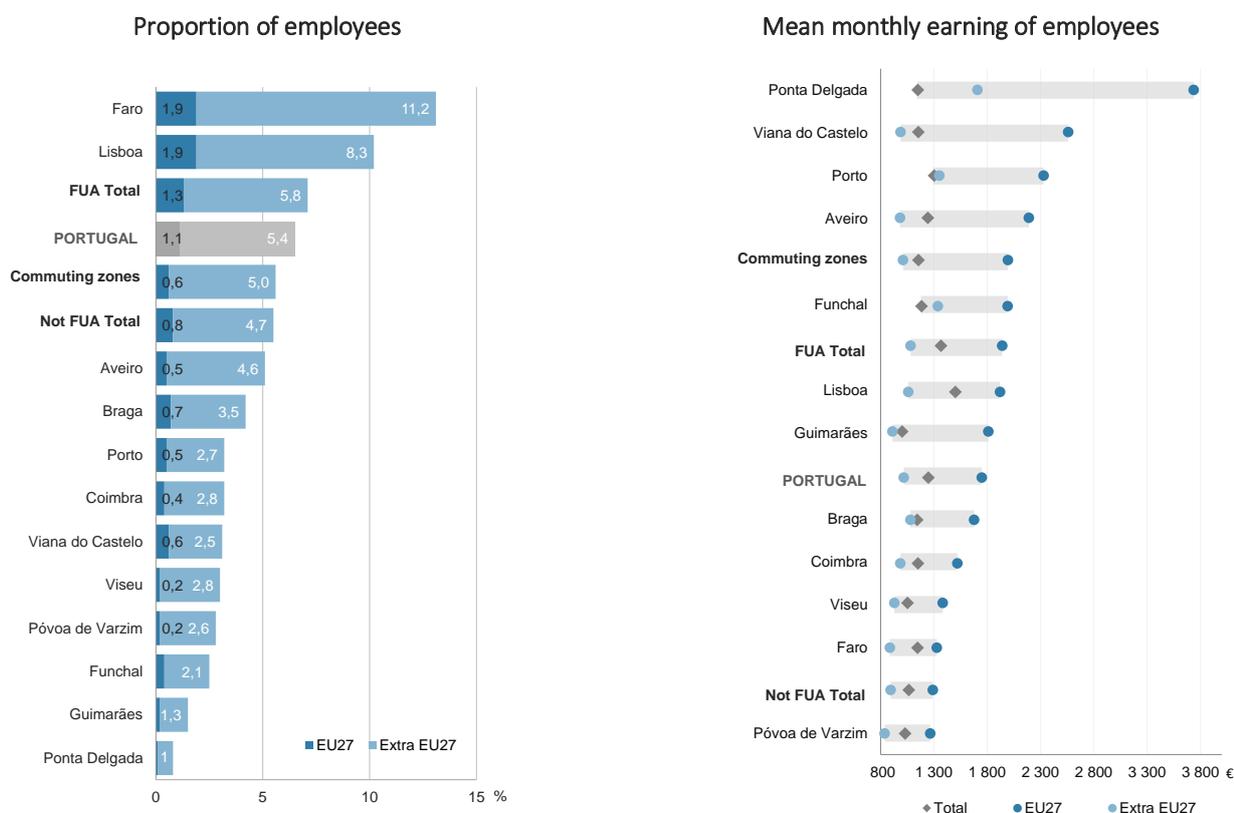
The FUAs of Faro and Funchal had the highest proportion of employees with fixed-term work contracts

In 2020, the functional urban areas of Faro (35.8%) and Funchal (31.8%) recorded the highest proportions of employees with 'fixed-term' work contracts, i.e., of limited duration. With values above the national average (29.1%) and the total of the FUAs (28.9%), but below the value registered for commuting areas (30.9), the FUAs of Braga (30.4%), Aveiro (29.8%), Póvoa de Varzim (29.7%), Ponta Delgada (29.7%) and Lisboa (29.6%) also stand out. The FUA of Guimarães scored the lowest value in this indicator.

Overall, the mean monthly earning of employees with fixed-term work contracts in 2020 was lower than the mean monthly earning of the total of employees. In Portugal, the mean monthly earning of employees with a fixed-term contract was 1 082 euros, 13% lower than the total mean monthly earning. In this indicator, only the FUAs of Lisboa (1 066 €) and Porto (1 044 €) recorded values higher than the total of the FUAs (1 041 €), and together with the FUAs of Braga (1 031 €) and Aveiro (1 023 €) were the only functional urban areas with values above the 1 000 euros threshold. The mean monthly earning of employees with fixed-term contracts was 988 euro in commuting zones and 922 euro in territories not included in FUAs and reached the minimum value of 914 euro in the FUA of Viseu.

Figure 8. **Employees with a fixed-term work contract, 2020**

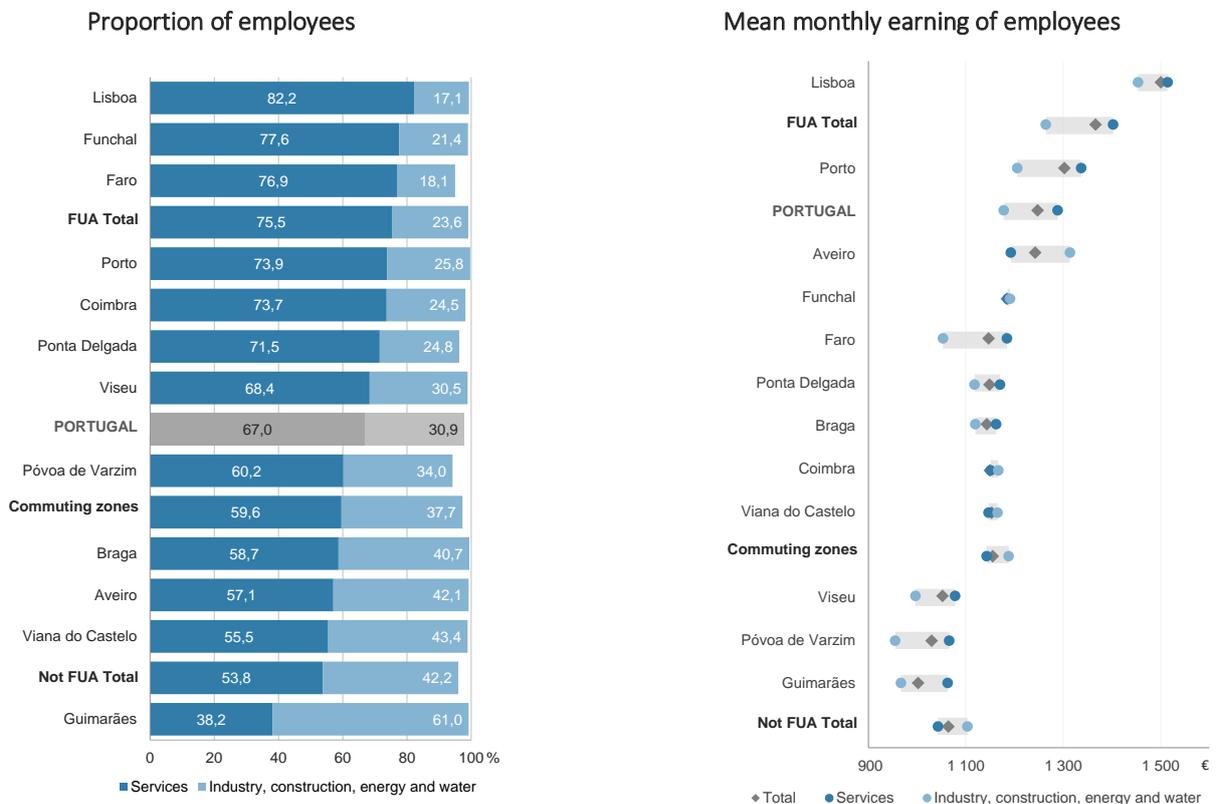Proportion of employees | Mean monthly earning of employees
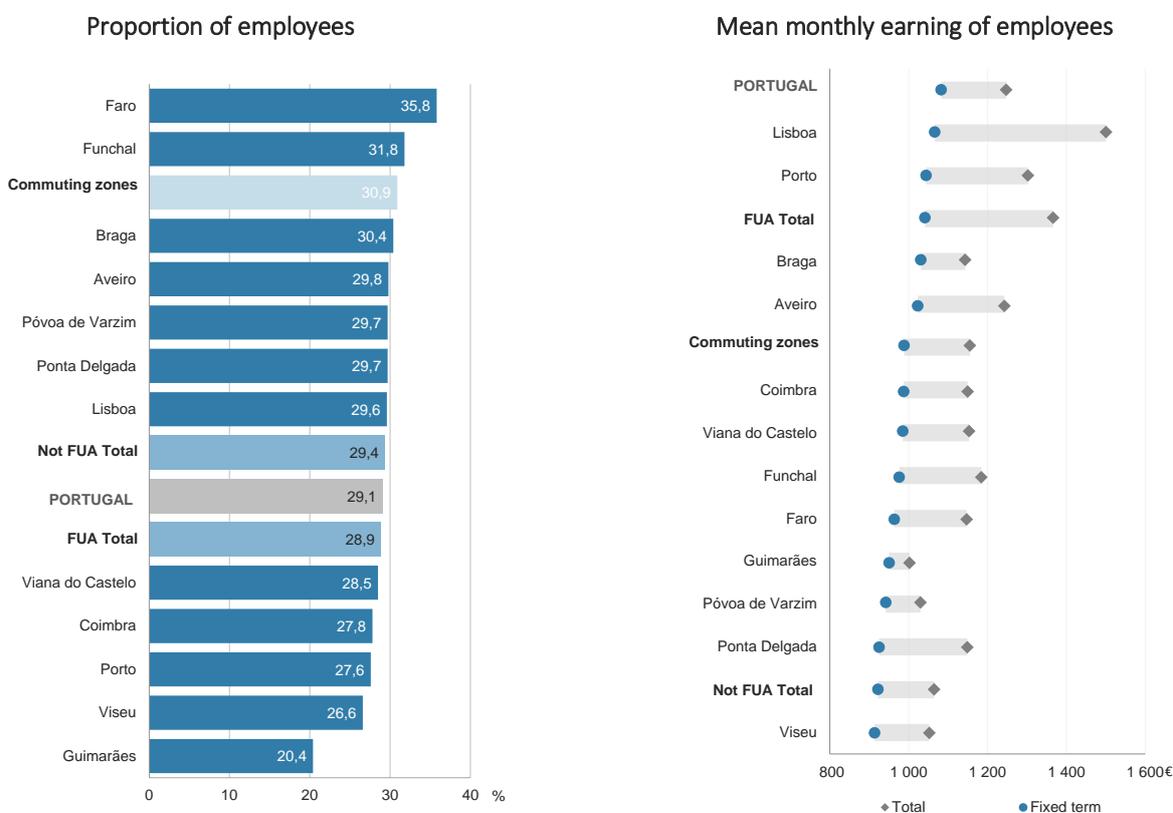
In the FUA of Guimarães 61% of employees worked in 'Industry, construction, energy and water'

In 2020, the 'Services' sector had a higher relative importance in the total FUA (75.5%), than in the country, where 67.0% of employees worked in this sector. The functional urban areas of Lisboa (82.2%), Funchal (77.6%) and Faro (76.9%) were the only ones to record a higher proportion of employees in the 'Services' sector than the one observed for the total of FUAs. The commuting zones and the territories not included in FUAs registered, respectively, 59.6% and 53.8% of the employees in the 'Services' sector, and only the FUA of Guimarães scored a higher proportion of employees in the 'Industry, construction, energy and water' sector (61.0%) than in the 'Services' sector (38.2%).

In 2020, the mean monthly earning of employees in each of the sectors under analysis was higher in FUAs than in the country, 7% in the 'Industry, construction, energy and water' sector (1 264 € vs. 1 178 €) and 9% in 'Services' (1 402 € vs. 1 289 €). The mean monthly earning of employees in the FUA of Lisboa was the highest (1 454 € in the 'Industry, construction, energy and water' sector and 1 514 € in the 'Services' sector), while the values in the FUA of Porto were, for both sectors (1 205 € 'Industry, construction, energy and water' and 1 337 € 'Services'), also above the national average.

In commuting zones and in territories not included in the FUA, the mean monthly earning of employees in 'Industry, construction, energy and water' was higher than those of 'Services', as in the FUAs of Aveiro, Funchal, Coimbra and Viana do Castelo.

Figure 9. Employees of 'Industry, construction, energy and water' and 'Services' (CAE-Rev.3), 2020

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The FUA of Lisboa had both the highest proportion and the highest mean monthly earning of employees in categories 1 and 2 of the Portuguese Classification of Occupations

In 2020, in Portugal, around 17.6% of employees worked in categories 1 'Representatives of the legislative power and of executive bodies, directors, executive officers and managers' and 2 'Specialists in intellectual and scientific activities', of the Portuguese Classification of Occupations (CPP-10). In functional urban areas, this proportion rises to 21.5%, a value only exceeded by the FUAs of Lisboa (23.9%) and Porto (21.9%). In territories not included in FUAs, only 11.5% of employees were in these two categories of occupations, with commuting zones (11.4%) and the FUA of Guimarães (11.3%) standing below this value.

The mean monthly earning of employees in categories 1 and 2 of the CPP-10 in Portugal was 2 113 euros, 69% higher than the total mean monthly earning. Above this benchmark were the values for the FUA of Lisboa (2 423 euros) and for the total of FUAs (2 243 euros), corresponding respectively to values 61% and 64% higher than the total mean monthly earning. In commuting zones and in territories not included in the FUA, the mean monthly earning of employees in these two categories was 1 940 and 1 737 euros, respectively, with the lowest values being recorded in the functional urban areas of Guimarães (1 718 euros), Viseu (1 642 euros) and Póvoa de Varzim (1 608 euros).

Figure 10. Employees in categories 1 and 2 of the Portuguese Classification of Occupations (ISCO-08), 2020

Proportion of employees

Mean monthly earning of employees
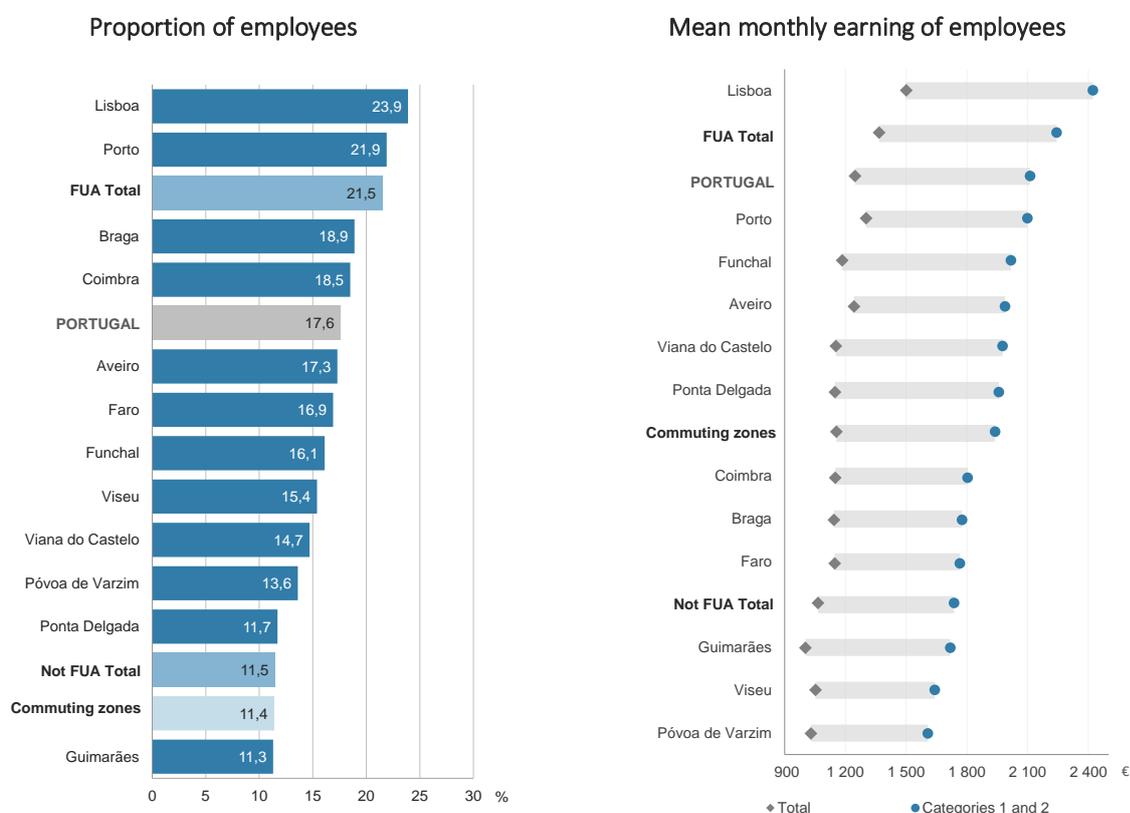
Note: Categories 1 and 2 of the ISCO-08 comprise, respectively, 'Managers' and 'Professionals'.

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TECHNICAL NOTE

The statistical operation Lists of Personnel (Annex A of the Single Report), carried out by the Office for Strategy and Planning (GEP) of the Ministry of Labour, Solidarity and Social Security (MTSSS), is a census-type operation with national coverage (Mainland Portugal and the Autonomous Regions) and with the reference period corresponding to the month of October of each year.

This statistical operation results from an administrative use of the legal norms that establish the compulsory delivery of the lists of personnel to all entities with workers in their service. Exceptions to this reporting obligation are central, regional, and local government and public institutes (only applicable to employees under individual employment contracts) and employers of domestic service workers.

The data presented in this press release refers to full-time employees with full remuneration and, unless otherwise indicated, the geographical disaggregation presented refers to the place of work, i.e., the referencing of the information is based on the establishment/local unit of work.

The source for the place of residence of employees is the Social Security Institute's database on individuals with active qualifications. The GEP/MTSSS provides data on the number of employees aggregated by parish of the place of work and by parish of the place of residence, and it was possible to obtain the municipality of residence for 97% of full-time fully paid employees from the Lists of Personnel for 2020.

This press release benefits from the process of strengthening access, processing, integration, and analysis of administrative information for statistical purposes advocated in the context of the National Data Infrastructure (IND).

Indicators analysed and available by cities and FUA in the data file of this press release:

Ratio between the number of employees by place of work and place of residence

Mean monthly earning of employees

Average, median and percentiles of the monthly earning of employees

Proportion and mean monthly earning of employees with tertiary education

Proportion and mean monthly earning of employees with foreign nationality

Proportion and mean monthly earning of employees with a fixed-term work contract

Proportion and mean monthly earning of employees of 'Industry, construction, energy and water' and 'Services' (CAE-Rev.3)

Proportion and mean monthly earning of employees in categories 1 and 2 of the Portuguese Classification of Occupations (ISCO-08)

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CONCEPTS

Hours usually worked: The most common working schedule even if not worked in the reference period. Includes overtime, as long as it is takes place on a regular basis.

Local unit: An enterprise or part thereof (e.g., a workshop, factory, warehouse, office, mine, or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which ' save for certain exceptions ' one or more persons work (even if only part-time) for one and the same enterprise.

Earning: Regular net amount in cash or in kind paid to the worker over a given reference period, by virtue of time spent working or work supplied during normal and extra working hours. Includes payment of hours paid but not worked (holidays, bank holidays and other paid absences from work).

Educational qualification: The highest level of academic qualification of the worker. Less than 1st cycle (includes: cannot read or write and can read and write without having completed 1st cycle of basic education); 1st cycle (includes: primary education up to 4th grade and basic education with vocational courses); 2nd cycle (includes: preparatory education, "telescola" or former 2nd year of high school, 2nd cycle of basic education with vocational courses); 3rd cycle (includes: education up to 9th grade or former 5th grade of high school, technical education - general commercial, general industrial and general visual arts courses, 3rd cycle of basic education with vocational courses and level II vocational school courses); secondary education (includes: education up to 12th grade or equivalent with vocational courses, supplementary high school; technical-vocational secondary education and level III vocational school courses); bachelor's and graduate degrees (includes master's or doctoral degrees).

Occupation: Trade or work modality, paid or unpaid, corresponding to a specific professional title, comprised of a set of tasks or activities with the same purpose and implying similar knowledge.

Employment status: Dependent or independent relationship of an active person in the practice of the profession, according to the economic risks involved and to the nature of his/her control within the enterprise.

Full-time worker: Employed person whose normal hours of work are equal to or more than the normal hours of work prevailing on the enterprise/institution, for the respective professional category or in the respective profession.

Employee with a fixed-term contract: A person tied to a company or institution by a written contract with a fixed term with a mention of its justification: a) established duration: when the written contract expressly indicates the duration of the contract and its expiry date; b) indeterminate duration: when the employment contract lasts as long as necessary to replace an absent employee or until the completion of an activity, task or work whose performance justifies the contract.

Employee with a permanent work contract: An individual bound to the enterprise/institution by means of a permanent work contract or a work contract with undetermined duration.

Employee: Person who carries out an activity under the authority and direction of another under the terms of an employment contract, whether or not subject to written form, which entitles him/her to a remuneration that does not depend on the results of the economic unit for which he/she works.

[Methodological document – Lists of Personnel](#)

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