ECONOMIC CENTERS IN BULGARIA

2023

IME

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Table of Contents

Abbreviations used

BLL	Bulgarian language and literature
FTA	fixed tangible assets
ICT	information and communication technology
NEA	National external assessment
NSI	National statistical institute
FDI	foreign direct investment

Summary

Economic Centers in Bulgaria – 2023 is a publication focused on research aiming to examine and present the concentration of economic activity in Bulgaria and to outline the country's broad economic centers. It is based on industry indicators, labor market data, as well as data on the economic interconnections between municipalities. The economic centers thus defined are not limited to the administrative and territorial division into districts, planning regions, etc. The research carried out by IME is based on comprehensive data collected from the audits of non-financial enterprises and on detailed data from the 2021 census, which allows tracing daily labor migration between the country's municipalities.

Economic centers consist of a core and a periphery. The municipalities with the strongest economy are the economic cores, while the municipalities most closely connected with the economy of the respective core make up its periphery. The present IME study outlines 16 large economic centers in Bulgaria, comprising a total of 132 municipalities. Some of the centers have more than one core, which is the result of existing interconnections between the cores within one and the same center and their having a common periphery or zone of influence. The territory of the 16 economic centers contains nearly ¾ of Bulgaria's population and in them is concentrated over 80% of the country's economic activity. The economic centers form the greater part of the regional map and the trajectory of their development defines that of the country's economy as a whole.

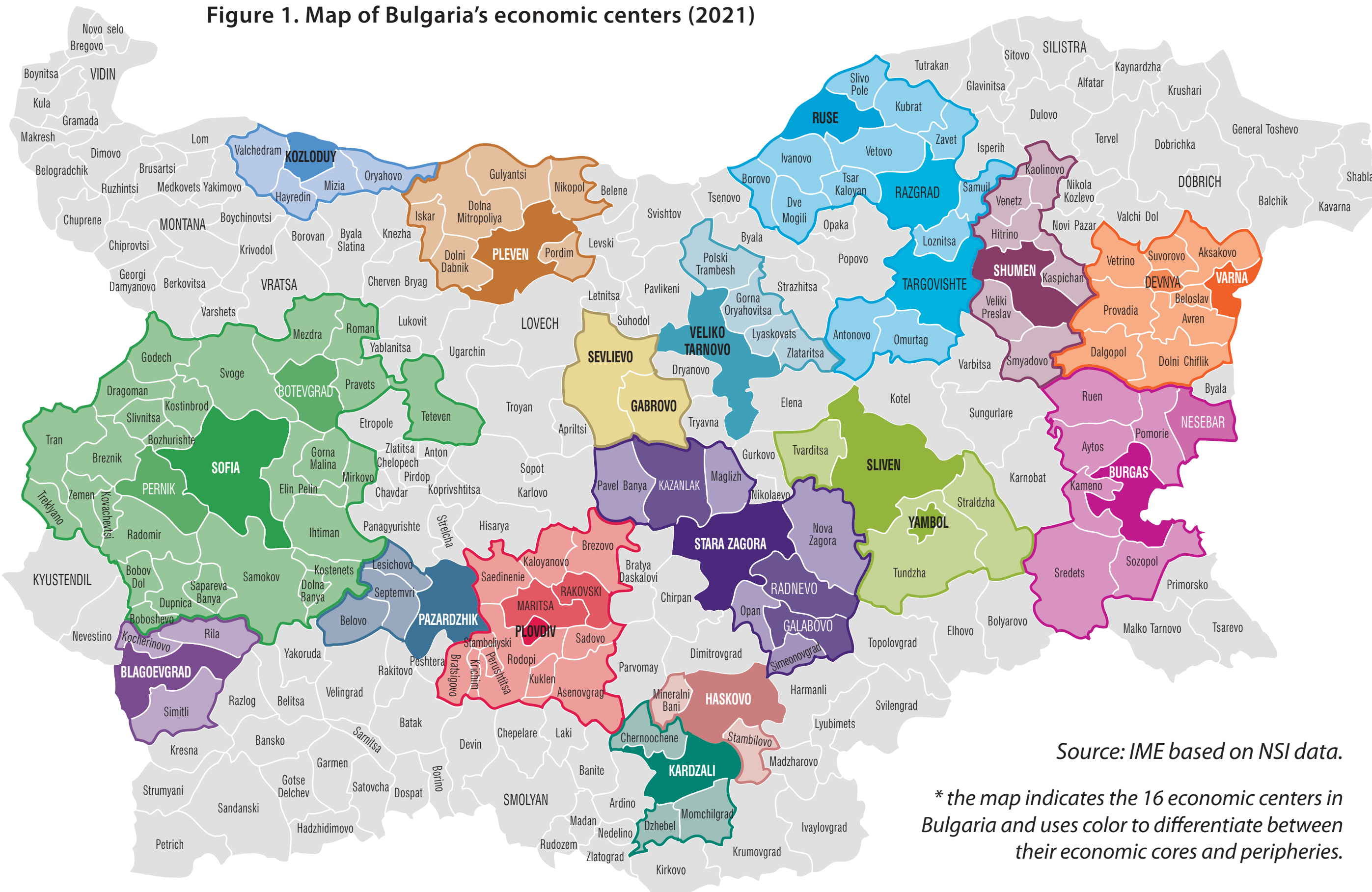
DEFINING AND MAPPING THE ECONOMIC CENTERS

Economic centers in Bulgaria are defined based on clear criteria for evaluating the economic cores and their peripheries. Economic cores are those municipalities in which economic activity is concentrated, which attract workers from neighboring settlements and have dynamic labor markets. Their peripheries comprise workforce donor municipalities that are most closely connected with the core.

- Economic cores are those municipalities which serve as drivers of Bulgaria's regional economy. They are leaders in output and job opportunities and attract significant numbers of workers from neighboring municipalities. To be defined as an economic core, a municipality must meet at least two of the following three criteria: 1) it is among the top 10% of municipalities in production value; 2) it is among the top 10% of municipalities in employment density; or 3) it is among the leading top 10% of municipalities in net daily labor migration.
- The peripheries of the economic centers comprise the municipalities most closely connected with the core's economy based on daily labor migration. A municipality in which at least 10% of employed persons commute daily to the core for work is part of that core's periphery. Detailed data from the population census allow for a very precise evaluation of this indicator once every ten years.

The IME study outlines 29 municipalities which serve as the drivers of the regional economy and meet at least two of the above criteria for an economic core. Their peripheries comprise a total of 103 municipalities which meet the criterion of daily labor migration – at least 10% of the employed persons in each of those 103 municipalities commute daily to a job in the respective core. IME's methodology defines 16 economic centers which shape a large portion of Bulgaria's economy (Fig.1).

Figure 1. Map of Bulgaria's economic centers (2021)



Source: IME based on NSI data.

** the map indicates the 16 economic centers in Bulgaria and uses color to differentiate between their economic cores and peripheries.*

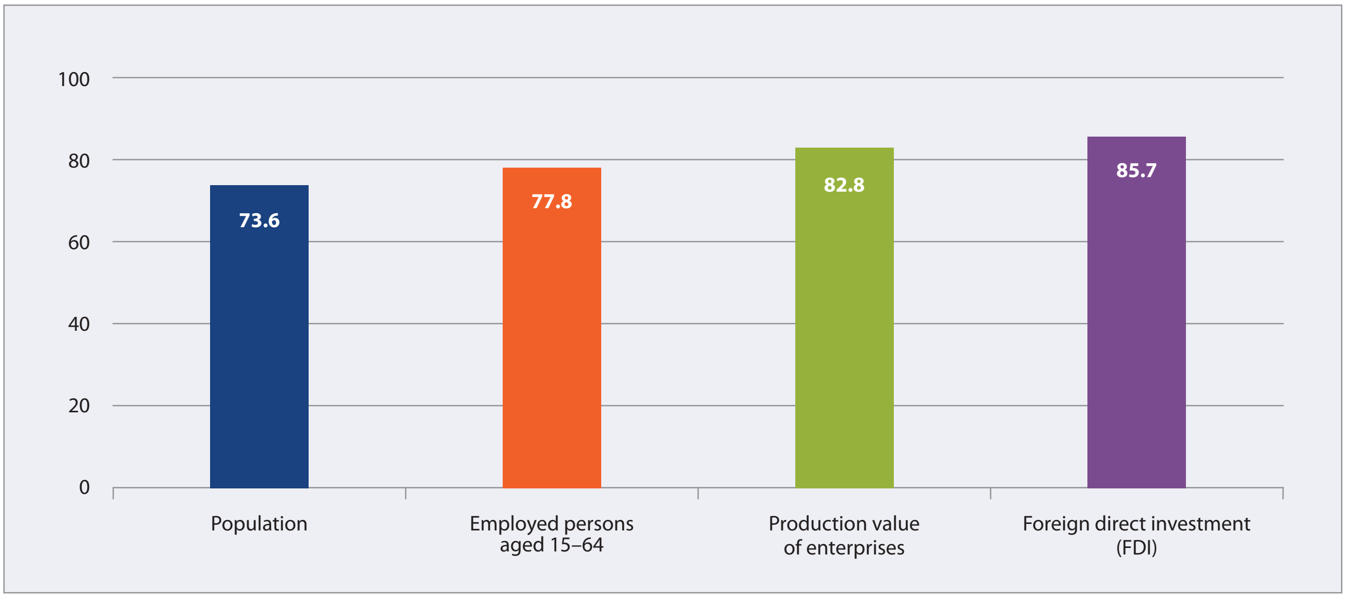
SIZE AND CONTRIBUTION OF THE ECONOMIC CENTERS

The 16 economic centers as defined by IME comprise 132 municipalities with a population of 4.8 million people (73.6% of the country's population) and close to 2 million people in employment (77.8% of all employed persons aged 15–64 in the country). In 2021, the production value of the non-financial enterprises in the 16 economic centers reached 178 billion BGN, which amounts to 82.2% of the overall production value of the country's enterprises. Value added from enterprises in the 16 economic centers reached over 64 billion BGN and has nearly doubled in the past 10 years. As of the end of 2021, the cumulative FDI in the 16 economic centers reached over 24 billion EUR or 85.7% of all foreign capital invested in the country's economy (Fig. 2).

The total production value of the enterprises within the largest economic center, Sofia–Pernik–Botevgrad, amounts to 89.7 billion BGN (41.7% of the output of all enterprises in the country). It is followed by the Plovdiv–Maritsa–Rakovski and Varna–Devnya economic centers, the production value of whose enterprises amounts to 20.1 billion BGN (9.4% of the output of all enterprises in the country) and 12.4 billion BGN (5.8% of the output of all enterprises in the country) respectively. Next are the large economic centers of Stara Zagora–Kazanlak–Radnevo–Galabovo (production value of 10.6 billion BGN), Ruse–Targovishte–Razgrad (production value of 10 billion BGN) and Burgas–Nessebar (production value of 7.7 billion BGN). The remaining economic centers have reported production value of their enterprises below 2% of the total output in the country (Fig. 3).

The large economic centers have increased their size in the last 10 years, and the evidence shows both the emergence of secondary cores and an extension of their peripheries. This means that the upswing in the leading economic cores has triggered a certain regional effect, thus providing more municipalities

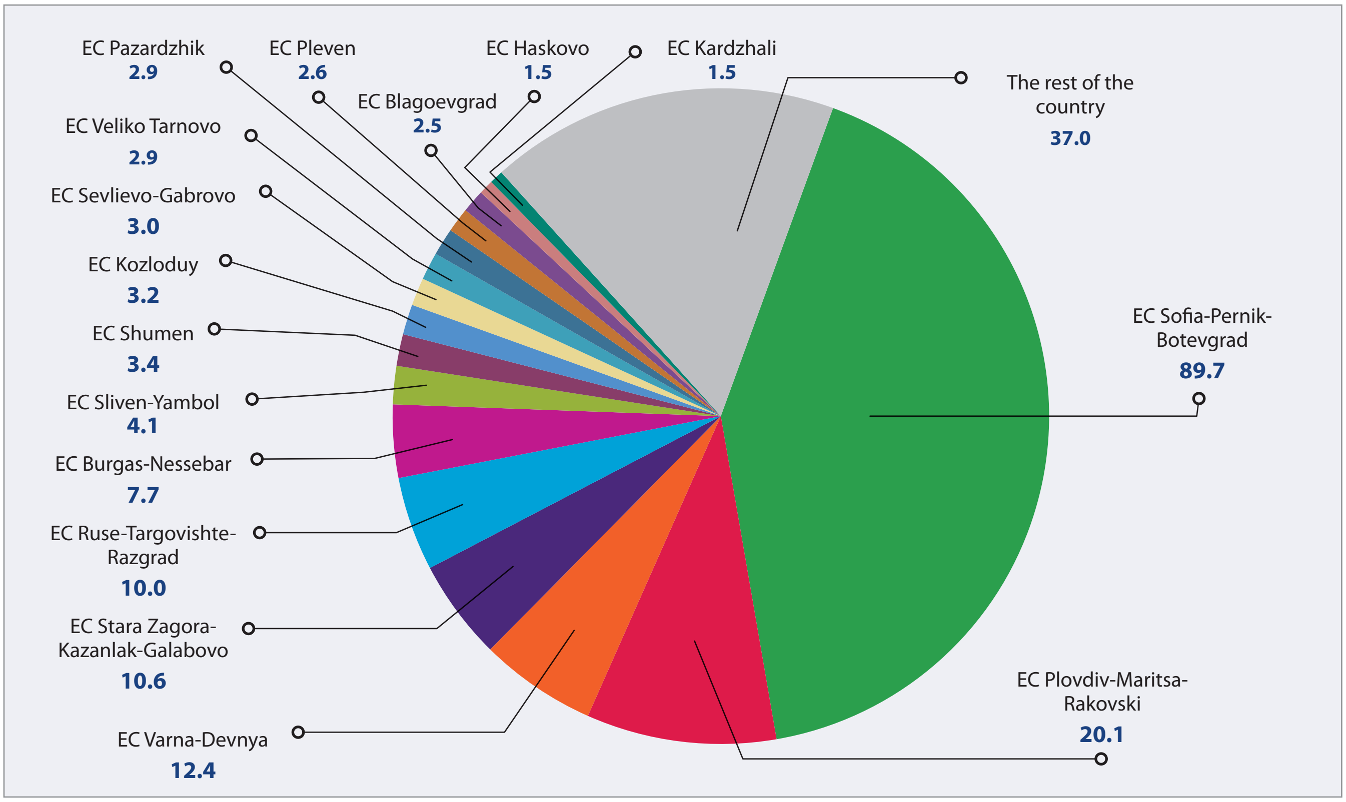
Fig. 2. Size of the 16 centers and their contribution to Bulgaria's economy (2021, %)



Source: IME based on NSI data.

with development opportunities. What distinguishes the leading six centers is that they have two or three cores, as well as a wide periphery. The population in the leading centers exceeds 300,000 people, while the number of employed persons is over 100,000 people (Table 1).

Fig.3. Production value of enterprises by economic center (2021, billion BGN)



Source: IME based on NSI data.

Table 1. Basic indicators for Bulgaria's 16 economic centers (2021)

Economic center (2023)	Number of municipalities included in the center (2021)	Production value of enterprises (billion BGN, 2021)	Population of the economic center (thousand people, 2021)	Employed persons aged 15–64 (thousand, 2021)
Sofia–Pernik–Botevgrad	30	89.7	1,685.9	786.1
Plovdiv–Maritsa–Rakovski	14	20.1	552.1	228.5
Varna–Devnya	10	12.4	421.6	176.8
Stara Zagora–Kazanlak–Radnevo–Galabovo	9	10.6	300.8	114.7
Ruse–Targovishte–Razgrad	15	10.0	332.5	122.2
Burgas–Nessebar	8	7.7	332.3	130.6
Sliven–Yambol	5	4.1	219.5	73.2
Shumen	7	3.4	123.8	45.7
Kozloduy	5	3.2	43.9	13.4
Sevlievo–Gabrovo	2	3.0	81.6	32.5
Veliko Tarnovo	5	2.9	141.2	56.0
Pazardzhik	4	2.9	125.2	45.6
Pleven	7	2.6	167.0	59.9
Blagoevgrad	4	2.5	89.0	35.7
Haskovo	3	1.5	92.3	32.8
Kardzhali	4	1.5	92.5	29.5

Source: IME based on NSI data.

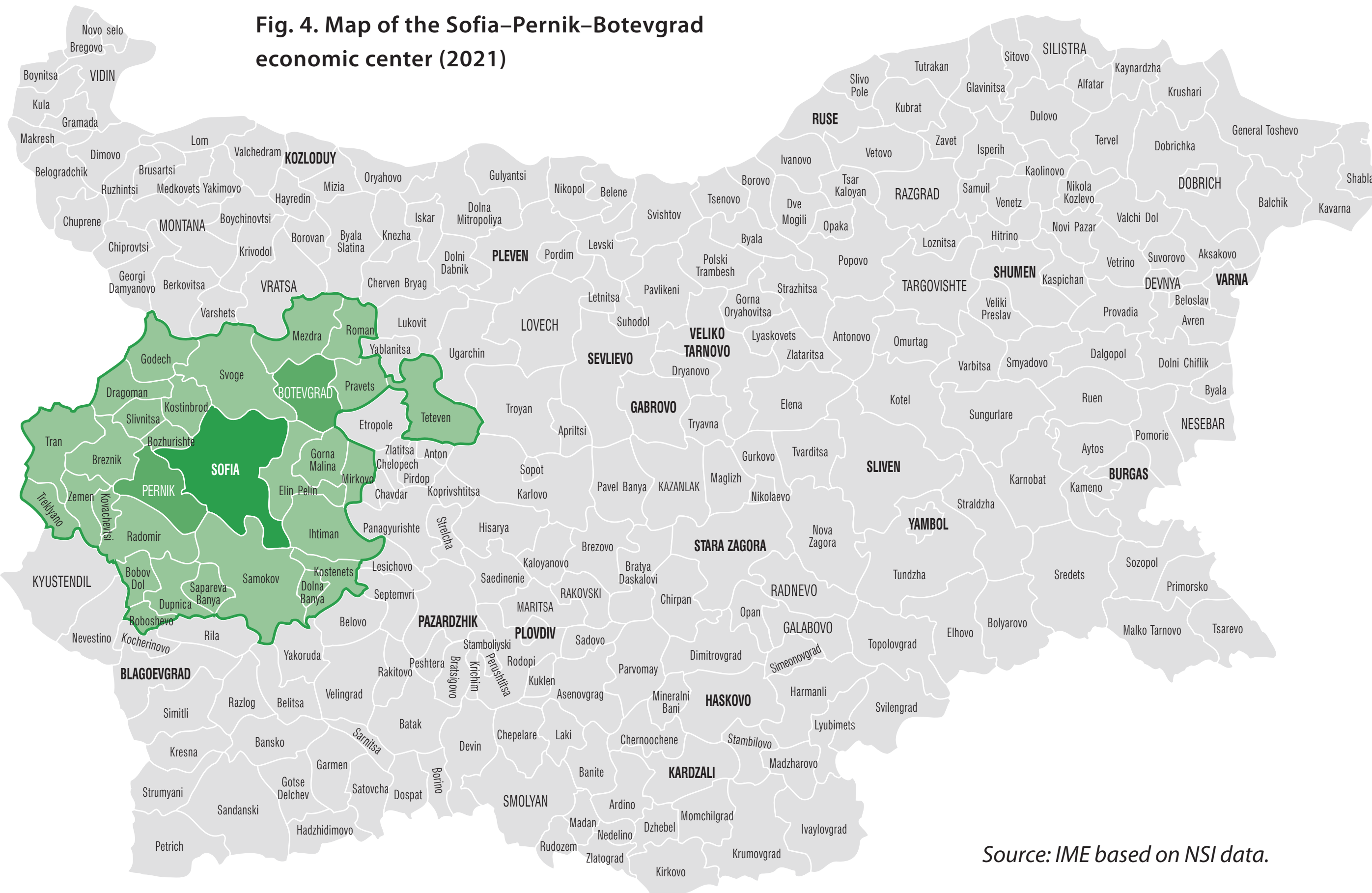
TYPES OF ECONOMIC CENTERS

Bulgaria's economic centers can be provisionally divided into three groups according to their size. Standing out at the top is the center around Sofia – the unrivalled leader in the country. It is followed by five broad centers around Plovdiv, Varna, Stara Zagora, Ruse and Burgas, which are large in size, have secondary cores and a solid periphery. The leading six economic centers have developed around the six largest cities in the country – the only ones with population over 100,000. They are followed by the remaining ten centers which are smaller in size, have limited peripheries and have a smaller footprint on the regional map.

THE LEADER: SOFIA

The economic center of the capital has two secondary cores – Pernik and Botevgrad, and comprises a total of 30 municipalities with a population of nearly 1.7 million people (Fig. 4). It should be noted that the two "complementary" cores are also part of the periphery of the capital city municipality. This means that Sofia's periphery comprises altogether 29 municipalities, with over 10% of employed persons in them commuting every day to their jobs in the capital. Over the past 10 years, the capital has been widening its periphery, thus exerting a very strong influence on the labor markets in the municipalities located in close proximity to the big city – over 1/3 of all employed

Fig. 4. Map of the Sofia–Pernik–Botevgrad economic center (2021)



Source: IME based on NSI data.

persons in the municipalities of Svoge, Bozhurishte, Kostinbrod, Gorna Malina, Pernik and Elin Pelin commute daily to the capital for work.

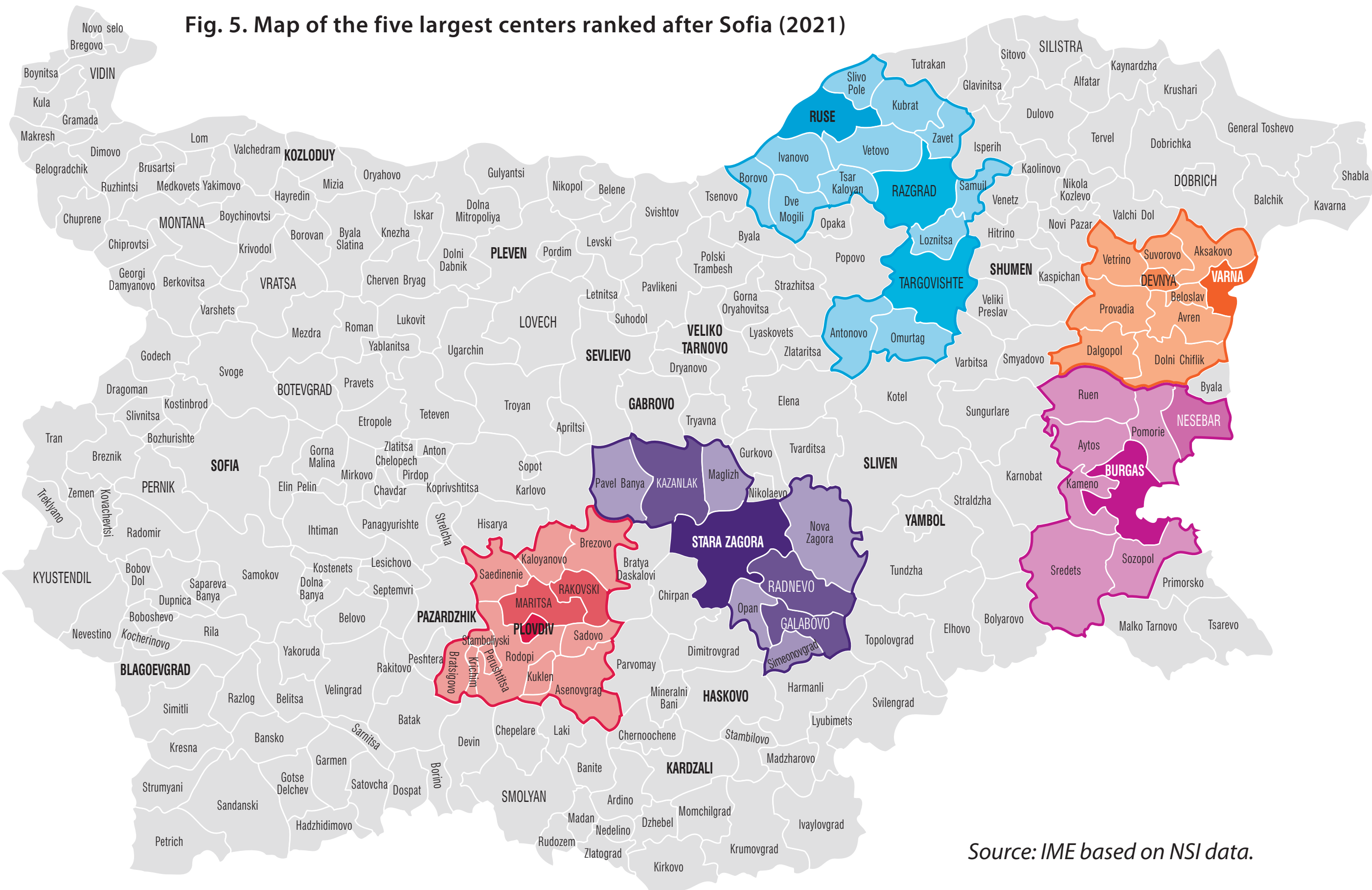
Production value in the Sofia–Pernik–Botevgrad economic center amounts to nearly 89.7 billion BGN in 2021, or 41.7% of the output of all non-financial enterprises in the country. The value added of enterprises is over 35.3 billion BGN and has practically doubled in the past ten years. The center's population is almost 1.7 million, while the people in employment aged 15–64 number 786,000. The capital's economic center has the highest share of university graduates (37.6% of the population aged 7 and above), the highest employment rate (71.8% of people aged 15–64) and the highest salaries (a gross average monthly salary of 1,917 BGN in 2021 for people employed in the center).

The capital city municipality, which is the center's main core, has been performing very well in all these indicators: 43.6% of Sofia's population aged 7 and above has higher education; the employment rate reaches 75%, while in 2021 the average monthly salary of employed persons was 2,144 BGN. The capital's demographic indicators have traditionally been good, as it keeps attracting young and active people from all over the country. The big city's attractiveness and its economic diversity, as well as the development of industry and logistics in the surrounding municipalities, including the secondary cores and the periphery, provide the potential for growth and expansion of the economic center around Sofia.

THE FIVE LARGEST CENTERS RANKED AFTER SOFIA

Besides the broad economic center around Sofia, there are five large economic centers that also stand out on the map, all of them with a wide periphery and significant footprint on the regional map. They are the centers around Plovdiv (Plovdiv–Maritsa–Rakovski), Varna (Varna–Devnya), Stara Zagora (Stara Zagora–Kazanlak–Radnevo–Galabovo), Ruse (Ruse–Targovishte–Razgrad), and Burgas (Burgas–Nessebar). These five centers differ considerably from all others on the map (Fig. 5) in having a population between 300,000 and 550,000, employed persons numbering between 110,000 and 230,000, and production value of their enterprises ranging from 7 billion to 20

Fig. 5. Map of the five largest centers ranked after Sofia (2021)



Source: IME based on NSI data.

billion BGN. In 2021, the average salary of people in employment in the five large centers was roughly between 1,200–1,400 BGN a month and reaching about 2,000 BGN in some of the secondary cores with an industrial focus – Radnevo, Galabovo and Devnya.

The Plovdiv economic center has two secondary cores – Maritsa and Rakovski, and comprises 14 municipalities with a population of 552,000 people. In total, the employed persons aged 15–64 on the center's territory number 228,500, and over 1/3 of all employed people from the municipalities of Rodopi, Kuklen and Maritsa commute on a daily basis to their jobs in Plovdiv. The Varna economic center has a single secondary core – Devnya, and encompasses 10 municipalities with a population of 422,000. In total, the employed persons aged 15–64 on the center's territory number 176,800, and over 1/3 of all employed persons in the municipalities of Aksakovo, Avren and Beloslav commute daily to Varna for work. Both centers have a good educational structure of the population, relatively high employment rates and are successful in attracting young and active workforce.

Following the centers around Plovdiv and Varna are those around Stara Zagora (consisting of 9 municipalities), Ruse (15 municipalities) and Burgas (8 municipalities), each of which has secondary cores with population over 300,000. Stara Zagora forms a broad center with as many as three secondary cores – Kazanlak, Radnevo and Galabovo; Ruse also has two solid secondary cores – Targovishte and Razgrad, while the secondary core of Burgas is Nessebar. The number of employed people aged 15–64 in the three centers varies from 115,000 to 130,000 people, and employment rates are within 60–62%. The three centers have similar characteristics, and among the challenges they face are raising educational levels, which includes raising the number of university graduates and of qualified workforce, overcoming the unfavorable demographic processes, as well as sustainability in keeping and attracting young and active people.

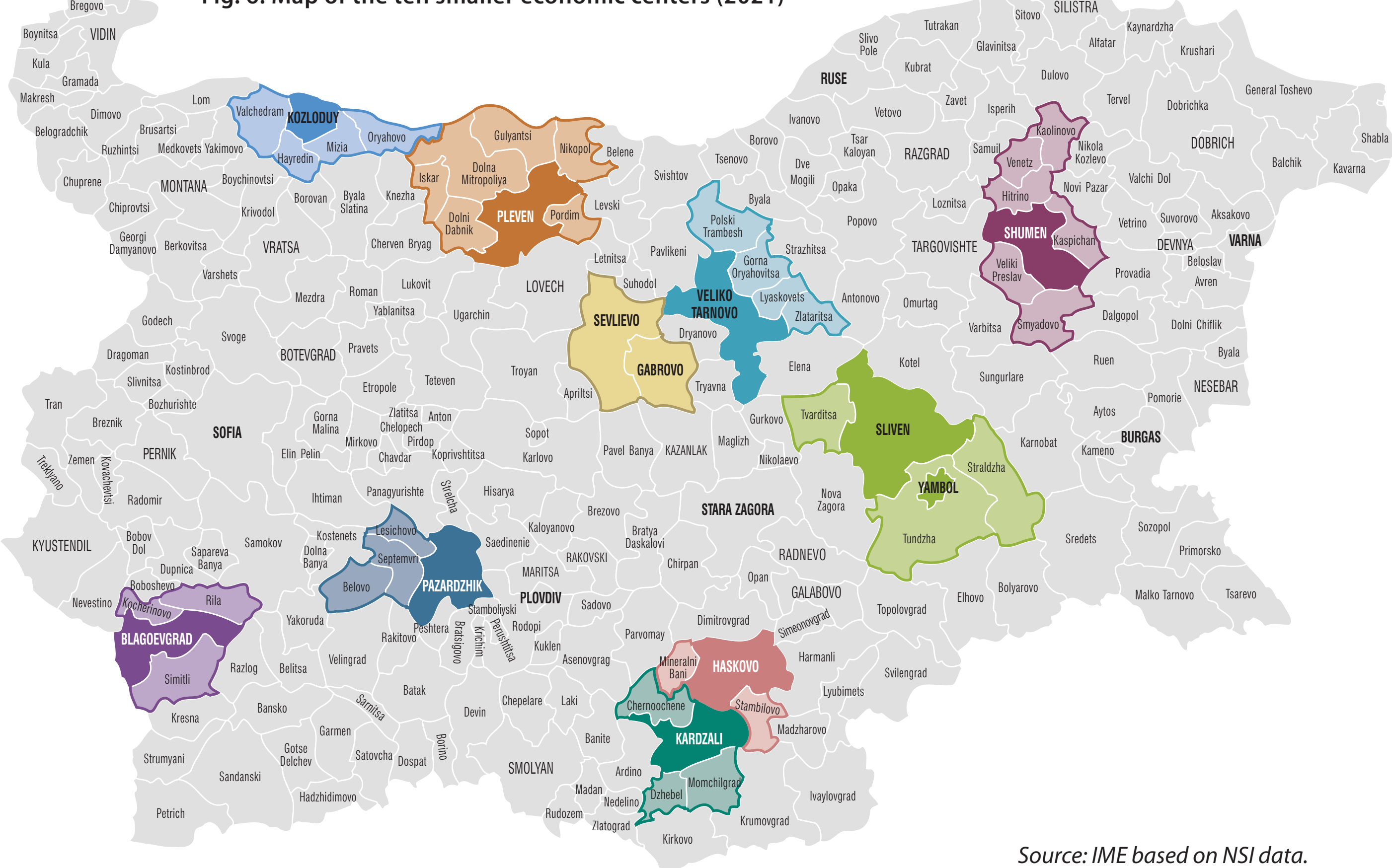
THE TEN SMALLER ECONOMIC CENTERS

Apart from the unsurprising leader – Sofia, and the five larger economic centers in the country, the IME methodology outlines another ten economic centers – of a smaller size, with more limited peripheries and less significance on the regional map. In the south, those are the centers of Sliven–Yambol, Pazardzhik, Blagoevgrad, Haskovo and Kardzhali. Each of them, despite its smaller periphery, has points of contact with the large economic centers in southern Bulgaria. In the north, the smaller economic centers include Shumen, Kozloduy, Sevlievo–Gabrovo, Veliko Tarnovo and Pleven. Of these, Shumen is the only one with points of contact with the large economic centers in northern Bulgaria. The Pleven and Kozloduy centers, as well as those of Veliko Tarnovo and Sevlievo–Gabrovo have points of contact with each other, though they do not form a common economic center and remain outside the leader cohort (Fig. 6).

Population in the smaller economic centers varies from below 44,000 people in Kozloduy to almost 220,000 in Sliven–Yambol. The number of people in employment aged 15–64 reaches over 73,000 in Sliven–Yambol, though staying well below the 100,000 people limit which is characteristic for centers such as Burgas–Nesebar, Ruse–Targovishte–Razgrad and StaraZagora–Kazanlak–Radnevo–Galabovo.

The smaller centers have difficulties forming a large periphery: the only ones among them encompassing more than five municipalities are Shumen and Pleven. The Sliven–Yambol, Pazardzhik, Blagoevgrad and Kardzhali centers have formed peripheries of three municipalities each, Haskovo has a periphery of only two municipalities, while the Gabrovo–Sevlievo center has no periphery, though some neighboring municipalities are close to meeting the criterion. The ten centers listed above have their potential but they are consistently challenged by demographic and educational problems. The smaller centers are characterized by both a worsening age structure and a sustained loss of population, including young and active people. There are some exceptions, like the net migration rate in the Kardzhali economic center in recent years but generally speaking, demographic processes have curbed the potential of those secondary centers. They also have lower shares of population with university education: the Veliko Tarnovo, Blagoevgrad and Sevlievo–Gabrovo centers are the only ones with ¼ or more of the population aged 7 and above with university degrees. The less favorable educational structure in most of the secondary centers entails both lower employment levels and lower salaries compared with the leading centers.

Fig. 6. Map of the ten smaller economic centers (2021)



Source: IME based on NSI data.

THE ECONOMY BEYOND THE CENTERS AND SPECIFIC CASES

The economic centers have over 80% of the country's economy concentrated in them. That is not to say, however, that in the remaining parts of the country there are no economic areas worthy of attention. The 16 economic centers presented here are leaders in scale but they are not the only ones solely indicative of either the variety of economic activity or the economy's potential as a whole. Various examples of specific economic centers can be found on the regional map, as well as examples of centers, mostly formed around district capital cities, which have their own zones of influence, though on a smaller scale.

An interesting example in point is the economy of the region skirting the Sredna Gora mountain and Etropole. It is markedly specific and is dominated by several large enterprises, including the largest manufacturing company in the country located on the border between Pirdop and Zlatitsa, as well as the extraction companies in Chelopech, Panagyurishte and Etropole/Mirkovo. These companies' operation has a powerful regional effect, with some of the small municipalities near Sredna Gora and Etropole leading on various economic indicators. The region's specifics, however, including the effect spreading to several small municipalities, do not allow the formation of an economic center as defined by the methodology used in the present study.

THE CENTERS AS A BASIS OF REGIONAL DEVELOPMENT

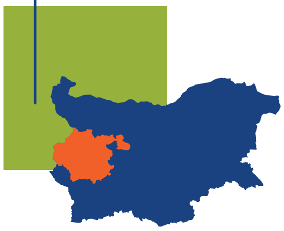
The examination of the economic centers situates the issue of regional development in a different perspective. It allows foregrounding the regions' potential for development rather than their differences. Within the 16 economic centers thus defined is concentrated a large portion of the country's economy, but their potential and development trajectories vary a lot. What stands out quite clearly is that there are centers of different types, with the center around the nation's capital – Sofia as the unquestioned leader, followed by the five large economic centers formed around the cities with population over 100,000, while the ten smaller centers have a limited sphere of influence.

The map of the country's economic centers allows for some important observations. Notably, the large centers in the south often hold together several cores and have more points of contact. The leading economic centers around Sofia, Plovdiv, Stara Zagora and Burgas form secondary cores and with their peripheries, they cover a large part of the territory south of the Stara Planina mountain. Alongside the huge periphery of the center around Sofia, those around Plovdiv and Stara Zagora are telling examples of the beneficial effect produced by the better connectedness between different economic zones and the possibility for interaction between them.

In the north, similar interaction can be observed in the broad zones around Varna and Ruse, where secondary cores are formed and the periphery is large enough to stand out on the regional map. However, in the northwest and in the Northern central region there are centers smaller in size and with limited economic impact. The economies of Veliko Tarnovo, Gabrovo and Sevlievo, as well as those of Pleven and Kozloduy, would be of a different scale if they formed joint centers. However, neither the connectedness between them, including the condition of the infrastructure, nor their economic interaction is sufficiently developed to prevent them from remaining separate centers with smaller zones of influence.

The economic centers' dynamics examined here lays the foundation for tapping additional potential for regional development. The leading centers are successful in profiting from the combination of the attractiveness and diversity of the big city with the development of industry and logistics in the wide periphery, including by forming secondary cores. Sofia is a case in point, but a similar development can also be observed in Plovdiv and Varna. The peripheries and the secondary cores of the three leading centers contain some of the municipalities with the strongest manufacturing in the country.

The remaining large centers, similar in their size though not dominating the regional map in any similar ways, can profit from the interaction with strong secondary cores. Stara Zagora and Ruse, as well as to a certain extent Burgas, are examples in point: the interaction of several comparable economic cores has as its end result the formation of a single large economic center. Interaction of a similar type, be it between a large core and an industrial periphery, or between two economic cores with comparable population and scale of economic activity, ultimately results in a stimulating effect capable of transforming the regional map.



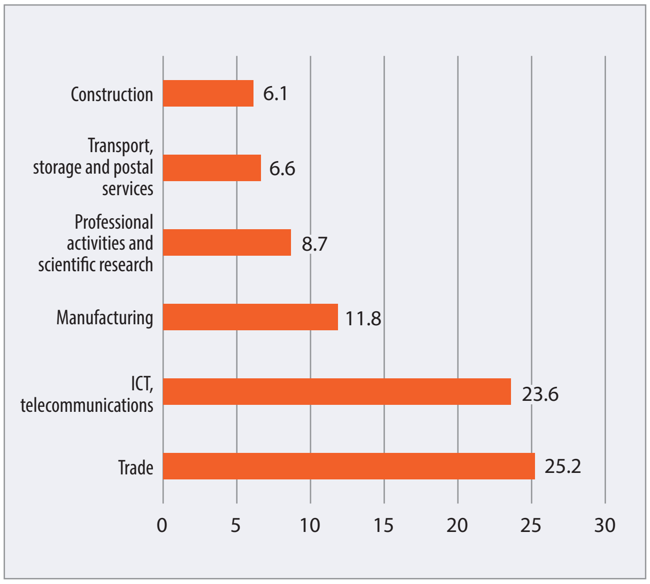
Sofia–Pernik–Botevgrad
Economic Center

INTRODUCTION

Sofia–Pernik–Botevgrad is the most developed economic center in the country. The capital's economy is powered by commerce, ICT and other services, while in the peripheral municipalities it is driven by industry, transport and logistics. Foreign investment is high, while enterprises register considerable export revenue. The labor market has low unemployment, high employment and high salaries, especially in the high-tech sector. Despite the negative natural population growth, the center's demographic indicators are favorable due to low ageing, a high share of working-age population and a positive net migration rate. The high share of a university-educated workforce is a key advantage for the capital's growth potential.

Key indicators for the Sofia–Pernik–Botevgrad economic center	
Production value (2021)	89.7 billion BGN
Economic growth (2012–2021)	103.5%
Export revenue (2021)	46,559 million BGN
Foreign direct investment (2021)	15,993 million EUR
FTA acquisition expenditures (2021)	11,037 million BGN
Population (2021 census)	**1,685,893**
Share of working-age population (2021)	64.8%
Share of population with tertiary education (2021)	37.6%
Natural population growth (2022)	–6.1‰
Net migration rate (2022)	6,1‰
Number of people in employment (2021)	**786,097**
Employment rate (2021)	71.8%
Unemployment rate (2022)	2.5%
Employment growth (2017–2021)	2.2%
Gross average salary (2021)	1,917 BGN/month

Share of value added of leading sectors (2021, %)



COMPOSITION AND LABOR MIGRATION

The economic center consists of three cores – the municipalities of Sofia (capital city), Pernik and Botevgrad, the capital city's periphery comprising 29 municipalities, including the two smaller cores and their peripheries. The daily labor migration from the peripheral municipalities to the capital amounts to 42,200 people, with the greatest number coming from Pernik (13,100 people), Svoge (4,100) and Kostinbrod (3,400). Jobs in the capital city make up the highest share in the employment of Svoge – 49% of all employed persons in the municipality commute to their jobs in Sofia, 47% in Bozhurishte and 40% in Kostinbrod. In comparison with the previous edition of the study (2017), the number of municipalities in the center has increased by 1/3, all municipalities being part of the administrative districts of Sofia – capital city, Sofia, Pernik, Kyustendil, Vratsa and Lovech. In about a dozen other municipalities the share of daily labor migration to the cores also nears 10%, which could potentially turn them into periphery in the near future.

ECONOMY AND INVESTMENT

Sofia–Pernik–Botevgrad is the center with the highest production value in the country – 89.7 billion BGN in 2021, or 53,000 BGN per capita and about 50% of the total production of all 16 centers. The growth of value added over the last 10 years is 104%, with only the centers around Plovdiv and Kardzhali developing faster. Despite the large number of municipalities in the center, value added is highly concentrated in the capital (92.5%), with only Pernik (1.6%), the logistics center Elin Pelin (1.3%) and the industrial center Botevgrad (1.1%) having shares of any significance. The leading sector is trade with a share of 25% of the value added, followed by the fast growing ICT sector (24%). Manufacturing, better developed in the peripheral municipalities also plays a significant role with a share of 12%, as well as professional activities (9%) which include the outsourcing of various business service. The center is home to the largest employers in the country – NRIC with 11,000 employees, Bulgarian Post with 8,300 employees, Kaufland Bulgaria with 5,800 employees, and BDZ-PS with 5,300 employees. However, it must be noted that a significant share of the employees officially reported in these enterprises have workplaces distributed across the country.

The center also ranks first in foreign investment, which by the end of 2021 reached 16 billion EUR cumulatively. Foreign capital is directed almost entirely towards enterprises in Sofia municipality – 14.7 billion EUR, while significant FDI is also attracted by Elin Pelin (430 million EUR), Botevgrad (278 million EUR) and Bozhurishte (263 million EUR). The distribution of foreign investment in the capital is relatively balanced between the different sectors, with trade, transport and tourism leading the way (4.5 billion EUR), while in smaller municipalities it tends to be directed towards industry and logistics. The center has the highest investment activity in the country, with FTA acquisition expenditure in 2021 averaging 6,500 BGN per capita, mostly concentrated in trade, transport and tourism. Export earnings in 2021 were 47 billion BGN, generated by commerce, ICT and manufacturing. The center has the third highest average labor productivity in the country – 23,900 BGN value added per employee per year.

LABOR MARKET

Sofia–Pernik–Botevgrad has the lowest unemployment rate among all the centers – 2.5% according to the Employment Agency data for 2022. The lowest unemployment rate is in Sofia municipality (1.5%), but in some remote small municipalities the rate remains high – up to 21% in Tran and 14% in Treklyano.

In most municipalities, especially in the capital and those neighboring it, there are almost no long-term unemployed with more than a year of registration in the labor offices, with a more significant share only in the small municipalities near Pernik and especially in Tran, where they are 10.2%. The shares of unemployed young people are relatively high compared to the leaders; in most of the small municipalities of the economic center, between 2% and 3% of the population aged 15–29 are unemployed, while in the capital this share is 0.6%.

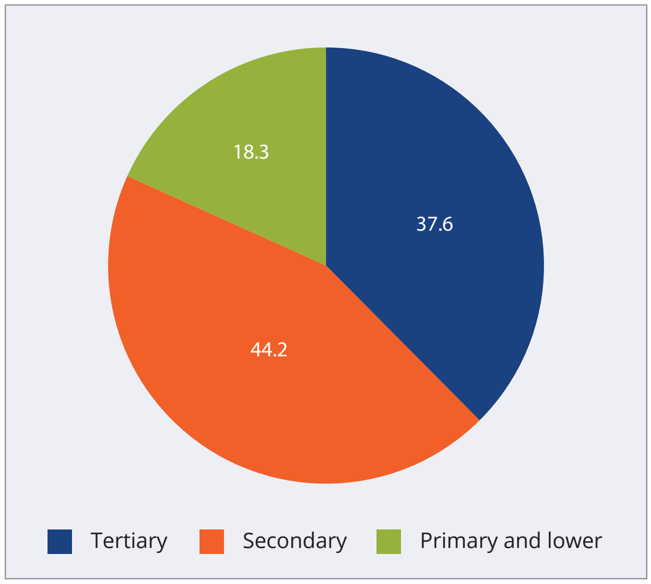
The employment rate for the 15–64 age group in the center is 71.8%, though there are large differences between municipalities: while in Sofia municipality the employment rate is 75%, in most small municipalities it varies between 55% and 65%. The total number of employed persons exceeds 786,000, of which 629,000 are in the capital and 35,000 in Pernik. Botevgrad, Elin Pelin, Dupnitsa and Samokov also have over 10,000 employees. The Sofia–Pernik–Botevgrad center is among the few in which the total number of employees has registered some growth in recent years, albeit it is relatively low – 2.2% for the period between 2017 and 2021. The highest share of employees is in trade (23%), ICT (13%) and manufacturing (12%).

Between 2017 and 2021 the average salary in the center increased by 49% to 1,917 BGN per month on average, which is mainly due to the dominant share of the labor market of the capital city, where the average salary is 2,144 BGN per month. The highest salaries in Sofia by 2021 were in ICT (4,101 BGN per month), professional activities (2,743 BGN per month) and healthcare (2,235 BGN per month).

HUMAN RESOURCES AND WORKFORCE

Between the 2011 and 2021 censuses, the municipalities in the Sofia–Pernik–Botevgrad center lost 3.9% of their population; 1.69 million people live in the center – over 1/5 of the total population of Bulgaria. Among all the country's centers, Sofia–Pernik–Botevgrad has the highest share of working-age population – 64.8%: 838,000 people in the capital, 53,000 in Pernik, 23,000 in Dupnitsa. The share of elderly population is relatively low compared to the national average, with 20.8% of the population aged 65 and above, while demographic replacement indicators show a relatively slower ageing process.

Share of population aged 7 and over based on the highest education degree (2021, %)



The area around the capital is among the main attraction points for migration, with an average net migration rate of 6.1‰ for the center in 2022. However, the rate is negative in the greater part of the center, as most settlers choose one of the three cores, especially Sofia and Pernik. The natural population growth is relatively favorable (–6.1‰) compared to the national average, but varies considerably between municipalities: from –3.4‰ in the capital to as much as –51‰ in Kovachevtsi.

The Sofia–Pernik–Botevgrad center has the most favorable educational structure in the country, with a share of persons with higher education among the population aged 7 and above of 37.6%, while the share of population with primary or lower education is only 18.3%. In the capital city, the number of university graduates is significantly higher – 43.6%, but in most of the peripheral municipalities this share is in the range of 15–20%, while the leading share there is that of secondary education. The share of illiterate persons is the lowest in the country – 0.5%, with the exception of the municipalities of Tran (4.2% illiterates), Pravets (2.5%) and Ihtiman (2%). Students' results are among the highest in the country – at the 2022 matriculation exam, the average score in BLL is Good 4.24 and the average score in the NEA in mathematics at the end of grade 7 is 42.6 out of 100. Most of the country's successful and leading secondary and higher education schools are located in this economic center.

Plovdiv–Maritsa–Rakovski
Economic Center

INTRODUCTION

The Plovdiv–Maritsa–Rakovski center has a high degree of economic development, driven mainly by a strong manufacturing industry in the peripheral municipalities and by services in Plovdiv City municipality. Over the last decade it has experienced the fastest growth in value added among the 16 centers in the country. Unemployment is low in almost all municipalities and employment is among the highest in the country. Salary growth has not been equally fast. Demographic conditions in the centre are relatively favorable compared to the rest of the country. However, student achievement is low and there are visible problems with illiteracy in some places.

Key indicators for the Plovdiv–Maritsa–Rakovski economic center	
Production value (2021)	20.1 billion BGN
Economic growth (2012–2021)	113.4%
Export revenue (2021)	9,156 million BGN
Foreign direct investment (2021)	1,893 million EUR
FTA acquisition expenditures (2021)	2,109 million BGN

Population (2021 census)	**552,074**
Share of working-age population (2021)	63.4%
Share of population with tertiary education (2021)	26.7%
Natural population growth (2022)	–6.7‰
Net migration rate (2022)	8.5‰

Number of people in employment (2021)	**228,527**
Employment rate (2021)	65.1%
Unemployment rate (2022)	4%
Employment growth (2017–2021)	–1.3%
Gross average salary (2021)	1,306 BGN /month

COMPOSITION AND LABOR MIGRATION

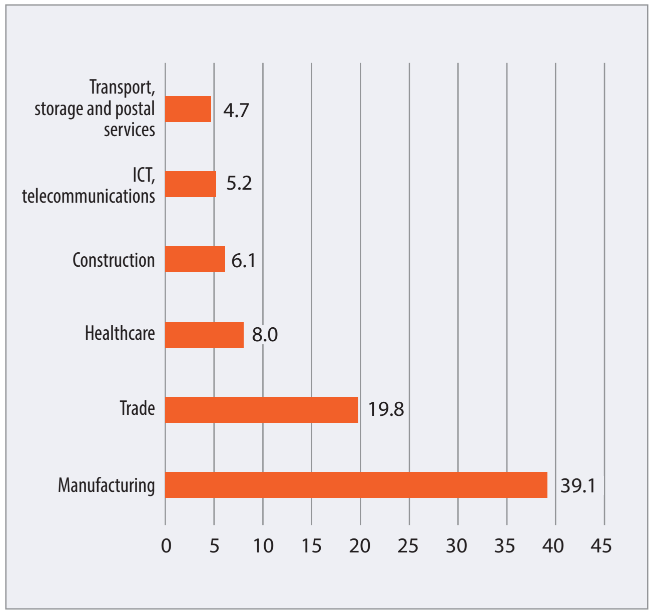
The economic centre consists of three cores – the municipalities of Plovdiv, Maritsa and Rakovski, and a broad periphery, which includes 11 other municipalities. All the peripheral municipalities are labor force donors to Plovdiv, while the municipality of Brezovo also falls within the periphery of Rakovski. The number of people commuting every day from the periphery to Plovdiv for work exceeds 25,000. The leading position in commuting belongs to Rodopi, where 49% of the employed, or 6,600 people, travel daily to Plovdiv, another 5,200 come from Maritsa, and 4,200 people travel from Asenovgrad. A significant source of labor for the smaller cores is Plovdiv City municipality itself, with 3,200 people travelling to Maritsa municipality each day and another 850 to Rakovski. The municipalities of Hisarya and Parvomay are very close to joining Plovdiv's periphery, and compared to the previous edition of the survey (2017), the center has expanded by adding the municipalities of Bratsigovo and Brezovo.

ECONOMY AND INVESTMENT

With a production value of 20.1 billion BGN, or 36,400 BGN per capita, Plovdiv–Maritsa–Rakovski was the second largest economic center in the country in 2021. Value added growth during the decade was the fastest among the 16 centers – 113%, mostly as a result of the accelerated development of industrial areas. Value added is concentrated in Plovdiv city municipality (74%), with a significant share also in Maritsa (8.1%), Asenovgrad (3.6%), Rodopi (3.5%) and Rakovski (3.3%). The leading sector is manufacturing with 39% of the value added, followed by trade (20%), healthcare (8%) and construction (6.1%). The largest employer in the center is the St. George's University Hospital with 2,700 employees, followed by Liebherr-Hausgeräte Maritza with over 2,000 employees, KCM and the transport company PIMC with 1,500 employees each. The leader in terms of revenue for 2021 is Tabaco Trade with 930 million BGN.

The amount of accumulated FDI in 2021 reached 1.89 billion EUR, of which 75% is in Plovdiv, 14% in Maritsa, and 6.1% in Rakovski. Foreign capital is concentrated in industry (67%), real estate operations (14%) and trade, transport and tourism (9.8%).

Share of value added of leading sectors (2021, %)

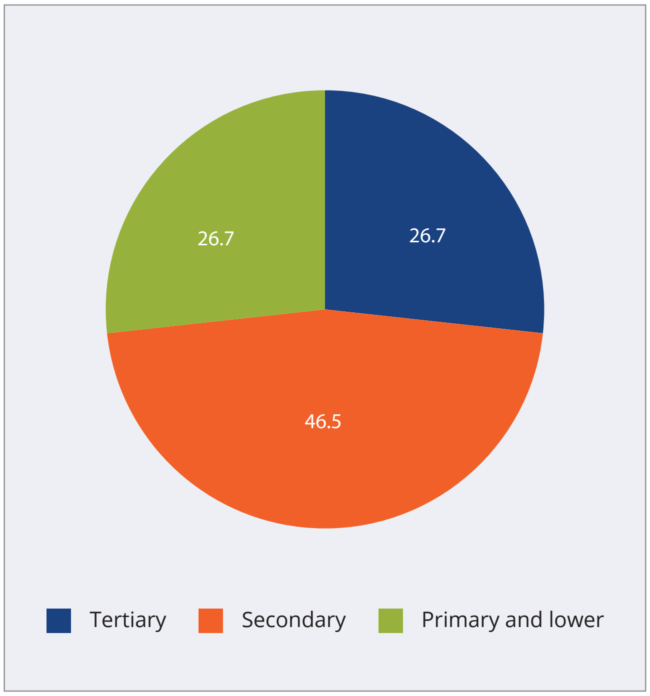


Expenditures for the acquisition of FTA in 2021 are relatively more evenly distributed: out of a total 2.1 billion BGN, 36% are in manufacturing, 24% in trade, transport and tourism, 12% in real estate operations, and 9.9% in construction. In this indicator of investment activity, the leader is again Plovdiv city municipality with 68%, followed by Maritsa with 8% and Rakovski, Rodopi and Asenovgrad with 4.6% each. Enterprises in the center generate the second highest export revenue in the country – over 9 billion BGN, or 16,700 BGN per capita. Labor productivity has reached 18,300 BGN value added per employee in the non-financial sector per year, which is relatively high.

LABOR MARKET

According to the Employment Agency, in 2022 the unemployment rate in the Plovdiv–Maritsa–Rakovski center was 4%, but there are significant differences between the municipalities within it – from 2.5% in Plovdiv and 3.1% in Maritsa, to 11.3% in Bratsigovo and Kritchim and 14.5% in Brezovo. The local labor market is very dynamic, which is confirmed by the low share of people registered for more than a year in the employment offices of the Employment Agency – it is relatively high only in Rakovski (2.1% of the population aged 15–64) and Brezovo (3.2%), while in Plovdiv it is only 0.06%. The share of the unem-

Share of population aged 7 and over based on the highest education degree (2021, %)



ployed among the population aged 15–29 reaches 5.4% in Rakovski and 5% in Brezovo.

According to the 2021 census data, the employment rate is relatively higher – 65.1%, ranging between 69.2% in Plovdiv and 48.5% in Krichim. The total number of employed people is 229,000, of which 144,000 are in Plovdiv, 22,000 in Asenovgrad, and 13,000 in Rodopi. During the last 5 years, employment in the center has been shrinking, with the number of employees decreasing by 1.3% compared to 2017. The employment structure closely follows that of value added, with 38% of employees in manufacturing, 19% in trade, and 6.9% each in transport and healthcare.

Between 2017 and 2021, the growth of the average salary for the center was 49% and reached 1,306 BGN gross per month; at the municipal level, the highest salaries in 2021 were in Kuklen (1,549 BGN per month) and Maritsa (1,514 BGN per month). The highest salaries in Plovdiv are in the fast-growing ICT sector (3,262 BGN per month), as well as in healthcare (2,335 BGN per month), while in the smaller cores, it is the manufacturing sector that offers higher remuneration.

HUMAN RESOURCES AND WORKFORCE

Between the latest two censuses, the population of the center decreased by 6.3% to a total of 552,000 people, with only the center around Sofia registering a smaller decline. The proportion of the working age population is high at 63.4%, concentrated in Plovdiv City municipality with 208,000 people in this age group. The rest of the labor supply is mainly in Asenovgrad – 36,000 people of working age, another 20,000 in Rodopi and Maritsa each, and 16,000 in Rakovski. The share of elderly population in the center is not particularly high, with people aged 65 and above accounting for 21.8% and demographic replacement indicators pointing to relatively slow ageing processes.

Plovdiv–Maritsa–Rakovski has the second highest net migration rate in the country after the Kardzhali center – 8.5‰ in 2022. It is important to note that almost all its constituent municipalities have increased their population as a result of migration processes; only Saedinenie and Kuklen have a negative net migration rate (–5‰ each); all others have positive net migration, most visible in Bratsigovo (19.6‰) and Plovdiv (12.2‰). The natural population growth is negative (–6.7‰), but it is one of the most favorable among the 16 economic centers of the country. There are, however, significant differences between the individual municipalities, with natural growth rates ranging from –4.2‰ in Plovdiv and –5‰ in Rakovski to –22.4‰ in Kaloyanovo and –20.8‰ in Brezovo.

The educational structure of the center is relatively favorable, with university graduates and people with primary and lower education among the population aged 7 and older having an equal share of 26.7% in 2021. However, the share of illiterate people is relatively high – 1.5% in the center overall, but 6.5% in Perushtitsa and 3.9% in Rakovski. Unlike most large cities, Plovdiv has a high proportion of illiterate people as well – 1.2%. Students' results in the center are also relatively low – the average grade in the matriculation exam in BLL is Average 3.48, the third lowest average grade in the country. Seventh-graders in the center perform better, but their results are far from those in the centers around Sofia and Varna.

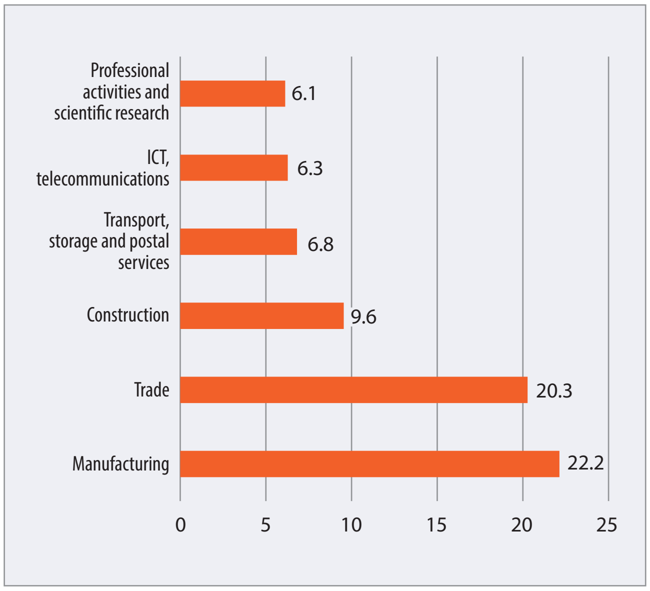
Varna–Devnya
Economic Center

INTRODUCTION

The size of the local economy ranks Varna–Devnya third among the largest centers in the country, with Varna's service sector and Devnya's strong manufacturing industry as its main drivers. The center has a high level of foreign investment and the second highest labor productivity in the country. Its labor market is characterized by low unemployment, high employment and high salaries, mainly in the leading sectors of the economic cores. Demographic indicators are relatively favorable, especially compared to most other parts of the country. The educational structure is good, and students in the center achieve some of the highest grades in the country.

Key indicators for the Varna–Devnya economic center	
Production value (2021)	12.4 billion BGN
Economic growth (2012–2021)	69.5%
Export revenue (2021)	4,711 million BGN
Foreign direct investment (2021)	1,467 million EUR
FTA acquisition expenditures (2021)	1,229 million BGN
Population (2021 census)	**269,572**
Share of working-age population (2021)	63.9%
Share of population with tertiary education (2021)	31.2%
Natural population growth (2022)	–6.7‰
Net migration rate (2022)	5.8‰
Number of people in employment (2021)	**176,831**
Employment rate (2021)	65.5%
Unemployment rate (2022)	3.2%
Employment growth (2017–2021)	–4.8%
Gross average salary (2021)	1,393 BGN /month

Share of value added of leading sectors (2021, %)



COMPOSITION AND LABOR MIGRATION

The Varna–Devnya center encompasses two cores, while the periphery of the smaller core – the municipality of Devnya – fully overlaps with that of the Varna city municipality. It includes the municipalities of Aksakovo, Avren, Beloslav, Vetrino, Suvorovo, Dolni Chiflik, Dalgopol and Provadia. Unlike most other centers in the country, Varna–Devnya has not expanded its range compared to the previous edition of the study in 2017. The largest flow of daily labor migrants to Varna comes from the municipality of Aksakovo – 3,700 people, or 48% of all workers in the municipality, and more than 1,000 people from Beloslav and Dolni Chiflik each. The largest source of workforce for Devnya is Varna city municipality – 1,700 people commute daily from the district center.

ECONOMY AND INVESTMENT

Varna–Devnya is the third largest economic center in the country in terms of production value, with 12.4 billion BGN, or 29,400 BGN per capita in 2021. The value added growth in the last decade is moderate – 69.5%. Concentration of value added in the cores is high, with Varna municipality generating 80%, Devnya 13%, and Aksakovo in third place with only 3.7%. The industry profile is relatively balanced, with manufacturing as the leading sector generating 22% of value added, followed by trade (20%), construction (9.6%), transportation and warehousing (6.8%) and ICT (6.3%). While in Devnya almost all of the value added is generated by industry, in the smaller peripheral municipalities (Vetrino, Avren, Dolni Chiflik) the leading role is played by agriculture, and services are concentrated in Varna municipality. Among the largest employers are the St. Marina University Hospital with 1,800 employees, Electrodistribution–North with 1,700 employees, the Discordia transport company with 1,400 employees, and PPD Bulgaria with 1,300 employees. The leader in terms of revenue for 2021 is the fertilizer producer Agropolychim in Devnya with 730 million BGN.

The Varna–Devnya center has a high level of FDI, which by the end of 2021 reached 1.47 billion EUR. Just over half – 740 million EUR – was in the municipality of Devnya, which ranks it first in FDI per capita in the country with 87,000 EUR. Of the remaining 714 million EUR, most are focused in Varna municipality. Foreign investment is concentrated in industry (55%), real estate operations (19%), and trade, transport and tourism (13%). The distribution of FTA acquisition expenditures in 2021 was similar, with 47% of the total 1.2 billion BGN investment in Varna, 24% in Devnya, 17% in Aksakovo, and 10% in Beloslav. In this investment indicator, too, the leading role is played by industry (26%), followed by trade, transport and tourism (17.9%) and construction (17.7%). Export earnings in the non-financial sector amount to 4.7 billion BGN, of which 3.7 billion BGN are in Varna and 904 million BGN in Devnya. Labor productivity in the Varna–Devnya center is 24,200 BGN value added per employee per year – the highest after that of the Zagore center.

LABOR MARKET

In 2022, the average unemployment rate for the center according to the Employment Agency data was 3.2%: it was lower only in the center around the capital. While unemployment is almost absent in Varna (2.1%), neighboring Beloslav (2.1%), and Aksakovo (2.8%), the rate remains relatively high in some of the smaller municipalities, most notably in

Dalgopol (12%) and Avren (9.2%). These are also the municipalities with significant long-term unemployment, where persons registered in the labor offices for more than a year account for 5% of the population aged 15–64 in Dalgopol, 2.9% in Avren and 2.3% in Suvorovo, compared to only 0.02% in Varna city municipality. Most municipalities in the center do not have particularly high youth unemployment, with Avren having the highest share (3.8%) of unemployed among the population aged 15–29.

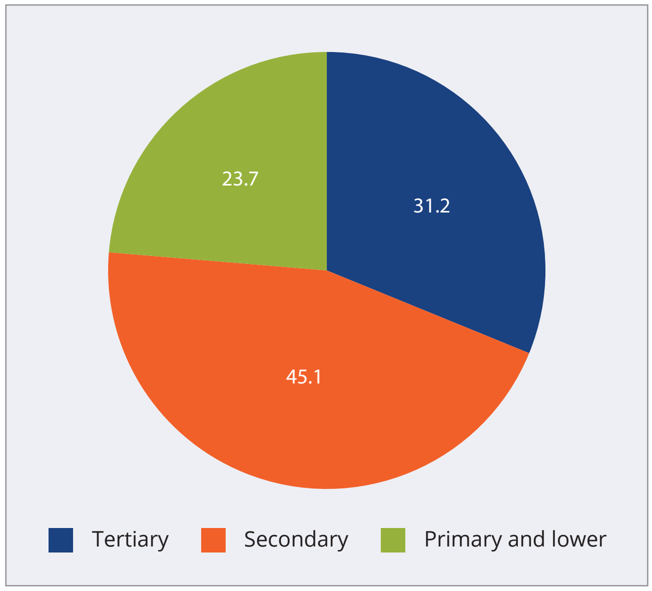
Employment in the center is high at 65.5% for the population in the 15–64 age group, according to 2021 census data, but ranges from 69% in Varna and 65% in Beloslav to 42% in Dalgopol and 49% in Dolni Chiflik. The total number of employed persons is 177,000, of which 143,000 are in Varna. Employment in Varna–Devnya is shrinking, with a 4.8% decline in the number of employees compared to 2017. The sectoral distribution of employment is relatively even, with trade as the leader (23%), followed by manufacturing (17%) and construction (11%).

Salaries in the Varna–Devnya center have grown relatively slowly in the period from 2017 to 2021 – by 46%, reaching an average of 1,393 BGN gross per month. Again, the differences between municipalities are significant, with markedly higher average salaries in Devnya (1,947 BGN per month) and Beloslav (1,514 BGN per month). At the sectoral level, the highest salaries are in the energy sector in Devnya (3,946 BGN per month), ICT services in Varna (2,535 BGN per month), and manufacturing in Devnya (2,488 BGN per month).

HUMAN RESOURCES AND WORKFORCE

Despite its location in Northern Bulgaria, Varna–Devnya is among the centers with a relatively low decline of the population, which has decreased by 8.7% to 422,000 people in a decade. The share of working-age population is one of the highest in the country at 63.9%, second only to the center around the capital. The working-age population is concentrated in Varna city municipality – 207,000 people, also in Aksakovo (12,000) and Provadia (11,000). At the same time, the share of elderly population is relatively low – 21.2%, and here again Varna–Devnya ranks second in the country; the demographic replacement indicators show relatively slow ageing processes compared to most other parts of Bulgaria.

Share of population aged 7 and over based on the highest education degree (2021, %)



Varna–Devnya is the most attractive economic center in northern Bulgaria in terms of migration, with a net migration rate of 5.8‰ in 2022. However, not all of its municipalities attract population, with Aksakovo, Beloslav, Suvorovo, Provadia and Dalgopol suffering a net loss of inhabitants from migration processes. Compared to the rest of the country, the natural growth of –6.7‰ for the center as a whole is not particularly negative, the municipality of Varna being the single one with –4.9‰.

The center has a rather favorable educational structure, with 31.2% of the population aged 7 years and above having a university degree, and only 23.7% having primary or lower education. In Varna, the share of university graduates is significantly higher – 37.4%. The illiteracy rate in the center as a whole is 0.9%, although it is distinctly higher in the small municipalities – Dolni Chiflik (3.6%), Dalgopol (3.1%), and Provadia (2.9%). Varna–Devnya has both the second highest average score in the matriculation exam in BLL among all 16 centers – Good 3.99, and the highest average score on the NEA in mathematics at the end of grade 7 – 43.3 out of 100 points.

Zagore
Economic Center

INTRODUCTION

The economy of the Zagore center has the highest labor productivity in the country, with an atypical profile dominated by energy and coal mining, but also supported by strong manufacturing and services industries in Stara Zagora and Kazanlak. Several of the country's largest employers operate in that center. The labor market has high salaries, low unemployment, but as regards employment there is room for improvement. The population is gradually shrinking, but ageing is slower than in other parts of the country. The educational structure is strongly dominated by people with secondary education, and in some small municipalities there are apparent problems with illiteracy.

Key indicators for the Zagore economic center	
Production value (2021)	10.6 billion BGN
Economic growth (2012–2021)	82.2%
Export revenue (2021)	2,239 million BGN
Foreign direct investment (2021)	1,095 million EUR
FTA acquisition expenditures (2021)	848 million BGN

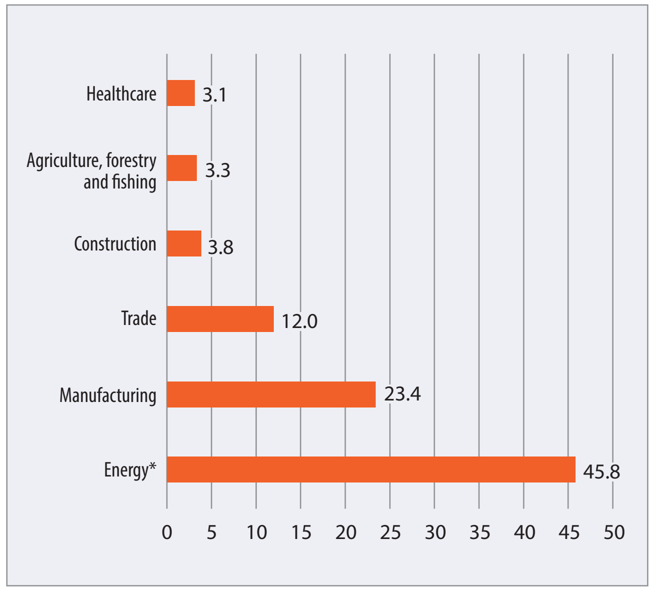
Population (2021 census)	**300,759**
Share of working-age population (2021)	61.1%
Share of population with tertiary education (2021)	21.9%
Natural population growth (2022)	–11.1‰
Net migration rate (2022)	2.3‰

Number of people in employment (2021)	**114,652**
Employment rate (2021)	62.1%
Unemployment rate (2022)	3.9%
Employment growth (2017–2021)	–7.6%
Gross average salary (2021)	1,304 BGN/month

COMPOSITION AND LABOR MIGRATION

The Zagore center consists of four cores – Stara Zagora, Radnevo, Galabovo and Kazanlak, and five peripheral municipalities – Opan, Maglizh, Pavel Banya, Nova Zagora and Simeonovgrad. The municipality of Maglizh falls within the periphery of both Stara Zagora and Kazanlak, while Galabovo and Radnevo are included in the range of the center since they attract a large number of workers – a total of 4,500 people commute to them every day. In relative terms, the labor markets of Stara Zagora and Opan are the most closely linked ones, with 31% of workers from the periphery travelling to the core. The center is also distinctive in that it includes municipalities from three administrative districts – Haskovo, Stara Zagora and Sliven.

Share of value added of leading sectors (2021, %)



** The share of energy is an approximate value.*

ECONOMY AND INVESTMENT

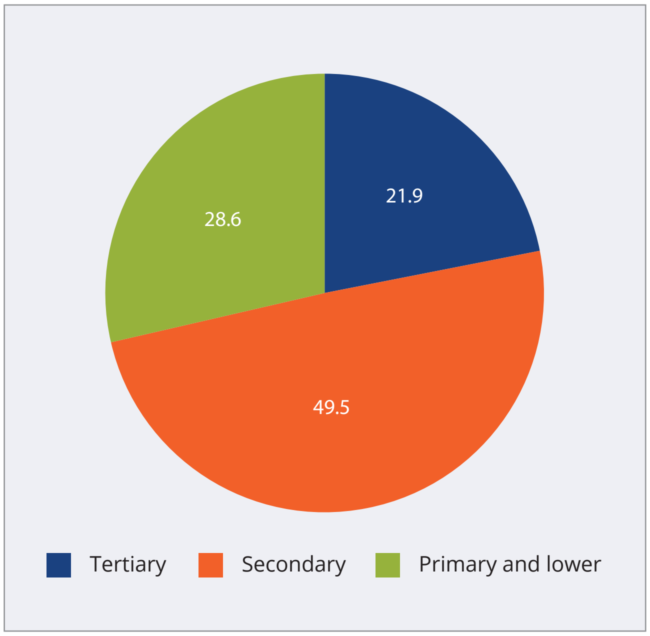
The total production value of the economic center in 2021 reached 10.6 billion BGN, or 35,300 BGN per capita. Value added growth over the last decade is 82%, which is among the highest in the country. Due to the leading role of energy production and mining, the municipality with the highest value added is Radnevo – 34% of the total for the center, followed by Stara Zagora with 30%, Kazanlak with 17% and Galabovo with 14%. Due to the NSI confidentiality rules, which do not allow the publication of certain data, the exact share of some key sectors in the value added for the municipality of Radnevo is not known, but taken together, mining and energy account for a total of 53% of value added in the center. Manufacturing also plays a significant role with a share of 23%, concentrated mostly in Stara Zagora and Kazanlak, and trade generates 12% of value added. Some of the largest employers not only in the region but also in the whole country operate in the center – the Arsenal weapons factory employs 7,200 workers, Maritsa-Iztok Mines – 6,900 people, several companies of the Troyanovo mine – 5,200 people.

As of the end of 2021, the total amount of foreign investment in the center reached 1.1 billion EUR, concentrated mainly in the municipality of Galabovo – 65% of all FDI, almost entirely in the energy sector. The distribution of FTA acquisition expenditures is more even, with 42% of the total 848 million BGN invested in 2021 in industry, and 19% in trade, transport and tourism. Investment activity is concentrated in Stara Zagora, where 46% of the expenditures for the purchase of machinery, land and buildings are made; another 21% are in Kazanlak, and 5% – in Radnevo. Export revenues are low compared to the size of the local economy – 2.2 billion BGN, but this does not include the export of electricity produced by the enterprises in the center. Due to the structure of the economy with its strong dominance of energy and mining, the Zagore center has the highest labor productivity of all the 16 centers in the country – 29,500 BGN of value added per employee per year.

LABOR MARKET

In 2022, the average unemployment rate was 3.9%, according to the Employment Agency data, considerably higher in Simeonovgrad (13%) and Maglizh (7.2%). In some of the smaller municipalities, there is a significant share of long-term unemployed, with 6% of employable people registered with the labor offices for more than a year in Simeonovgrad and 1.6% in Opan. Youth unemployment is also relatively high – the share of the unemployed among the population aged 15–29 is 2.5% in Radnevo and Galabovo and 6% in Simeonovgrad. The employment rate is among the highest in the country – 62.1% of

Share of population aged 7 and over based on the highest education degree (2021, %)



the working-age population, but ranges from 41.7% in Simeonovgrad to 67.4% in Stara Zagora. Most employed persons are concentrated in Stara Zagora – 61,000 people, with another 26,000 in Kazanlak.

Over the last 5 years, there has been a relatively rapid shrinking of employment, with the number of people employed in the center down 7.6% since 2017. Due to the data confidentiality issues mentioned above, we cannot estimate the shares of energy and mining in the total employment figure. Manufacturing employs 37% of all employed people, followed by trade at 16%. In terms of territorial distribution, 47% of the people employed are in Stara Zagora, 25% – in Kazanlak, and among the two "energy" cores, the larger one is Radnevo with 14% of all employed in the center.

The average salary has had the slowest growth – by 39.8% – among all the 16 economic centers during the last 5 years and has reached to 1,304 BGN per month, as a result mostly of the high base at the beginning of the period. The center includes two of the municipalities with the highest average salaries in the country – Radnevo (2,040 BGN per month in 2021) and Galabovo (1,985 BGN per month). The highest salaries in Stara Zagora are also in the energy sector (2,259 BGN per month), as well as in culture, sports and entertainment (1,929 BGN per month), while in Kazanlak they are in health care (1,882 BGN per month).

HUMAN RESOURCES AND WORKFORCE

In the period between the last two censuses, the population of Zagore decreased by 12% to 301,000 people. The proportion of people aged 65 and above is 24%, which is close to the national average, with only the municipality of Opan quite noticeably ageing (43%). Demographic replacement indicators also show relatively slower ageing. In 2021, the share of the working-age population was 61%, or 184,000 people, 91,000 of them in Stara Zagora, another 40,000 in Kazanlak, and 17,000 in Nova Zagora.

Taken as a whole, the municipalities in the center attract migrants, with an average net migration rate of 2.3‰ in 2022. However, those attracting population are only Stara Zagora, Kazanlak and Nova Zagora, while the rest of the center, including the other two cores, has a negative net migration rate. The natural growth rate of the center is –11.1‰, which is close to the national average, but it is significantly worse in Radnevo (–16‰), Galabovo (–19‰) and Opan (–33‰).

The Zagore center has a specific educational structure: according to the census data, the share of university graduates is 22% of the population aged 7 and older, and the share of people with primary and lower education – 29%. This in turn means that the majority of the population – and of the workforce – has secondary education, largely to be expected given the profile of the local economy. However, there is a high illiteracy rate – 2.1%, most visibly in Maglizh (9.6%), which is among the municipalities with the highest illiteracy rate in the country. Students' results are close to the national average, with an average score of Good 3.74 in the 2022 BLL matriculation examinations, and an average score of 31.8 out of a possible 100 in the NEA in mathematics at the end of 7th grade.

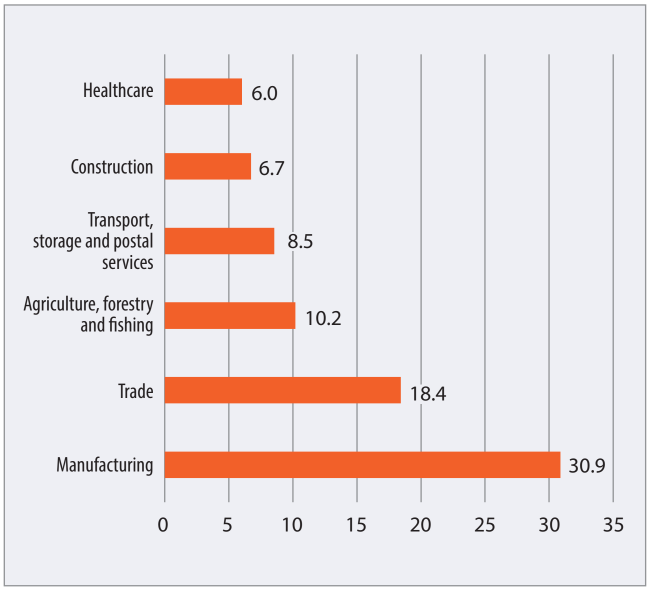
Ruse–Tarovishte–Razgrad
Economic Center

INTRODUCTION

Among the 16 centers, Ruse–Targovishte–Razgrad has one of the largest and well-developed economies, although it has not grown significantly in recent years. A leading role is played by several large enterprises in manufacturing, which create a significant part of the total employment. The labor market is unevenly developed, with clusters of high and long-term unemployment and low employmen. Demographic dynamics are highly unfavorable – the population is rapidly shrinking and ageing. The educational structure is not particularly favorable, especially if Ruse is considered separately from the other municipalities.

Key indicators for the Ruse-Tarovishte-Razgrad economic center	
Production value (2021)	9.97 billion BGN
Economic growth (2012–2021)	69.6%
Export revenue (2021)	4,553 million BGN
Foreign direct investment (2021)	626 million EUR
FTA acquisition expenditures (2021)	866 million BGN
Population (2021 census)	**332,505**
Share of working-age population (2021)	61.7%
Share of population with tertiary education (2021)	20.7%
Natural population growth (2022)	–13.6‰
Net migration rate (2022)	2.6‰
Number of people in employment (2021)	**122,165**
Employment rate (2021)	59.5%
Unemployment rate (2022)	6.9%
Employment growth (2017–2021)	–8.2%
Gross average salary (2021)	1,255 BGN/month

Share of value added of leading sectors (2021, %)



COMPOSITION AND LABOR MIGRATION

The Ruse–Targovishte–Razgrad center incorporates three cores and their intertwined peripheries, with the municipality of Loznitsa falling within the peripheries of the Targovishte and Razgrad cores, and the municipality of Tsar Kaloyan – within the peripheries of Ruse and Razgrad. A total of 12 small municipalities fall within the periphery of the three cores. The most active labor migration to Ruse is from the municipality of Ivanovo, where 1,229 workers commute daily, or 50% of all people in employment in the municipality. A total of 37% of all employees in the municipality of Loznitsa commute daily to work in one of the nearby large cities of Targovishte and Razgrad. Compared to the previous edition of this study (2017), Ruse has added Borovo, Tsar Kaloyan and Kubrat to its periphery; Targovishte has added Omurtag and Antonovo; and for Razgrad this is the first time it meets the criteria for qualifying as an economic core.

ECONOMY AND INVESTMENT

In 2021, the total production value of the 15 municipalities in the economic center was 9.97 billion BGN or 30,000 BGN on average per capita. Between 2012 and 2021, value added growth was 70%, which is relatively low compared to the leaders. Value added is concentrated in the economic cores, with 54% in Ruse municipality, 17% in Targovishte, and 12% in Razgrad. Of the peripheral municipalities, Slivo Pole and Vetovo have the largest economic footprint, as they are dominated by the industry around Ruse and create 7% and 3% of the total value added respectively. The leading sector is manufacturing with 31% of the value added, followed by trade with 18%, while agriculture ranks third with 10%. It is important to note that in the smaller municipalities agriculture plays a significantly larger role. The leading companies are in different industrial sectors, with the largest employers being the glass company Pashabahche with 1,700 employees in Targovishte, Vitte Automotive with 1,100 in Ruse, and the food company Pilko in Razgrad with 858 workers. The leader in terms of revenue for 2021 is Ruse's Astra Bioplant with 3.36 billion BGN.

The economic center's FDI is moderately high – 626 million EUR cumulative at the end of 2021; of these, 355 million EUR are in the municipality of Ruse, and another 267 million EUR in Targovishte, though the total figure presented here does not include the municipality of Razgrad, for which data are confidential. Almost all foreign investment is concentrated in manufacturing. Expenditure on acquisition of FTA in 2021 reached 866 million BGN, distributed mainly between the manufactruring (35%), trade, transport and tourism (23%), and agriculture (17%). The municipality of Ruse accounts for 49% of all expenditure on the purchase of machinery, land and buildings in the whole center, another 15% is in Targovishte, and 14% in Razgrad. Export revenues in 2021 exceeded 4.5 billion BGN, or 13,800 BGN per capita, which puts the center in the export-oriented group. Labor productivity ranks fifth among the 16 centers, with 21,400 BGN of value added per employee.

LABOR MARKET

In 2022, the center still had the relatively high unemployment rate of 6.9% compared to the rest of the country, according to the Employment Agency data. However, average figures blur very large differences between municipalities, with the share of unemployed persons ranging from 3.2% of the working age population in Ruse municipality to 25% in Samuil municipality and 22% in Antonovo municipality. Razgrad and Targovishte have similar rates, 4.6% and 4.7% respectively. In some places there are also conspicuous problems with long-term unemployment – while in Ruse the share of the unemployed who have been registered at the labor offices for more than a year is only 0.3%, it exceeds 1% in Targovishte, 10% in Vetovo and 12% in Samuil. In some places the share of unemployed young people is also significant – 7% of the population aged 15 to 29 in Vetovo and Sitovo, while in the core areas the share is more significant in Razgrad (1.6%).

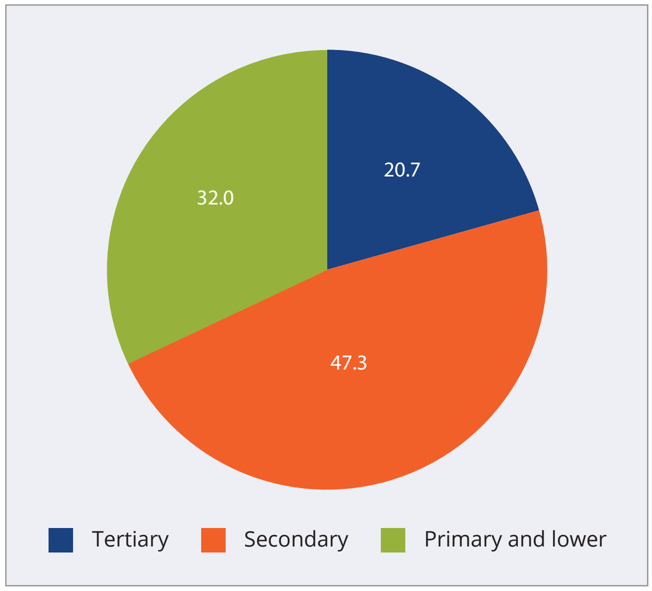
The employment rate in the age group from 15 to 64 is 59.5%, but here, too, there are large differences between one municipality and another – from 67.8% in Ruse to 32.3% in Antonovo. The largest number of employed persons is concentrated in the three cores – 59,000 in Ruse, 17,600 in Targovishte and 17,100 in Razgrad. Employment in the center has been shrinking relatively fast, with the number of employees declining by 8.2% over the last 5 years. The employment structure follows the general structure of the center's economy, with manufacturing (39%) and trade (18%) in the lead.

Over the last 5 years, the average salary in the center has increased by 51% to 1,255 BGN on average per month – between 1,438 BGN in Razgrad and 921 BGN in Tsar Kaloyan. Healthcare offers the highest salaries in all three economic cores, with an average of 2,404 BGN per month in Ruse, 1,977 BGN per month in Razgrad and 1,929 BGN per month in Targovishte.

HUMAN RESOURCES AND WORKFORCE

Like the other centers in northern Bulgaria, Ruse–Targovishte–Razgrad is rapidly losing population, with a 17.6% drop to 333,000 people between the last two censuses. It also has one of the highest shares of elderly population, with 25.5% of the total population being aged 65 and above in 2021 for the center as a whole and as high as 39.6% in Ivanovo. Demographic replacement indicators point to relatively rapid ageing processes. At the same time, the share of the working-age population is among the highest – 61.7% on average for the center. The working-age population is concentrated in the cores – 88,000 people in Ruse, 30,000 people in Targovishte and 27,000 people in Razgrad.

Share of population aged 7 and over based on the highest education degree (2021, %)



The population shrinkage is mainly the result of the strongly negative natural growth, which reached –13.6‰ on average for the center in 2022, ranging from –10‰ in Targovishte to –33.5‰ in Ivanovo. The center as a whole reports positive migration with a net migration rate of 2.6‰, and the most attractive municipalities are some of the smaller ones – Samuil (11‰), Vetovo (6.7‰) and Loznica (6.2‰).

The educational structure of the center is relatively unfavorable, with 20.7% of the population aged 7 years and older having higher education, 32% having primary education and below, while the share of illiterates is 1.1%. The share of university graduates is significantly higher in Ruse municipality (28.2%), while illiteracy is a more pronounced problem in the smaller municipalities of Samuil (4.6%) and Borovo (4.4%). Students' results are not very high either, with the average score in the 2022 state matriculation exam in BLL being Good 3.58, and the average score at the NEA in mathematics at the end of grade 7 being only 32.7 out of 100.

Burgas–Nessebar
Economic Center

INTRODUCTION

The Burgas–Nessebar center has a highly developed and diversified economy. Its growth has been slower compared to other centers mainly due to the negative impact of the COVID pandemic on tourism. Investment is high, with the center ranking just behind the capital in FDI per capita. The labor market is shrinking rapidly, but the peak of unemployment has already been overcome. The center attracts a considerable number of migrants, with the net migration rate outweighing the adverse effect of the negative natural growth. The educational structure is favorable and students' results are among the highest in the country.

Key indicators for the Burgas–Nessebar economic center	
Production value (2021)	7.73 billion BGN
Economic growth (2012–2021)	52.6%
Export revenue (2021)	3,489 million BGN
Foreign direct investment (2021)	2,211 million EUR
FTA acquisition expenditures (2021)	1,087 million BGN

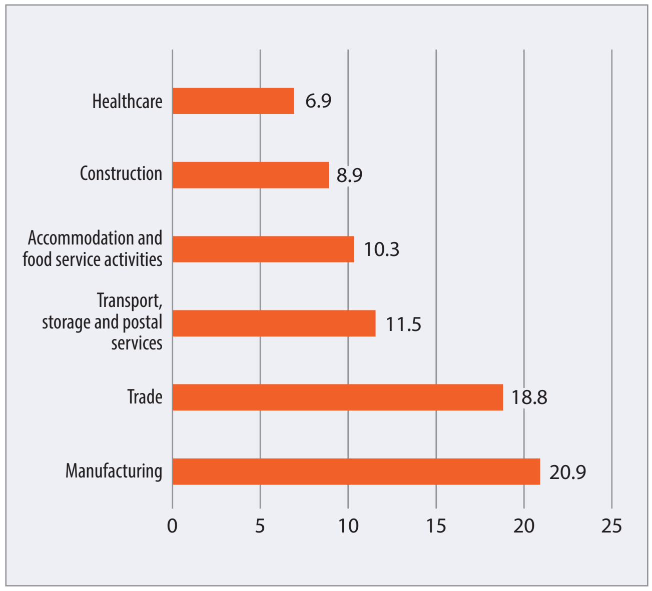
Population (2021 census)	**332,288**
Share of working age population (2021)	63.4%
Share of population with university degrees (2021)	24.6%
Natural growth (2022)	–7.4‰
Net migration rate (2022)	7.7‰

Number of people in employment (2021)	**130,629**
Employment rate (2021)	61.9%
Unemployment rate (2022)	3.9%
Employment dynamics (2017–2021)	–9.9%
Gross average salary (2021)	1,232 BGN/month

COMPOSITION AND LABOR MIGRATION

The Burgas–Nessebar center includes the municipalities of Burgas and Nessebar as economic cores and Kameno, Sredets, Sozopol, Aitos, Ruen and Pomorie as their peripheries. Unlike the previous edition of the study (2017), Nessebar has now met the criteria for a core, and with Pomorie joining, the range of the center has expanded. Burgas municipality attracts daily more than 6,400 workers from its peripheral municipalities, while Nessebar attracts 2,900. Employment in Burgas is of greatest importance for the labor market in Kameno, where 35% of employees commute every day, while the source of most incoming workers is Aytos – 1,500 people. For Nessebar, this role is played by Pomorie: from Pomorie 1,700 people, or 18% of all employees, commute to work in the core every day.

Share of value added of leading sectors (2021, %)



ECONOMY AND INVESTMENT

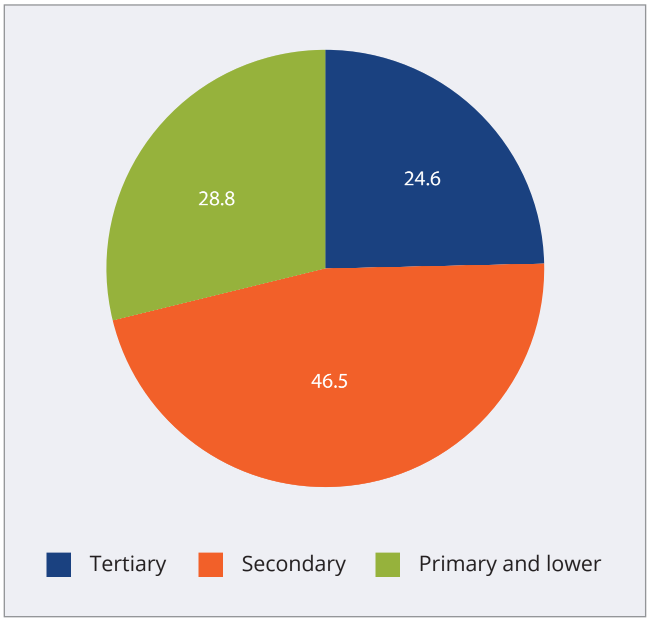
The total production value of the Burgas–Nessebar constituent municipalities was 7.73 billion BGN in 2021, or 23,200 BGN per capita. The growth of value added has been 53% throughout the last decade – the lowest after that of the Blagoevgrad center. However, it should be borne in mind that 2021 was particularly difficult for tourism, the key industry for the local economy. Value added is concentrated in the municipality of Burgas, which generates 75% of the value created in the center; another 10% are in Nessebar, and 4% each in Sredets and Pomorie. In terms of sectors, the economy is balanced – the leading role is played by process industries (21%) and commerce (19%), but transport and warehousing (12%), tourism (10%), construction (9%) and healthcare (7%) also have significant shares. It should be noted that in a "normal" year, without COVID-19, tourism would have a significantly higher share, especially in the periphery. Among the leading employers are Lukoil Neftochim with 1,300 workers, which was also the revenue leader in 2021, Water Supply and Sewerage with 1,300 people, as well as Nursan Automotive and Yana Textile with over 1,000 employees each.

As of the end of 2021, the total FDI in Burgas–Nessebar amounted to 2.21 billion EUR, or 6,700 EUR per capita, with only the center around the national capital having higher FDI per capita. Foreign capital is concentrated in the two cores, with 93% in Burgas and another 5% in Nessebar. Expenditures for the acquisition of FTA in 2021 approached 1.1 billion BGN, of which 73% were made by enterprises in Burgas, 12% by those located in Nessebar, and 7% in Pomorie. The main driver of fixed asset investment is industry, with 33% concentrated there, as well as commerce, transport and tourism with another 27%. Burgas–Nessebar's economy is relatively less export-oriented than that in most major centers, with 3.5 billion BGN in export revenues in 2021. Labor productivity is among the highest in the country, with 23,400 BGN of value added per employee.

LABOR MARKET

Two years after the collapse of tourism and the drastic deterioration of the local labor market, unemployment in Burgas–Nessebar is relatively low – 3.9% on average for the center in 2022; in the city of Burgas it is 2.5%, while only in Sredets municipality it exceeds 10%. The local labor market is very dynamic, long-term unemployed are practically absent, while the share of people registered in the labor offices for over a year is higher than 0.5% only in Sredets municipality. However, the problem of youth unemployment stands out, with the share of the unemployed among the 15–29-year-olds registered

Share of population aged 7 and over based on the highest education degree (2021, %)



in Nessebar municipality exceeding 2% in 2022. According to census data, in 2021 employment in the center was 62%, which is close to the national average. In most small municipalities employment was around 55%; in Nessebar it was 63%, and in Burgas 67%. Employees are concentrated in the municipality of Burgas – 85,000 people, while in Nessebar they are 95,000 and in Pomorie and Aitos – 9,000 each.

In the last 5 years Burgas–Nessebar has been the economic center with the largest decline in employment: the number of employees has decreased by 10% compared to 2017. However, this most probably reflects a temporary state of the labor market, rather than a permanent trend, and comes as a result of shrinking tourism. The distribution of employees is different from the structure of value added, with commerce creating the most jobs (21%), process industry coming second with 19% of employees, and tourism third with 15%.

At 42%, salary growth over the last 5 years has been among the slowest among the country's economic centers, with only the Zagore center experiencing slower growth. The average salary for Burgas–Nessebar in 2021 was 1,232 BGN gross per month. Significantly higher, however, is the pay in the developing ICT sector of Burgas municipality – 2,490 BGN per month, as well as that in healthcare – 2,291 BGN. In Nessebar, the highest salaries are also in the health sector – 1,912 BGN on average per month.

HUMAN RESOURCES AND WORKFORCE

Between the last two censuses, the population of Burgas–Nessebar decreased by 7.3% to 332,000 people – a relatively small decline compared to most other centers. Besides, the center has a relatively small share of elderly people, with those over 65 accounting for 21.2% of the population. Only the center around the capital has a lower share of elderly people, but Burgas–Nessebar has slightly more favorable demographic replacement rates, which indicate a slower rate of aging. At the same time, the share of the working-age population in the center averages 63.4% and is concentrated in the municipality of Burgas, with its working age population of over 125,000.

This center is among the most attractive ones for migrants, with the average net migration growing by 7.7‰ in 2022. Almost all municipalities have positive net migration rates, with the leader Nessebar growing by 64‰ in a year. At the same time, at –7.4‰ the natural growth is among the best in the country, though notably less favorable in small municipalities, especially in Sozopol (–16‰) and Sredets (–15‰).

The educational structure of the population is relatively favorable, with 24.6% of the population aged 7 and above having a university degree in 2021, and 28.8% with primary education and below. However, the illiteracy rate is relatively high – 1.6% on average for the center, but significantly higher in Kameno (4.1%) and Sredets (5%). Student achievements are above the average for the center, with the average score at the state matriculation exams in BLL being Good 3.73 and an average score at the NEA in mathematics after grade 7 of 37.3 out of 100 points. Only students in the center around the capital and those in the Varna–Devnya center achieved better results on this test.

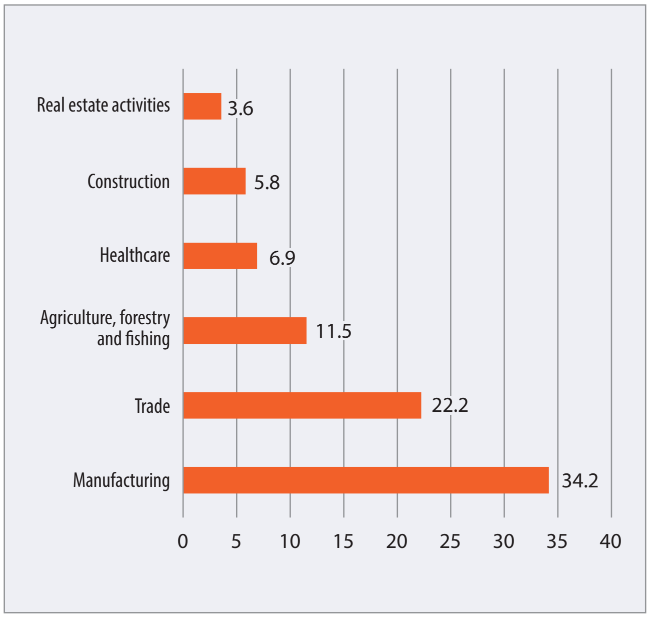
Sliven–Yambol
Economic Center

INTRODUCTION

The Sliven–Yambol center has a relatively well-developed local economy, highly concentrated in several large, export-oriented industrial enterprises in the two economic cores. The labor market has both low unemployment and low employment, revealing a high share of economically inactive persons in the five municipalities. The center is aging relatively slowly compared to other parts of the country but is losing population as a result of both migration and natural processes. The educational profile of the population is highly unfavorable, especially in terms of the high illiteracy rates; school performance is very poor.

Key indicators for the Sliven–Yambol economic center	
Production value (2021)	4.05 billion BGN
Economic growth (2012–2021)	62.8%
Export revenue (2021)	1,847 million BGN
Foreign direct investment (2021)	120 million EUR
FTA acquisition expenditures (2021)	392 million BGN
Population (2021 census)	**219,505**
Share of working-age population (2021)	59%
Share of population with tertiary education (2021)	18.6%
Natural population growth (2022)	–7.4‰
Net migration rate (2022)	–0.1‰
Number of people in employment (2021)	**73,159**
Employment rate (2021)	56.2%
Unemployment rate (2022)	5.2%
Employment growth (2017–2021)	–8.4%
Gross average salary (2021)	1,205 BGN/month

Share of value added of leading sectors (2021, %)



COMPOSITION AND LABOR MIGRATION

The Sliven–Yambol centre consists of two cores – the municipalities of Sliven and Yambol, as well as three small peripheral municipalities – Tvarditsa, Tundzha and Straldzha. The municipality of Tundzha is the one most closely linked to its core, with 2,200 people, or 36% of those employed commuting to Yambol every day – a consequence of the administrative division that separates the urban center from the agricultural lands and villages around it. Sliven is a new economic core for this edition of the study, with only the municipality of Tvarditsa in its periphery. Judging by labor migration, the municipality of Elhovo is relatively close (7.1% of the employed commute daily to work in Yambol) to joining the territory of the economic center.

ECONOMY AND INVESTMENT

The total production value of the five municipalities in the Sliven–Yambol center in 2021 was 4 billion BGN, or 18,500 BGN per capita. Value added in the center is divided in relatively equal proportions between the two cores, with Sliven generating 47%, Yambol 44%, Tundzha 5%, and Straldzha 3%. In terms of distribution by sector, manufacturing leads with 34%, followed by trade with 22%, and agriculture ranks third with 12%. Agriculture is particularly important in the peripheral municipalities of Yambol, where it contributes half of the value added. The leading employer in the center is Yazaki Bulgaria, which employed over 5,000 people in 2021, followed by textile manufacturer E. Miroglio with 2,300 employees, and the timber company Southeast State Enterprise with 1,500 people. The leader in terms of revenues is Papas Olio with 573 million BGN.

FDI in the center amounts to 120 million EUR, divided between the two cores – 80 million BGN in Sliven and 40 million BGN in Yambol, and concentrated almost exclusively in manufacturing. The distribution of investment in the five municipalities in the last reported year is significantly different, with Yambol municipality leading with 42%, and Sliven accounting for another 40% of FTA acquisition expenditures. For 2021, the total value of these expenditures stands at 392 million BGN, of which 105 million are in commerce, transport and tourism, 84 million in agriculture, and 63 million in industry. Relative to the number of inhabitants, the Sliven–Yambol center has the lowest investment activity after the Haskovo center, with FDI of only 1,784 BGN/person on average. Enterprises are strongly export-oriented, with export revenues of 1.85 billion BGN in 2021. Labor productivity is also relatively high, reaching 18,000 BGN of value added on average per employee in the non-financial sector.

LABOR MARKET

After the increase in 2020, the unemployment rate in Sliven–Yambol shrank to 5.2% of the population aged 15–64 in 2022. There are large differences between municipalities in the center in terms of unemployment, ranging from 3.1% in Yambol to 18% in Tvarditsa. Unemployment appears to be transitory, with only Tvarditsa reporting a significant 2.3%

share of unemployed persons with more than one year of registration in the labor offices. In this municipality there is also a higher share of youth unemployment – 4.2% of the population aged 15–29, but in the other municipalities this share is insignificant. At the same time, the employment rate according to the 2021 census is the third lowest among all economic centers in the study – 56.2%, which indicates a significant number of inactive persons in the local labor market. The total number of employed persons is 73,000; 37,000 are in Sliven and 25,000 are in Yambol.

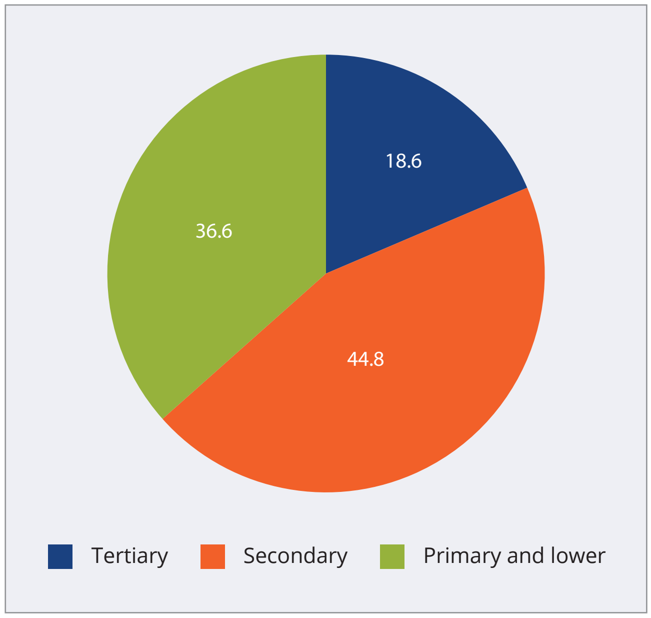
Over the last 5 years, employment in the center has been shrinking significantly, with the number of employees dropping by 8.4% compared to 2017, while only the Burgas–Nessebar center has seen a faster decline. The leading sector in terms of employment is manufacturing with 41%, followed by trade with 21%, agriculture with 9% and construction with 6%. During the same period, there was a relatively high growth of the average gross monthly salary – by 54% up to 1,205 BGN. However, the highest average salary was not in any of the cores, but in the municipality of Tundzha – 1,256 BGN per month. Among economic activities, the highest pay is in health care – 1,967 BGN in Sliven and 2,065 BGN in Yambol.

HUMAN RESOURCES AND WORKFORCE

Between the last two censuses, the population of the center declined by 12% to 220,000 – a relatively small decline compared to other parts of the country. The bulk of the population in the center is in the municipality of Sliven – 125,000 people, and another 74,000 people live in Yambol. Although the share of elderly population (65 years and older) is relatively high at 23.4%, demographic replacement indicators reveal relatively slow aging compared to other centers. However, the proportion of the working age population is also low at 59%, or 130,000 people.

Unlike all other economic centers except Kozloduy, Sliven–Yambol is losing population as a result of migration processes. In 2022, the net migration rate was –0.1‰, whereas in previous years the indicator was more negative, especially in the two cores. In contrast, natural population growth is relatively high (–7.4‰). Tvarditsa is one of the 4 municipalities in the country where the balance of births and deaths is positive, at 2.9‰ for 2022; however, in Tundzha the decline reached –19‰.

Share of population aged 7 and over based on the highest education degree (2021, %)



A significant obstacle to the further development of the center is the educational profile of the workforce. According to the census data, only 18.6% of the total population aged 7 years and older has a university degree, and 36.6% have primary or lower education (43% in Tundzha, 59% in Tvarditsa). Also noteworthy is the very high illiteracy rate – 4.3% for the center as a whole (4.8% in Sliven municipality and a whole 11% in Tvarditsa). This is a reflection of the relatively poor outcomes of the local school system, as students in these municipalities did not score very high on either the matriculation exam in BLL, Good 3.77, or the NEA national external assessment in mathematics at the end of 7th grade – 41.4 points out of a possible 100.

Shumen
Economic Center

INTRODUCTION

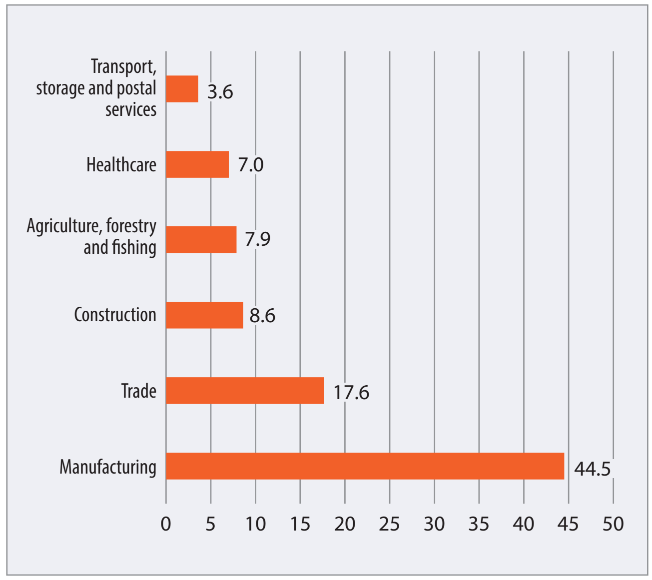
The Shumen center has a relatively well-developed local economy, driven mostly by export-oriented manufacturing. However, investment activity remains relatively low compared to other centers. The labor market faces significant difficulties – high and persistent unemployment, as well as large employment disparities between the different municipalities in the center. Major challenges include a rapidly shrinking and ageing population, as well as overcoming a highly unfavorable educational structure and poor performance of the local education system.

Key indicators for the Shumen economic center	
Production value (2021)	3.36 billion BGN
Economic growth (2012–2021)	69.8%
Export revenue (2021)	1,611 million BGN
Foreign direct investment (2021)	69 million EUR
FTA acquisition expenditures (2021)	284 million BGN
Population (2021 census)	**123,777**
Share of working-age population (2021)	62%
Share of population with tertiary education (2021)	20.9%
Natural population growth (2022)	–12.3‰
Net migration rate (2022)	6.9‰
Number of people in employment (2021)	**45,697**
Employment rate (2021)	59.4%
Unemployment rate (2022)	9.4%
Employment growth (2017–2021)	1.2%
Gross average salary (2021)	1,236 BGN/month

COMPOSITION AND LABOR MIGRATION

The Shumen center consists of one core – the municipality of Shumen – and six peripheral municipalities – Hitrino, Venets, Veliki Preslav, Smiadovo, Kaspichan and Kaolinovo. Compared to the previous edition of the study (2017), two new municipalities – Kaspichan and Kaolinovo – are now included in the periphery, while two others are very close to the threshold for inclusion, with 9.4% of those employed in Novi Pazar and 9.3% of those in Nikola Kozlevo commuting daily to work in the core area, respectively. The municipality of Shumen attracts over 3,000 workers from its periphery, mostly from Veliki Preslav – 857, while jobs in the core are of the highest significance to Hitrino and Venets, where 38% and 33% of all employees commute to their jobs in the municipality of Shumen every day, respectively.

Share of value added of leading sectors (2021, %)



ECONOMY AND INVESTMENT

In 2021, the total production value in the Shumen center was 3.36 billion BGN or 27,200 BGN per capita, which is close to the national average. The growth of the local economy has been relatively moderate, with a 70% increase in value added compared to 2012. The concentration of economic activity is relatively high: 83% of the total value added is generated in the core, 6.4% – in Kaspichan, and 3.3% in Veliki Preslav. In terms of sectoral distribution, manufacturing is the most important economic activity – 45% of the value added, followed by trade (18%), construction (8.6%), agriculture (7.9%) and healthcare (7%). In some of the smaller municipalities, especially in Hitrino and Venets, agriculture plays a leading role. The leading company in both revenue and employment, with 1,200 workers, is the aluminum producer Alkomet, and among the other large enterprises are Avtomagistrali Cherno More with almost 800 workers, Ficosota and the Tranchev retail chain with 700 each. The leading employer in the periphery is the ceramics manufacturer Roca Bulgaria with over 400 employees in Kaspichan.

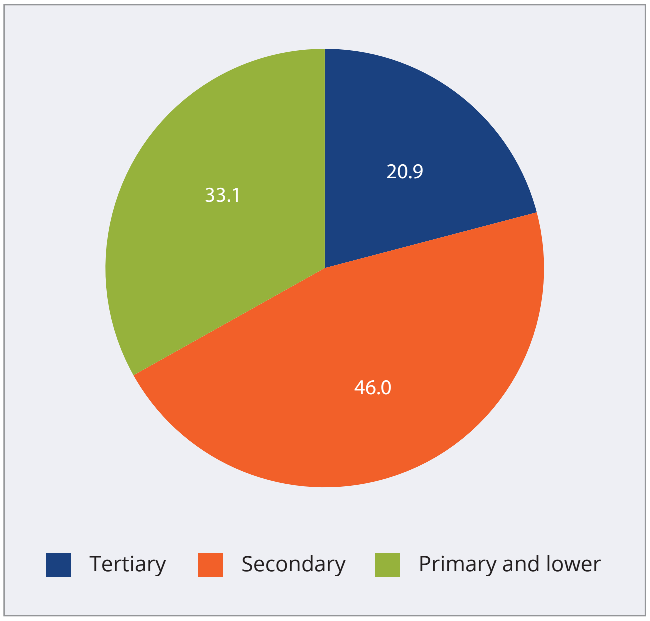
According to NSI data, FDI stock at the end of 2021 in the whole center totaled 69 million EUR, but it should be borne in mind that data for peripheral municipalities are confidential, which means that the actual amount of foreign capital is larger. Investment activity is generally concentrated in the core of the economic center, with 79%, or 224 million BGN, of all FTA expenditures in 2021 in Shumen municipality and 5% in Kaspichan. The industries with the highest investment are manufacturing (114 million BGN), trade, transport and tourism (56 million BGN), and agriculture (47 million BGN).

Shumen's economy is highly export-oriented, with 1.6 billion BGN in export revenues in 2021, or 13,300 BGN per capita. However, compared to the major economic centers, labor productivity remains relatively low, with a value added per employee of 16,500 BGN per year.

LABOR MARKET

Despite the good performance of the local economy, the Shumen center retained a high unemployment rate in 2022 – 9.4% according to Employment Agency data, with the rate higher only in the Kozloduy center. There are very large differences between the individual municipalities in the center – while in the municipality of Shumen the unemployed are only 3.5% of the working-age population, in Kaolinovo their share exceeds 38%, and in Venets – 33%. Most of the unemployed in the smaller municipalities are permanently out of work, with 26% of the employable population registered in the labor offices for more than a year in Kaolinovo, compared to only 0.3% in the Shumen municipality. In some smaller

Share of population aged 7 and over based on the highest education degree (2021, %)



municipalities, there is also a pronounced problem with youth unemployment. Similar disbalances can be observed in the employment rate – the average for the center according to the 2021 census is 59.4%, but ranges from 67% in Shumen municipality to only 34% in Kaolinovo and 41% in Venets. The majority of employees – 33,300 out of the 45,700 employed in the center – are concentrated in the core.

Over the past 5 years, the local labor market has been undergoing a minimal expansion, with the number of employees increasing by 1.2% compared to 2017. The sectorial structure of employment largely follows that of the center's economy, with 42% of employees in manufacturing, 18% in commerce, and 9% in agriculture. Over the same period, average salaries increased by 52% to 1,236 BGN on average across the center's economy. In the municipality of Shumen, salaries are relatively high in healthcare – 2,068 BGN on average per month, as well as in ICT with 1,597 BGN, and outside this municipality – in manufacturing in Kaspichan with an average monthly salary of 1,439 BGN.

HUMAN RESOURCES AND WORKFORCE

Over the last decade, the center has lost 16% of its population, reaching 123,800 people at the last census – a relatively moderate decline compared to many other parts of northern Bulgaria. However, ageing is noticeable – 25% of the total population is aged 65+, and replacement indicators confirm that this process is accelerating. At the same time, the share of people of working age is 62%, or 76,800 people, which is close to the national average. It is important to note that there are significant differences between the core and the periphery, with ageing more marked in smaller municipalities and there is a correspondingly lower share of working-age population.

The Shumen center is one of the country's areas which have proved attractive for internal migration, with a net migration rate of 6.9‰ in 2022. It is also important that immigrants are attracted not only to the core, but also to most small municipalities, most prominently Hitrino (32‰) and Kaolinovo (16‰). The decline in population is mostly a consequence of low natural growth: –12.3‰ on average in the center, but up to –20‰ in smaller municipalities.

A serious obstacle to the future development of the center and to attracting investment is the educational structure of the population. Only 21% of people aged 7 and above have a university degree, while as many as 33.1% have a primary education or less; illiteracy is 1.1%. The educational profile is even less favorable in the periphery where the share of people with primary education and below exceeds 60% in some municipalities, and illiteracy reaches 3%. Against this backdrop, student performance is particularly poor, with the center having the lowest average score on the state matriculation examination in BLL among all 16 centers – Average 3.34 – and some of the lowest average scores on the external assessment after grade 7.

Kozloduy
Economic Center

INTRODUCTION

The Kozloduy Centre has a developed and highly productive economy dominated exclusively by the nuclear power plant at its core. Outside of it, major role is played by agriculture. Foreign investment is almost absent and overall investment activity is weak. The labor market has high and persistent unemployment and low employment, but salaries are high thanks to the energy sector. Kozloduy has a markedly negative educational structure with a high share of the population has primary and lower education. It also has unfavorable demographic dynamics, with the population melting rapidly, mostly due to very low natural population growth.

Key indicators for the Kozloduy economic center	
Production value (2021)	3.2 billion BGN
Economic growth (2012–2021)	N/A
Export revenue (2021)	36.4 million BGN
Foreign direct investment (2021)	1 million EUR
FTA acquisition expenditures (2021)	82 million BGN
Population (2021 census)	**43,872**
Share of working-age population (2021)	61.4%
Share of population with tertiary education (2021)	16.7%
Natural population growth (2022)	–15.3‰
Net migration rate (2022)	–0.1‰
Number of people in employment (2021)	**13,409**
Employment rate (2021)	49.1%
Unemployment rate (2022)	18.7%
Employment growth (2017–2021)	41%
Gross average salary (2021)	1,693 BGN/month

COMPOSITION AND LABOR MIGRATION

The Kozloduy Centre is composed of Kozloduy municipality as its core and the neighboring municipalities of Hayredin, Mizia, Oryahovo and Valchedrum as its periphery. Compared to the previous edition of the study (2017), the center has expanded by adding Valchedrum. The daily labor migration from the four municipalities to the core exceeds 1,000 people, with the largest number from the Mizia municipality – almost 600 people, or 33% of all employees. There appears to be little potential for future expansion of the center, as outside of these municipalities the highest proportion of incoming workers to Kozloduy are from Byala Slatina – 3.8% of all its employees.

ECONOMY AND INVESTMENT

In 2021, production value in the Kozloduy Economic center reached 3.2 billion BGN, or 72,900 BGN per capita – the highest value of this indicator in the whole country. This reflects mostly the atypical structure of the local economy, in which almost all the value added is created by the production of electricity at the Kozloduy NPP. Outside the core, the largest peripheral economy is that of Valchedrum, with agriculture being the leading sector in all four municipalities, generating more than half of the value added. Besides the nuclear power plant, which in 2021 had 3,700 workers and 2.7 billion BGN in revenue, and its affiliated company Atomenergoremont which employs another 814 people, larger employers include the general hospital in Kozloduy, as well as several industrial enterprises and agricultural producers.

Foreign investment is practically absent in the economic center, according to NSI non-confidential data. Investment activity in 2021 was also relatively weak, with total expenditure on FTA acquisition in that year amounting to 82 million BGN – the lowest value among all the 16 economic centers of the country. Expenditures for the purchase of machinery, land and buildings were distributed relatively evenly, with 31 million BGN in the Kozloduy municipality, 26 million BGN in Valchedrum, 11.5 million BGN in Mizia, and 10.3 million BGN in Oryahovo. Outside the core of the economic center, almost all investment is concentrated in the agricultural sector. The Kozloduy center has the lowest export earnings in the non-financial sector in 2021 – 36.4 million BGN. However, this does not include the electricity produced by the Kozloduy NPP and exported out of the country – if the nuclear plant was included in the accounts, the center would most likely be among the export leaders.

LABOR MARKET

Against the backdrop of rapid recovery in all other centers, Kozloduy's constituent municipalities still had very high unemployment in 2022. The center's average is 18.7% of the population aged 15–64. In Kozloduy municipality the share of the unemployed is 9%, but in Hayredin it reaches 1/3 of the working-age population, and in Valchedrum it exceeds 30%. Unemployment problems appear to be structural, as most of the unemployed are in the group of the long-term unemployed registered in the labor offices for over a year: in Hayredin they are 19% of the working-age population, in Valchedrum – 16%, in the Kozloduy municipality – 3.5%. The center has significant problems with youth unemployment, too: the share of the unemployed among the population under the age of 29 exceeds 10% in most municipalities.

At the same time, the employment rate is the lowest among the economic centers at 49% according to 2021 Census data. Employment rates are significantly lower in the peripheral municipalities, with the lowest figure in Valchedrum – 38%, but even the core's rate is not particularly high – 58%. Most employees are concentrated in the Kozloduy municipality – 7,000 people, with the leading sector being energy production and agriculture playing a major role in the peripheral municipalities. Over the last 5 years, the local labor market has been expanding, with the number of employed people increasing by 4.1%, compared to 2017.

The Kozloduy center has seen a moderate growth of 42% in average salaries over the last 5 years, to a gross average of 1,693 BGN per month, with only the center around the capital performing better on this indicator. Significantly higher are monthly salaries in Kozloduy municipality – 2,682 BGN in 2021, one of the highest municipal salary levels in the country.

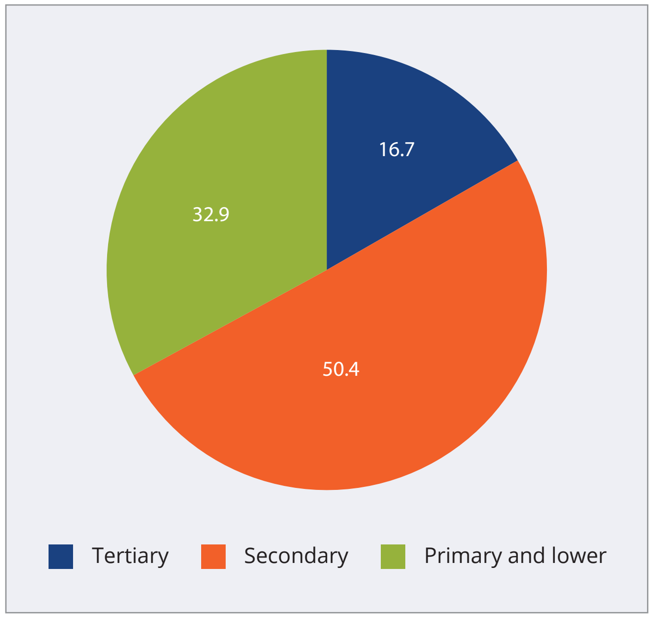
HUMAN RESOURCES AND WORKFORCE

Between the last two censuses, the Kozloduy center recorded the fastest population decline among all the 16 economic centers in the country (–20.5% within the decade). With 44,000 residents, it is also the smallest center based on population, and 18 thousand of them are in the core. The center has a relatively low share of working-age (15–64) people – 61.4% or 27,000 people, with 12,000 of them in the Kozloduy municipality. Against this background, ageing indicators are not particularly unfavorable, especially compared to other parts of northwestern Bulgaria, as the share of the population over 65 is 24%, though in the peripheral municipalities it is significantly higher.

Kozloduy is one of the two centers in the country, alongside Sliven–Yambol, which are losing population as a result of migration processes, with a net migration rate of –0.1‰ in 2022. In fact, migration is relatively balanced, with some municipalities like Oryahovo and Mizia gaining population. However, the natural growth rate is highly negative, with a balance between mortality and birth rates of –15.3‰ on average for the center, though slightly higher in the core (–7.2‰). These indicators confirm the serious demographic obstacles to Kozloduy's further economic development, especially outside the energy sector.

The educational structure of the center poses similar challenges. The share of university graduates among the population aged 7 and older is 16.7% – the lowest among all centers – and equal to that of Kardzhali. At the same time, 1/3 of the population has primary or lower education, and the illiteracy rate according to the 2021 census is 1.2%. The educational structure of the core is slightly more favorable, but even there the share of the poorly educated is high, and in the periphery, the share of university graduates is significantly lower than the average for the center. Students' performance is not particularly promising, either, with the center recording the lowest scores in the NEA in mathematics at the end of grade 7, as well as some of the lowest matriculation examination scores in BLL in the country.

Share of population aged 7 and over based on the highest education degree (2021, %)



Sevlievo–Gabrovo
Economic Center

INTRODUCTION

Sevlievo–Gabrovo is among the most developed economic centers in the country, with high investment rate and high labor productivity. This is mainly due to the good performance of the local export-oriented manufacturing which generates more than half of both value added and employment in the center. Since the end of the crisis, the labor market has been performing very well, with one of the highest employment rates in the country and low unemployment, while the expanding ICT sector has brought significant salary growth. The educational structure of the center is quite favorable mainly because of the very small share of people with low education. The center has very unfavorable and worsening demographic indicators that hinder its medium-term development.

Key indicators for the Sevlievo–Gabrovo economic center	
Production value (2021)	2.95 billion BGN
Economic growth (2012–2021)	78%
Export revenue (2021)	1,783 million BGN
Foreign direct investment (2021)	351 million EUR
FTA acquisition expenditures (2021)	236 million BGN

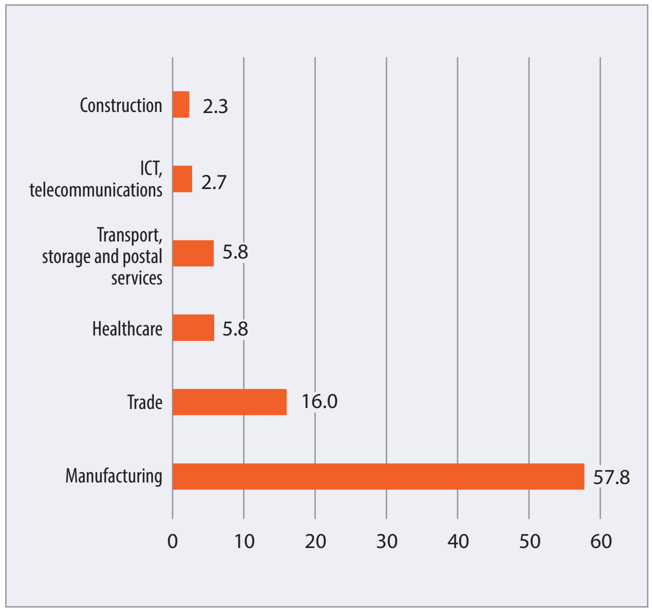
Population (2021 census)	**81,557**
Share of working-age population (2021)	58%
Share of population with tertiary education (2021)	25.2%
Natural population growth (2022)	–17.3‰
Net migration rate (2022)	3‰

Number of people in employment (2021)	**32,508**
Employment rate (2021)	68.2%
Unemployment rate (2022)	3.8%
Employment growth (2017–2021)	–2.3%
Gross average salary (2021)	1,325 BGN/month

COMPOSITION AND LABOR MIGRATION

Sevlievo–Gabrovo is an unusual economic center: it consists of two cores, neither of which has peripheral municipalities. This is due to the strong but geographically limited economies of the two adjacent municipalities. It is important to note, however, that there already are municipalities approaching the threshold of daily labor migration: 8% of employed people in Dryanovo commute to Gabrovo every day, while 9.8% of those in Apriltsi commute to Sevlievo, which is why they could be added to the periphery of Gabrovo and Sevlievo and represented in a future edition of the study. Between the two cores there is also strong interaction, with 5.7% of employees, or 1,300 people commuting daily from Gabrovo to Sevlievo for work.

Share of value added of leading sectors (2021, %)



ECONOMY AND INVESTMENT

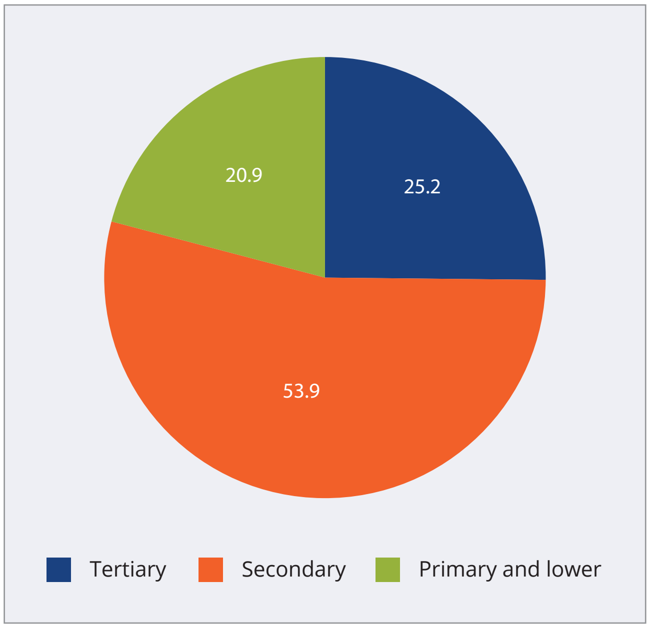
In 2021, the production value of Sevlievo–Gabrovo was 2.95 billion BGN, comparable to that of much larger centers in both territory and population, such as Veliko Tarnovo and Pazardzhik. For this reason, relative to the number of inhabitants, the production value of the center is high – 36,200 BGN per person, close to that of centers with highly developed industry such as Plovdiv and Zagore. The growth of value added between 2012 and 2021 is also significant – 78%. The economy of the center is evenly distributed between the two cores: in 2021 Sevlievo generated 53% of the total value added, and Gabrovo generated 47%. Activity is highly concentrated in manufacturing which generates 58% of value added. Other larger sectors include trade with 16%, as well as healthcare and transportation, warehousing and postal services, with 5.8% each. The economy of Gabrovo municipality is slightly more balanced, but here manufacturing also accounts for 49%. The local economy is dominated by a few large industrial enterprises – the sanitary ware manufacturer Ideal Standard–Vidima with almost 3,300 employees, the plastic products manufacturer Hamberger with 1,100 employees, and the Parallel furniture company with 843 employees in Sevlievo, as well as the Dzalli garment company with over 1,000 workers in Gabrovo.

The economic center has attracted 351 million EUR of FDI by the end of 2021. Per capita, the amount of foreign capital is 4,300 EUR per person, with more FDI reported only in the Burgas – Nessebar center and the one around Sofia. Most of the foreign investment – 288 million EUR – was made in Sevlievo. Current investment in the two municipalities in the previous year was relatively low, with expenditures for the acquisition of fixed assets amounting to 236 million BGN in 2021, half of them in industry. Due to its particular economic structure, Sevlievo–Gabrovo is the most export-oriented economic center after that of the capital, with 22,200 BGN of export revenue per capita in 2021. The nominal volume of exports is 1.8 billion BGN. The center also has relatively high labor productivity, with value added per employee reaching 18,700 BGN.

LABOR MARKET

The strong performance of the local economy has also led to good labor market indicators. In 2022, the unemployment rate registered with the Employment Agency declined to an average of 3.8% for the center, with only minor differences between the two cores. The long-term unemployment rate is very low at 0.43% of the population aged 15–64 in

Share of population aged 7 and over based on the highest education degree (2021, %)



Sevlievo and 0.11% in Gabrovo, giving the currently unemployed a very high chance of re-entering employment. Youth unemployment is also low. At the same time, according to 2021 Census data, Sevlievo–Gabrovo has the second highest employment rate among the 16 economic centers of the country. The total number of employed people is 32,500, with 21,200 of them in Gabrovo municipality.

Over the past 5 years, there has been a slight cooling in the local labor market, with the number of employed persons down by 2.3% compared to 2017. In terms of employment structure, 57% of employees are in manufacturing, 13% in trade, 6.5% in transport, warehousing and postal services, and 4.9% in healthcare. The concentration of industrial enterprises in Sevlievo logically determines the leading position of the manufacturing in employment, as it accounts for about 65% of all employees in the municipal economy.

Salaries in the center have increased by 51% over the last 5 years to a gross average of 1,325 BGN per month, giving Sevlievo–Gabrovo the fourth place among all 16 centers. At the municipal level, Sevlievo offers a significantly higher average income for employees – 1,508 BGN per month, with salaries in manufacturing at 1,679 BGN, and those in healthcare at 1,917 BGN. The highest salaries in the whole economic center are in the growing ICT sector in Gabrovo, with 3,121 BGN per month on average.

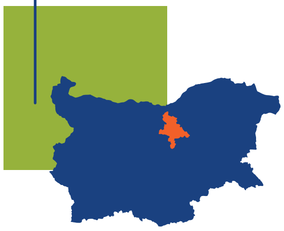
HUMAN RESOURCES AND WORKFORCE

A significant advantage of Sevlievo–Gabrovo is the educational structure of the population. According to census data, ¼ of people aged 7 and above have a university degree, while only 21% have primary or lower education, one of the lowest proportions in the country. The illiteracy rate is 0.5%, and by this indicator the center shares the first place with the one around the capital and with the Blagoevgrad center.

Several of the country's leading schools are also located in the center. The average score in the matriculation exams in BLL is naturally among the higher ones – Good 3.85, and the average score in the NEA in mathematics at the end of grade 7 is 32.1 out of 100 – one of the most successful performances at the municipal level in the country.

By far the most serious challenge to the medium-term economic development of the center is demography. Between the last two censuses, the population of the two municipalities shrank by a total of 19.5% to 81,600 thousand people. The population decline has been accompanied by rapid changes in its structure, with only 58.4% of residents of working age by 2021 – the lowest proportion among all economic centers. Conversely, the proportion of the population aged 65 and above is the highest at 29.5%, and demographic replacement indicators reveal a further deterioration in the population pyramid, with 245 seniors (over 65) for every 100 children (under 14) in 2021.

These negative developments have been occurring despite positive migration towards the centre. The net migration rate for the centre as a whole in 2022 was 3‰ – higher in Sevlievo, though both municipalities have been attracting population. The more important driving factor, however, is natural population growth which reached –17.3‰ in 2022 – the lowest among all economic centers, with Sevlievo performing slightly better on this indicator (–15‰). The narrowing of the gap between birth rates and death rates seems at this stage to be the most serious challenge facing the two municipalities.



Veliko Tarnovo
Economic Center

INTRODUCTION

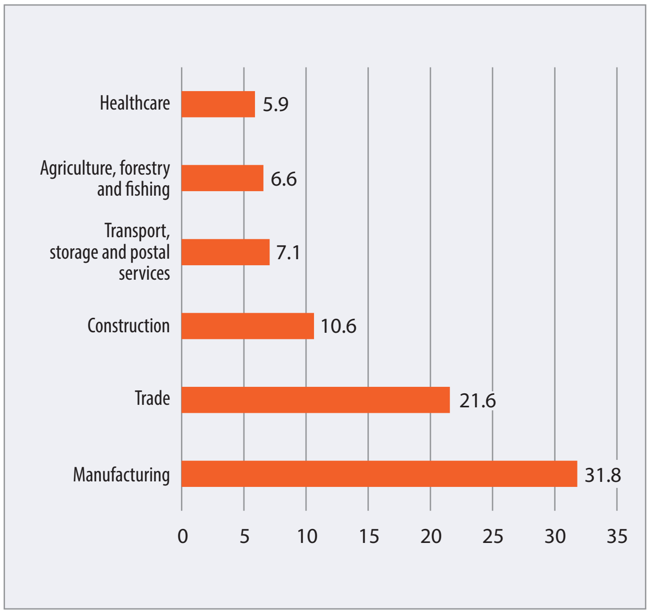
Veliko Tarnovo has been among the centers with the highest economic growth in the country over the last decade, driven mostly by large manufacturing enterprises, diverse and evenly distributed between the core and the peripheral municipalities. The shrinking of the labor market has been relatively rapid, but at this stage high employment and low unemployment are sustained, and salaries are growing at a good pace. The population's educational structure is one of the most favorable in the country: there are many university graduates, few people with primary education and a low illiteracy rate. Similarly to other parts of northern Bulgaria, the center faces significant demographic challenges, especially in terms of low natural growth and rapid ageing.

Key indicators for the Veliko Tarnovo economic center	
Production value (2021)	2.93 billion BGN
Economic growth (2012–2021)	90%
Export revenue (2021)	907 million BGN
Foreign direct investment (2021)	30 million EUR
FTA acquisition expenditures (2021)	345 million BGN

Population (2021 census)	**141,174**
Share of working-age population (2021)	61.5%
Share of population with tertiary education (2021)	27.5%
Natural population growth (2022)	–11.8‰
Net migration rate (2022)	4.8‰

Number of people in employment (2021)	**55,973**
Share of working-age population (2021)	64.2%
Share of population with tertiary education (2021)	4.8%
Natural population growth (2022)	–7.8%
Net migration rate (2022)	1,225 BGN/month

Share of value added of leading sectors (2021, %)



COMPOSITION AND LABOR MIGRATION

The Veliko Tarnovo economic center consists of five municipalities – Veliko Tarnovo is the core, and Zlataritsa, Lyaskovets, Gorna Oryahovitsa and Polski Trambesh are its periphery, from which more than 3,000 people commute daily for work. Over half of them – 1,800 people – come from Gorna Oryahovitsa. Daily migration to the core from Zlataritsa, where 20% of all employees work in Veliko Tarnovo, is of the greatest importance among the labor markets in the periphery. The center has expanded considerably in recent years: previously only Lyaskovets was part of its periphery. The municipality of Dryanovo is also close to inclusion, with 7% of employees commuting to Veliko Tarnovo as of 2021.

ECONOMY AND INVESTMENT

In 2021, the production value of the Veliko Tarnovo center reached 2.93 billion BGN, or an average of 21,000 BGN per capita in the municipalities included in the center. The center has one of the fastest growing economies in the country, with value added increasing by 90% over the last 10 years, slower only compared to the centers around Plovdiv, Sofia and Kardzhali. In contrast to most centers, Veliko Tarnovo's economic activity is not very concentrated, with 65% of value added being generated in the core, another 20% in Gorna Oryahovitsa and a further 11% in Lyaskovets. The leading economic sector is manufacturing with 32% of value added, followed by trade (22%), construction (11%) and transport (7%). The deconcentrated nature of the economy is also evident in the distribution of the largest employers – the Arkus weapons factory in Lyaskovets employs 1,600 people, the strong confectionery industry is distributed between Prestige–96 in the core, Sugar Plants in Gorna Oryahovitsa and Grestcommerce in Lyaskovets. Extrapak and Megaport also play a major role, as well as the Apollo–95 textile factory. On the whole, there are numerous industrial enterprises in the center, each with high revenues and several hundred jobs.

Against this backdrop, FDI in the center is one of the lowest among all the centers in the country – its cumulative value by the end of 2021 stood at only 30 million EUR, of which 22 million EUR in Veliko Tarnovo and another 5 million EUR in Gorna Oryahovitsa. However, overall investment activity is high, with 345 million BGN of FTA acquisition expenditures in 2021 – 66% in the core and 19% in Gorna Oryahovitsa. Expenditure on the purchase of machinery, land and buildings in trade, transport and tourism totaled 106 million BGN, while enterprises in the industry sector invested a further 71 million BGN, and those in agriculture – another 58 million BGN.

The center is among the less export-oriented ones, with export revenue in 2021 amounting to 907 million BGN, or 6,700 BGN per capita. Labor productivity is relatively low – the average value added per employee per year is 16,500 BGN.

LABOR MARKET

In 2022, the unemployment rate in the economic center reached 4.8%, which is close to the national average. The share of the unemployed among the workforce is significantly higher in Zlataritsa (17%) and Polski Trambesh (11%). These municipalities also have a significant share of long-term unemployed people, 3.6% and 3% respectively, while in the other municipalities this problem is practically non-existent. According to 2021 census data, the employment rate is 64% – the fifth highest among all the 16 centers in the country, and the number of employed persons is 56,000 in total. The employment rate in the Veliko Tarnovo municipality is significantly higher – 69%. Most of the employed are in the core – 33,300 people, and in Gorna Oryahovitsa – 14,400 people.

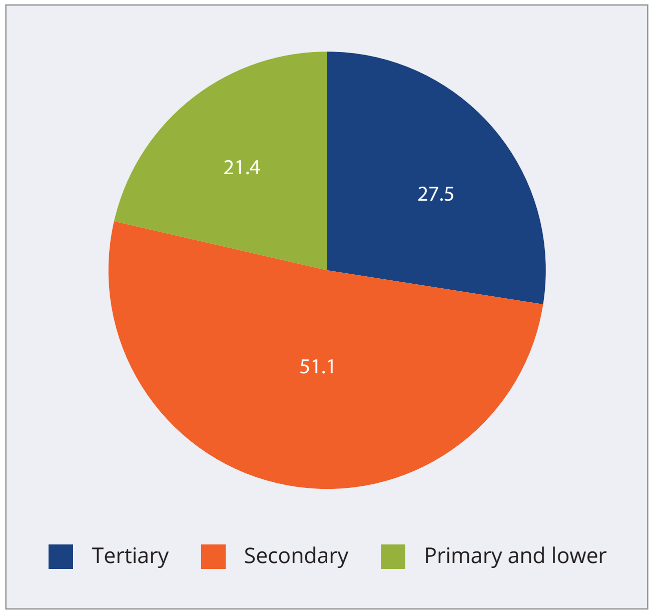
However, against the backdrop of a growing economy, over the last 5 years the Veliko Tarnovo center has seen a significant contraction of the labor market, with the number of employed persons decreasing by 8%, mostly under pressure from demographic processes. The sector with the most employees – 35% of the total number of employed persons – is manufacturing, followed by trade with 23%, construction with 8%, and transport and storage with 7% of employees.

The 2021 average salary for the center as a whole was higher by 51% than it was in 2017 and reached 1,225 BGN gross per month, which is very close to the national average. Salary levels are relatively evenly distributed across economic activities, with the highest ones in the ICT sector in Gorna Oryahovitsa – 3,429 BGN per month, though with a very small number of employees, and in healthcare in Veliko Tarnovo – 2,028 BGN per month in 2021.

HUMAN RESOURCES AND WORKFORCE

Over the last 10 years, the population of the economic center declined by 16% to 167,000, which is a relatively rapid rate compared to the 16 centers. The share of the working age population (15–64 years) is also among the lower ones – 62%, or 87,000 people, including 49,000 in Veliko Tarnovo and 23,000 in Gorna Oryahovitsa. The indicators of aging are also unfavorable: with 26% of the population over the age of 65, Veliko Tarnovo ranks third after Sevlievo–Gabrovo and Pleven among all the economic centers. The demographic replacement rate also portends rapid age structure deterioration.

Share of population aged 7 and over based on the highest education degree (2021, %)



The center attracts migrants, the net migration rate averaging 4.8‰ in 2022. This holds true not only for the core but also for all peripheral municipalities. However, the population decline is a consequence of a low birth rate and high mortality, with a natural growth rate of –11.8‰ in 2022 – a relatively good level compared to the rest of northern Bulgaria. However, the natural growth rate is significantly lower in Lyaskovets (–21‰) and in Polski Trambesh (–18‰).

One of the main advantages of Veliko Tarnovo is the very good educational structure of the population. According to the census data, 27.5% of the population aged 7 and above have university degrees, while only the centers around Sofia and Varna perform better on this indicator. At the same time, the share of the population with primary and lower education is among the lowest – 21.4%, and illiteracy is also very low – 0.6% of the population aged 9 and older.

The good educational structure is also linked to good performance of the students in the centre, with an average score of 3.78 on the 2022 state matriculation exam in BLL, and an average score of 35 out of 100 on the NEA in mathematics after grade 7. Students in the municipality of Veliko Tarnovo predictably perform significantly better.

Pazardzhik

Economic Center

INTRODUCTION

The Pazardzhik center has shown steady economic growth in recent years, mainly due to the activity several large export-oriented industrial enterprises. The labor market is recovering rapidly after the crisis, but there are visible problems with persistent unemployment in places. This is the center with the fastest salary growth in the country, but in absolute terms wages remain relatively low. Pazardzhik has lost almost one-fifth of its population in 10 years, while natural growth and ageing create serious obstacles to future economic development.

Key indicators for the Pazardzhik economic center	
Production value (2021)	2.9 billion BGN
Economic growth (2012–2021)	90%
Export revenue (2021)	1,352 million BGN
Foreign direct investment (2021)	N/A
FTA acquisition expenditures (2021)	308 million BGN

Population (2021 census)	125,182
Share of working-age population (2021)	62.2%
Share of population with tertiary education (2021)	18.5%
Natural population growth (2022)	–11.3‰
Net migration rate (2022)	5.6‰

Number of people in employment (2021)	45,562
Employment rate (2021)	58.5%
Unemployment rate (2022)	4.9%
Employment growth (2017–2021)	0.7%
Gross average salary (2021)	1,207 BGN/month

COMPOSITION AND LABOR MIGRATION

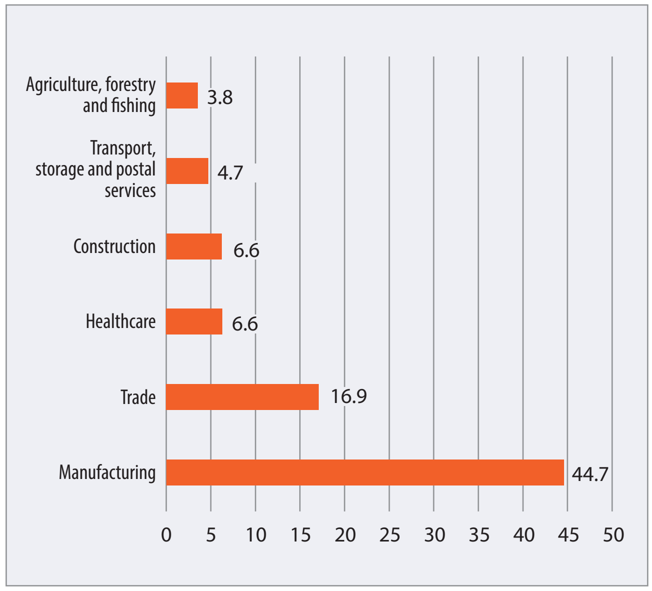
The Pazardzhik center consists of the municipality of Pazardzhik as its economic core and the municipalities of Septemvri, Lesichovo and Belovo as its periphery. In line with the general trend and compared to the previous edition of the study (2017), the center has expanded and Belovo is now part of the periphery. The largest number of workers commute to the core from Septemvri – 1.5 thousand people, and work in Pazardzhik is most important for the local labor market in Lesichovo, where it generates 23% of all employment.

ECONOMY AND INVESTMENT

Production in the centre in 2021 is estimated at 2.9 billion BGN, or an average of 8,300 BGN per capita, which is one of the lowest in the country. However, the Pazardzhik center is experiencing significant economic growth, with a 90% increase in value added within a decade. As regards the concentration of economic activity, 85% of all value added in the center is generated in Pazardzhik and another 13% in Septemvri. The local economy is driven by manufacturing, which generates 45% of value added, followed by trade with 17%, and healthcare and construction with 6.6% each. This specialization is even more pronounced in the municipality of Septemvri, where manufacturing contributes more than ¾ of the total value added. The largest local employers are the auto parts manufacturer Kostal with over 1,500 employees and 813 million BGN in revenues in 2021, Kolovag in Septemvri with 1,300 employees and 209 million BGN in revenues, as well as the General Hospital in Pazardzhik and the cardboard and packaging manufacturer D.S. Smith.

Due to the confidentiality rules of the National Statistical Institute, comprehensive data on the amount of FDI in the economic centre are not available. However, as the industry in Pazardzhik municipality alone has attracted foreign investment worth 121 million EUR, and Septemvri municipality – a total of 13 million EUR in all sectors, it can be concluded that almost all FDI in the center is concentrated in the economic core, and almost exclusively in the manufacturing industry. The structure of investment in FTA in 2021 also leads to the same conclusion, with 276 million

Share of value added of leading sectors (2021, %)



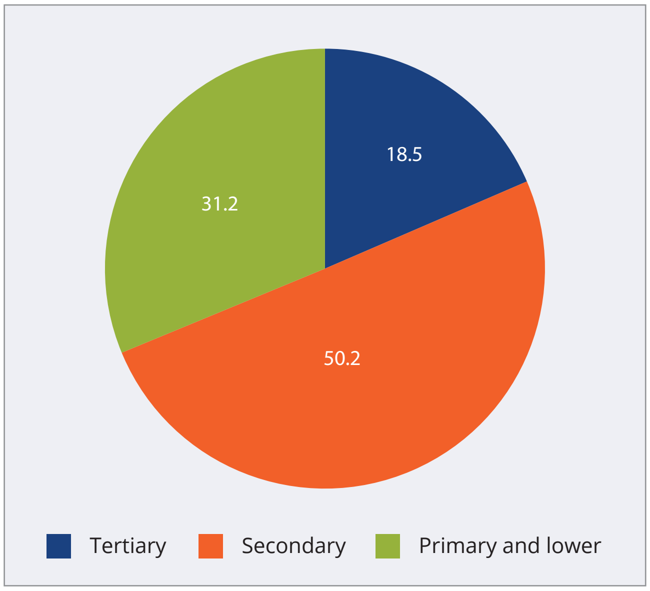
BGN of the total 308 million spent on the purchase of machinery, land and buildings in Pazardzhik municipality and another 25 million BGN in Septemvri. Expenditures on the acquisition of fixed assets were the highest in industrial enterprises with 155 million BGN, as well as in trade, transport and tourism with a total of 45 million BGN.

The economy of the Pazardzhik center is relatively strongly export-oriented, with export revenues of non-financial enterprises amounting to 1.35 billion BGN in 2021, or almost 11,000 BGN per capita. Again, the leading municipalities in this indicator are Pazardzhik and Septemvri. The centre, however, ranks among the lowest in terms of labor productivity with an average of 15,600 BGN of added value per employee per year.

LABOR MARKET

Following the substantial growth in 2020, unemployment in the centre is now relatively low at 4.9% of working-age population according to the 2022 Employment Agency figures. Although the share of the unemployed is lowest in the core, it no longer exceeds 10% in any of the peripheral municipalities. However, parts of the periphery have visible problems with long-term unemployment, with 6.3% of the working-age population in Lesichovo and 4% in Septemvri registered with the labor offices for

Share of population aged 7 and over based on the highest education degree (2021, %)



over a year, most probably due to low education and inadequate skills. Employment in the economic center is at one of the nation's lower levels at 59% according to census data, and the total number of employed people is 45,600. Of these, 35,000 are employed in Pazardzhik and another 7,000 in Septemvri. Only the small municipality of Lesichovo has significantly lower employment – just 39% of the population aged 15–64.

The labor market in the Pazardzhik center has seen a slight expansion over the past 5 years, with the number of employees growing by 0.7% from 2017 to 2021. Almost two-thirds of the workforce is concentrated in two sectors – 40% in manufacturing, 21% in trade, and the third largest sector is construction at 7.6%. The labor market in Septemvri is even more concentrated – about 2/3 of jobs are in manufacturing.

Salaries in Pazardzhik have seen the highest growth among all 16 centers over the last 5 years – 61%, but this is mostly a consequence of the low starting value. The average annual gross salary reached 1,207 BGN per month in 2021; it was highest in Septemvri (1,432 BGN) and lowest in Lesichovo (894 BGN). The highest salaries in sectors with relatively large numbers of employees are in healthcare in Pazardzhik municipality – 1,976 BGN per month, and in the process industry of Septemvri – 1,831 BGN per month.

HUMAN RESOURCES AND WORKFORCE

The educational structure of the Pazardzhik center is a serious obstacle to its development. The share of university graduates among the population aged 7 years and older is only 18.5%: it is lower only in the centers of Kardzhali and Kozloduy. This is coupled with a relatively high share of people with primary and lower education – 31%, and a serious illiteracy rate – 1.4%. These indicators are even more negative in the periphery, with 45% of people in Lesichovo having primary education or less, and only 8% having university degrees.

Schools in this economic centre do not perform particularly well on the various external evaluations, with the average score on the 2022 matriculation exam in BLL being Good 3.56, and the average score on the NEA in mathematics at the end of grade 7 being 29 out of a possible 100. These scores are significantly lower in the smaller municipalities.

Pazardzhik's population is among those with the fastest decline – between the two censuses it has shrunk by 19%, with a larger decline only in Kozloduy and Sevlievo–Gabrovo. The total population in 2021 was 125,000 people, with the share of people of working age at 62%, which is close to the national average. The majority of the employable population is concentrated in the core – 57,000 people, and another 14,000 in September. The current population growth indicators do not give much cause for optimism either – although the net migration rate is positive (5.6‰ in 2022), the natural growth rate is very low (–11.3‰ overall for the centre, up to –20‰ in Belovo). Population ageing is also relatively rapid, with the proportion of people over 65 exceeding 24%.

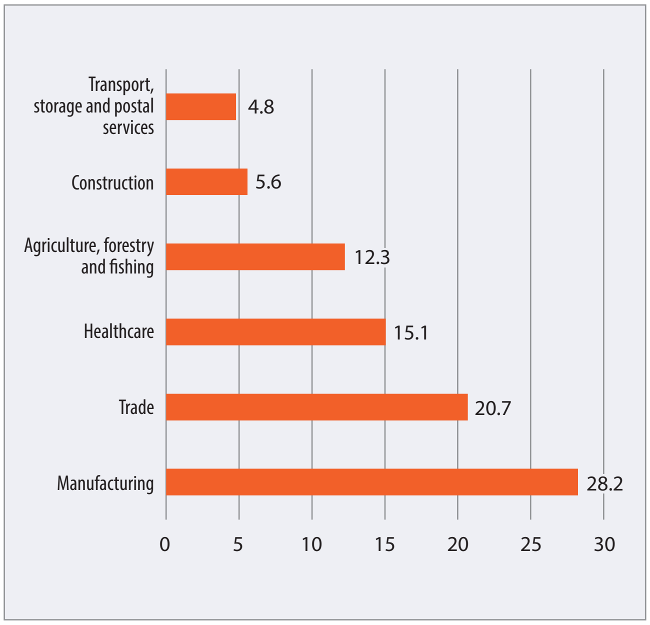
Pleven
Economic Center

INTRODUCTION

Production value per capita in Pleven is the lowest among the 16 economic centers in the country and attracts relatively little investment. A characteristic of this economic center is the leading role of healthcare in the core and that of agriculture in the small peripheral municipalities. The labor market is recovering from the crisis but suffers from visible structural problems and persistent unemployment. The good educational structure of the population is a strength, especially the high share of people with university degrees. Like the rest of north-western Bulgaria, the Pleven center faces major demographic challenges – its population is both declining and ageing rapidly, with fewer and fewer people of working age.

Key indicators for the Pleven economic center	
Production value (2021)	2.61 billion BGN
Economic growth (2012–2021)	62%
Export revenue (2021)	798 million BGN
Foreign direct investment (2021)	156 million EUR
FTA acquisition expenditures (2021)	382 million BGN
Population (2021 census)	**166,979**
Share of working-age population (2021)	59.2%
Share of population with tertiary education (2021)	23.1%
Natural population growth (2022)	–13.5‰
Net migration rate (2022)	0.2‰
Number of people in employment (2021)	**55,885**
Employment rate (2021)	60.1%
Unemployment rate (2022)	8.5%
Employment growth (2017–2021)	–4.7%
Gross average salary (2021)	1,182 BGN/month

Share of value added of leading sectors (2021, %)



COMPOSITION AND LABOR MIGRATION

The Pleven economic center includes seven municipalities grouped around one core – Pleven municipality. Compared to the previous edition of the study (2017), two new, geographically more remote municipalities have been added to the center – Iskar and Nikopol. The number of daily labor migrants from the periphery to the core is 4,000, with the largest number commuting from Dolna Mitropolia – 1,700. Work in the municipality of Pleven has the most significant impact on the labor markets in Dolna Mitropolia and Dolni Dabnik, where it accounts for 37% and 33% of total employment respectively. Among the surrounding municipalities, the one closest to being included in the centre is Levski, where 7.3% of employees commute to their jobs in Pleven every day.

ECONOMY AND INVESTMENT

In 2021, the output of the Pleven centre reached 2.61 billion BGN, or 15,600 BGN on average per capita. This figure is the lowest among all centers: a possible reflection of Pleven's demographic structure. Value added growth over the last 10 years is 62% – one of the lower values among the 16 centers. The impact of the core is relatively lower compared to other centers, with Pleven municipality accounting for 80% of total value added, Dolna Mitropolia generating another 8.2%, and Dolni Dabnik another 4.6%. Growth rates also differ, with Pleven municipality reporting 75% growth in value added over 10 years, Dolna Mitropolia 47%, while Pordim has seen a decline of 56%, and the decline in Dolni Dabnik is 3%.

The structure of the economy in the Pleven center is characterized by a very high share of healthcare, which accounts for 15% of the value added, which is concentrated almost entirely in the core. This reflects the leading role of Pleven municipality in healthcare at the national level, as well as the importance of the Medical University. The share of agriculture is also high at 12%, and in the smaller peripheral municipalities of Iskar and Nikopol it accounts for more than half of the local economy. The largest sector with 28% of the value added Is manufacturing, mostly concentrated in Pleven and Dolni Dabnik, followed by trade with 21%. Given the profile of the economy, it is not surprising that it has limited orientation towards foreign markets, with export earnings in 2021 of 798 million BGN, or 4,400 BGN per capita, the lowest in the country after Kozloduy. The largest employers are the University Hospital in Pleven with over 1,700 employees, the cables manufacturer Leoni with almost 1,400, while the leader in terms of revenue is the chemical products trader EuroChem Agro.

As of the end of 2021, total FDI in the center was worth 156 million EUR, or 937 EUR per capita, concentrated almost exclusively in the municipality of Pleven, where foreign capital attracted totaled 151 million EUR. The sector attracting the highest level of foreign investment is industry (63 million EUR), followed by real estate (59 million EUR) and trade, transport and tourism (29 million EUR). Businesses in the trade sector account for the largest share of total investment in 2021, with 112 million BGN out of the total 382 million BGN of FTA acquisition expenditure in the centre as a whole. Both agriculture and industry also attract significant investment.

LABOR MARKET

According to the 2021 census, the total number of employed people in the Pleven center is 59,900 and the employment rate of the population aged 15–64 is 60.1%. Most employees – 46,000 people – are concentrated in the municipality of Pleven, while the second largest labor market is that of Dolna Mitropolia with 4,400 people. The lowest employment rate is in Iskar – only 42%, in most peripheral municipalities it stands in the 48–50% range, and in the core it is 66%.

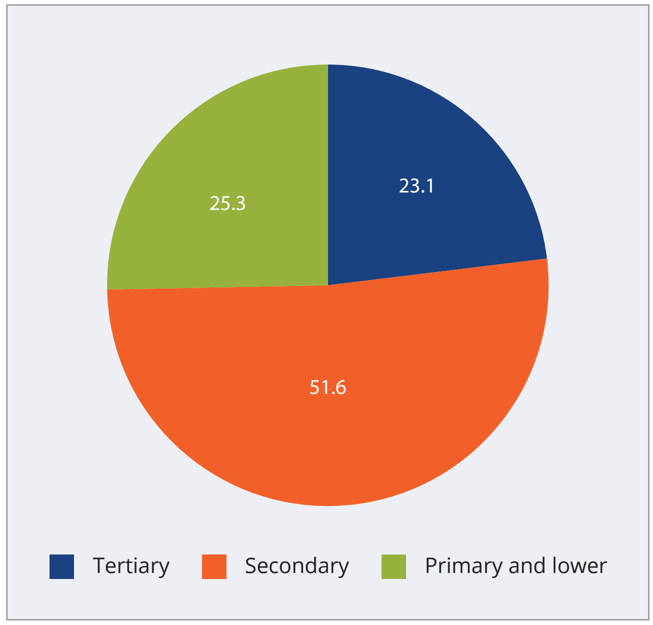
Over the last 5 years, the labor market, as measured by the number of people employed in the center, has shrunk by 4.7%. Most employees – 37% of the total – are engaged in manufacturing and 21% are in trade. The third largest sector is healthcare, which accounts for 12% of the jobs, with another 5.5% each in agriculture and construction. In most municipalities in the centre, healthcare offers the best pay, with the highest one in Pleven – 2,211 BGN on average per month. Despite the 53% growth registered over the last 5 years, the average salary in the centre remains low: in 2021 it was only 1,182 BGN per month.

In 2022, unemployment in the centre remained relatively high – at an average of 8.5% according to the Employment Agency, but significantly higher in the peripheral municipalities, reaching 20% in Dolna Mitropolia and 23% in Nikopol. The permanently unemployed are 9% of the working-age population in Nikopol, about 5% in Pordim and Gulyantsi, and even in the core they are 1.4%, which is a very high share for a district capital.

HUMAN RESOURCES AND WORKFORCE

Among the strengths of the Pleven center is its relatively good educational structure. The proportion of the population aged 7 years and above with a university degree was 23% in 2021, rising to 29% in the core. The role of healthcare in the local economy plays an important role in this, as does the Medical University. At the same time, the share of the population with primary and lower education is also high,

Share of population aged 7 and over based on the highest education degree (2021, %)



averaging 25% overall in the centre, but as high as 46% in Nikopol and 35–37% in the other peripheral municipalities. In some places the illiteracy rate approaches and exceeds 2%.

According to the 2021 census, the population is 167,000, which is a decline of 15.6% since the previous census in 2011 – a significant contraction compared to regions with better demographic trends, though less so compared to many other centers. Pleven, however, has one of the lowest proportions of working-age population (59%), with only Sliven–Yambol and Sevlievo–Gabrovo doing worse on this indicator. At the same time, the share of the population aged 65 and over is among the highest – 28%; on this indicator Sevlievo–Gabrovo is the only center performing worse.

Natural population growth is negative and reached –13.5‰ in 2022 for the centre as a whole, but with much less favorable values of –29‰ in Gulyantsi and –24‰ in Nikopol, while in the core it was –10‰. Migration processes offer no reason for optimism either: the net migration rate is 0.2%; the Pleven city municipality is the only one that attracts population, while its periphery is losing people.

Blagoevgrad
Economic Center

INTRODUCTION

Blagoevgrad is the center with the slowest economic growth in the country; it is also among those with the lowest labor productivity. Investment activity remains weak, although the local economy is strongly oriented towards external markets. The labor market has been recovering relatively quickly, but there are obvious structural problems in the small municipalities and salaries remain low outside a few leading sectors. However, the center has significant development potential due to its young and highly educated population.

Key indicators for the Blagoevgrad economic center	
Production value (2021)	2.45 billion BGN
Economic growth (2012–2021)	48.8%
Export revenue (2021)	1,818 million BGN
Foreign direct investment (2021)	88 million EUR
FTA acquisition expenditures (2021)	221 million BGN

Population (2021 census)	88,980
Share of working-age population (2021)	64.5%
Share of population with tertiary education (2021)	26.8%
Natural population growth (2022)	–7.8‰
Net migration rate (2022)	2.3‰

Number of people in employment (2021)	35,729
Employment rate (2021)	62.2%
Unemployment rate (2022)	5.5%
Employment growth (2017–2021)	–0.4%
Gross average salary (2021)	1,148 BGN/month

COMPOSITION AND LABOR MIGRATION

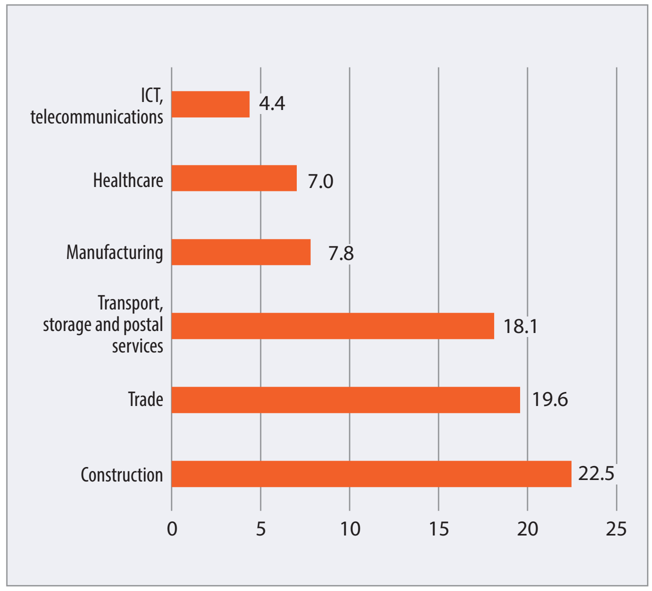
The Blagoevgrad economic center consists of four municipalities – the core municipality of Blagoevgrad and the peripheral municipalities of Kocherinovo, Simitli and Rila. Compared to the previous edition of the study (2017), the municipality of Rila is a new addition to the periphery of the Blagoevgrad center. From its peripheral municipalities, the core attracts 1,700 workers per day, 1,029 of them from Simitli. Work in Blagoevgrad, on the other hand, is of utmost importance for the labor market of Kocherinovo, where 36% of employees commute daily to their jobs in the core. Of the surrounding municipalities, Kresna comes closest to being included in the center's periphery, with a little over 6% commuting daily to work in Blagoevgrad. It is interesting to note that the centre is located on the territory of two administrative districts, Kocherinovo and Rila being municipalities in Kyustendil district.

ECONOMY AND INVESTMENT

In 2021, the total value of production in the Blagoevgrad center reached 2.45 billion BGN, or an average of 27,500 BGN per capita. Despite the small size of the local economy in absolute terms, if population size is taken into account, its performance is better than that of most other centers. However, Blagoevgrad has the lowest growth rate of all economic centers in the country – only 49% over the last 10 years. This mostly reflects the problems facing the local industry in recent years – from the closure of the cigarette manufacturer to the shortage of workers in the garment sector.

The concentration of production in the center's core is comparable to that of other centers, as it generates 90% of the total value added, while Simitli contributes another 7.6%. The structure of the center's economy is somewhat unusual, with construction being the largest sector as of 2021, accounting for 23% of total value added, followed by trade with 20%, and transport, warehousing and postal services with a total of 18%. Manufacturing (7.8%) and healthcare (7%) are also relatively large in size. Simitli has a distinctly different economic profile, with industrial enterprises playing a major role and generating as much as 41% of value added. Labor productivity in the non-financial sector in the center is relatively low – only 16,100 BGN of value added on average per employee.

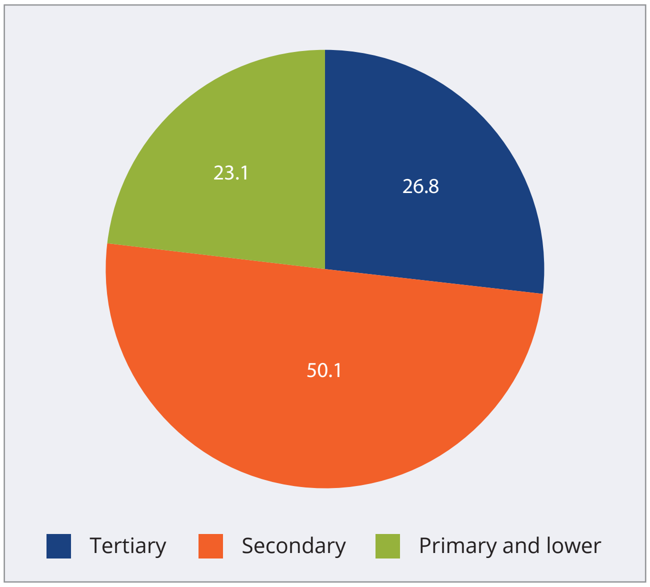
Share of value added of leading sectors (2021, %)



It is noteworthy that some of the largest employers in the center are public enterprises – the South-Western State Enterprise, which employs more than 1,500 people, and the general hospital with 500 people. The companies with the highest revenues are those in commerce. Thanks to its important role, the Blagoevgrad center has significant export revenues – 1.82 billion BGN in 2021, and the average value of 21,000 BGN per capita puts the center in third place in the country after the broad center around the capital and Sevlievo–Gabrovo.

As of the end of 2021, the cumulative FDI stands at 88 million EUR, or 991 EUR per capita. Almost all foreign capital in the center is concentrated in the municipality of Blagoevgrad – over 86 million EUR, while the remaining 2 million are in the municipality of Simitli. Over half of it (45 million EUR) is in trade, transport and tourism, while the remaining 36 million is in industry. In 2021, enterprises made investment expenditures of over 221 million BGN for the acquisition of land, buildings and machinery, of which 193 million BGN were in Blagoevgrad and 20 million BGN in Simitli. Investment activity is focused on industry – 62 million BGN of expenditures for the acquisition of fixed assets, as well as the sectors of construction and trade, transport and tourism with 52 million BGN each.

Share of population aged 7 and over based on the highest education degree (2021, %)



LABOR MARKET

Although unemployment rose sharply during the course of the Covid pandemic, reaching some of the highest levels in the country, by 2022 unemployment in the centre had already fallen to 5.5%. There are no significant differences between municipalities in the overall unemployment rate, but the periphery faces problems with long-term unemployment: in Simitli the share of the unemployed registered for over a year is 3.3%, and in Rila – 1%. The share of inactive persons is relatively high, reaching 39% in Simitli in 2021 and 38% in Rila. The employment rate is close to the average for all centers – about 62% for the population aged 15–64, and the total number of persons in employment according to the 2021 census is 35,700 persons, among them 28,900 in Blagoevgrad municipality, and another 4,600 in Simitli.

The size of the labor market has remained virtually unchanged over the past 5 years, with employment down 0.4% compared to 2017. However, in the Blagoevgrad center, the structure of employment differs significantly from that of value added, with most employees – 23% – concentrated in manufacturing, 18% in trade and 16% in construction.

Despite the weaker economic dynamics, over the last 5 years salaries in the centre have increased by 51% to 1,148 BGN (gross) on average per month. However, there are great differences between the municipalities, as the average salary in Blagoevgrad is 1,214 BGN on average per month, while in Kocherinovo it is only 791 BGN. Among the sectors with significantly higher salaries are healthcare with 2,163 BGN and culture, sport and entertainment with 2,137 BGN in the city of Blagoevgrad.

HUMAN RESOURCES AND WORKFORCE

Between the two censuses, the center lost 11% of its population, and the total number of people living in the four municipalities reached about 89,000 in 2021. Blagoevgrad's demographics are among the best in the 16 centers, with a 64.5% share of the working-age population aged 15 to 64 – lower only than that in the centers around the capital and Varna. Of that working-age population, 45,000 people are concentrated in the municipality of Blagoevgrad and another 8,600 are in Simitli. The share of the population aged 65 and above is very low at 21.4%, placing the centre among the slowest ageing ones in the country. The universities in the core, which attract a significant number of young people, as well as the proximity and good infrastructural connectedness with the capital, undoubtedly play a role in these positive trends.

In 2022, the natural growth rate for the center as a whole was –7.8‰, although the ratio between mortality and the birth rate was significantly more negative in the periphery: up to –29‰ in Kocherinovo, and up to –23‰ in Rila. The center gains population from migration processes, with a total net migration rate of 2.3‰, while in the city of Blagoevgrad it reaches 4.4‰.

Among the strengths of the Blagoevgrad center is the educational structure of the population – according to census data, 27% of the population aged 7 and older have university degrees, and only 23% have primary or lower education. The centre also has the lowest illiteracy rate in the country – 0.5% of the population aged 9 and above, similar to the centre around the capital and Sevlievo–Gabrovo. Student achievement is also good – with an average score of Good 3.90 on the matriculation exam in BLL and 36.4 points in mathematics at the end of 7th grade, the centre ranks among the leaders in the country.

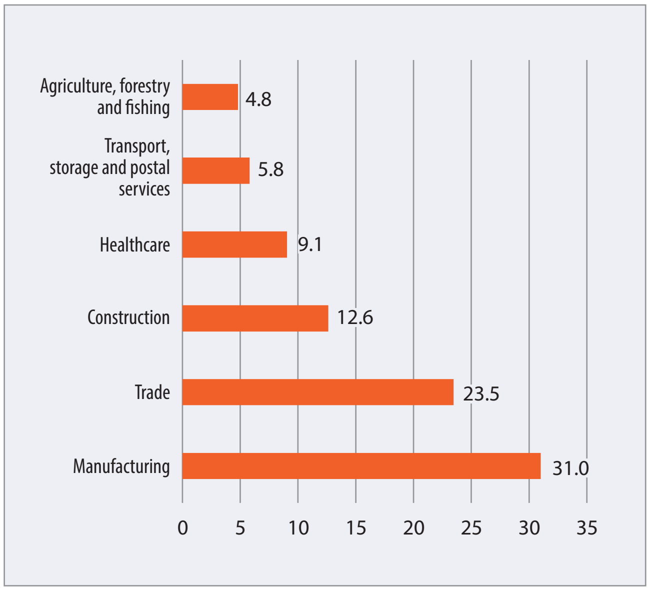
Haskovo
Economic Center

INTRODUCTION

The Haskovo center has relatively slow economic growth. Activity is concentrated exclusively in the core, where the leader is manufacturing, while the periphery is dominated by agriculture. Investment in the center remains low compared to the leading regional economies of the country, and production is almost entirely oriented towards the domestic market. Unemployment remains high, especially outside the core, and the number of workers in the center is declining rapidly amid relatively low wages. The educational structure of the population, especially outside Haskovo city, is unfavorable, but for the time being, demographic indicators are relatively good.

Key indicators for the Haskovo economic center	
Production value (2021)	1.54 billion BGN
Economic growth (2012–2021)	74%
Export revenue (2021)	377 million BGN
Foreign direct investment (2021)	94 million EUR
FTA acquisition expenditures (2021)	151 million BGN
Population (2021 census)	**92,320**
Share of working-age population (2021)	61.8%
Share of population with tertiary education (2021)	20.9%
Natural population growth (2022)	–10.6‰
Net migration rate (2022)	0.6‰
Number of people in employment (2021)	**32,819**
Employment rate (2021)	57.5%
Unemployment rate (2022)	5.6%
Employment growth (2017–2021)	–6.8%
Gross average salary (2021)	1,096 BGN/month

Share of value added of leading sectors (2021, %)



COMPOSITION AND LABOR MIGRATION

While in the previous edition of the study in 2017, Haskovo was an economic center that consisted of only a core with no periphery, in the current one the city of Haskovo is joined by the neighboring municipalities Mineralni bani and Stambolovo. The core receives about 450 workers from its peripheral municipalities every day: this migration has a significantly higher impact on the labor market in Mineralni bani, where it accounts for 17.4% of employment. The largest number of labor migrants in Haskovo come from Dimitrovgrad – 1,200 every day, making it likely that this large nearby municipality will soon join the economic center.

ECONOMY AND INVESTMENT

Haskovo is the second smallest economic center in terms of production value: in 2021, the production value in the three municipalities amounted to 1.54 billion BGN, or 16,700 BGN per capita. Over the last 10 years, it has been one of the fastest growing centers in the country, registering a 74% increase in value added. The economy of the centre is highly concentrated in the city of Haskovo, which accounts for 95.6% of the value added, Mineralni bani accounts for 2.4%, and Stambolovo for 2%. The growth rates of the individual municipalities are also uneven, with the economy of the core growing by 74% over the decade; Stambolovo registered only 30% growth in value added over the same period, while Mineralni bani registered a full 139%.

The structure of the center's economy is largely dominated by manufacturing, which accounts for 31% of value added and trade, which contributes another 24%. Construction (13%), healthcare (9%) and transport and logistics (6%) also have a relatively high contribution, and the high share of agriculture (5%) is notable compared to the national economy. Agriculture is also the largest sector in the two peripheral municipalities, generating almost half of the value added in Mineralni Bani. The centre is characterized by relatively low labor productivity, with value added per employee reaching 15,100 BGN in 2021. The large companies in the center are almost exclusively concentrated in Haskovo municipality, with the leaders in terms of revenue being the construction company AB, the tobacco trader Tabaco Trade and the engineering company PIM, while the largest employer is the general hospital with over 650 employees.

FDI in the center is relatively low – only 94 million EUR at the end of 2021, or just over 1,000 EUR per capita, and 92 million EUR of it were in Haskovo municipality. Current investment activity is also relatively low, with spending on land, machinery and buildings in the three municipalities totaling 151 million BGN in 2021, of which 142 million BGN in Haskovo municipality. Industry (50 million BGN) as well as commerce, transport and tourism (40 million BGN) account for the highest investment expenditures for FTI acquisition in the core, while in Stambolovo and Mineralni bani the leader is agriculture. The activity of the companies is mainly oriented to the domestic market; in 2021 the export revenue was 377 million BGN, which is the lowest value for all economic centers except Kozloduy.

LABOR MARKET

After a significant increase in the course of the Covid pandemic, unemployment in the Haskovo economic center still remains relatively high compared to the leading centers – 5.6% in 2022 according to the Employment Agency; almost twice this figure in the municipality of Stambolovo. Long-term unemployment in all three municipalities is low, exceeding 1% only in Stambolovo. However, the share of those who are inactive is relatively high – between 31% of the employable population in Mineralni Bani and 49% in Stambolovo, while the total number in the center reaches 20,000 people. According to the census data, 33,000 people are in employment in the centre, or 58% of the working-age population. Slightly less than 30,000 of the people in employment are in the city of Haskovo, 1,700 – in Mineralni bani and 1,300 – in Stambolovo.

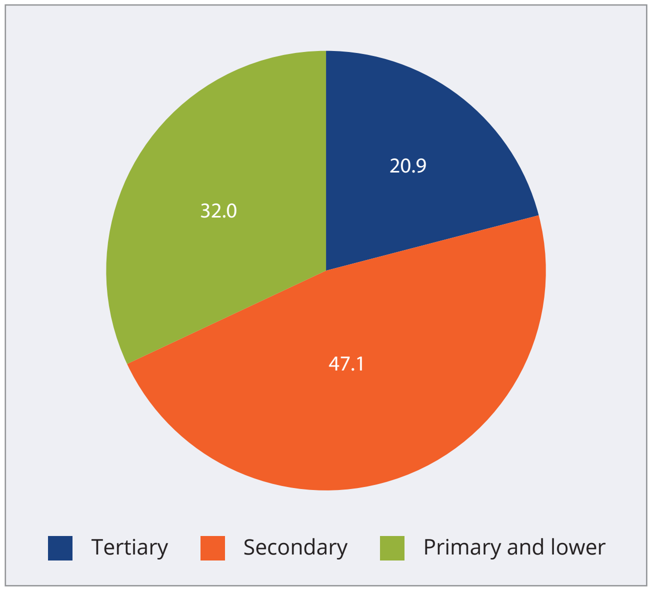
The Haskovo economic center has seen a relatively rapid contraction in employment, with a 7% decline over 5 years. The distribution of employees broadly mirrors that of the center's economy, with 34% employed in manufacturing and a further 23% in trade.

The Haskovo center has registered a relatively high salary growth over the last 5 years – 53%, but the average salary for the three municipalities of 1,096 BGN per month remains the lowest of all centers in the country. The highest salaries are in the healthcare sector in Haskovo municipality – 2,025 BGN per month, and in the energy sector in Stambolovo – 3,149 BGN per month, but the number of employees in it is very small.

HUMAN RESOURCES AND WORKFORCE

The educational structure of the Haskovo center is an important limiting factor for its development potential. According to the 2021 census, the share of people with university degrees is 21% among the population aged 7 and above, compared to 32% with primary education and lower, and illiteracy is 1.9% among those aged 9 and above. The distribution is

Share of population aged 7 and over based on the highest education degree (2021, %)



even more unfavorable in the small municipalities, with Stambolovo reporting a 57% share of people with primary and lower education and only 7% of those with higher education.

The performance of students in the economic center is also not particularly impressive, with an average score of Good 3.64 on the matriculation exam in BLL in the 2022/2023 school year and an average score of 30.4 on the NEA in mathematics. As expected, results outside the Haskovo municipality are significantly lower.

Compared to other smaller centers, Haskovo has performed relatively well in demographic indicators. Between the last two censuses, the population has decreased by 13%, to 92,300 persons. This includes 57,000 persons or 62% working-age population, while the share of population of retirement age reaches 24% and the demographic replacement indicators point to a rapidly ageing population.

The population dynamics of the Haskovo center is predetermined by a relatively low migration, with the net migration rate in 2022 at 0.6‰ for the center as a whole, though positive only in Stambolovo, where it reached a record 45‰. The natural growth rate for that year was –10.6‰, markedly lower in Stambolovo.

Kardzhali
Economic Center

INTRODUCTION

Kardzhali is the smallest economic center in Bulgaria; it demonstrates a stable growth of the local economy which manages to attract a significant amount of investment, focused in manufacturing. The labor market is doing well in retaining employees, but unemployment remains high and employment low. The center has one of the least favorable educational structures in the country. Its demographic potential, on the other hand, is comparable to that in some of the most developed centers.

Key indicators for the Kardzhali economic center	
Production value (2021)	1.45 billion BGN
Economic growth (2012–2021)	106%
Export revenue (2021)	775 million BGN
Foreign direct investment (2021)	167 million EUR
FTA acquisition expenditures (2021)	167 million BGN

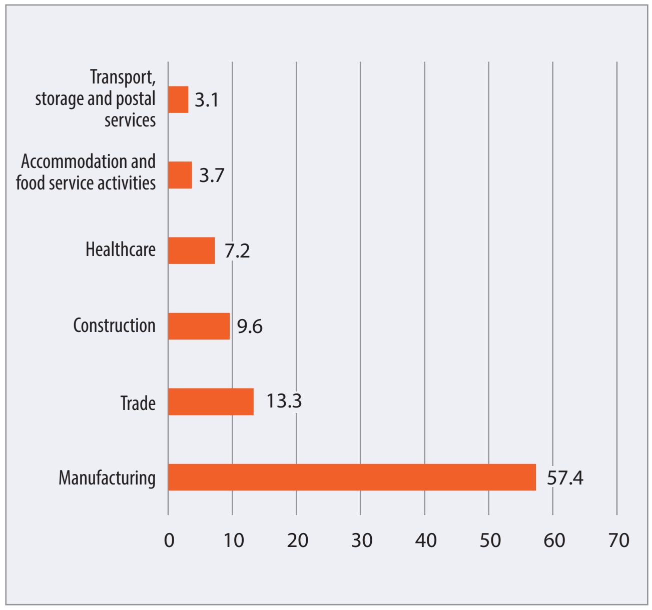
Population (2021 census)	**92,508**
Share of working-age population (2021)	62.5%
Share of population with tertiary education (2021)	16.7%
Natural population growth (2022)	–8‰
Net migration rate (2022)	23‰

Number of people in employment (2021)	**29,523**
Employment rate (2021)	51.1%
Unemployment rate (2022)	7.7%
Employment growth (2017–2021)	0.1%
Gross average salary (2021)	1,215 BGN/month

COMPOSITION AND LABOR MIGRATION

The Kardzhali center has the smallest local economy in Bulgaria. It comprises the district capital Kardzhali as its core and three smaller peripheral municipalities: Momchilgrad, Chernoochene and Dzhebel. The core receives a total of 1,300 daily labor migrants from its periphery, and these processes are most important for the economy of Momchilgrad, where 17% of the employed work in the municipality of Kardzhali. Two more municipalities, Kirovo and Ardino, are very close to the 10% labour migrant number criterion, which means that in the near future they are also likely to become part of the center. Kardzhali is an economic center new to the 2023 edition, meeting the criteria for employment density and labor migration, though not for production value.

Share of value added of leading sectors (2021, %)



ECONOMY AND INVESTMENT

Kardzhali is the smallest economic center in the country, with a combined production value for the four municipalities of 1.45 billion BGN in 2021. Economic growth over the last decade is 106%, which ranks the Kardzhali center third on this indicator after those around the capital and Plovdiv. The local economy is characterized by the lowest labor productivity of all the economic centers in the country, with an average of 13,500 BGN of value added per employee in the non-financial sector.

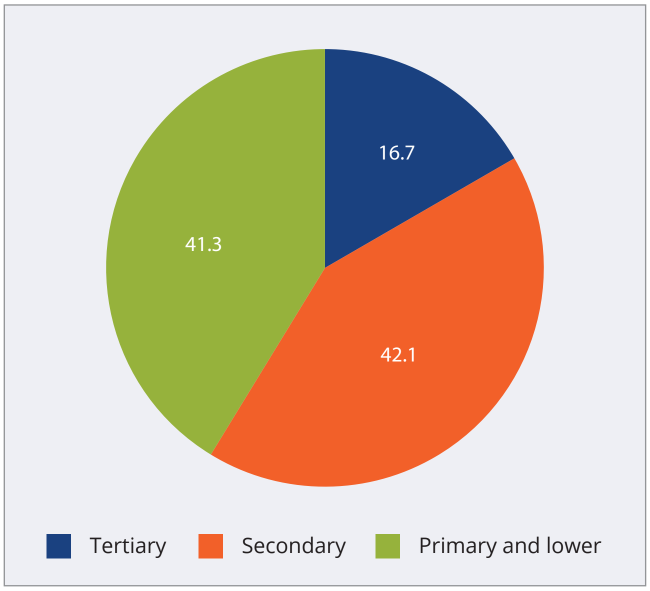
In 2021 manufacturing was the leading sector for the center's economy, generating 48% of value added in the four municipalities. Trade provided 11% of value added, construction – 8%, and healthcare – 6%. In terms of distribution among the municipalities, the core municipality of Kardzhali accounts for 75% of the local economy, while Dzhebel carries more weight among the peripheral municipalities. The economy of the centre is dominated by several large enterprises – the manufacturer of rubber products for the automotive industry Teklas Bulgaria, which employs almost 3,000 people, the Kardzhali general hospital, the GORUBSO mining company and Kyashif, a producer of hydraulic cylinders. These large enterprises make up a significant part of the profile and distribution of labor migration within the center.

Given the relatively small size of the local economy, the Kardzhali centre attracts a relatively large amount of foreign investment, which reached 167 million EUR by the end of 2021, or 1,802 EUR per capita. 164 million EUR, which is almost all of the foreign investment in the center, is concentrated in the center's core. Expenditure on FTA acquisition, which reflects the ongoing investment activity of the enterprises, amounted to 167 million EUR in 2021, of which 41% was made in the center's industrial sector, 14% – in construction and 13% – in trade, transport and tourism. A large part of the investment expenditures – 134 million BGN – is focused in the municipality of Kardzhali, and another 15 million BGN – in Dzhebel. The centre is one of the less export-oriented ones considered in this study: the volume of export revenues reached 775 million BGN in 2021, concentrated almost exclusively in process industries.

LABOR MARKET

The labor market of the Kardzhali economic center gives out mixed signals. On the one hand, the average unemployment rate, as measured by the Employment Agency in 2022, remains high at 7.7% amid a general recovery, and in Dzhebel it has topped 16%. After its peak during the COVID pandemic, unemployment has been trending downwards. Unemployment problems in the region are more of a structural nature and not so much a consequence

Share of population aged 7 and over based on the highest education degree (2021, %)



of the 2020 crisis. Also, the peripheral municipalities are characterized by a high share of long-term unemployment: over 20,000 people in the center are economically inactive. The employment rate of the population aged 15–64 is relatively low at 51% – the only centre with a lower rate is Kozloduy.

At the same time, over the last 5 years, the center has seen a slight increase of 0.1% (up to 24,300 persons) in the number of those employed in a labor or service contract, at a time when most other centers have been losing employees. The economic core absorbs almost all workers, with 19,000 people employed in 2021. Average salaries in the centre also grew substantially in this period (54%), to an average gross salary of 1,215 BGN per month, slightly higher in Dzhebel (1,295 BGN). The sectors offering the highest salaries in the center are healthcare in Kardzhali (1,897 BGN per month) and Momchilgrad (1,819 BGN per month), as well as culture, sports and entertainment in Kardzhali (1,879 BGN per month).

HUMAN RESOURCES AND WORKFORCE

The educational structure of the population in the Kardzhali center according to the 2021 census is particularly unfavorable. Its municipalities have the lowest share of population aged 7 and above with university degrees – only 16.7%; at the same time, the share of those with primary and lower education reaches as much as 41%, and 2.6% are illiterate. The distribution in small peripheral municipalities is even more unfavorable.

Against this backdrop, student performance in the four municipalities is close to the national average and far exceeds that of other smaller economic centers. It is noteworthy that these results are relatively consistent between the core and the periphery, except for the matriculation exam in BLL, where school leavers from Kardzhali achieved an average score of Good 3.83.

Among the strengths of the Kardzhali center are the positive demographic indicators compared to most parts of the country. Within the decade between the two censuses, the total population dropped by 9% to 92,500 people – a dynamic comparable to that of the economically strongest centers. The proportion of the economic center's working age population is also relatively high at 62.5%, and the proportion of the retirement age population is more than 24%, which is also relatively favorable.

Demographic developments point to the center maintaining its good performance in the medium term. Kardzhali has the highest net migration rate of all economic centers in the country: 23‰, mainly due to stable migration from Turkey. Its main destinations are the district capital and Dzhebel. The natural growth rate of –8‰ is also relatively high, especially compared to less developed parts of the country.

Methodology

The second edition of the Economic Centers study aims to go beyond the administrative and territorial division into districts and regions and draw new internal boundaries in the country based entirely on natural economic processes. On the basis of key macroeconomic and social indicators, it outlines the leading economic centers in Bulgaria, defines their strengths and weaknesses and identifies established and active patterns of development.

The study relies on several concepts and definitions specially developed for its purposes, namely economic center, economic core and periphery. To be classified as core or periphery, the municipalities included in the analysis have met several criteria.

ECONOMIC CORE

These are the municipalities that drive the local (and in most cases, the national) economy, that attract workers from surrounding municipalities and are leaders in employment and production. To qualify as an economic core, a municipality must meet at least two of the following criteria:

1. To be in the top decile in terms of daily labor migration – high positive labor migration is a sign that an economic core is able to attract workers from neighboring municipalities. The top ranked municipalities on this indicator tend to outperform others on many more economic indicators as well. The restriction to the top 10% of municipalities does not result in key municipalities dropping out, as below the 10 % threshold, the net daily labor migration is close to zero – in other words, almost all municipalities with a positive balance of commuting employees fall into the chosen decile. In this edition, municipalities attracting less than 4,000 daily labor migrants remain outside this criterion.
2. To be in the top decile in terms of employment density – this criterion indicates how densely located jobs are in individual municipalities. Most calculation methods take into account only actual working space, but due to lack of such data in Bulgaria, this study uses the ratio between the number of employees in the municipality and its total area. Similar to the previous criterion, this one does not fail to include municipalities with high economic importance, as employment density decreases sharply outside the top 30 municipalities in the ranking. According to this criterion, the cores are municipalities with more than 30 employees/sq. km while almost all of those with more than 20 employees/sq.km fall on the periphery of various centers.
3. To be in the top decile in terms of production value – unlike the other two criteria, production value is an absolute (not relative) measure of the economic output of individual municipalities. This indicator allows ranking municipalities according to their importance for the national economy as a whole. According to the 2021 data, this criterion 'draws the line' at economic cores with production value of 1.4 billion BGN per annum, while municipalities with production worth over 1 billion BGN do not meet this criterion but are still classified as cores based on the other two criteria.

The criterion of highest significance in defining economic cores is production value – of the 29 municipalities that meet two of the criteria, only Kurdzhali, Nessebar and Rakovski are not in the top decile based on this one. 10 municipalities do not meet the employment density criterion, and Devnya is the only one that fails to meet the labor migration criterion, the reason being its proximity to Varna, which is among the leaders in daily migration. All three criteria are met by 16 municipalities, where a large part of the economic activity nationwide is concentrated.

PERIPHERY

The peripheries formed around the economic cores include those municipalities where more than 10% of employees commute daily to the core for work. This threshold is relative and not absolute, so that it can reflect differences in population size between municipalities, as well as allow for straightforward comparison between economic centers. Otherwise, either very large portions of the country's territory would fall within the economic center around the capital, or many of the economic centers under discussion would remain below the threshold. In the current edition of the study, 119 municipalities meet the criterion of being in the periphery of an economic core, while almost all centers have succeeded in expanding their territory compared to the previous edition.

ECONOMIC CENTER

The concept here refers to the economic core plus its adjacent periphery (if any). There are also centers with several cores (Sofia–Pernik–Botevgrad, Plovdiv–Maritsa–Rakovski, Varna–Devnya) which have shared economic influence on the surrounding municipalities. However, these core may be primary or secondary, with the current edition identifying the formation of new secondary cores in the largest centers. There is also one center with two cores that qualify as economic cores but have no periphery – this is Sevlievo–Gabrovo. In total, there are 29 economic cores in the country, with 16 economic centers formed around them, the latter comprising 132 municipalities (compared to 92 in the previous edition of 2017), or almost half the country's municipalities. They account for the majority of both population and economic activity.

MAIN INDICATORS

The main objective of the analysis is to examine the structure and development of the local economy, the labor market, the demography and the education in the individual economic centers. The indicators used for this purpose are grouped into three categories as follows:

Economy and investment

- ***Production value:*** the value of turnover minus the carrying amount of assets sold, less that of own fixed assets, including the change in stocks of finished goods and work in progress, as well as the costs incurred for self-constructed assets. In the present study, the indicator is used to determine the share of the different industries in the centers' economy, as well as the trends for their development over the years.

- ***Foreign direct investment (FDI):*** FDI (cumulative) at the end of the year is used, calculated as foreign equity participation in enterprises plus net liabilities between domestic and foreign investors. FDI is a standard indicator of both investment and investment climate.

- ***Expenditure on the acquisition of fixed tangible assets (FTA):*** expenditure on the purchase of land, the construction of buildings, the purchase of machinery and the like, plus services related to these activities, excluding the maintenance of existing tangible assets. FTA is an indicator of investment activity in the economic centers.

- ***Export revenue:*** the indicator describes the export revenue of non-financial enterprises in the municipalities. The size of the export revenues allows the identification of the most export-oriented municipalities within the economic centers.

Labor market

- ***Number of persons employed:*** the number of persons employed in a labor or service contract and receive a salary, whether the contract is permanent or temporary, for full-time or part-time work. The indicator shows the distribution of employees across economic activities and the dynamics between sectors.

- ***Employment rate:*** the relative share of employed persons in the total population of a municipality (in the relevant group) according to the 2021 census. Unlike the data for employed persons, which in statistics are allocated to municipalities depending on these persons' actual place of work, the employment rate is a descriptor of employed people according to their place of residence.

- ***Gross salary:*** the remuneration received for performed work before mandatory and voluntary social and health insurance and tax deductions. The indicator represents in full the remuneration in the different sectors of the centers' economy, with the average value for the respective center being weighted relative to the number of employees in the different sectors of the municipalities making up the centers.
- ***Unemployment rate:*** calculated by dividing the average annual number of unemployed persons registered in the labor offices by the size of the economically active population. Measured as percentage, it shows the share of the unemployed in the labor force. The unemployment average for an economic center is estimated in relation to the population of the individual constituent municipalities for the given year.

Human resources and workforce

- ***Population:*** the end-of-year sum of the number of residents in the municipalities making up the economic centers.
- ***Working-age population:*** the sum of the number of 15–64 age group residents in the municipalities making up the economic centers.
- ***Natural growth rate:*** the difference between the number of births and the number of deaths in the municipalities making up the economic centers as a proportion of their total population.
- ***Net migration rate:*** the difference between the number of people having settled in and the number of those who have moved out of the municipalities making up the economic centers as a proportion of their total population.
- ***Demographic replacement rate:*** the ratio of those entering or about to enter the labor market (aged 15–19) to those about to leave it (aged 60–64) in the municipalities making up the economic centers. The ratio describes the ability of economic centers to reproduce their labor force in the near future.
- ***Educational structure of the population:*** the proportion of residents in the municipalities making up an economic center who have completed the different levels of education, relative to the total population of that economic center.
- ***Average grade in the matriculation exam in Bulgarian language and literature (BLL):*** the average grade in the BLL exam is weighted relative to the number of students who took the matriculation exam in the respective year.

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