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# DISCOURSE ON CAPACITY ASPECTS OF HUMAN CAPITAL VITAL AGGREGATES IN CONTEMPORARY BULGARIAN STATE ADMINISTRATION

## ABSTRACT

The discussion of human capital vital aggregates refers to the nature and existence of any administration in terms of a holistic understanding of the human resources that function productively within it. In this case, the focus is on two phases of the management of these resources: staffing and the process of recruitment and reassignment, including employee mobility, with prior shared considerations of the centrality of vitality. The analysis is subordinated to the recognition of the contemporary features and of the generated problems of the functioning of human resources management in the public administration.

**KEYWORDS:** vitality, human capital vital aggregates, competitive recruitment, employee mobility, “active ageing”.

**JEL:** H83, J01, J24

## INTRODUCTION

**The state administration** (the administration of the executive power – central and territorial) of the Republic of Bulgaria is part of the public administration and embodies most clearly the main thing in the administrative process (Zhivkova, 1994; Benev & Ivanov, 2002; Velichkov & Benev, 2004; Pavlov & Mihaleva, 2004; Hristov et al., 2007; Arabadzhiiski, 2010; Katsamunska, 2011; Hristov, 2011; Veleva & Krasteva, 2021; Kurtev, 2014). Within its boundaries, as a rule, a complex of administrative services for citizens and other economic and social subjects, products for own consumption in connection with the mechanism of regulation and control of the social reproduction process (support for the construction of the country's regulatory base), as well as the organization of the necessary administrative processes are created. Public administration is a set of bodies engaged in administrative activities, in another aspect – organization of types of activities in public units. In a broad sense, it is a set of structures (processes, organisations and persons) and their inherent functions and roles related to: a) supporting the creation of a regulatory system and, above all, organising its implementation through public organisations; b) creating public services for citizens and legal

entities, managing public property, collecting and disposing of taxes, etc. (public sector); c) civil protection of public interests (non-profit sector), etc. In segmental terms, it may be the administration of business units (non-public administration), the administration of the legislature, the administration of the executive, the administration of the judiciary, etc. Outside public administration is the public sphere or public space (Tsakova, 2011). It is a territory for free communication in democratic conditions: public communications, discussions, debates between equal subjects, free from bias and subjectivity, exercising public control over power, etc.

This paper interprets issues of **executive administration**, which is the deepest root of the "administrative" tree. **It is the object of the study.**

**Vital aggregates** (the joining of energetic parts/ mechanisms into a whole) are related to vitality (vitality/animation: strength, energy, expansiveness, synergy, etc.), and its maintenance and activation, which is aimed at achieving permanently accelerated sustainable development. Vitality and energism are interrelated. Vitality is the inevitable state of existence of a biological, social, economic, etc. system, and energeticism expresses the mechanism of the holistic movement of this system, without its presence it would not exist. In another aspect, this mechanism has as its basis the capacity of human-capital vital aggregates. **This is the subject of the article.**

**The human capital presence** (the presupposition of vitality – animation) expresses the impact of human capital (in the sense of its embodiment in human resources both as a given and as a productive factor), whose involvement in the administrative process is a means of creating its adequate product – the administrative service. This metamorphosis (transformation) has two sides: the first, the existence of a competitive vector (capital objectification into labour-activating components: health, gifts, knowledge, skills, experience and other characteristic qualities – cultural and moral values, all of which infiltrate into competences that are essential requisites of administrative reproduction and growth) and the second, the functional transformation of this presence into a useful public product. These points make it necessary to link the mechanism of human capital aggregates organically to the stages of human resource management. The characterization of its two main steps is the predicate (the main feature) of the article (capacity sides).

Its research aim is to make sense of the main contemporary features in the mechanism of human capital vitality (the capacity of animation) in the Bulgarian state administration.

What has been stated so far presupposes the solution of two main tasks: firstly, posing the question of the vitality mechanism, which is contextual to the human capital presence and secondly, presenting the real picture of two sides of the capacity of the Bulgarian civil service for the period 2012-2022 (human capital staffing, respectively resources, with the necessary labour requisites and the product potential of recruitment and reappointment), including the recognition of the main problem fields and solutions in this process.

**The conceptual platform** of the article can be defined as follows: human capital penetration into the vital aggregates of contemporary Bulgarian state administration is a growing process whose level and trends need to be carefully monitored and aligned with the needs of social practice.

**The sources of information** for the study are the research papers available to the author, as well as the **Annual Reports on the State of the Administration (ARSA) for the period 2012-2022 year**.

### **1. The phenomenon of "vitality" in the context of human capital penetration: a conceptual framework**

Vitality with its constitutive processes of origination, affirmation, development and transformation is an inherent requisite of all matter. In its profound essence it is an initial philosophical category – vitalization is also a constructive element of contemporary philosophy. This is how N. Bogomilova (2006, p.7) begins the introduction of her interesting book: "Vitality and its associated renewal are categories that reflect movement and change in man and nature in terms of their preservation, qualitative diversity and meaningful enrichment. These categories are a particularly important theoretical 'lens' in situations of crisis, turmoil, and change in the life of society and nature. Through them, social, spiritual ruptures and changes can be analysed and detected as destruction and construction, as involution or development, as charged with the impulses of routine and repetition or with the vital energy of growth and qualitative renewal."

The most important function of vitality is overcoming enclosure through metabolism, which generates mutuality, synergy, liberation and animation. This process is directly related to enlivenment as the permanent life support of the system.

In the aspect of the conception of this article, several statements are fundamental (adaptation to public administration of postulates from N. Bogomilova (2006):

- vitality in public administration implies an imperative to renew (an ever-changing world) and enliven (energize) things;
- vitality in any administration is built on the anonymous power of the functioning competences of the employees, which is the being of the substance "prosperity" and the "romantic" face of change;
- enlivenment passes inevitably through the solution of the problems posed, and more generally, inevitable reformation;
- the being of the contradictory (problem world) is the genetic form of the existence of progress in administrative structures as well;
- the administrative categories of "power, money and career", if taken as the logo of the employee's behaviour, are implied in his working life;
- the vitality of the administration is a manifestation of the vitality of its employees, with the following orientations: the unified energy field and interaction with society; the will and freedom to define and follow their work vector (contextual to the organization's goals); a sense and taste for reality; spontaneity, self-sufficiency and naturalness in the realized behaviour, etc.

Given this initial factual basis, human-capital life aggregates (interconnected mechanisms) can be recognized in meaningful terms through the use of a number of criterion indicators that find different manifestation.

First, as verbal nouns (Stoyanov, 1993) these recognition tools symbolize a specific activity (action, movement and result): learn – learn, compete – compete, teach – teach, instruct – instruct, mobilize – mobilize, socialize – socialize, engage – engage, trust – trust, etc. Obviously, we are talking about nouns that are derived from unfinished verbs with the use of the suffix "not" and express strong verbality. From their verbal roots, action nouns can be formed with the suffixes "nija", "nie", "tzia", etc.

Second, as an accentuated totality of forms of vitality: vitalcreation, vitalorganization, vitalsolidification, vitalreformation, vitaltransformation, etc., which expresses the individual successive steps of vitalisation.

Third, in concreteness for administrative life, as formalizing the stages of human resources management that express their cyclical vitality.

- a) Input/ capacity: recruitment and selection, number of appointees (total and first-time), educational (the role of adult education NGOs should be taken into account (Kurtev, 2016)) and age structure of employees, reappointment, etc.
- b) Expansion: energizing (training in administration), gaining experience (mentoring, coaching and mentoring), creating safe working conditions, maintaining a climate that encourages activity, etc.
- c) Internal workforce movement: flexible mobility (producing work enthusiasm), performance appraisal (productive vitality), advancement (professional and career), sanctioning (disciplinary, deprivation of bonuses, deferral of professional advancement, etc.), etc.
- d) Other aggregates: adaptation, 'active' ageing (remaining in employment beyond the age of retirement or after retirement).
- e) De-energizing: disruptions (pursuing unreasonable policies, implementing unproductive operational management, omissions due to staff illness, force majeure, etc.) and exiting the organization due to retirement.

In addition, the specified aggregate states in functional and local forms, including as input, process and output, kata energizing and deenergizing, etc., are listed in Table 1.

**Table 1.** Disposition of human capital vital aggregates

	Entrance	Tools of lifeforms / forms of energization				Exit
		Direct energization	Indirect energization			
			Basically	Additional	Accompanying	
Internal aggregates	Number of employees; educational and age structure and form of employment	Training, mentoring, coaching, etc.	Mobility, estimated performance, professional development, sanctions, working conditions, etc.	Adaptation, “active ageing”, etc.	Branding, image, reputation, etc.	Leavers, retirees, turnover, policy and management gaps, incompetence, force majeure, etc.

	Entrance	Tools of lifeforms / forms of energization				Exit
		Direct energization	Indirect energization			
			Basically	Additional	Accompanying	
External aggregates	Demographics; health, family, science, culture, education and training, etc.	Science, culture, education and training, etc.	Labor movement: labor market	Socio-economic and psychological theory of adaptation, personnel policy	Marketing Communications	Ongoing communication

*Source: author's own construction*

The above-mentioned initial premises are the basis of human resource management in our public administration. The subject in question and its vital forces holding back its development are considered only in that part which is provided by information from the annual reports on the state of the administration and relates directly to human capital. Obviously, coaching, mentoring, coaching, adaptation, branding, image and reputation are not considered, as they are not informed in the reports in question. The issue of technical provision is an important but rather spatial subject and could be interpreted in a separate analysis.

On this basis, the paper attempts to recognize the main in basic human capital aggregates, respectively in their emphasis issues. Two of them are selected: the first, contemporary features of staffing the civil service with human capital carriers and the second, competitive motives in recruitment and reappointment.

## **2. Input parameters – between current possibilities and expected future: not only positivity**

In this part of the article, we consider the features of the elements of the encrypted human capital base: the number of new employees hired in a given year and the total actual number of staff in the public administration, employed under the legal relationship: service and employment, educational and age structure of the staff.

The main features of the inflow into our civil service are shown in Table 2.

**Table 2.** Elements of the functioning flow of labour resources in the Bulgarian state administration for the period 2012-2022.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>1. Total employment</b>											
<b>Total projected staff accrual</b>	144875	144832	140767	137693	132648	139665	141784	142747	142613	143381	143815

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Employees actually employed according to reporting data</b>	133575	132612	129313	118971	126808	128905	130005	131762	131812	132335	131644
<b>Percentage of establishment plan</b>	92,2%	91,6%	91,9%.	86,4%	95,6%	92,3%	91,7%	92,3%	92,4%	92,3%	91,5%
<b>2. Employed by legal relationship</b>											
<b>Number by Service relationship / Percentage</b>	91276/ 68,3%	89959/ 65,8%	87405/ 67,6%	79332/ 66,7%	84638/ 66,7%	85293/ 66,2%	86048/ 66,2%	86681/ 65,8%	87233/ 66,2%	88429/ 66,8%	88592/ 67,1%
<b>Number of employees / prcentage</b>	42299/ 31,7%	42653/ 34,2%	41998/ 32,4%	39639/ 33,3%	42170/ 33,3%	43,612/ 33,8%	43957/ 33,8%	45081/ 34,2%	44579/ 33,8%	43906/ 33,2%	48413/ 32,9%

*Source: ARSA 2012, pp.8-9; 2013, pp.6-7; 2014, pp.7-8; 2015, pp.7-8; 2016, pp.8; 2017, pp.8-9; 2018, p.10; 2019, p.10; 2020, p.9; 2021, p.8; 2022, p.8. 10,15. The discrepancy in the total numbers for the education and age structure is explained by the legal assumptions that allow more than one person to be appointed to a single post, and by errors in the information submitted by the administrations reported (for 2016-2022, they are between 559 and 592), as well as by the movement of individual employees - departures, mobility, sickness, etc.*

The most general "reading" of the table is indicative of the reduction in the projected total staffing level over the period under consideration by 1,060, which is also evident from the overall geometric growth rate of 0.9993. This implies an average annual geometric growth rate of minus 0.07%, and an average annual arithmetic number per 1,000 staff units decreasing ("power generosity") by 7.5 units. The analogous figures for actual staff numbers are as follows: the absolute growth rate over the period under review was 1,931 fewer; the overall geometric growth rate was 0.9986, the annual reduction in staff was at an annual average growth rate of minus 0.14%, and the average reduction per 1,000 was 14.7 fewer ('organisational rawness').

The above-mentioned condition shows that the parallelism in the evolution of the number of staff and the number of employees has been maintained, and that the higher dynamics of the actual number of employees is the result of a natural evolution of their number as a function of the observed loss of staff due to death, resignations, transfers to EU structures, etc. In a hidden form, this is reflected in internal staff movements, manifested mainly as mobility, which is reflected in the 'redeployment' function.

Additional features.

- There are two phases in the movement (continuous steady decrease or increase) of the number of real employees: the first, from 2012 to 2015, with an absolute decrease of



14,604 and an annual geometric average growth rate of minus 2.86%; the second, from 2016 to 2022, with an absolute increase of 4,836 real employees and an annual geometric average growth rate of 0.53%. These moments are related to the austerity regime in the first period, which is a function of the challenges in 2013-2014 - four different governments, strong confrontation between leading political forces and instability in economic growth - lower than expected, relatively low employment and high unemployment, among others. Overcoming the difficulties is also related to the implementation of the Strategy for the Development of Public Administration 2014-2020 and its accompanying other documents - Strategy for the Development of e-Government, Decentralisation Strategy, Strategy for Support to the Development of Civil Society Organisations, etc. which marks a new programming period.

- b) At the same time, it may be a question of "staff hunting": the staffing table (on the assumption that one staff member is assigned to one staff position) was implemented at a minimum relative level of 86.4% (2015) and a maximum of 95.6% (2016). The free staffing buffer created is in the range of 5-14% and allows free manoeuvring with the number of employees by the structural units, which poses a risk of waste of resources, disguised in the shadow of: democratisation of human resources management, liberalisation of staffing disciplines, tolerable errors in the determination of the staffing table, increase in the need for additional administrative services of high quality, etc.
- c) Employees by type of legal relationship, in the context of creating conditions for human capital presence, are decisively dislocated in the service sector of the civil service - between 65-69% of employees are appointed under the service relationship. At the same time, their number absolutely decreased by 2,684 people. The average annual geometric rate of increase in the number of persons employed under this relationship is minus 0.28%. The two stages interpreted above clearly stand out.

Conversely, the number of people in employment increased absolutely by 6,144 - their annual average rate of geometric growth was 1.23%, and their relative share increased by 1.2%. The trend of their development is divergent and does not express the outlined two stages.

Employees under this employment regime are an important part of the civil service that should be systematically nurtured, including through the transfer of good practices for the functioning of employees under the civil service: strict discipline, order, teamwork, appropriate management style, cultivation and maintenance of progressive organisational values, etc.

It is worth sharing, albeit with a bit of an aside, that good practices in public administration should also be brought in from the private sector, respectively, including the organisation of administrative activities.

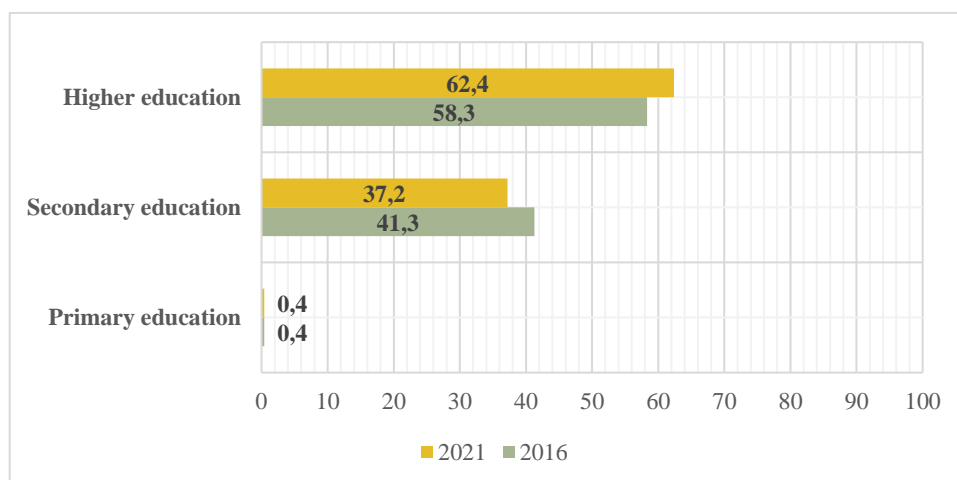
d) Education is a religion of the product functioning of human capital. Educational attendance as a fundamental feature of employees in the civil service for the last 6 years is presented in Table 3 and Figure 1.

**Table 3.** Distribution of civil service employees by educational attainment

	2016	2017	2018	2019	2020	2021	2022
<b>Number and share of employees</b>							
<b>Number of employed persons with higher education/percentage of all employed persons</b>	73963/ 58,32%	76744/ 59,53%	78721/ 60,38%	83518/ 63,39%	80,690/ 61,22%	82,662/ 62,44%	83399I 63,2%
<b>Number of employees with secondary education/percentage of total employees</b>	52428/ 41,31%	51689 40,9%	51174/ 39,25%	47661/ 36,17%	50443/ 38,27%	49,170/ 37,16%	48124/ 36,5%
<b>Number of employees with basic education/percentage of all employees</b>	444/ 0,37%	472/ 0,38%	484/ 0,37%	579/ 0,44%	672/ 0,51%	534/ 0,40%	479/ 0,36%
<b>Type of higher education completed</b>							
<b>Economic Science</b>	34,1%	33%	33,81%	31,9%	21,35%	21,83%	22,3%
<b>Technical Sciences</b>	18,5%	15,8%	16,28%	14,81%	9,35%	9,52%	9,9%
<b>Law Sciences</b>	9,1%	11%	12,60%	12,69%	7,93%	8,11%	8,6%
<b>Pedagogical Sciences</b>	8,5%	7,1%					
<b>Security and Defence</b>	7,2%	6,5%					
<b>Social Sciences</b>	8%	5,7%					

Source: ARSA, 2016, p.10-11; 2017, p.10-11; 2018, p.13-14; 2019, p.13-14; 2020, p.14-15; 2021, p.9-12; 2022, p. 15.

Structure of the number of employees by type of completed education for 2016 and 2021.

**Figure 1.** Structure of the number of employees by type of completed education for 2016 and 2021

There are several highlights in the information presented.



- a) A determining factor in the number of employees in the administration of the executive branch of power are employees with a university degree (their absolute average relative share for the period is 61.2%). This share for employees with secondary education was 38.4 per cent, and the remainder for those with primary education was 0.4 per cent. The specificity and responsibility of the administrative activity presupposes the need for high intellectual potential of the employees, which is why it is unacceptable for them to follow the projected general structure of employment in 2030 for the country (Employment Strategy of...): "...structuring the educational level in 2030 as follows: of all employees, the share of those with secondary education should reach 58.3%, higher education – 33.5%, and with primary education and below – 8.2%". The trajectory of the relative share of the educational structure of employment is a justification for such a conclusion. The specificity and high responsibilities of employees in the state administration are the grounds for designing their own trend of structural components of human resources education in the state administration.
- b) The absolute number of employees with higher education increased by 9,436 in the period under review, with their relative share increasing by 4.9%, respectively, the number and relative share of employees with secondary education decreased by 4,304 and 4.8%.

The overall geometric growth rate of the number of employees with higher education is 1.0172, their average annual growth rate is 1.72% and for employees with secondary education is 0.9878 and minus 1.22%.

- c) Employees with primary education perform (as a rule) service and complementary functions and their absolute number increased by 62 persons, maintaining its relative share for the last years between 0.3-0.5% of all employees.
- d) In terms of subject matter, while in the initial four years graduates in business, technical and legal sciences predominated (about 60 per cent of employees), in the latter years they have considerably reduced their share (below 40 per cent) at the expense of an increase in employees who graduated in pedagogical and social sciences, security and defence, etc. This is entirely consistent with the diversity in the subject matter, content and nature of the activities carried out.

The age structure of the staff is also relevant to human capital. Since such information has not been systematically and consistently collected, the assumption is made that age mirrors experience, and from this assumption the picture of a priori accumulated skills used is revealed vicariously (Table 4 and Fig. 2).

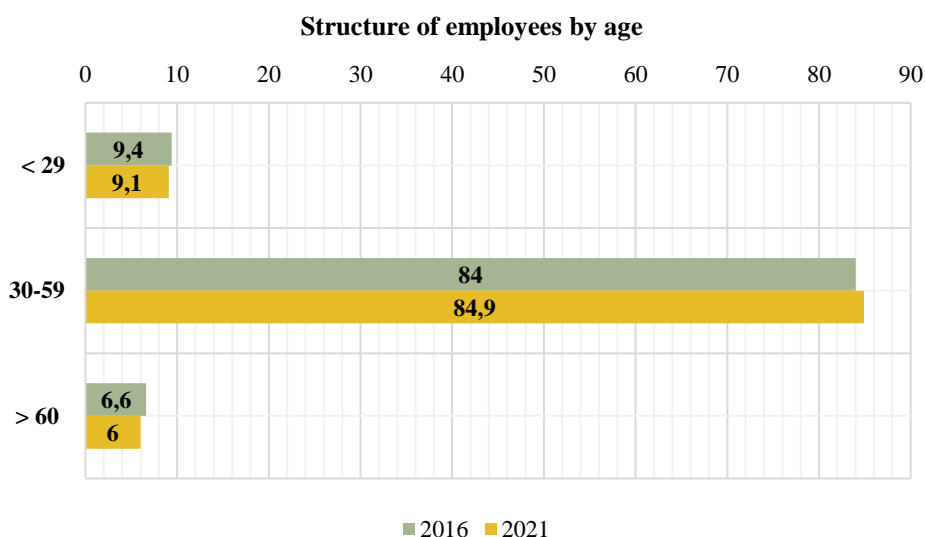
**Table 4.** Age structure of civil servants

	2016	2017	2018	2019	2020	2021	2022
<b>Number of employees under 29 years / percentage of total employees</b>	11913/ 9,4%	10240/ 7,9%	9400/ 7,2%	9292/ 7%	8,660/ 6,6%	7891/ 6%	7750/ 5,9%
<b>Number of employees in the age category 30-59 / percentage of total employees</b>	106940/ 84%	109283/ 84,5%	119123/ 84,4%	111097/ 84,3%	111442/ 84,5%	112322/ 84,9%	111705/ 84,6%

	2016	2017	2018	2019	2020	2021	2022
<b>Number of employees in the age category 60 and over / percentage of all employees</b>	8388/ 6,6%	9,793/ 7,6%	10950/ 8,4%	11461/ 8,7%	11771/ 8,9%	12052/ 9,1%	12579/ 9,5%

Source: ARSA: 2016, p.10-11; 2017, p.10-11; 2018, p.13-14; 2019, p.13-14; 2020, p.14-15; 2021, p.9-12; 2022, p.15.

**Figure 2.** Structure of employees by age in the public administration for the period 2016-2021



Source: ARSA, 2016, p. 10-11; 2021, p. 9-12.

A number of conclusions can be drawn from the data presented.

- a) A catastrophic situation is observed in terms of the number and relative weight (percentage of all employees) of workers in the age category up to 29 years. They decreased by 4,163 over the period studied, with the largest absolute decrease between 2016 and 2017 being 1,673, between 2017 and 2018 it was 840, between 2020 and 2021 it was 769, and between 2021 and 2022 it was 141. The declining negative contour formed is evident.

The relative share of the number of employees in this age group decreases systematically and unconditionally from 9.4% (2016) to 5.9% (2022). The annual geometric average growth rate is minus 5.96%.

The overall finding is an alarming aging of our civil service workforce. This is a trend formed in the first decade of the century and radical solutions are being actively sought to overcome it, which are not yet satisfactory.

- b) The defining building block of human activity in the administration under review is based primarily on employees in the 30-59 age range. Over the period under review, their number increased by 4,765 persons in absolute terms and by only 0.6% in relative terms to reach the level of 84.6% of all employees. Their geometric average annual growth rate is 0.62%

- c) In the 60 years and over category, there is also an overall increase of 4,191 in the number of people in employment, or 2.9% in their relative weight (9.5% overall in 2022). Their geometric average annual growth rate is 6.15%.

There is no doubt that retired employees are a useful labour component/potential. They are carriers not so much of new knowledge as of original concrete experience.

This has given rise to the inclusion in the lexicon of human resources management of the category of "active ageing", which is embodied in two strands: the first – the "giving back" by the older generation in the administration of their experience to the younger through mentoring, coaching, etc. and the second - remaining in employment beyond the retirement and pensionable age.

Several points in this regard are relevant to the design of this publication.

- a) For the last years, the number of those who have acquired the right to retirement pension under the basic staff schedule in the civil service is about 3-4 thousand people per year (1145 in 2012 - GDSA, p. 26 and 9048 in 2020 - GDSA, p. 26, due to restructuring of the Ministry of Interior and retirement of 5528 employees there), which is about 2- 3% of the actual employees.
- b) The data show that the absolute and relative level of pension eligibility is increasing, but at the same time the presence of pensioners in administrative life is intensifying (Table 4). Unfortunately, such information has only been collected for the period 2012-2017; for 2018 under this heading, the annual report is perceived to be devoted exclusively to a forecast of the number and occupational structure of retirees in the following year; in 2019-2022, alongside this forecast, the number of retirees, including employment, service and other).

**Table 4.** Coordinates of the presence of retirees in the work of public administration

	2012	2013	2014	2015	2016	2017
<b>Number of retirees and employees who became entitled to a pension in the current and transitional years but continue to work, incl./ Percentage of retired and retired staff actually in employment who became entitled to a pension in the current year and remain in employment</b>	1970/ 1,5%	2774/ 2,1%	3145/ 2,4%	2627/ 2,2%	2852/ 2,2%	6382/ 4,9%
<b>Total number of retired and post-retirement appointees, including/ Percentage of staff actually employed</b>	1206/ 0,9%	1289/ 1%	1439/ 1,7%	1673/ 1,4	1728/ 1,4%	5629/ 4,3%
<b>Number of persons not retired (entitled to a pension) in the current and previous years but continuing in their job, incl./ Percentage of those actually employed</b>	764/ 0,6%	1485/ 1,1%	1706/ 1,3%	954/ 0,8%	1123/ 0,9%	753/ 0,6%

Source: ARSA, 2012, p. 26; 2013, p. 25-26; 2014, p. 26-27; 2015, p. 26, 2016, p. 19, 2017, p.18.

**The pension "quota"** in human resources for this 6-year period is the basis for several conclusions.

- The number of people retiring but remaining in employment ("active ageing") increased by 4,412 souls over the period. Between 1.5% and 4.9% of those actually employed, retired and entitled to a pension in the current and transitional years remained in employment as "active ageing" supporting the administrative processes. The "residual retirement employment factor" is a specific buffer whose relative side is distinguished by two rate coordinates: the first, the overall geometric rate of development of the number of employees retired and entitled to a pension in the current and previous years but still working, is 1.2164, and the analogous annual average geometric rate of growth is 21.6%. What better recognition of human capital presence in the form of work experience than this?
- The number of retirements and reemployments in the current year has an overall geometric growth rate of 1.2927, implying an average annual geometric growth rate of 29.27%. This contingent, as a percentage of actual employees, ranges from 0.9% (2012) - 4.3% (2017).
- The proportion of non-retirees (those who became eligible for retirement) in the current and previous years, but who continue to serve in their position, is in the range of 0.6%, 2012 and 2017, and 1.3%, 2014; the overall geometric growth rate is 0.9975, respectively an annual average geometric growth rate of minus 0.25.

Practice shows that "retaining" staff in post-retirement employment is a productive approach. It is certainly possible to improve the legislation and create regulations for more and more active inclusion of qualified and still capable pensioners in the activities of the public administration. This is also the imperative of the adopted Employment Strategy of the Republic of Bulgaria 2021-2030. It addresses retirement in a multifaceted way as a source of filling the labour shortage: "In order to increase labour supply, it is necessary to activate unemployed persons over 55 years of age and to use the potential of persons of retirement age" (p. 39). Further (p. 30), the following measures are highlighted in this respect: in a broader perspective, activation of the available potential labour force (inactive persons, disabled persons, pensioners, those not working for personal or family reasons, seasonal workers, etc.); support for reconciliation of personal and professional life, flexible employment, part-time employment, maintaining the labour activity of persons of retirement age, etc.

These are important steps in the right direction for sustainable development.

It is obvious that there are serious bottlenecks in the hidden human capital base that need to be consistently and systematically addressed. Among them, the one of great importance is that of the still unattractiveness of the civil service as a work space for the growth of young professionals.

### **3. Recruitment and reassignment product potential**

Recruitment and reappointment are an ongoing process of human resource renewal in the civil service. These two acts occur in parallel and reproduce a number of research difficulties. The

latter are related to the information used. The annual data presented on the competitions held do not allow comparisons to be made, because this process contains a number of 'steps' which must be carefully monitored and taken into account when making generalisations: a) competitions for appointment are the first aspect of this process; b) competitions completed with appointment are the second; c) competitions completed without appointment (no candidates admitted, completed without ranking, terminated for lack of candidates, etc.) are the third; d) the unrecorded results of competitions. At the same time, the number of appointments and reappointments made through a competition procedure is lower than the actual number, since the legislation allows for the following to be made without competition: appointment to the same administration in a similar post or at the same level; appointment to a newly created administration before the competition; part-time appointment; appointment as head of a public relations unit; transfer to the civil service in another organisation under Article 81a of the Staff Regulations Act; appointment to a shared post under Article 84a of the Staff Regulations Act. All this makes the subject of the analysis with a focus only on the recognition of the most general trends and problems raised.

It is predominantly appointments and reappointments that have been made under the Civil Servant Law, i.e. under the service relationship.

The total number of appointments and reappointments and their share of the number of staff in the service is shown in Table 5.

**Table 5.** Total number and share of employees with service/appointed and reappointed in the civil service

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Total number</b>	10605	10174	10181	11413	10764	10564	13196	13723	9646	10506	11611
<b>Share</b>	11,6%	11,3%	11,6%	11,4%	12,7%	12,4%	15,3%	15,8%	11,1%	11,9%	13,1%

*Source: ARSA, 2012, p. 16; 2013, p. 14; 2014, p. 16; 2015, p. 16; 2016, p.9; 2017, p.9; 2018, p.11; 2019, p.11; 2020, p.10; 2021, p.13 u 2022, p. 11.*

The data shows that on average, 11 125 employees were appointed/re-appointed in each year of the period, which in relative terms is an average of 12.6% of the average annual number of employees under the civil service. This means that every 8th civil servant in this administration was appointed or re-appointed annually. Such a turnover is indicative of both the active extensive reproduction and the expected intensive qualitative development of the defining personnel of the civil service - those appointed/reappointed by service.

The intensive aspect of the quantitative reproduction of the staff in question is definitely carried out on a competitive basis. According to the information gathered, the number of posts recruited through a competitive procedure under the service and employment relationship for the 11-year period under review increases by 2 434 and is set at 5 610 in 2022. The overall arithmetic increase is 176.6%, the growth rate is 76.6% and the overall geometric growth rate is 1.0530 which is equivalent to an average annual growth rate of 5.3%. The following parameters characterise the posts recruited by competitive recruitment: they represent 82% of the total number of posts recruited by competitive recruitment in the civil service; their overall average

growth rate is 154.6% (54.6% growth rate); the overall geometric growth rate is 1.0404; and the average annual growth rate is 4.04%.

A cursory comparison with the overall data also shows an intensive restructuring of staffing levels through competition and by employment. A full picture of the number of posts filled by competition can be obtained from Table 6.

**Table 6.** Posts filled by competition procedure

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Absolute increase</b>	0	-1065	56	498	1204	-302	2163	-553	-634	-10	1057
<b>Acceleration</b>		0	1121	442	706	-1506	2465	-2716	-81	624	1067

*Source: ARSA, 2012, p. 16-17; 2013, p.14-17; 2014, p.16; 2015, p.16-17; 2016, p.9; 2017, p.9; 2018, p.11; 2019, p.11; 2020, p.10; 2021, p.13; 2022 p.11. Some of the data have been recalculated by the author (staff employed through competitive employment for 2017, 2018 and 2019). The discrepancy for some years (2015-2019) is the result of employees hired by competition from a previous year included in the total hires data for the Ministry of Interior, etc.*

Clearly, the negative levels of absolute growth in 2013, 2017, 2019, 2020 and 2021 are indicative of the weakening effect of competitions as a specific "pass" for entering the civil service or being reassigned to another post (the same or at a higher level in the hierarchy in the current or another administration). It is interesting to note that in 2018 the absolute increment was 2,163, after which a three-year decline began, which was overcome in 2022.

The second derivative (differences in increments) of the process relates to absolute acceleration, which is the momentum along which absolute growth moves. It has a positive sign until 2016 and a negative sign in 2017, 2019 and 2020. The positive acceleration (624) for 2021 heralds the halt in the decline of absolute growth, which is confirmed in the following year - an absolute growth of 1067.

Recruitment/ re-appointment of permanent staff is also done through competitive recruitment. The highest number of appointees/reappointments under this relationship in 2022 was 1,010 (2.1% of the number of employees under this relationship) and the lowest (87) in 2013 (0.2%). The overall geometric growth rate is 1.1580, i.e. the average annual growth rate is 15.8%. Clearly, radical measures need to be taken in this regard, which will saturate the civil service with more competent personnel. Opportunities should be sought here to create better working conditions and professional growth, increase remuneration, increase commitment and microclimate in functioning teams, etc.

The innovative component of appointments (commitment to the future) and hence increased speed of functioning of the civil service is shown in Table 7.

**Table 7.** Parameters of employees who are appointed for the first-time in the state administration

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Employees appointed for the first time to the civil service</b>	2749	2241	2395	2141	2449	2751	2652	2682	4336	4522	4258
<b>Percentage of total appointments and reappointments</b>	25,9%	22%	23,5%	18,8%	22,7%	25,8%	20,1%	19,5%	44,9%	43%	36,7%
<b>Percentage of employees actually employed</b>	2,6%	1,8%	1,8%	1,8%	1,9%	2,1%	2%	2%	3,3%	3,4%	3,2%
<b>Total arithmetic increment</b>	54,9%										
<b>Total geometric growth rate</b>	1,0464										
<b>Average annual geometric growth rate</b>	4,64%										

*Source: ARSA, 2012, p.16-17; 2013, p.14-17; 2014, p.16; 2015, p.16-17; 2016, p.9; 2017, p.9; 2018, p.11; 2019, p.11; 2020, p.10; 2021, p.13, 2022, p. 11. Some of the data have been recalculated by the author (staff employed through competitive employment for 2017, 2018 and 2019). The discrepancy for some years (2015-2019) is the result of employees hired by competition from a previous year included in the total hires data for the Ministry of Interior, etc.*

#### Conclusions:

- 1) The number of first-time appointees increased from 2,749 in 2012 to 4,258 (2022), i.e. there was an increase of 54.9%. On average, this implies an annual increase of 5% on a 2012 baseline. Averaged geometrically (with a chained baseline) with cumulative growth, this increase is by a factor of 1.0464, which equates to an annual average geometric growth rate of 4.64%.
- 2) First-time appointees account for a respectable share of the total number of appointees and reappointments. It increased by 10.8% over the selected period, rising from 25.9% to 36.7%. Particular circumstances (the COVID crisis, for example) necessitate an increase for 2020 and 2021 of first-time appointees to 44.9% and 43%. This is a serious extensive upgrade of human potential. Taking into account the fact that, by regulation, mandatory training of these personnel also follows, there are already grounds to argue that recruitment, and reappointment, are serious tracks for human capital presence and saturation of the civil service with productive activity.



- 3) The number of first-time appointees is a relatively low proportion of the number of actual employees (between 1.8 % and 3.4 %). They are expected to possess the necessary capacity of human capital components: health, knowledge, skills, acquired experience (it is a requirement for recruitment!), specific traits that ensure the multiplication of the intellect of the labour potential of the civil service - human resource experts must be impeccable in their judgments.

The correlation coefficient between the total number of recruited and reassigned staff and those who are recruited for the first time recognizes a strong correlation of 87.9%, which is indicative of the existence of a good balance (parallel) between mobile staff movement and filling the created deficit through new recruitment.

For the assessment of the capital human presence in the civil service, the main means of filling (appointment and reappointment) of a civil service position are important. This point is directly related to mobility (transferable competence, flexible employment, personal willingness and cooperative attitude, transfer of foreign practices, leadership war for talent inclusion, etc.), which fills an important niche of capital vigour utilization and is a specific key potential of reappointment regulations, which is an exceptional manifestation of knowledge-based economy (Vachkova & Zhivkova, 2009; Beleva, 2012; Vladimirova, 2015; Simova, 2016).

Mobility issues are regulated by the Labour Migration and Labour Mobility Act and, specifically for the civil service, by Articles 81a and 81b of the Civil Servant Act.

The picture of the main mobilities is presented in Table 8.

**Table 8.** Levels and shares of the main mobilities in the Bulgarian civil service for the period 2013-2022.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Replacement of an employee under Article 15(2) of the Staff Act/ relative share of actual employees</b>	1094/ 0,82%	1255/ 0,97%	1150/ 0,96%	967/ 0,76%	796 / 0,61%	621/ 0,47%	621/ 0,47%	640/ 0,48%	631/ 0,47%	778/ 0,59%
<b>Temporary mobility to another administration - Article 81b(1) / relative share of actual staff</b>	56/ 0,04%	44/ 0,03%	50/ 0,04%	57/ 0,04%	114/ 0,09%	74/ 0,05%	66/ 0,05%	53/ 0,04%	72/ 0,05%	122/ 0,09%
<b>Permanent mobility - Article 81a, transfer of civil service to another organisation/ relative share of actual employees</b>	232/ 0,17%	284/ 0,21%	290/ 0,24%	339/ 0,26%	302/ 0,23%	383/ 0,29%	342/ 0,26%	304/ 0,23%	235/ 0,17%	301/ 0,22%
<b>"Fast track - Art.82(2) under the conditions of Art.82(4) / relative share of actual employees</b>	133/ 0,1%	259/ 0,2%	113/ 0,09%	157/ 0,12%	102/ 0,08%	75/ 0,06%	195/ 0,15%	76/ 0,06%	133/ 0,10%	81/ 0,06%

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Vertical mobility - Art. 82, para. 3/ relative share of actual employment</b>	912/ 0,68%	1425/ 1,10%	1739/ 1,46%	1598/ 1,26%	1917/ 1,48%	3262/ 2,50%	1664/ 1,26%	1673/ 1,27%	2518/ 1,9%	1912/ 1,45%
<b>Horizontal mobility - Art. 82(1)/ relative share of actual employees</b>	4340/ 3,27%	3597/ 2,78%	4582/ 3,85%	3475/ 2,72%	2644/ 2,05%	3893/ 3%	6442/ 4,89%	2848/ 2,16%	2200/ 1,66%	1965/ 1,49%
<b>Total number/ total relative share</b>	6767/ 4,99%	6861/ 4,21%	7924/ 5,74%	6593/ 5,16%	5875/ 4,64%	8308/ 6,37%	9310/ 7,12%	5594/ 4,24%	5789/ 4,35%	5159/ 3,9%

Source: ARSA, 2013, p. 14-17; 2014, p. 16; 2015, p.16-17; 2016, p.9; 2017, p. 9; 2018, p. 11; 2-19, p. 11; 202021 p. 19; 2021, p.8, 2022, p. 11.

The scale of mobility achieved is not particularly impressive. Over the period under review, the number of staff involved in mobility decreased by a total of 1 608 (arithmetic index - 0.76), with the largest decreases in horizontal mobility – 2375, in the replacement of an employee under Article 15(2) of the Staff Act - 316 and in the "fast track" – 52. The largest increase in the number of staff covered by mobility is for vertical mobility (1 000 souls), followed by vertical mobility – 70 and permanent mobility – 69. The overall geometric growth rate is 0.9732 and the average annual growth rate is minus 2.68%.

This picture is complemented by the mobility of civil servants observed and reported in the annual reports over the last two years (Table 9).

**Table 9.** Identified mobility of the workforce employed in the public administration for 2021 and 2022.

	Number of job position changes		Proportion of appointees and reappointees	
	2021	2022	2021	2022
<b>Appointed by the following ranked</b>	311	317	2,9%	2,7%
<b>Horizontal mobility-Article 82(1) reassignment to another post in the same administration</b>	2,200	1965	20,9	16,9%
<b>Vertical mobility-Article 82(1) subject to Article 82(1). 3-transformation of an expert post to a higher post</b>	2518	1912	24%	16,5%
<b>Fast Track - Art.82, par.2 under the conditions of Art.82, par.4-without having the conditions for minimum rank or professional experience but after a one-year probationary period and having obtained the highest annual performance evaluation</b>	133	81	1,3%	0,7%

	Number of job position changes		Proportion of appointees and reappointees	
	2021	2022	2021	2022
Temporary horizontal mobility in the same administration- Article 82, paragraph 1-temporary reassignment Temporary mobility in another administration - Art.81b(1)	373	763	3,5%	6,6%
Permanent mobility- Article 81a-transfer to civil service in another organisation	235	301	2,2%	2,6%
Temporary mobility in another administration - Art.81b(1)	72	122	0,7%	1%
Replacement without a competition under Article 15(2) of the Law on Staff Regulations	631	778	6%	6,7%
Occupation of a civil servant's post under paragraph 36, paragraph 1 of the Law on the Transformation of a post from an employment to a service relationship by a normative act	679	17	6,5%	0,1
<b>Total</b>	<b>7152</b>	<b>6256</b>	<b>68%</b>	<b>53,8%</b>

*Source: ARSA, 2021, p.8, 2022, p. 14.*

It is evident that in 2022 there is a 14.2% decrease in the relative share of the compared mobilities, with an increase in temporary reassignment under Art.81 paragraph 1 of Civil Servant Law, permanent mobility in the event of transfer to civil service in another organization (Art. 82a), replacement without competition (Art. 15 paragraph 2), etc.

In another aspect, there is retention of the leading post in a higher post by transformation of an expert post into a higher post (vertical mobility under Article 82(3)), reassignment to the same post in the same organisation (horizontal mobility), replacement without competition under Article 15(2), etc.

Mobility as thus understood is a belated recognition by the authors of the reports of the need for a separate mobility segment in the reports in order to manage it effectively. Moreover, the mobility information portal is a specific tool for creating transparency in the civil service labour market. The implementation by each organisation of a mobility programme must become a reality. This is all the more urgent as mobility will increasingly become a mandatory key element of career development for managers, who should accumulate and share their high managerial competence.

Moreover, in the last two years, the annual reports have monitored the extent to which external mobility is applied in the civil service structure (Table 10).

**Table 10.** Percentage of administrations applying the mechanisms of external mobility of the civil service (2020-2022)

	Type of administrative structure	2020	2021	2022
Central administration	Administrative structure established by Decree of the Council of Ministers	55,6%	66,7%	50,0%
	Administrative structure, established by law	88%	92,3%	92%
	Administration of a State Commission	100%	75%	75%
	Administration of the Council of Ministers and Ministries	100%	92,6%	100%
	State Agency	100%	100%	100%
	Executive Agency	89,3%	100%	93,5%
	Administrative structure established by law accountable to the National Assembly	100%	100%	100%
	<b>Total central administration</b>	90,3%	92,3%	91,4%
Territorial administration	District Administration	67,9%	67,9%	71,4%
	Municipal administration	33,3%	35%	32,8%
	Municipal administrations of a region	60%	60%	65,7%
	Specialised territorial administration	44,4%	52,1	55,6%
	<b>Total for territorial administration</b>	40,8%	44%	44,6%

Source: ARSA, 2020, p. 19, 2021, p. 17 and 2022, p. 13. Data are rounded to the first decimal place.

It is obvious that in the central administration these processes cover from 50% to 100% of its constituent units, while in the territorial administration this share ranges from 33.3% to 71.4%. The lag in the implementation of external mobility in the territorial administration (average coverage of 43.1%, compared with 91.3% for the central administration) is more than evident. Reasons for the difference can be sought in the capacity of the individual administrations, the need to "cover" bottlenecks with interested trained personnel from other organizations, etc.

The issue of recruitment is also linked to a number of opportunities to make not so precise/"convenient" changes. Interesting is the assumption under the Petkov Cabinet (The Cabinet of..., 2022) that the Council of Ministers decided to reduce the seniority (work experience) requirements for a number of senior administrative positions. For example, the Secretary General of the Council of Ministers can be appointed with 8 years of work experience instead of 9 as the current legal documents regulating the appointment and reappointment until then prescribe; the Secretary General of a ministry can occupy the position with 7 years of work experience instead of 8 as it was until now, etc. In the same vein is the decision of the Council of Ministers that some of the salary levels of the IT incumbents should exceed their maximum

statutory level fixed by up to 80%. The idea is to bring them at par with their counterparts in the private sector to ensure that the civil service is saturated with highly qualified personnel of this type.

This point would not be subject to obstruction if, by presumption, it did not have a political motive - the domination of the cadres from the environment of the political party "We Continue the Change".

## CONCLUSION

Capacity parameters of human capital presence can be viewed as a function of stationary-position and organizational factors. In the present analysis, the former is determinately related to the staffing of the civil service with the necessary qualitative resources (tangible and intangible), while the latter are manifested in the life-creating elements of recruitment and reappointment, finding a clear manifestation in mobility, which is, on the other hand, the result of the entrepreneurial decisions of the leadership of the civil service. These processes (as well as the other phases of human resources management) should be subject to annual audit and careful regulation through national and other regulations.

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