

ECONOMIC PROBLEMS OF PROMOTING SCIENTIFIC-PEDAGOGICAL ACTIVITIES IN THE REPUBLIC OF ARMENIA

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Introduction

At the current stage of the economic development of the Republic of Armenia, the activation of innovation and investment activities is of great importance, which is closely related to the promotion of scientific-pedagogical activities, since the latter is one of the most important prerequisites for both the improvement of the labor market and the effective management of the economy. In this regard, we note, that within the framework of state economic policy, it is necessary to pay special attention to the issues of financing scientific-pedagogical activities, and to actively involve private sector companies in their solution, offering them attractive conditions for cooperation. As a result, an opportunity will also arise to form and strengthen "science-production" ties, which can lead to numerous positive consequences. Under such conditions of development, it will also be possible to effectively organize the process of generational change of scientific and pedagogical personnel, strengthen the competitive positions of universities and promote the process of socio-economic development of the Republic of Armenia.

Methodology

The theoretical and methodological basis for the research was the domestic and foreign author publications, covering the issues of scientific-pedagogical activity promotion, the published materials of the conferences, the legal acts of a normative nature regulating the functions and relationships of the considered fields, etc. The study used the methods of system-situational analysis, induction and deduction, comparative and factor analysis. In particular, through systemic and situational analysis, the possibilities of training qualified professional personnel through the promotion of scientific-pedagogical activities have been identified. With the help of induction and deduction methods, the positive impact of professional personnel, endowed with innovative potential on improving the functioning of the labor market and raising the living standards of the population has been substantiated. Through comparative and factor analysis, the dynamics of the RA state budget expenditures in the education and science sector in 2015-2025 have been identified, as well as the main factors, influencing on the promotion of scientific-pedagogical activity.

Literature review

The issues of promotion scientific-pedagogical activities have been considered in a number of works. In particular, the problems of promoting scientific-pedagogical activity are presented in the researches of N.Shmatko and G.Volkova [Shmatko, Volkova, 2017, 54-66], where they note, that the main motivating factors for research work are intellectual self-realization, one's own research interest, professional growth and career. Material incentives for research staff in themselves do not have a significant motivating effect on scientific creativity, and are only possible in combination with other motivating factors, such as prestige and recognition from colleagues.

In the study by N.Jayaram [Jayaram, 2012, 7-9], it is shown how in mid-2008, when new criteria for material rewards for the professional activities of lecturers were announced in India, competition increased and excitement arose around competitions for filling vacancies at universities. And this is natural: a sharp increase in salary of the academic group was aimed at attracting the most talented specialists with experience and obvious potential for further professional self-improvement to pedagogical activities at universities.

The study by M.Borovskaya, M.Masych and I.Shevchenko [Borovskaya et al., 2013, 13-20] examines the problem of increasing the effectiveness of scientific-educational activities of scientific-pedagogical workers, which can be solved by improving the system of employee incentives and introducing the principles of an effective contract as a tool for implementing social and labor relations at the university.

Scientific novelty

The article revealed the mechanisms of the development of scientific-educational system through the promotion of scientific-pedagogical activity. In particular, as ways of promotion of scientific-pedagogical activity, the activation of the interaction between education, science, business and the state, the application of the "matching financing" method of scientific-pedagogical activity, the application of rational approaches to reducing tuition fees in order to activate the activities of universities, operating in the regions of the Republic of Armenia or their branches, the involvement of students and lecturers in the scientific-research and experimental-design works of private companies, as well as the use of foreign leading experience in the promoting scientific-pedagogical activity were proposed. Taking into account the effective approaches to promoting scientific-pedagogical activities, proposed by N.Shmatko, G.Volkova, N.Jayaram, M.Borovskaya, M.Masych and I.Shevchenko, the need to ensure a rational balance between the pedagogical and scientific research activities of a lecturer in Armenia has been substantiated.

Analysis

In modern conditions, great importance is attached to the promotion of innovative development of the economy, which also implies the organization of innovative education - in order to provide the labor market with qualified professional personnel. In this regard, the

promotion of scientific-pedagogical activity is of particular importance both at the level of educational institutions and within the framework of state policy. And, since the degree of promotion of scientific-pedagogical activity by educational institutions is largely determined by the state policy implemented in the scientific-educational sphere, it becomes a priority to consider the degree of justification of the reforms implemented by the state in this sphere. In particular, the draft law of the RA “On Higher Education and Science” is aimed at ensuring a high degree of justification of reforms in the scientific and educational sphere, which envisages [On Higher Education and Science, 2025].

- ensuring a high level of preparedness,
- ensuring access to education,
- increasing of professional level,
- promoting international cooperation,
- introducing of technological innovations,
- activating student participation in scientific-educational reforms,
- providing of financial support for reforms.

The adoption of the Law “On Higher Education and Science” pursues the goal of implementing the reforms in the spheres of higher education and science, developing the necessary policy in this direction, legal bases, systematic principles, realistic conditions, necessary norms and substantiated regulations. The Law, certainly, will greatly contribute to achieving the goals set out in the “State Program for the Development of Education of the Republic of Armenia until 2030”, which implies:

- To form competitive and resilient systems in the sphere of higher education and science, to ensure continuous improvement of the quality of education and to organize education in line with the requirements of the times.
- To guarantee of academic freedoms and principles of autonomy for actors, involved in the sphere of higher education and science.
- Guarantee the best scientific-educational conditions, as well as create an environment, conducive to obtaining new knowledge.
- Contribute to the maximum utilization of the best innovative potential in the labor market and economic efficiency.
- Introduce modern mechanisms for involving young people in scientific-educational and research activities and apply effective tools for generational change [On Approval of the State Program for the Development of RA Education until 2030, 2022].

The draft law “On Higher Education and Science” also provides for the creation of an Academic City. It, certainly, can significantly contribute to scientific development and innovation, as well as create a competitive environment, where knowledge and ideas will not only be widely disseminated, but will also create favorable conditions for their implementation and ensuring sustainable economic development. Innovative development, in

essence, implies the introduction of new ideas, technologies and processes, which leads to economic growth, increased competitiveness and the well-being of the population. This can include various sectors, including - science, technology, industry and services, agriculture, etc [On Higher Education and Science RA, Draft Law, 2025]. At the same time, the draft Law of the RA “On Higher Education and Science”, which is extremely important for Armenia, in our opinion, should be subject to wide discussions by the structures and experienced specialists of the given sector - in order to improve it, as much as possible. In particular, in order to improve the draft Law of the Republic of Armenia “On Higher Education and Science”, we propose:

1. A relevant professional committee, consisting of experienced specialists in the field of formal education and science, where the project under consideration will undergo a comprehensive and impartial examination, as well as be approved in case of adoption by a majority vote of the committee members.
2. The draft law “On Higher Education and Science” provides for regulations until 2050 - to achieve the target result indicators of the mega-goal of having an “Educated and Capable Citizen”. However, taking into account the current global level of various risks and uncertainties, it is essential that the presented regulations need to be distributed proportionally over the next 25 years, in order to implement the situational management of the education and science sectors with maximum rationality. Such an approach would imply changes to the legal framework in this direction, which is not provided for in the draft.
3. The draft also stipulates that, in order to ensure the entry threshold, that ensures the quality of education, regardless of the organizational and legal form and status of higher education institutions, for persons with citizenship of Armenia in any educational program of bachelor's degree qualification certificates with an external assessment grade equivalent to at least a "good" grade in the subjects "Armenian Language" and "Mathematics" should be mandatory. Promoting of student progress, is certainly welcome, however, taking into account the trend of reducing the number of students, as well as the current demographic situation, we believe, that this approach also needs to be reviewed.
4. The draft stipulates, that the student has his own personal digital domain in the higher education and science management system, through which he manages his educational process, including the preparation of an individual educational plan. We believe, that the student, based on his age characteristics, cannot fully manage his educational process, especially from the point of view of preparing an individual educational plan. In this case, for universities to have separate councils in relevant professional areas, it is necessary that students receive the needed advice from experienced specialists.
5. The draft envisages the regulation of relations related to the activities of the National Academy of Sciences of RA, as well as its status. However, the draft does not contain clear approaches to the restructuring (merger of institutes, termination of some of them, creation of new institutes, etc.) of scientific organizations, operating within the NAS of

RA. The importance of this emphasis is conditioned by the imperative for investment policy, forming an innovative economy, as well as ensuring real economic growth.

6. The draft also stipulates, that after the adoption of the Law “On Higher Education and Science”, the laws “On Higher and Postgraduate Professional Education”, “On Scientific and Scientific-Technical Activity”, “On the National Academy of Sciences of RA”, “On Scientific and Scientific-Technical Expertise” will be declared invalid. Such an approach is fraught with the emergence of certain uncontrollable risks, which, in turn, may contribute to the disruption of the relations, regulated by the aforementioned laws. In this regard, it is proposed to thoroughly discuss the provisions brought in the draft with experienced specialists in the management of the spheres of education and science, as well as to make them co-authors of the draft of this law.

In the context of promoting scientific-educational activities at the state level, the activation of public-private partnership (PPP) is also of great importance: through the joint organization of educational processes, the involvement of students and lecturers in scientific- research and experimental-design work, ensuring their additional employment, if appropriate, ensuring continuous education of employees of private companies, the implementation of joint mutually beneficial scientific-production projects, and a number of other means [Bostanjyan, Zakharyan, 2023, 248-251]. In this case, the provision of certain tax and credit privileges by the state to companies, participating in the development of the scientific-educational sphere, the discovery of new sales markets for them, and the use of other mechanisms of state support can provide quite positive impulses to the process of innovative development of Armenia’s economy. It should also be noted, that the provision of tax privileges is considered one of the effective mechanisms for activating PPP, since the reduction of taxes leads to an increase in income. This can also contribute to the strengthening of the competitive positions of companies in global markets.

Turning to the issues of promoting scientific-pedagogical activities, we should note, that great importance is also attached to ensuring a rational balance between the pedagogical and scientific research activities of the lecturer. In any organization there are two periodic processes that follow each other: *development* (scientific research or development of innovative new products) and *activity* (the actual process of providing pedagogical / educational services or production of goods and services). As a rule, development precedes activity, since the latter makes it possible to ensure the quality of educational services provided, while simultaneously offering affordable educational services. Improving the quality of education and ensuring an affordable level of tuition fees are of particular importance in developing countries. The implementation of scientific-research work in various directions by the teaching staff will contribute to the improvement of their financial situation, thanks to which it will also be possible to ensure the affordability of tuition fees. In this regard, special attention is required especially to activating the activities of univer-

sities or their branches in the regions of the Republic of Armenia, increasing the number of students by applying rational approaches to reducing tuition fees, technical re-equipment of universities with joint state and private financing, innovative organization of the educational process and other key issues. It is obvious, that the lack of financial resources and a certain distance from Yerevan are decisive factors in many number of talented young people to receive education. The organization of accessible innovative education [Bostanjyan, Zakharyan, 2024, 83-89] for young people will certainly stimulate both the generational change in the scientific-educational sphere, and will contribute to improving their living standards and ensuring other multiplicative positive results. Below are the expenditures of the state budget in the fields of education and science (see charts 1, 2).

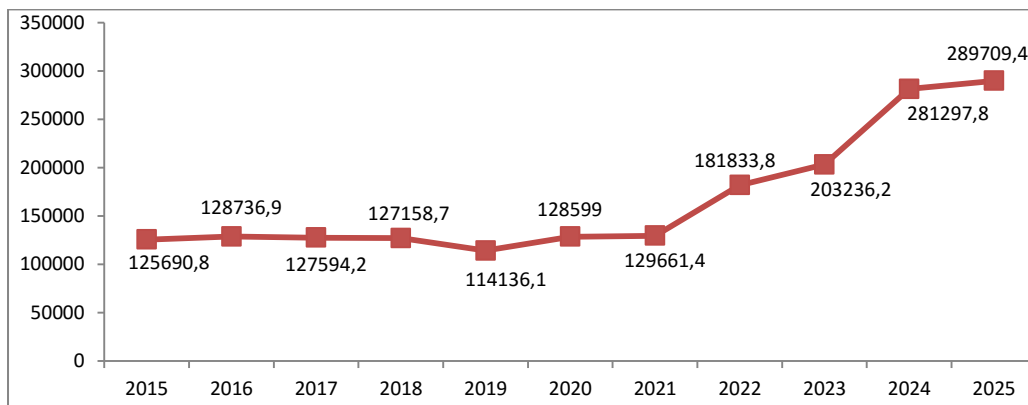


Chart 1. RA state budget expenditures in the field of education in 2015-2025. (million drams) [On the State Budget of RA for 2015-2025 RA Laws]

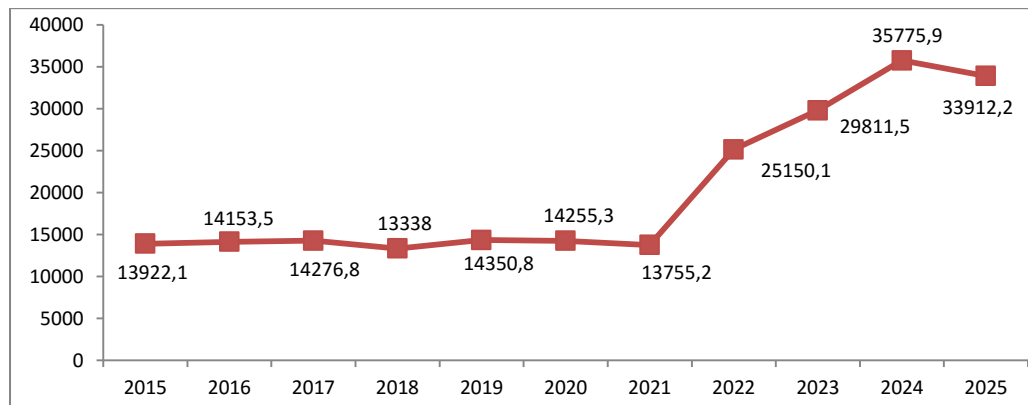


Chart 2. RA state budget expenditures in the field of science in 2015-2025 (million drams) [On the State Budget of the RA for 2015-2025 RA Laws]

The data in Chart 1 show, that compared to 2015, the state budget expenditures in the education sector in 2025 increased by 164018.6 million drams. However, it should be noted, that in 2017-2019, there were certain reductions in state budget expenditures in the

education sector, which, in our opinion, is due to the changing demographic situation and migration. At the same time, we should also note, that at the initiative of the RA Government, science funding in 2022 was increased by an unprecedented 82.8% compared to the previous year, amounting to 25.1 billion drams. The data presented show that during 2015-2025 there was a significant increase in the volume of science financing by 19990.1 million drams. The increase in the volume of science financing is certainly a positive phenomenon, but we should note, that it is necessary to ensure continuous growth of this indicator, especially taking into account the current problems of innovative development of the RA economy. In this context, ensuring continuous growth in the volume of basic science financing is of particular importance. It should be noted, that the base includes fundamental and applied research of paramount importance, the maintenance and development of the infrastructure of scientific organizations, the development of scientific objects of national value, the training of scientific personnel, the provision of scientific and scientific-technical activities, the acquisition of scientific equipment for joint use, and the implementation of international cooperation programs. The base funding also includes additional payments to scientists for scientific degrees.

It is obvious, that more serious volumes of state and private financing will be required to stimulate scientific-pedagogical activity [Zakharyan, 2023, 348-368]. In the world practice, the amount of spending on scientific research and development varies within 3-5% of GDP. In this regard, we note, that although the volume of spending on scientific research and development in the former CIS countries has recorded some growth, it has not yet expanded in relation to GDP (see table 1).

Table 1. The volume of expenditures on scientific research and development in the CIS member states in relation to GDP in 2015-2022 (%) [UNESCO, 2025]

CIS country	%, to GDP							
	2015	2016	2017	2018	2019	2020	2021	2022
Armenia	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Belarus	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
Azerbaijan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Kazakhstan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Kyrgyzstan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Moldova	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Russia	1.1	1.1	1.1	1.0	1.0	1.1	1.0	0.9
Ukraine	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3

The CIS member states also significantly lag behind economically developed countries in terms of spending on scientific-research and experimental-design work. Russia's indicator, which is the highest among the CIS member states, is about 12 times lower than the indicator of the first place holder in the list of world leaders. Armenia's indicator is about

5 times lower than Russia's indicator and about 47 times lower than the indicator of the United States, which occupies the first place in the world. According to the OECD's open database "Key Science and Technology Indicators", the world leaders in terms of total domestic expenditure on R&D are the USA, Germany, China, Japan, and South Korea.

It should also be noted, that in the Republic of Armenia, in order to promote scientific-pedagogical activity, authors are given certain bonuses for published scientific works annually, as well as some universities compensate for the costs of printing articles. We believe, that the continuous increase in additional funding provided to scientists can contribute to a certain extent to increasing the attractiveness of scientific-pedagogical activity, their professional development, improvement of living standards, raising their reputation and professional advancement.

In terms of promoting scientific-pedagogical activity, compliance with the rules of scientific-educational ethics is also of particular importance, which, of course, leads to the formation of a favorable creative environment and active cooperation of scientific-pedagogical personnel. In particular, some lecturers, seemingly for the sake of their own self-affirmation, pursuing subjective goals and ignoring rational scientificity and reason, violate the accepted rules of professional and general ethics. This can become a disorienting factor for young specialists in engaging of scientific-pedagogical activities. Therefore, it is necessary to develop and implement effective mechanisms for maintaining the rules of scientific-educational ethics, based on well-known principles of corporate governance.

Conclusion

In the Armenian reality, special attention has always been paid to scientific-pedagogical activity, as it is a very important means of ensuring progressive development and improving the living standards of the population. The level of development of the general educational system is also largely determined by the quality of scientific-pedagogical activity.

Taking into account the current state of socio-economic development of the Republic of Armenia, it is expedient to propose the following ways to promote scientific-pedagogical activities:

- application of innovative scientific-pedagogical technologies,
- activation of interaction between education, science, business and the state,
- application of the "counter financing" method of scientific-pedagogical activities,
- application of rational approaches to reducing tuition fees in order to activate the activities of universities or their branches, operating in the regions of the Republic of Armenia,
- ensuring a rational balance between the pedagogical and scientific-research activities of the lecturer,

- involvement of students and lecturers in the scientific-research and experimental-design works of private companies,
- application of leading foreign experience in promoting scientific-pedagogical activities.

In summary, it is necessary to note, that the promotion of scientific-pedagogical activities is of great strategic importance, and it can contribute to both the development of the RA educational system, as well as to providing the labor market with qualified professional personnel and improving the living standards of members of society.

References

1. Borovskaya M., Masych M., Shevchenko I. Effective contract in the system of incentives for scientific-pedagogical workers, scientific journal "Higher education in Russia", N5, 2013, p.13-20.
2. Bostanjyan V.B., Zakharyan A.G. Problems of digital transformation of the education sphere in the Republic of Armenia, Greater Eurasia: Development, security, cooperation: materials of the Fifth international scientific and practical conference "Greater Eurasia: national and civilizational aspects of development and cooperation", Yearbook. Issue. 6. Part 2 / Institute of Scientific Information on Social Sciences of the Russian Academy of Sciences. Dep. of scientific cooperation; Ed. V.I. Gerasimov. - Moscow, 2023, p. 248-251, https://inion.ru/site/assets/files/7615/2023_e_bol_shaia_evraziia_6_2.pdf
3. Bostanjyan V., Zakharyan A. Economic aspects of organizing innovative education in the Republic of Armenia, ALTERNATIVE Quarterly Academic Journal Economy & Management, October-December, 2024#4, p. 83-89, <https://alternative.am/wp-content/uploads/2025/01/December-2024-1.pdf>
4. How much does your country invest in R&D? - UNESCO Institute for Statistics (UIS), 2025, <http://uis.unesco.org/apps/visualisations/research-and-development-spending/>
5. Jayaram N. Paying the Professoriate: Trends and Issues in India, International Higher Education, The Boston College center for International Higher Education: Boston, 2012. No.68. p. 7-9.
6. «On Approval of the State Program for the Development of Education of the Republic of Armenia until 2030» RA Law, 16.11.2022, <https://www.arlis.am/DocumentView.aspx?DocID=171800>
7. «On Higher Education and Science» RA Draft Law, 2025, <https://www.e-draft.am/projects/7684>
8. «On the State Budget of the Republic of Armenia» for 2015-2025 RA Laws, <https://www.gov.am/am/budget/>
9. Shmatko N.A., Volkova G.L. Service or ministry? Motivational patterns of Russian scientists, scientific journal "Foresight", 2017, N2, p. 54-66.
10. Zakharyan A.G. On the financing of education and science sectors, Problems of competitive education and science in a changing world. Collection of scientific articles: Proceedings of the International Conference, June 21, 2023. - Yerevan: «Tir» Publishing House, 2023, p. 348-368, https://www.isec.am/images/gitakan_hraparakumner/Gitajoxov_2023.pdf

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Economic problems of promoting scientific-pedagogical activities in the Republic of Armenia

Key words: educational system, scientific-pedagogical activity, innovative education, state policy, financing, development, efficiency

The development of the scientific-educational system is of great importance in the Republic of Armenia, as the latter is an important means of both the innovative development of the economy and the improvement of the living standards of society. In this regard, the promotion of scientific-pedagogical activity is of particular importance both at the level of educational institutions and within the framework of state policy. And, since the degree of promotion of scientific-pedagogical activity by educational institutions is largely determined by the state policy implemented in the scientific-educational sphere, ensuring the positive course of reforms implemented by the state in this sphere becomes a priority. In the context of promoting scientific-pedagogical activity at the state level, the activation of state-private partnership is also of great importance: through the joint organization of educational processes, the involvement of students and lecturers in scientific research and experimental-design work, ensuring their additional employment, if appropriate, ensuring continuous education of employees of private companies, the implementation of joint mutually beneficial scientific and production projects, and a number of other means. In this case, the provision of certain tax and credit privileges by the state to companies, participating in the development of the scientific-educational sector, the discovery of new sales markets for them, and the use of other state support mechanisms can provide quite positive signals to the process of innovative development of the economy of the Republic of Armenia.