

## Administrative data as a source of information about employed persons

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**Abstract.** The pace of changes taking place in the contemporary world creates demand for current data at the lowest possible level of territorial aggregation, enabling the assessment of the impact of these changes on local labour markets. Data resources gathered in registers and administrative systems directly or indirectly related to employment seem to provide an opportunity to satisfy these new expectations. However, to be able to use administrative resources for statistical purposes, it is necessary to make allowances for the fact that the administrators of registers and administrative systems collect data to satisfy their own needs and that official statistics reuses them.

The aim of the article is to show the analytical opportunities which administrative data sources provide and to demonstrate that they can complement or even replace traditional methods of collecting data on employed persons. The experimental adaptation of data from these sources for statistical purposes proves that, for example, data on employed persons, calculated on the basis of the resources of the Social Insurance Institution (ZUS) and the Agricultural Social Insurance Fund (KRUS), correspond almost fully in terms of definitions with data collected by official statistics. The readiness to come to terms with slight methodological differences related to the count of employed persons in agriculture or persons employed for the purpose of vocational training or agents will make it possible to provide users with this important labour market statistics faster, more frequently, and in aggregations different than those recently offered by official statistics, while limiting or even eliminating many reporting obligations imposed on the national economy entities.

This article describes official statistics' current methods of researching employed persons and compares them with the experimental method of calculating the number of these persons on the basis of administrative data sources. Due to the fact that data calculated by means of the experimental method are characterised by a multitude of new information, we decided to present here only selected examples of their analyses and contribution to expanding the knowledge about employed persons in the Polish economy. We would also like to emphasise that data used for this purpose refer to all employed persons (in all entities, including the smallest ones with the maximum of nine employed persons). Other advantages of the administrative data sources are the monthly availability of data and the possibility of aggregating them down to gmina (the lowest local administrative unit) level.

**Keywords:** labour market, employed persons, administrative data sources

**JEL:** C10, E24

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# Dane administracyjne jako źródło informacji o pracujących

**Streszczenie.** Tempo zmian we współczesnym świecie rodzi zapotrzebowanie na bieżące dane na możliwie najniższym poziomie agregacji terytorialnej, które pozwalałyby na diagnozowanie wpływu zachodzących zmian na lokalne rynki pracy. Szansę na sprostanie tym potrzebom dają zasoby danych gromadzone w rejestrach i systemach administracyjnych, dotyczące bezpośrednio lub pośrednio wykonywania pracy. Wykorzystanie zasobów administracyjnych do celów statystycznych wymaga uwzględnienia tego, że gestorzy rejestrów i systemów administracyjnych zbierają dane na swoje potrzeby, a statystyka publiczna wykorzystuje je wtórnie.

Celem artykułu jest wskazanie możliwości analitycznych, jakie dają administracyjne źródła danych, oraz wykazanie, że mogą one uzupełnić, a nawet zastąpić tradycyjne metody zbierania informacji o pracujących. Przeprowadzone prace eksperymentalne polegające na zaadaptowaniu danych z tych źródeł dla celów statystycznych dowodzą, że np. dane o pracujących wyliczone na podstawie zasobów Zakładu Ubezpieczeń Społecznych i Kasy Rolniczego Ubezpieczenia Społecznego niemal w całości pokrywają się definicyjnie z danymi zbieranymi przez statystykę publiczną. Zaakceptowanie drobnych różnic metodologicznych dotyczących liczenia pracujących w rolnictwie czy pracowników zatrudnionych w celu przygotowania zawodowego oraz agentów pozwoli na dostarczanie ważnych danych statystycznych z obszaru rynku pracy szybciej, częściej i w innych agregacjach niż prezentowane dotychczas przez statystykę publiczną, przy jednoczesnym ograniczeniu czy wręcz zlikwidowaniu wielu obowiązków sprawozdawczych ciążących na podmiotach gospodarki narodowej.

W artykule opisano dotychczasowe metody badania osób pracujących stosowane w statystyce publicznej i porównano je z eksperymentalną metodą wykorzystującą administracyjne źródła danych. W związku z tym, że dane uzyskane metodą eksperymentalną dostarczają wielu nowych informacji, w niniejszym opracowaniu zdecydowano się na przedstawienie jedynie przykładowych analiz tych danych, które poszerzają wiedzę o pracujących w polskiej gospodarce. Warto również podkreślić, że wykorzystane tu dane administracyjne odnoszą się do wszystkich pracujących (we wszystkich podmiotach, także tych najmniejszych, o liczbie pracujących do dziesięciu osób włącznie). Atutem danych administracyjnych jest ponadto ich comiesięczna dostępność oraz możliwość agregowania do poziomu gminy.

**Słowa kluczowe:** rynek pracy, pracujący, administracyjne źródła danych

## 1. Introduction

The labour market is one of the most important markets because services which are exchanged there, provided by members of a society, are the source of the national income, including the part of it intended for individual and collective consumption (Podolski & Turnowiecki, 2001). Thus, the condition of a country's economy and the quality of life of its inhabitants depend on the situation on the labour market. Quality of life is largely determined by the economic conditions, which since the Industrial Revolution have been associated primarily with work. Although the concept of work is widely used, it is difficult to define it. Therefore, one can talk about work as such, analyse different forms of work, the right to work, or issues related to finding and keeping a job or the lack of work. Due to its practical

importance, work is at the centre of everybody's life, becoming the main element of our identity, motivation for further development, and gives us the opportunity to satisfy the need for professional success and career. Lack of work has a destructive effect on people and undermines the foundations of the existence of individuals and families (Jeruszka, 2008).

The value of work was already appreciated by Montesquieu, who stated that 'a man is not poor because he has nothing, but because he does not work'. The opportunity to work is the object of interest of many scientific disciplines and is the basis for shaping most policies. It is most often expressed by the number of employed and unemployed persons, the relationship between economically active and economically inactive people as well as by the population size along with a breakdown of this population by age groups corresponding to the ability to work, i.e. the pre-working, working and post-working age groups. Due to the fact that labour market resources and their use are constantly changing, monitoring this market, and especially the professional activity of the population, is crucial to the making of the economic and social decisions.

The aim of the article is to show the analytical opportunities which administrative data sources provide and to demonstrate that they can complement or even replace traditional methods of collecting data on employed persons.

## **2. Methodologies for measuring the number of employed persons**

Performing work or the willingness to do so is the criterion on the basis of which the economically active sub-population can be distinguished from the total population. In Poland, performing work is regulated by the provisions of law. Performing work by an employee for an employer (paid work) is subject to the Labour Code (Act of 26 June 1974 – the Labour Code, Journal of Laws from 2020 item 1320; Pol. Ustawa z dnia 26 czerwca 1974 r. Kodeks pracy). This act does not regulate the situation of working people who are not employees, e.g. those conducting business activity (however, this particular type of work is regulated by other provisions of law) or persons belonging to other categories, e.g. those working on the basis of the administrative law or civil law contracts (e.g. contracts to perform a specified task, contracts of mandate), which are governed by the provisions of the Civil Code. It should also be remembered that some people perform work without formal arrangements, i.e. without entering into an employment relationship (without an employment contract, appointment, nomination or election), without the service relationship or without a contract of mandate, contract to perform a specified task or any other written contract between the employer and the employee (including work for natural persons and on individual farms). This form of work is referred to as unregistered work (as opposed to formal work, registered by administrative bodies).

The above considerations indicate that measuring a basic characteristic of the labour market, which is the number of employed persons, requires making

assumptions about the criteria for defining work. The official statistical service monitors work from two perspectives:

- the perspective of the International Labour Organization, according to which the mere fact of performing work is examined, and not its formal sanctioning;
- the approach adopted by the Labour Code and other legal provisions, under which work is formalised and/or regulated by a contract for a specified period of time.

The groups of people performing work, determined according to these two approaches, are different from each other, and so are the statistical units and the scopes of data as well as research methodologies. Therefore, labour resources identified by these two approaches are not comparable. What connects them, though, is the categorisation of labour resources. In both of them, the fact of performing work is the basis for defining the employed, while the ability to work and the willingness to undertake work are the basis for identifying the unemployed.

Employed persons defined as those who during the reference week were performing for at least one hour any work generating pay or income and persons helping (without pay) in running a family farm or a family business outside agriculture, i.e. contributing family workers (see Główny Urząd Statystyczny [GUS], 2018) are surveyed by Statistics Poland in the Labour Force Survey (LFS, Polish acronym: BAEL). The survey covers all employed persons regardless of the formal sanctioning of their work. Thus, according to the LFS, employed persons consist of those working on the basis of the Labour Code and other provisions of law (formal work), performing activities on the basis of the administrative law or civil law contracts (e.g. contracts to perform a specified task, contracts of mandate) subject to the provisions of the Civil Code, those performing work without any formal arrangements (unregistered work) and persons helping (without pay) in running a family farm or a family business outside agriculture (contributing family workers). The LFS is a quarterly survey, allowing international comparisons, but due to its sample character it provides data for the whole country and at the level of voivodships only.

Employed persons defined as those performing work that brings them earnings (in the form of remuneration for work) or income (see GUS, 2020b) are surveyed by Statistics Poland in the Survey on Employment in the National Economy.

The survey, as its name suggests, accounts for all persons employed in the national economy on the basis of the Labour Code or other provisions of law (formal work). It draws information from statistical reports (monthly, quarterly and annual) submitted by the entities of the national economy which provide jobs (i.e. legal persons, organisational units without legal personality and natural persons conducting economic activity) and from other sources featuring entities which are not obligated to submit the above-mentioned reports. In some types of the reports which are data sources in the survey, the method of partial enumeration (using a random sample of entities) or the method of complete enumeration may be applied. The survey provides data on persons employed in their main job for the entire national economy. The main job is determined for the purpose of counting

employed persons only once, and the criteria for indicating it include the working hours or the income the job brings. Data on employed persons in the national economy from the Survey on Employment in the National Economy are published once a year (in the third quarter) for the previous year as of 31 December.

The pace of changes taking place in the contemporary world creates demand for data enabling the assessment of the impact of these changes on the labour market at more frequent time intervals, or even in real time, and at the lowest possible level of territorial aggregation. Electronic availability of data related directly or indirectly to employment in registers and administrative systems creates conditions for satisfying this demand to a large extent.

Bearing in mind that the administrators of registers and administrative systems collect data for their own purposes, it is not possible to obtain directly from them data on employed persons that would fully correspond to the definitions and scope of data currently provided by official statistics. However, it is possible to publish data on all employed persons insured in the Social Insurance Institution (ZUS) or the Agricultural Social Insurance Fund (KRUS) much faster, much more frequently, and in different aggregations than it is done through the Survey on Employment in the National Economy. While in the survey the collected data are in agreement with the definition of employed persons formulated by official statistics, which is close to the understanding of work as formalised by the provisions of law, the administrative sources refer to insured persons covered by the social insurance system due to their employment.

Despite the fact that data on employed persons from the Survey on Employment in the National Economy are to large extent included in the data on insured persons obtained from ZUS and KRUS, differences in definitions of employed persons working on farms and the inability to clearly distinguish persons employed for the purpose of vocational training and agents (for the definition, see: GUS, 2020b) from ZUS's datasets turned out to be an obstacle to the full substitution of one of these data sources with the other. These differences result from the fact that KRUS and the Survey on Employment in the National Economy use different criteria for measuring the size of a farm and different threshold values for special branches of agricultural production, and from the inability of ZUS resources to distinguish (on the basis of an insurance title) between agents, who are classified as employed persons in the above-mentioned survey, and persons employed under an employment contract for the purpose of vocational preparation, who are excluded from the employed in the survey.

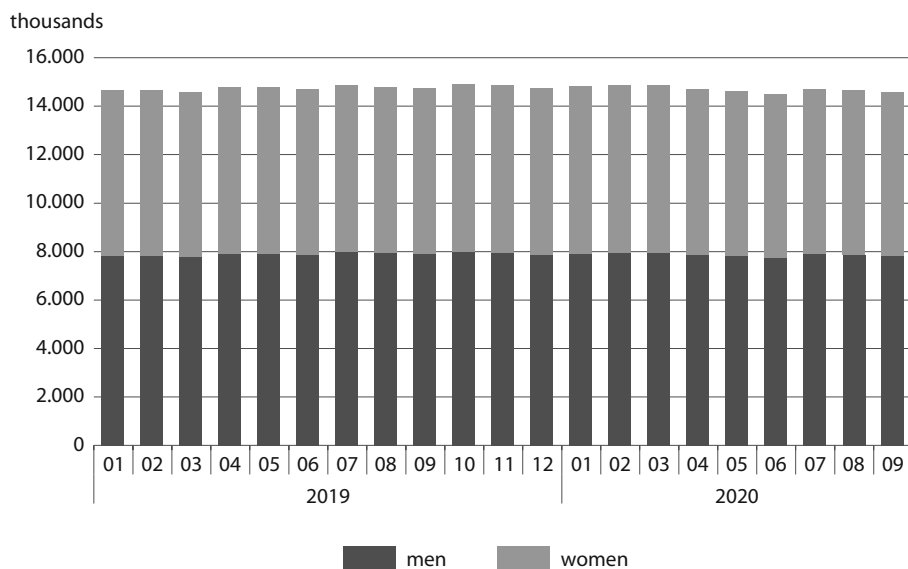
In order to determine the number of employed persons according to administrative data sources, the title in KRUS or ZUS is of key importance. Each employed person is counted only once in the calculation of the total number of the employed, which is possible if the main job is determined for each person. Another important piece of information about each employed person is his or her employment status, i.e. if he or she is an employee, a self-employed person, a member of a production cooperative, a contributing family worker, an outworker or a clergyman. In this study, we determine the employment status for a person's

main job. If a person working abroad is insured in Poland or is a labour migrant, he or she is classified as an employed person (for more about the methodology and quality of the survey see: Urząd Statystyczny w Bydgoszczy, 2020).

### 3. Generations on the labour market – an analysis of employed persons from the point of view of age and sex

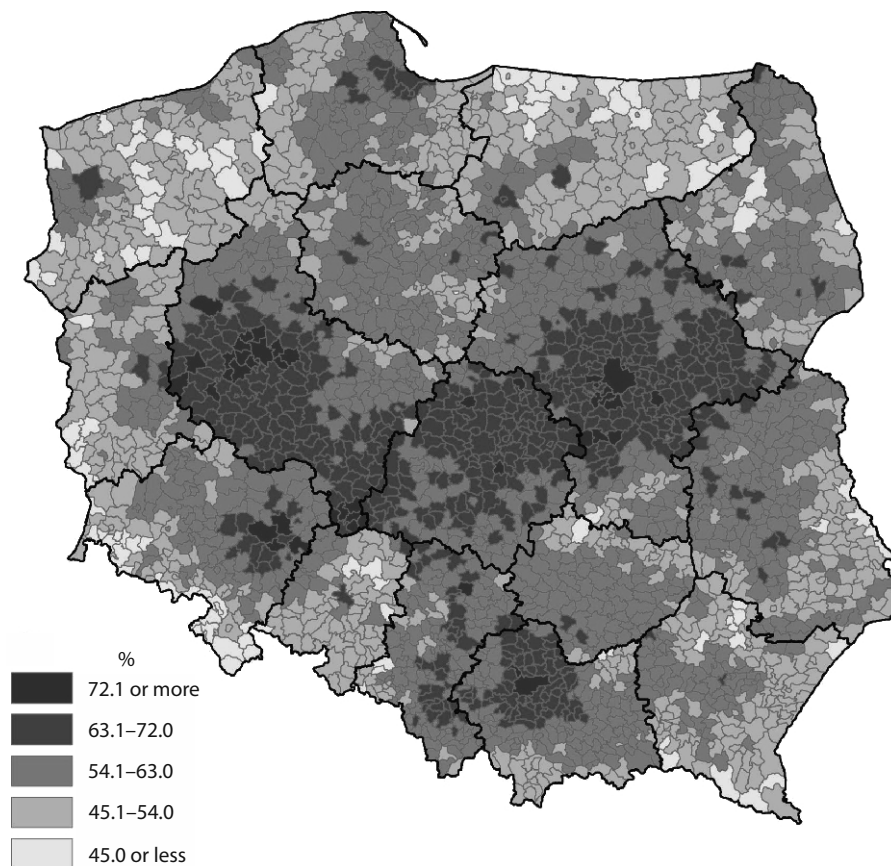
Consideration of the switch of the source of data on employed persons in the Polish economy from surveys conducted with the use of statistical reports to administrative sources has been prompted by the opening possibility of publishing data more frequently (with monthly instead of annual frequency – see Figure 1) and sooner than until now. As experience in the work with administrative data sources gained hitherto by official statistics shows, it is possible to publish data on employed persons for a given month 3–4 months after the end of the quarter to which this month belongs. However, plans for the near future assume that deadlines for submitting datasets by ZUS to Statistics Poland and the subsequent publication of data on employed persons for a given month will be possible in 3–4 months after the end of that month. Currently, data on employed persons in the national economy (based on surveys conducted through statistical reporting by the national economy entities) for a given year are published in the third quarter of the following year (as of 31 December).

**Figure 1.** Employed persons in the main job by sex (as of the end of month)



The advantage of the data on employed persons obtained from administrative sources is the possibility of compiling them at gmina (the lowest local administrative unit) level (by gmina of residence), and thus presenting them (e.g. the employment rate) at this low level of territorial aggregation.

**Map 1.** Employment rate of the total working-age population by gmina of residence in 2020 (as of 30 June)

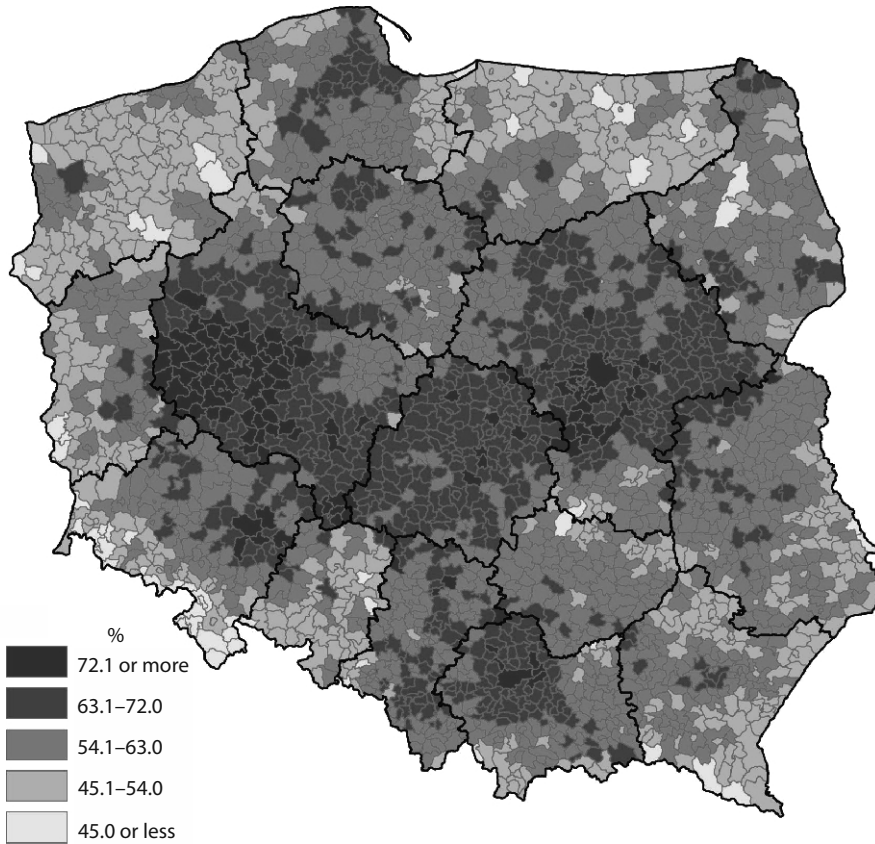


Note. Working age – the age at which one is able to work: 18–64 years for men and 18–59 years for women.  
Source: authors' work based on GUS (2020a) and KRUS and ZUS data.

The employment rate is a very simple but important statistic describing the situation on the labour market, as it illustrates the share of employed persons in a given category in the total population of that category (for example, the share of the working-age employed persons in the total working-age population). At the same time, this indicator shows potential, unused labour resources in this population group. The employment rate calculated on the basis of administrative data sources as of the end of June 2020 indicated that 60.1% of the total number of

people at the working age in Poland were in employment. The analysis of the employment rate showed a relationship between age and the economic activity and between sex and the economic activity. Women’s economic activity is a very interesting scientific issue. In most European countries, including Poland, the labour market is characterised by lower economic activity of women than of men. The Survey on Employment in the National Economy cannot provide data for diagnosing the situation of women on the labour market due to the unavailability of complete data on the sex of employed persons (data for the survey come from several sources, and not all of them are sex-specific). Data on employed persons from administrative sources are aggregated from individual data, therefore for each group of employed persons it is possible to present data (e.g. the employment rate) by sex.

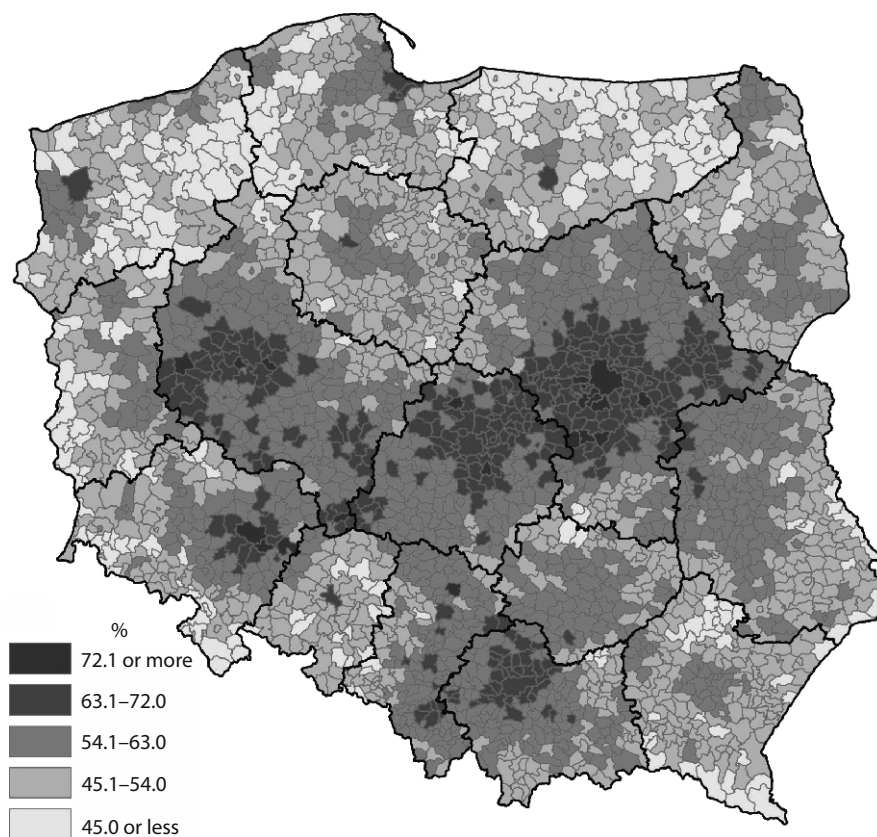
**Map 2.** Employment rate for men at working age by gmina of residence in 2020 (as of 30 June)



Note. As in Map 1.  
Source: authors’ work based on GUS (2020a) and KRUS and ZUS data.



**Map 3.** Employment rate for women at working age by gmina of residence in 2020 (as of 30 June)



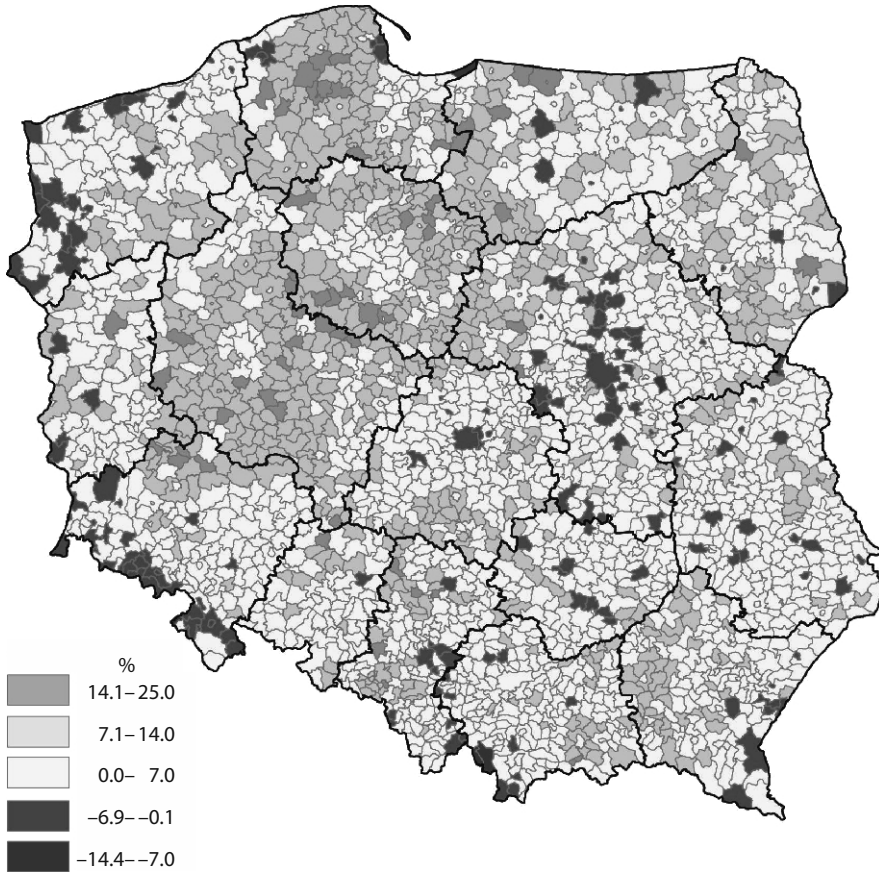
Note. As in Map 1.

Source: authors' work based on GUS (2020a) and KRUS and ZUS data.

As can be seen on the presented maps (1–4), in most Polish gminas in mid-2020, the share of employed men in the total working-age population was higher than the share of employed women. The largest numerical advantage of employed men over employed women was observed in the Leśna Podlaska gmina (Lubelskie Voivodship), where 76.8% of men at the working age and only 51.9% of women at the working age were in employment. Within the working-age population, the male employment rate exceeded the female employment rate to the largest extent in the gminas of Wielkopolskie, Kujawsko-Pomorskie and Pomorskie voivodships, while Wielkopolskie and Kujawsko-Pomorskie voivodships were additionally distinguished by the fact that the employment rate for men was higher than that for women in each gmina. The largest difference in the levels of employment of the

working-age men and the working-age women was observed in the gminas surrounding these voivodships' capitals and in their suburban areas. On the other hand, higher economic activity among women than men in the analysed age group was observed in the capitals of voivodships, especially in south-eastern and central Poland, in Mazowieckie Voivodship and in gminas located in the vicinity of Poland's western border. The gmina of Lipnica Wielka (Małopolskie Voivodship) stood out most strikingly in this respect, with the employment rate for women 14.4 percentage points higher than that for men.

**Map 4.** Difference in employment rates for men and women at working age in 2020 (as of 30 June)



Note. As in Map 1.  
Source: authors' work based on GUS (2020a) and KRUS and ZUS data.

One of the challenges of the modern world is population ageing. This process is also observed in Poland, and its consequences include the ageing of the employed persons. In this context, it is extremely important to study the economic activity of employed persons by age. The crucial resource for this type of analyses may be administrative data on employed persons, which enable data users to analyse issues related to employment for groups of people born in a given year as well as for freely specified age groups, and to analyse the age of employed persons using measures of position, e.g. the median. Such statistics are not possible to obtain on the basis of the data from the Survey on Employment in the National Economy, because it does not provide information on the age of employed persons.

The analysis of the age of employed persons, based on the data from administrative sources, confirms they are ageing at a rapid pace. It shows, for instance, that on 30 June 2020, the median age of employed persons in Poland was 42, so one year more than at the end of June 2019. When examining e.g. 10-year-span age groups, it is noticeable that between June 2019 and June 2020, the greatest changes in the number of employed persons occurred in the youngest and oldest age groups. During that period, the number of employed persons aged 65 and over increased by 4.9%, and the number of employed persons aged 18–34 decreased by 5.5%.

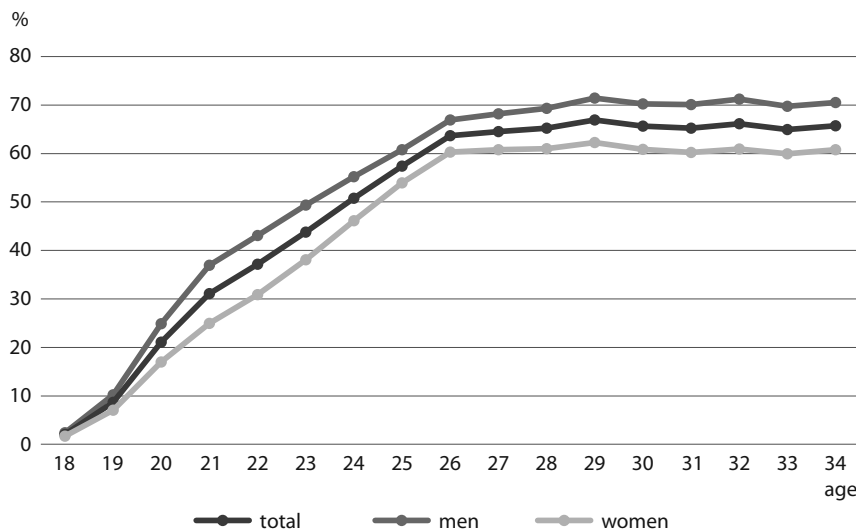
Whether the risk of the unemployment affects groups of young persons more often than, for example, the oldest groups, is a problem not only for individuals, but also for a society as a whole. ‘Young people’ is an imprecise and changeable category, but it can be determined on the basis of the fact that a large part of young people’s activity is devoted to education and seeking a job (usually the first job). In Poland, as of the end of June 2020, every second young person<sup>1</sup> was in employment. The employment rate for people aged 18–34 was then 52.5%, so lower than that for the total working-age population (60.1%). As can be seen in Figure 2, labour market activity was higher among young men (56.7%) than among young women (48.2%). The same situation occurred in all age sub-groups of young employed persons. As of the end of June 2020, the employment rate indicated a relationship between age, sex and the economic activity. The highest value of the indicator was observed for the group of men aged 30–34 (70.4%). The employment rate for women in this age group was lower by nearly 10 percentage points. The employment rate was the lowest for the 18–24 age group, where it stood at 24.6% for women and 32.7% for men. In this group, the employment rate was increasing with every year of life. For

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<sup>1</sup> It is assumed in this article that young people are aged 18–34.

18-year-olds, regardless of sex, it did not exceed 2.5%. For 19-year-olds, the employment rate for women was 7.0% and for men 10.2%, and for 24-year-olds it was 46.1% and 55.2%, respectively.

**Figure 2.** Employment rate by age and sex in 2020 (as of 30 June)



Source: authors' work based on GUS (2020a) and KRUS and ZUS data.

Young people entering the labour market who have to choose their career path sometimes decide to run their own business. Administrative data make it possible to analyse this form of economic activity not only for the entire population of employed persons in the national economy, but also for sub-populations, e.g. by age or sex (see Figure 3). The analysis shows that as of the end of September 2020, the self-employed accounted for 18.3% of the total number of employed persons in the national economy. In the group of young employed persons, this share was lower and stood at 12.4%. Men dominated among young self-employed persons, but there was a clear numerical advantage of self-employed men over self-employed women in all age groups. Self-employed men aged 18–24 accounted for 9.4% of all employed men, while in the case of employed women of the same age, only 4.4% of them were self-employed. In the group of employed men aged 25–29, the self-employed constituted 15.1%, while the same statistic for women was 7.5%. The highest percentage of self-employed men in the total population of employed males was

observed in the group of 30–34-year-olds (19.2%). The share of the self-employed females in the same age group of employed women was much lower (10.5%).

In the period of one year (between September 2019 and September 2020), the number of young self-employed persons decreased by 0.4%, while the total number of self-employed persons increased by 1.4%.

**Figure 3.** Young self-employed persons in the main job by age group and sex in 2020 (as of 30 September)



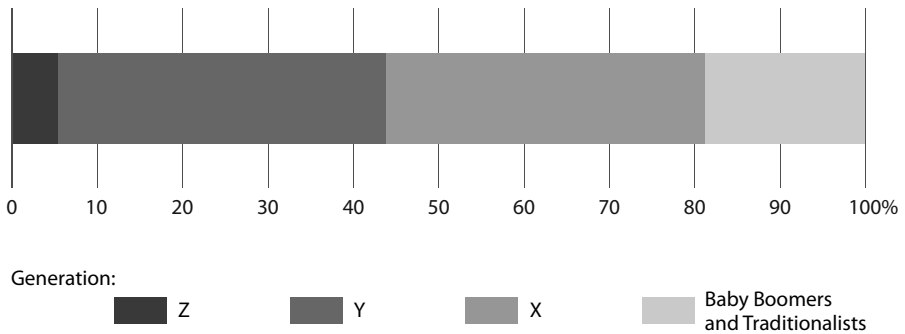
Source: authors' work based on KRUS and ZUS data.

The current labour market in Poland is characterised by low unemployment. As of the end of December 2020, the registered unemployment rate was 6.2%, while e.g. at the end of December in the years 2009–2013, it was over 12%. The situation where there are more job vacancies than job seekers does not encourage commitment and loyalty among employees, especially as there are currently several generations on the Polish labour market. The coexistence of two or three generations on the labour market is a natural situation. However, at present the labour force is made up of four or even five generations. In the scientific discourse, the term 'generation' is used to describe a group of people living in the same period and subject to the influence of the same events, and thus perceiving reality in a similar way, having similar expectations towards work, and even similar ways of satisfying needs (Kopertyńska & Kmiołek, 2014). In the light of this definition, distinguishing between generations

is the matter of the adopted convention; therefore, in the literature on the subject, one can find classifications of generations that differ in terms of time periods and names.

In this article, in order to present the situation of different generations on the labour market and their economic activity, we distinguished the following: the Traditionalist Generation (Veterans, Radio Babies, the Silent Generation; Lain Kennedy, 2007) and Baby Boomers, i.e. people born in 1965 or earlier; Generation X, consisting of people born in the years 1966–1980; Generation Y, i.e. people born in the years 1981–1995, and Generation Z, consisting of people born in 1996 and later. Administrative data make it possible to analyse employed persons by generation (see Figure 4).

**Figure 4.** Structure of employed persons in the main job by generation in 2020 (as of 30 June)



Source: authors' work based on KRUS and ZUS data.

As mentioned before, generations differ in their approach to work, which can be a major challenge for employers. A particular unknown are young people born from 1996 onwards, who are just taking their first steps on the labour market. According to administrative data, in mid-2020 employed persons representing this generation accounted for 5.4% of the total number of employed persons. People from this generation are proficient users of modern technologies and treat their ubiquity, e.g. easy access to different applications and all kinds of data or the ability to communicate with people from all over the world, as something normal. They were born to the world where computers, telephone, the Internet, electronic gadgets, etc. are commonplace. They can function in parallel in the real and virtual worlds and smoothly move from one to another (Żarczyńska-Dobiesz & Chomątowska, 2014). Due to these special features, they are referred to as Generation Z, Generation C

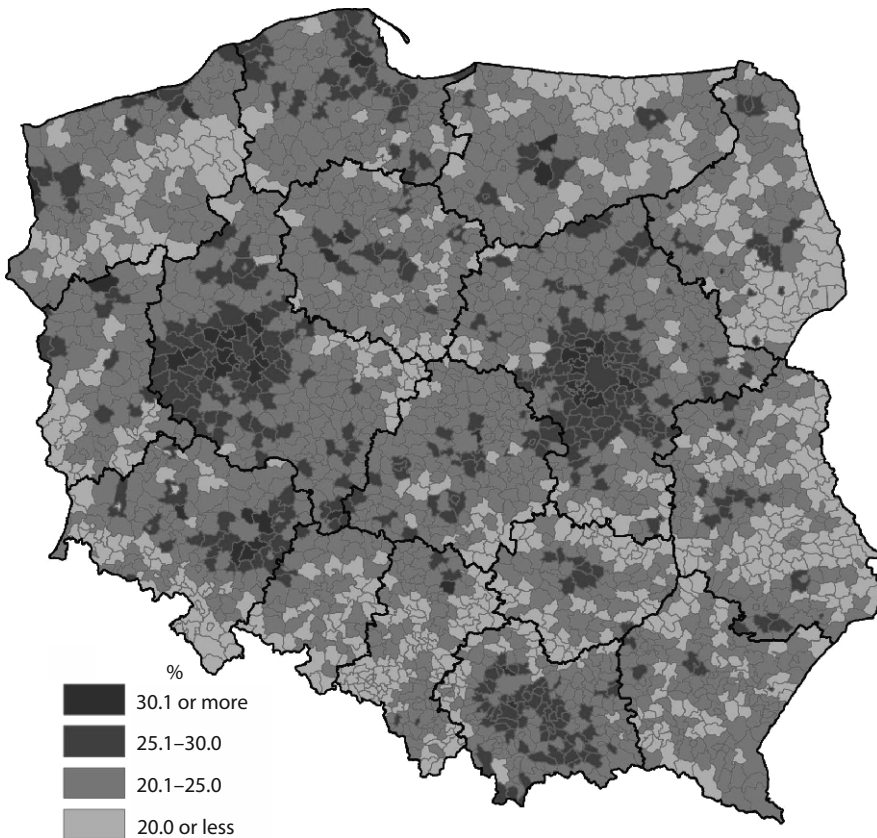
(from the words: connected, communicating, content-centric, computerised, community-oriented, always clicking), as well as the iGeneration, Gen Tech, Gen Wii, Net Gen, Digital Natives, Gen Next and Post Gen (Euromonitor International, 2011). Generation Z share many features with Generation Y, i.e. the generation of 'Uncle Google' and 'Aunt Wiki' (Dolińska-Weryńska, 2016). This latter generation is also called the Millennial Generation or 'Millennials'. In June 2020, employed persons representing Generation Y accounted for nearly 39% of the total number of employed persons. This generation is characterised by flexibility and mobility. They are mobile both in the psychological sense and in their professional career – they move from a company to a company, from a city to a city, and from one country to another (Cewińska et al., 2009). A group of the employed of a similar size (as of June 2020) was made of people from Generation X. This is a mature generation of professionally active people who were brought up in the times of crisis and political and income changes (Kotler, 2005). People from this generation prefer a calm and secure job rather than new challenges. For them, professional success means hard work aimed at achieving a goal. Therefore, they are capable of a great devotion to work, diligent performance of their duties, and subordination of their private life to work (Boni, 2011; Rusak, 2013).

The most mature generations of employed persons are Baby Boomers and Traditionalists. In June 2020, people from these generations accounted for approximately 19% of the total number of employed persons. For this group of people, work is a value in itself, which is why they attach great importance to the work ethic. They are characterised by high commitment and attachment to organisations they work in as well as by a sense of duty and responsibility for tasks entrusted to them (Gadomska-Lila, 2015). In June 2020, around a fifth of this group of people were employed. The professional activity of the older part of the Polish society is of interest to many researchers and institutions. This interest is partially answered by the data on the employed from the Survey on Employment in the National Economy or the LFS. However, these two surveys provide information at a relatively high levels of territorial aggregation (for the whole Poland and for voivodships), which may be insufficient for diagnosing effectively labour resources in the current demographic situation.

Mobilising the potential of older employees may be a key solution to the problem of shrinking labour resources. Data from administrative sources may be helpful in this respect, as they allow the analysis of the economic activity not only using a generational breakdown at gmina level, but also make it possible to take into account the characteristics of employed persons, e.g. sex. A similar analysis showed that the presence of Baby Boomers and Traditionalists on the labour market varies

greatly on a local scale (see Map 5). In June 2020, the employment rate for those born in 1965 and earlier ranged from nearly 38% in the gmina of Lesznowola (Mazowieckie Voivodship) to less than 9% in the gmina of Trzcianne (Podlaskie Voivodship). The analysis of the geographical variance in the employment rate shows that the proximity of large urban centres affects the professional activity of people aged 55 and over. Around Warsaw, Poznań, Wrocław, Kraków and the Tri-City, Poland’s largest cities, there were several gminas where over a quarter of people at this age were in employment.

**Map 5.** Employment rate of Baby Boomers and Traditionalists by gmina of residence in 2020 (as of 30 June)



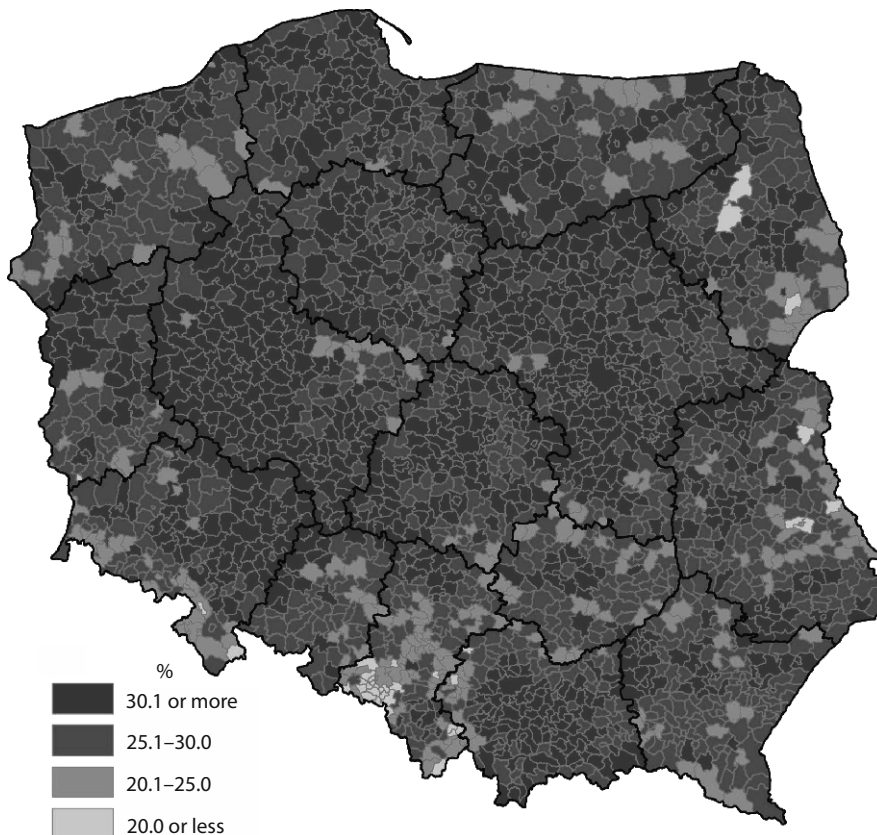
Source: authors’ work based on GUS (2020a) and KRUS and ZUS data.

Among 55-year-olds and older people, a large discrepancy between the employment rates of men and women were observed. In June 2020, around 30% of

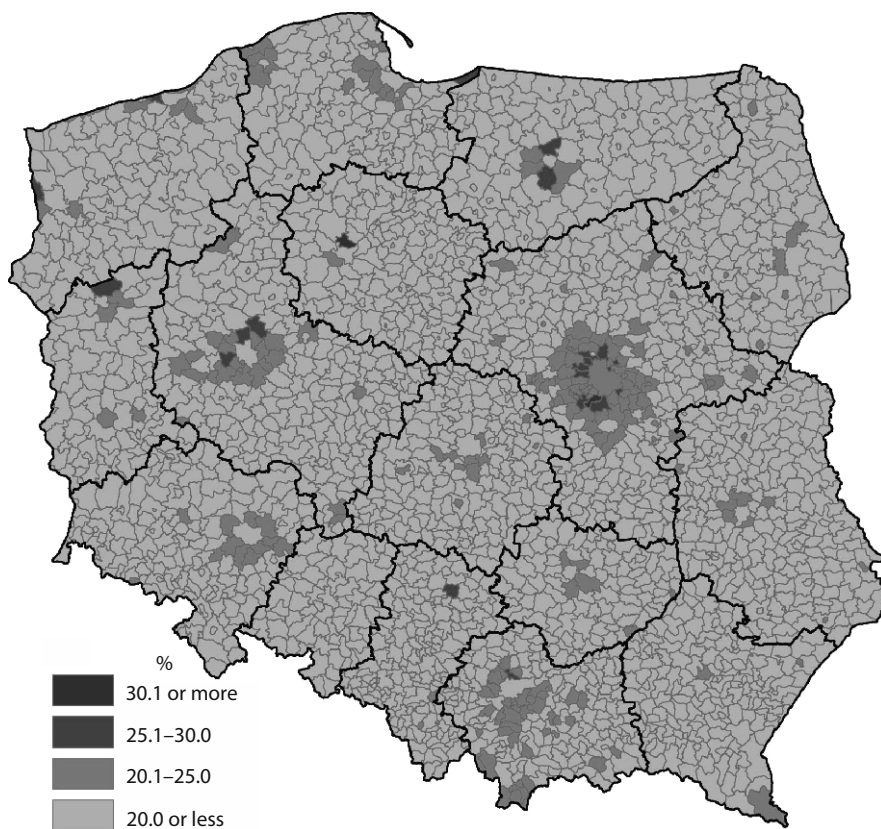


men and around 17% of women from this age group were in employment. However, it should be remembered that this difference results partly from different retirement ages for men and women. Men aged 60–64 work because they have to, while women of the same age are likely to be already retired. Nevertheless, employment rates for women and men at this age vary geographically. As shown on Maps 6–7, in most gminas in Poland, over a quarter of men aged 55 and over were employed, while the same employment rate for women of this age was observed in only 24 gminas (in the remaining gminas, the employment rate for women from this age group was lower). These were mainly gminas located in the vicinity of voivodship capitals. The impact of large cities on the level of employment of women aged 55 and over can be observed in gminas surrounding Warsaw, Poznań, Wrocław, the Upper Silesian Agglomeration and also (albeit on a smaller scale) Olsztyn and the Tri-City.

**Map 6.** Employment rate of men aged 55 and over by gmina of residence in 2020 (as of 30 June)



**Map 7.** Employment rate of women aged 55 and over by gmina of residence in 2020 (as of 30 June)



Source: authors' work based on GUS (2020a) and KRUS and ZUS data.

## 4. Conclusions

The situation on the labour market is the object of keen interest of the society as well as the entities participating in the economic life of a country. Data on the labour market are necessary to make social, economic and administrative decisions at various levels of the socio-economic life, and are also crucial to the decision-making processes of individuals, e.g. in choosing a suitable and satisfying job.

Statistical data are key to the assessment of the situation on the labour market and to creating policies aimed at ensuring an adequate quality of life for the population. In order to satisfy the demand for information, apart from conducting surveys already familiar to data users, official statistics undertake activities aimed at obtaining data at lower levels of aggregation, while at the same time trying to reduce reporting obligations for the national economy entities.

A compromise between data users and official statistics is necessary in order to achieve the two above-mentioned goals. In the field of the labour market, replacing some of the surveys carried out so far with data from KRUS and ZUS will allow the monthly collection of data for the entire economy (on all entities, including the smallest ones with nine or fewer employed persons). In addition, it will be possible to aggregate these data down to gmina level, taking into account additional information on the characteristics of employed persons, i.e. their sex, age and the employment status, while reducing the statistical burden on respondents.

However, to take the full advantage of the possibilities offered by administrative data sources, it is necessary to accept some minor modifications to the concepts underlying official statistics' methodology for collecting data from economic entities, so as to adjust them to the specificity of administrative data resources compiled in such a way as to meet the statutory needs of their administrators. The only differences between definitions relating to employed persons adopted by official statistics and the administrative data sources can be found in the definitions of a farm and of persons employed for the purpose of vocational preparation and agents.

Accepting these relatively small differences seems especially advisable when we see the measurable benefits of such a move. Administrative sources make it possible to obtain data on all employed persons. The Survey on Employment in the National Economy, on the other hand, is conducted following mainly the method of partial enumeration (a random sample of entities), and only to some extent by means of the method of complete enumeration. Last but not least, administrative data sources are capable of satisfying the current demand for information on employed persons at the lowest possible level of aggregation, and with the broadest possible description of the characteristics of employed persons.

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