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**THE PROBLEM OF SOCIAL WELL-BEING IN THE PERIOD OF  
PERESTROIKA**

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*Abstract*

A qualitatively new stage in the development of the scientific-educational complex in Tomsk, as well as in the whole country, came with the speech of the General Secretary of the CPSU Central Committee M.S. Gorbachev at the April plenum of the party, which marked the beginning of the period of "perestroika" in 1985. The era of perestroika was marked by a number of contradictory tendencies in the science and educational institutions of the country in general and SPhTI in particular. "Perestroika" went under the slogans of "glasnost", "new political thinking". On the one hand, the processes of democratization that began in the country served as a powerful impetus for the academic community to find new ways to solve the urgent economic, environmental and social problems. On the other hand, at that time the alarming tendencies of the obsolescence of the material and technical base for research and academic institutions, ineffectiveness or the lack of active implementation of applied developments began to make themselves felt. Particular attention is paid to identify and analyze the dynamics of the transformation of organizational forms of research development in the Tomsk scientific-educational complex; analyze the specifics of state budget financing and contractual activity as reasons for the reduction of the staff of physicists and analyze the specifics of the material and living conditions of the academic community of Tomsk in the period of Perestroika. For all who are interested in the history of science, the history of Siberia and Russia.

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## **1. Introduction**

The decision of the Council of Ministers of the USSR and the CPSU Central Committee "On the main directions for the restructuring of higher and secondary special education in the country" fixed the course for radical transformations in the scientific and educational complex, and outlined the promising areas for restructuring agenda for and organization of scientific research. According to these decrees, the importance of higher education and university-based science in the process of the accelerated development of socialist society, the dynamic transformation of the economy, the improvement of social relations, as well as in the cultural development of Soviet people increased significantly. In this regard, the country's universities faced very complex tasks of improving the quality of training specialists, enriching ideological, theoretical and humanitarian content of education, strengthening the links between science, education and production (Sobranie Postanovlenij Pravitel'stva SSSR, 1987).

## **2. Problem Statement**

Determining the place and role of science in the life of Russian society is one of the key steps in assessing the future prospects of its development. The modern development of society is characterized by the acceleration of globalization, strengthening the bonds between education and science, and hence the connection between science and practice. The topicality of this problem lies in the role that science plays in the modern information society. Due to territorial scale, specifics of the socio-economic development of our state and processes of regionalization of all spheres of the internal life of the country and society which the country underwent, various actors should outline their "points of growth" on the way to the "knowledge economy".

The appeal to the rich experience of the Tomsk Scientific-Educational Complex (TNOK) of Western Siberia as one of the leading scientific, education and production centers of the country is relevant because in the previous period effective models and forms of organizing not only the scientific research, but also the shortest ways of introducing scientific developments into practice were found.

## **3. Research Questions**

- 3.1. To identify and analyze the dynamics of the transformation of organizational forms of research development in the Tomsk scientific-educational complex.**
- 3.2. To analyze the specifics of state budget financing and contractual activity as reasons for the reduction of the staff of physicists.**
- 3.3. To analyze the specifics of the material and living conditions of the academic community of Tomsk in the period of perestroika.**

## 4. Purpose of the Study

The main purpose of this study is to analyze the impact of transformational processes in science and education on the development of the scientific-educational complex and the condition of the academic community of physicists in Tomsk.

## 5. Research Methods

In this paper we used the comparative-historical method which allows to reveal the essence of the phenomena studied and the similarity and difference of their intrinsic properties, in determining the various quantitative and qualitative characteristics of research widely used statistical method, historical and sociological analysis. Papers will be reproduced exactly as submitted and will not be edited in any way. Abbreviations should be kept to a minimum. Use of standard abbreviations is acceptable.

## 6. Findings

### 6.1. Dynamics of transformation of organizational forms of research development in the Tomsk scientific-educational complex

In order to implement the directive decisions, the TSU leadership attempted to combine the educational process with cutting edge research along the lines of active development of the already existing and the organizing new educational-scientific pedagogic complexes (UNVK), later named into scientific-educational complexes. Thus, since 1985, a new round of modernization processes started. It led to the formalization of the legal duties of the research institutes in relation to the faculties.

In February 1986, a temporary provision on UNVK was adopted at the TSU Academic Council. Their main goal was to establish close cooperation between the departments of the university (faculties and departments) and research units of the university (research institutes and laboratories of research departments (NICH) (GATO, 1986). UNVK were created on the basis of a research institute at the university or departments of the NICH TSU (faculties or groups of faculties) on the basis of the principles of the correspondence of scientific interests. educational- scientific pedagogic center (UNVC)) headed by the university rector was in charge of coordination of the activities of all UNVK. Subsequently, a considerable part of the functions of this body was undertaken by the Academic Council of TSU. The main tasks of the new body were to ensure the participation of research departments of the university in teaching and educational work with students and simultaneously attract students and faculty of TSU departments to perform research and development work on the basis of the research institute. For this, naturally, the development of a material and technical base was required, (for example, the acquisition of equipment with the help of research institutes at the expense of deductions from their profits), the improvement of the system of educational, methodological and scientific activity, intensive targeted forms of training specialists.

Among all UNVK, both in terms of the number of its divisions, faculty and students, and in terms of the pace of development, the "Physics" complex was boldly marked out. Initially, apart from 6 departments of the SPhTI, it included only three sectors: Radiophysics – the majority of departments of the radiophysics faculty, Cybernetics – the Faculty of Applied mathematics and cybernetics (FPMK)

(except the department of Programming and Informatics) and Physics - the Faculty of Physics. With the beginning of the new 1987/1988 academic year, the complex identified a number of organizational problems that made it difficult for the SPhTI and university departments to interact, therefore, a new form of organization was introduced - UNVS (educational- scientific pedagogic sectors) on the basis of the department-laboratory. With such a campaign, a direct link was established between academic staff of a research institute, on the one hand, and the faculty and students of the TSU departments, on the other. The TSU departments became freer in the choice of science partners among various research institutes in Tomsk and Siberia, and the laboratories and departments of the SPhTI were free to choose partners for training specialists among other universities. The sectors were created based on the main research areas of the SPhTI and the faculties of the TSU and were called respectively "Radiophysics", "Semiconductor Physics", "Radioelectronics", "Quantum Electronics", "Automation", "Cybernetics", "Logic", "Modeling" Physics ", " Optics ", " Theoretical Physics ".

The main tasks of the educational and scientific complex "Physics" were repeatedly announced by the director of the SPhTI, M.V. Kabanov and constituted the need to establish a real contact with the faculties on logistical support, the distribution of finances received from state budget and contractual work, as well educational and academic interaction. More than 300 students of physics faculties of TSU went through internships, did course and degree works at SPhTI. In 1989, 381 students performed research work in the SPhTI under the supervision of 120 academic staff members of the Institute. Researchers of the Institute actively participated in scientific and pedagogical work with students: they gave lectures, conducted seminars, special courses, participated in the writing of educational and methodical manuals, laboratory workshops, supervised research of students. In addition, SPhTI staff and teachers of physics faculties of TSU supervised 6 student research laboratories (SNIL): "Lasers", "Synthesis", "Logic", "Adaptation", "Microprocessor", "Alloy".

As far as the fate of UNVK is concerned, their significance and activity in the future were significantly weakened. This fact could be explained by the lack of solutions to the problems of material and technical support for academic research and educational process. For example, due to the territorial disunity of the faculties (RFF and FPMK) and the corresponding scientific departments of the SPhTI, on the basis of which the UNVS were established, it became necessary to concentrate all UNVK units in the same building. In this respect, the need for construction a building for educational and scientific needs that would solve the problems of territorial disconnection of faculties and SFTI and partially expand the areas under the pilot experimental base aroused. In addition, the construction of the buildings for UNVK made it similar to universities and colleges in Europe and the United States in terms organizational and economic structures (GATO, 1989). However, despite the active actions taken by the Directorate of SPhTI and the leadership of TSU, it was not possible to achieve a positive resolution of the issue of the construction of a new building for the UNK "Physics".

## **6.2. Specificities of budget financing and contractual activity as a reason for the reduction of the staff of physicists**

Since 1989, the transition to self-financing and self-sufficiency was launched. The initial idea of the university leadership on the transition to self-financing was that the results of academic research could become a commodity, profits could be used to form the funds for material encouragement, social,

scientific and technological development. However, in practice, the introduction of self-financing and self-sufficiency caused negative consequences. Command-administrative methods of management disappeared, and new ones were not yet developed, which in turn led to serious organizational difficulties. The point is that the methods and mechanisms for the realization of scientific products were not developed in practice, and the solution of this issue had to be addressed by researchers who did not have the experience of economic activity. In addition, the introduction of this system negatively affected the fate of an integrated approach to the scientific and educational processes, led to a sharp decline in the amount of funding and intensity of interaction between Tomsk universities and the virtual suspension of the intensification program. So, the volume of contractual work decreased by 4.7 million rubles in TSU in 1989. Despite the fact that the number of contracts increased by 40, their average cost decreased almost 2 times (Kabanov, 1988).

Decrease in financing economic contracts (khozdogovor) led to a reduction in staff and a deterioration in the provision of laboratories and departments of universities in Tomsk with the necessary materials as well as scientific and technical equipment. The introduction of new forms of management in 1989 led to the need for austerity of funds, most of which were used to repair and maintain existing equipment. At the same time, new expensive equipment for the most promising scientific directions of the institute was provided in a small amount because of a lack of financial capacity.

In parallel with the reduction in the volume of contractual research (khozdogovor) since 1987, there was a tendency to reduce academic and help staff. The help staff decreased especially sharply. To form a clearer idea of the dynamics of decreasing the staff of physicists in Tomsk in 1987-1991, we used the example of SPhTI in 1983, from which the tendency of a numerical reduction of the scientific and auxiliary staff of the Institute was started to be observable. In comparison with 1983, SPhTI assistance personnel decreased in 1991 by 39% from 643 to 392, respectively (GATO, 1991). A slightly slower dynamics can be traced in connection with academic staff of the SPhTI units from 374 in 1983 to 285 in 1991, i.e. 24% (Krivov, 1964). This data can be explained by the policy pursued by the SPhTI Directorate. It strove to consolidate in the Institute, in the first place, highly qualified academic personnel, rather than help staff. The number of the so-called "holders of more than office" (sovmestiteli) who participated in SphTI research projects (teachers and post-graduate students of TSU and other universities and research institutes in Tomsk) remained relatively stable throughout perestroika. This is due to the fact that sovmestiteli, unlike SPhTI staff members, did not have material dependence on the institute (Report on the research work of the SIPT for 1991 yr (Rep.), 1991).

### **6.3. Specificities of material and living conditions of Tomsk academic community during perestroika**

Noticeable step towards improving the socio-political situation in the country was taken by the speech of M.S. Gorbachev at the Plenum of the Central Committee of the CPSU in April 1985. This address marked the beginning of perestroika.

If we talk about the socio-political situation in the SFTI, there were cases of increased activity in some seminars, which contributed to the reduction of formalism. Not only the decisions of the 27th Congress of the CPSU, but also the deep problems of Soviet society were discussed. Discussions became the norm, and it also became possible to set agenda for discussion independently. "Round tables" was a

widespread form for such debates. The part-time university of Marxism-Leninism operated. People were recruited there according to Komsomol vouchers or party recommendations (Sorokin, 2015).

At the same time, the course on democratization and de-ideologization carried out in the country was accompanied by an active debunking of the shortcomings and contradictions of the "socialist" regime and other disgraces. However, the major shortcoming of this policy was that an alternative value system which could become a guide to the transition to a market economy was not created (Josephson & Sorokin, 2017).

During the Perestroika period, the financial situation of the employees worsened. During this period, the share of expenditures for higher education and science in the state budget fell sharply, which, with a drastic reduction in the sources of financing for economic contracts and high inflation, led to a deterioration of the financial condition of SphTI employees. This trend was manifested by delays in paying of wages, the increase of which did not keep up with inflation. At the same time, the remuneration of workers in higher education was 10-100 times less than in Europe and the United States.

## 7. Conclusion

Thus, the Perestroika period was one of the most complex and contradictory ones in the history of the academic community of physicists in Tomsk. The contradictory policy of the state with regard to higher education university-based science, that was sometimes manifested by ill-considered policy decisions, led to a sharp decline in the volume of funding for academic research. As a result serious damage was inflicted on the further development of promising areas of science and technology. It resulted in particular in delays wage payments, which were 10-100 times less than those abroad. Attempts at increasing it did not keep up with the rate of inflation.

On the other hand, command and administrative methods of managing the economy became obsolete. However, some tendencies of increase in the number of scientific studies can be observed. The leading role of the party, the significance of socialist competitions, etc. became a history. However, the destruction of the old system of economic relations and organization of scientific research was not accompanied by the creation of a new one, that exacerbated the situation.

The measures taken by the directorate and the team of scientists at the universities and research institutes in Tomsk to improve the situation of the institute largely failed. All this led to a reduction in the number of scientific and help staff of the Institute, the curtailment of many research projects.

Along with the negative results, in the development of the scientific and educational complex in the period of perestroika there were also positive changes. In particular, the scientific and technical cooperation between universities and research institutes in Tomsk with leading educational, academic, industrial organizations and institutions were actively and fruitfully developed. As a result the institute was given an opportunity to participate in the development of large scientific research works of great practical importance under the circumstances of modernization of the national economy of the country. For instance, SPhTI actively cooperated with the physics departments of TSU. This collaboration materialized in successful training of highly qualified scientists. Thus, one can trace the integration of science, education and production in the activity of the SPhTI. Precisely because of this, the SPhTI remained afloat, a significant part of scientific personnel was consolidated and further successful

development of many scientific schools was carried out. Perestroika became the test of the strength of the scientific potential and foundation laid down in the previous stages of SPhTI development. Despite some considerable losses, the Institute confirmed its status as one of the centers for the development of physics and the training of highly qualified personnel in the country and continues its further development.

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