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Development of Polish HEI Personnel Potential



Summary

In this paper the major changes seen in the past 10 years in Polish HEI staff are analysed, the features of working conditions and remuneration are studied, the factors affecting the value of the personnel potential in the higher educational system are revealed and methods are recommended for the optimization of development in the Polish HEI teaching staff.

Under the conditions of global changes towards a single integrated economic, cultural and information space, the economic development of any country depends on the availability of a sufficient number of highly qualified personnel who can quickly adapt to changes, make unconventional decisions, regardless of the situation, and constantly improve their professional competence. Therefore, higher education must contribute to new knowledge, enhance creative personal development and focus on creating innovation, while it is also highly needed to develop scientific and pedagogical staff. Staffs at higher educational institutions (HEIs) significantly affect the socio-economic development of society. As centres of intellectual resources, they provide a competitive public educational sector and set the place of the state in the education market of the globalized world.

The study of HEIs personnel potential as a factor of forming a unified educational space and as a socio-economic phenomenon is increasingly widespread. Research results show that the human resources component of the national higher education system is in an uncertain situation because of the fluctuating level and range of educational services, insufficient professional activity by the teaching staff, the inefficient use of budgetary funds, and the lack of motivational processes etc.

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The study of other countries' experiences help improve the personnel potential in higher education systems, and stimulate the development of scientific, educational and intellectual potential of the Ukraine for a dynamic development and for the welfare of the Ukrainian society.

The aims of the article are to analyse teaching staff development in Poland between 2004–2014, to clarify the factors that affect the current value of the HEI personnel potential, and to determine its positive features and defects that prevent efficient development.

Theoretical, methodological, organizational and economic aspects of the formation of and capitalisation on the personnel potential were the subject of studies by Ukrainian and foreign scientists as D. Armstrong, A. Buhutskyi, R. Voytovych, A. Golovko, O. Hudzynskyi, S. Hrynkevych, G. Dessler, G. Dmytrenko, M. Doronin, P. Drucker, D. Duncan, G. Emerson, W. Flint, I. Lukin, A. Miller, M. Meskon, V. Oleinik, G. Osovska, A. Pankratov, A. Popov, Alexander Savchenko, A. Semenov, A. Smith, I. Stepanenko, F. Taylor, A. Fayolle, V. Yurchishin and others. Nevertheless, HEIs personnel potential and its impact on the quality of education, HEIs efficiency and the state's economic growth is still poorly understood.

By the term 'personnel potential' we mean the staffing opportunities of the particular institution, organization or enterprise, the staff's ability to generate ideas and create new products, its educational, qualification-related and physiological characteristics and motivational potential.¹ The value of the personnel potential for a specific period of time depends on the quantity and quality of human resources which are formed of the individual personnel potentials, macro- and micro-economic factors of the environment, all these combined conditions allow to provide educational qualification and professional development of staff (their quantitative and qualitative characteristics) and to achieve the best usage of each employee's potential through synergy management.²

Quantitative indicators of human capacity include: vocational qualification of personnel, their size, sex composition, average age and so on.

Quality ones include the following: individual qualification potential of each employee (professional characteristics), individual professional characteristics (professional experience, social, psychological and organizational parameters identity, and competitiveness worker), social-psychological and organizational parameters of group dynamics, group cohesion, social and psychological climate, organizational culture and values of the institution, etc.³

Professional qualification of HEI staff in Poland

The employees of any institution or company are divided into permanent staff, directly involved in the process of creating products, and supplementary staff, who provide services. The majority of the university employees are academic teachers, while the supplementary staff are other employees are not involved in teaching. The detailed classification of workers of Polish universities following table illustrates:

Table 1: Structural staff characteristics of Polish HEIs

Academic teachers				Not teaching employees
Educational positions:	Research and educational positions:	Research positions	Certified librarians, certified staff of documentation and scientific information	<ul style="list-style-type: none"> • scientific and technical employees, • engineering and technical employees, • library staff and staff of documentation and scientific information, • administrative employees, • economic and supporting employees.
<ul style="list-style-type: none"> • assistant, • associate professor, • senior lecturer, • lecturer (wykładowca), • lecturer or instructor. And: <ul style="list-style-type: none"> • ordinary professor, • extraordinary professor, • inspecting professor. 	<ul style="list-style-type: none"> • ordinary professor, • extraordinary professor, • inspecting professor, • tutor. • assistant. 		<ul style="list-style-type: none"> • certified senior curator, • certified senior documentary, • certified curator, • certified documentary, • library tutor, • scientific documentation and information tutor, • library assistant, • scientific documentation and information assistant 	

Data: *Diagnoza stanu szkolnictwa wyższego w Polsce*. – Dostęp on-line: http://www.nauka.gov.pl/g2/oryginal/2013_05/ja5b19e372e1bed45db817b8380c8468.pdf

According to the effective law on “Academic Degrees and Titles, and Obtaining Degrees in Arts” of 14 March, 2003, in Poland the following are distinguished:

Research positions:

1. Doktor / PhD (doctoral degree).
2. Doktor habilitowany / Habilitation (post-doctoral degree often translated as doctor habilitatus or habilitated doctor – hD).

Research and educational positions:

1. Asystent (teaching assistant, without PhD degree).
2. Adiunkt (assistant professor, with PhD degree).
3. Docent (associate professor, with PhD degree).
4. Profesor (professor)

Educational positions:

1. Lektor (lecturer of foreign languages in high school) or instruktor (instructor in state higher vocational school (SHVS)).
2. Wykładowca (lecturer).
3. Starszy wykładowca (senior lecturer with PhD degree).
4. Profesor nadzwyczajny (extraordinary professor).
5. Profesor zwyczajny (ordinary professor).
6. Profesor wizytujący (inspecting professor).⁴

Responsibility for creating new methods for the institutions to function in a competitive market environment lies with their employees not engaged in teaching.⁵ Their new responsibilities include: the assistance in employment of graduates, implementation of technologies in the industry, academic entrepreneurship support, international research programs and EU projects, strategic management, contacts with sponsors and so on. Role and responsibilities of Polish HEIs administrative staff are still low, mainly due to low financial capacity and a lack of first-class educated professionals who can support the work of the academic teachers.

Number of Polish HEI employees

The structural characteristics of HEI staff were determined by the composition and quantitative ratio of individual categories and groups of workers. Between 2004 and 2014 the number of full-time scientific and pedagogic staff in Polish HEIs increased by almost 10%. In 2004–2005, there were 33,040 postgraduate students, and by the schoolyear 2013–2014, their number had rose to 43,358 (by almost 24%). Their top research areas include the humanities (the largest group), technology, medicine, biology and chemistry.

Most postgraduate students studied at universities, polytechnics, medical and economic academies.⁶ The number of people who received their PhD and hD degrees during this period increased from 5722 to 6093 (by 6%) and from 934 to 2122 (by 56%), respectively. 521 persons received their scientific titles as professors in 2004–2005, while in 2013–2014 their number was 641 (nearly 19% more). The headcount of full-time professors also increased by nearly 18%, and the number of associate professors by 75%. For more details on HEI employee numbers in Poland, see in the table below.

Table 2: Quantitative composition of HEIs staff in Poland

Groups of academic teachers	Study years			
	2004–2005	2008–2009	2012–2013	2013–2014
Teaching staff: total	85 762	98 631	97 133	95 073
Professors: total	18 969	22 896	23 509	23 051
Associate professors: total	244	1 096	1 140	956
Tutors	34 676	41 164	42 150	41 455
Assistants	15 844	13 546	11 086	10 887
Senior lecturers	10 229	11 516	11 341	11 177
Lecturers (wykadowcy)	3 876	5 533	5 532	5 281
Lecturers	1 509	1 681	1 226	1 137
Instructors	415	872	817	781
Not teaching employees	70 975	72 954	74 730	73 557

Data: own author's calculations based on:[4; 13].

Since 2011 there has been a general decrease in the number teaching staff in all groups. The reasons for this are: transition to other employment groups, retirement, lack of young replacement due to the demographic situation in the country and the reluctance of youth to work at universities because of low wages and searching more profitable and promising offers abroad or lucrative jobs in other areas in the country.

Today the number of non-teaching employees is nearly 44% of all personnel involved in higher education in Poland. Within a decade, their number slightly decreased (by 1.7%).

Ratio of students and academic teachers

In 2013–2014, the number of students per academic teacher was 16. At public universities, the ratio of students was 14 per academic teacher and 28 per non-teacher, at higher schools of art it was 4, and medical academies it was 6. The highest ratio of students per academic teacher: 27 was recorded at economic tertiary schools, while teacher-training, technical and nautical higher schools this ratio was 17.⁷ The ratio of students to a professor and an academic teacher in the period between 2004–2014 is shown in the following Table 3.

Table 3: Number of students per academic teacher

	2004– 2005	2008– 2009	2012– 2013	2013– 2014
Students' number per 1 academic teacher in all HEI	22.5	18.9	16.6	15.7
Students' number per 1 professor* in all HEI	84.2	101.1	71.3	67.2
Students' number per 1 academic teacher in state HEI	17.9	15.5	14.8	14.2
Students' number per 1 academic teacher in private HEI	52.4	39.1	30.4	28.6
Students' number per 1 professor* in state HEI	91.8	74.9	67.3	63.9
Students' number per 1 professor* in private HEI	131.7	110.7	84.8	79.0

**Number without associate professors*

Data: own author's calculations based on: Szkolnictwo wyższe w Polsce 2013. www.nauka.gov.pl/g2/oryginal/2013_07/6bf8b0381a4126920fc2afb20dfebb9d.pdf

Decrease was caused by demographic factors, a large youth migration abroad and increase in the number of the teaching staff.

Gender ratios

Polish HEIs are predominated by men (by over 50%). Of the total number of professors at Polish universities 5978 are women, representing 25.93%.⁸ While there is a general annual reduction in the total number of people in this category, women with a professor's title show the opposite trend: the number of female professors in

2004 increased by 36.2% and the number of female assistant professors – by 30.34%. The headcount of female associate professors also increased by 79.81% and tutors by 28.55%. For other categories, the situation is the same as for men – an annual decline.

Average age of employees

The entry into force of the act on “Higher Education” (1990) abolished the appointment of assistant professors (docent) and allowed persons having an hD degree to take the position of associate professors. In turn, in higher professional education senior lecturers were automatically nominated as associate professors. Then in 1994 the calculation of government subsidies was changed in a way that left assistants without funding and forced them to engage in doctoral studies in large numbers, because PhD holders were still paid by the government.⁹ This resulted in major migrations by large groups of teachers, in aging personnel and in the combination of positions associated with the development of private universities. By 1995 the ratio of academic teachers aged 50 or older had increased significantly (up 7% for PhD holders and assistants, and 4% for lecturers). In addition, the ratio of academic teachers in the age group of 40-49 had dropped by 13% for PhD holders or associate professors, and by 2% in the case of professors. In 2009, 31% of professors in Poland were aged 70 or older, in addition, 54% of them were working full-time.¹⁰ No other professional group in Poland has such a long and diverse professional activities. In 2009, R&D institutes, the institutes of the Polish Academy of Sciences and HEIs employed more than 3300 professors. Over half of them were more than 70 years old.¹¹

Contracts and duties

Teaching is expected only in academic positions at the universities not included in research-development units. The minimum teaching time depends on the position: 240 lessons per year for assistants and slightly less for professors. Most academic staff has additional work at (better paid) private universities. If the position is solely educational (e.g. instructor, lecturer, senior lecturer) the minimum number of lessons taught in a year is higher: between 240 and 540 per year.

The minimum teaching time only comprises scheduled courses, while other teaching activities such as the organization of and preparation for courses and examinations etc. are not included in the minimum requirement and are not extra paid but must be fulfilled.

In addition to teaching, most teachers (except instructors and lecturers) are expected to do research and write academic articles, monographs, books etc. Every university is assigned scores for each article and research work, and is ranked according to the total of its scores. Government subsidies for research activity depend on ranking.¹²

Gross Salaries

Teachers' salaries depend on the budgetary subsidies provided by the Ministry of Science and Higher Education. According to the amended act on "Higher Education" (2005) the following rates were provided for academic teachers according to their scientific degrees, titles and positions in HEI:

Table 4:

№	The academic teachers' group	Position	Minimum academic teacher's rate, PLN			
			2012	2013	2014	since 2015
1	Professor	Ordinary professor	4145	4525	4940	5390
		Extraordinary professor (with a scientific title)	3865	4220	4605	5025
		Extraordinary professor (with hD)	3540	3865	4220	4605
2	Associate professor, tutor, senior lecturer	Associate professor, tutor with hD	3310	3615	3945	4305
		Tutor with DhD	2935	3205	3500	3820
		Senior lecturer without a degree	2325	2540	2770	3025
3	Assistant, lecturer (wykładowca), lecturer, instructor	Assistant	1885	2055	2245	2450
		Lecturer (wykładowca), lecturer, instructor	1830	1995	2175	2375

Data: Poland, Academic Career Structure. www.eui.eu/ProgrammesAndFellowships/Academic-CareersObservatory/AcademicCareersbyCountry/Poland.aspx

A comparison of the minimum wage in Poland (in 2014: PLN 1680 gross, and PLN 1237.20 net, in 2015: PLN 1750 gross, and PLN 1286.16 net)¹³ and the data given in the above table shows that academic teachers' monthly salary is rather low. For a comparison, Polish secondary-school teachers are paid between PLN 2265 and PLN 3109, depending on their professional category. Thus, an associate professor with a PhD does not earn more than a certified secondary-school teacher.¹⁴ However, the final salary is established by the rector of each institution according to basic salary brackets for each academic position. The gross monthly salary paid at a public HEI is calculated as a percentage of a basic amount stated in the Budget Act and due to change every year.¹⁵

The highest salaries at HEIs are paid to independent researchers (persons with PhD and hD). They can also receive a fee for holding management posts (head of institution, head of department, director of the institute, rector etc.).

However, HEIs in Poland are not the only source of livelihood for the teaching staff. They can earn additional income from companies by fulfilling orders, carrying out examinations and taking part in studies commissioned by others. Researchers

additionally work in consulting firms and educational organizations, and young researchers work at schools. A popular type of additional revenue is working part-time at other HEIs, frequently at private ones. It should be noted that academic teachers are entitled to benefits for retirement at a rate of 1% of their salaries paid for each year of service, beginning with the fourth year of activity. This rate may not exceed 20% of the basic salary.¹⁶

Work at HEIs has its positive and negative impacts on the professional development of staff. *Positive impacts* include:

1. EU financing of publications and scientific research from the European Social Fund.

2. Increasing internationalization of HEIs – giving the opportunity of participation in national and international research projects through international exchange programs.

3. Granting broad autonomy in choosing the content, form and pace of work with students, creating new areas in training and so on.

4. Reducing the number of students per teacher.

5. The right to leave: 36 days' leave in a year, holidays, paid or unpaid leave to conduct research for full-time academic teachers (three-month paid leave for the preparation of their doctoral thesis and six months for a hD thesis)¹⁷ provided if the research conducted outside the HEI,¹⁸ a year leave after 7 years of teaching.¹⁹

The disadvantages that prevent the efficient development of the human resource capacity of universities in Poland are:

1. The lack of funding for quality mechanisms. Low salaries compel academic teachers to work part-time at private HEIs, where the pay is higher than at public ones or to leave their positions and look for more advantageous offers in other areas.

2. Inconsistency between the degrees or titles of teachers and their teaching skills. They are often ranked much lower than justified.

3. Unfair competitions for grants. Most grants are awarded to public HEIs and their employees.

4. The relatively small number of classes, combining theory with practice, especially at university level.

5. High level of bureaucracy – a large amount of unnecessary reports are required of academic teachers, long waiting time (about a year) till the completion of procedure of granting a scientific degree after defending and publication of the thesis etc.

6. The Polish scientific community is rather closed. HEIs offer a limited number of new positions in most subjects, and there is hardly any internal mobility – people typically retire from the positions they started their careers in.

7. Evaluation of employees by students.²⁰

An analysis of the development of the HEI personnel potential in Poland during the past decade leads to the following conclusions. The size of Polish HEIs personnel potential is largely influenced on the following factors:

- 1) *Sufficient number of staff*. The availability of highly qualified personnel at HEIs and their rational use largely determine the organizational and technical level of edu-

cational services, characterize the level of innovation implementation, facilitate the efficient use of new educational technologies, create favourable terms of high financial stability and competitiveness of national HEIs in the global educational market. In the period reviewed, the composition of university employees increased significantly in terms of quantity.

2) *Number of students.* A small number of students per teacher significantly increases the efficiency of the educational process. Last year this figure did not differ considerably from the records of other European countries.

3) *Teaching time.* The high number of lessons taught prevents academic teachers from creative development and does not allow time for them to engage in scientific activity at HEIs. In Poland the lessons do not exceed the number set by law, in private institutions this number can be doubled.

4) *Age of staff.* Young teachers adapt to changes more easily, they have a more creative approach and more opportunities to innovate. Unfortunately, in Poland there the teaching staff is rather aged.

5) *Internationalization.* Increasing internationalisation in higher education improves the competencies of the domestic teaching staff through international exchanges, conferences and joint research projects.

6) *Working conditions, remuneration and recreation.* These factors play the most important role in the development of the professional staff and in their willingness to engage in scientific activities. Working conditions and organization are at a high standard at Polish HEIs, but salaries are rather low.

In order to increase the efficiency of using the personnel potential and to promote the teaching staff's improvement, the *Ministry of Science and Higher Education* should increase the subsidies granted for HEI activities, including:

1. Increase the salaries for all groups of HEI staff to reduce combination work, as it results in scientists spending their time and creative energy with solving mostly non-current problems;

2. Simplify conditions and increase access to grants in order to develop research activities in the humanities and little-known areas of studies;

3. Encourage the by academic teachers' best scientific achievements that improve the ranking of the university, and support talented young staff;

4. Facilitate and simplify the process of obtaining academic degrees and titles.

HEI leadership should:

1. Implement systematic planning for work with HEI staff: maintain the correct ratio of their quantitative and qualitative characteristics, involve young employees, improve staff evaluation (consider their level of teaching and practical achievements instead of a scientific degree or a title, prefer the quality of their published works, instead of the quantity and place of publication, identify and remove inefficient employees).

2. Improve the working conditions for academic teachers: provide positive psychological climate in the team, carry out activities that contribute to the strengthening and creating of centres of psychological support staff;

3. Create special research and advisory groups which can be original generators of ideas, consult employees about scientific articles, textbooks, submit ideas for preparing joint research projects and innovation implementation;

4. Make employees interested in engagement in the necessary scientific researches, create an efficient system of material incentives, and carry out individual approach to each employee.

5. Expand co-operation (inter-university and international) to learn from positive work experiences and promote professional development, and co-operate with enterprises to integrate science in industry in order to increase the significance of HEIs and R&D institutes in the global educational market.

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NOTES

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