Vocational Education in Soviet Russia

(Concluded)

by

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The first part of this article[1] *described how the foundation of the "Glavprofobr" in January 1920 marked the beginning of an entirely new stage in the history of vocational education in Soviet Russia. The second part, given below, explains the principles lying behind the reform of the three grades of education (elementary, secondary, and higher), a history of the reform, and an account of the difficulties faced and the results achieved; the relative positions of the educational institutions of each kind, especially as regards their growth and the number of pupils attending them, are illustrated by a variety of statistics. It appears that, as regards both the principles of their organisation and the teaching given in them, the apprenticeship schools, which were at first much in favour, have disappointed the hopes built on them. Further, the whole educational system has developed too quickly, and is suffering from a kind of hypertrophy and loss of equilibrium between the different gradès, and these defects are aggravated by the inadequacy of the funds available and the difficulty of recruiting suitable teachers. The Soviet authorities admit the necessity of modifying the present arrangements, and bringing them into closer conformity with the industrial needs of the country.*

THE REFORM OF ELEMENTARY AND SECONDARY VOCATIONAL EDUCATION

The Scheme of 20 June 1920

THE reform of elementary and secondary vocational education was effected not by way of legislation, but by administrative measures of the Glavprofobr, the most important of which was the scheme of vocational education approved on 20 June 1920. The nature of the reform was defined in the scheme and the accompanying commentaries as follows :

(1) It was to ensure the specialisation of vocational education by making the courses in all technical schools reproduce industrial conditions as closely as possible.

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[1] *International Labour Review*, Vol. XII, No. 3, Sept. 1925, pp. 386-401.

(2) At the same time it was to provide for the general economic and social education of the pupils, so that their qualifications might be administrative as well as technical.

(3) According to the standing acquired on completion of the course, vocational schools were divided into : (*a*) elementary schools (standing of master craftsman) ; (*b*) secondary schools (standing of specialised technicians or engineers) ; (*c*) colleges (standing of " managing " or " expert " engineers).

(4) The courses in the vocational schools were to be continuous; that is to say, each grade was to be the direct complement of the previous grade.

(5) To protect the interests of pupils compelled for any reason to interrupt their studies, the June 1920 scheme introduced certain subdivisions of the courses, a special feature of the scheme. These subdivisions constituted intermediate stages between the three main divisions, each comprising a full course of instruction up to an intermediate standard. The pupils were also to have the right to resume their studies later on.

These new principles were introduced in 1921 in the already existing technical and craft schools. At the same time the names of these schools were changed. These of an elementary type were described as vocational schools, and the more advanced (the former secondary technical schools) were entitled " technicums ". There was little change, however, in the curricula, the most important reform being the development of the practical side of the work.

Before attending a vocational course, a pupil must have completed his education in the first grade of a unitary labour school. For admission to a technical workshop he must be at least 14, by which age he should have an elementary school certificate, since the period of attendance at such a school is only five years[1].

Two alternatives are open to pupils leaving the first grade of a unitary labour school. Those who are attracted by theoretical study may attend the second grade of a labour school (four years) and then, a college (three years). They may then qualify as engineers after two years' supplementary practical study. In all, therefore, this alternative involves fourteen years of study. Under the most favourable circumstances a child entering an elementary school

[1] As a matter of fact the Soviet statistics show that most children leave the elementary school after the second or third year, so that their intellectual standard is lower than that on which the 1920 scheme is based.

at the age of 7 may become an engineer at 21, but it is wiser to count on 23 or 24.

According to Professor Obrastzov :

> No one can spend so many years on study. The period is too long from the national point of view, since there is a shortage of teachers, and the country cannot afford to wait so long for the specialists it needs[1].

On the other hand, pupils who prefer practical work may, on leaving the elementary school, attend a secondary school for two years (second grade labour school), and then enter a technicum, where the first year is devoted to preparatory technical courses (machine drawing, mechanics, construction, etc.), and the following three years to some specialised course of study. In this way the pupil may become a specialised engineer one year earlier than if he adopts the first alternative.

Adults who wish to qualify as engineers may attend either the courses given in the workers' faculties (organised specially to facilitate the admission of workers to the colleges) or the evening technical courses. The latter, unlike the workers' faculties, which merely prepare their pupils for colleges, give a full course of instruction and may be attended by workers after their day's employment in the factory. But the courses last six years, while the day courses require only four years of study.

The chief aim of the Glavprofobr was to give rapid and sound instruction to adult workers. This was the purpose of the evening vocational courses, which were to be organised in the factories themselves and give admission to all vocational schools. The commentaries on the scheme explained, however, that it was preferable to attend a technicum in the evening, which would enable the ordinary worker or a young person leaving an elementary school to become a specialised engineer in five or six years.

Industrial Apprenticeship Schools

The reform carried out on these lines was supplemented in February 1921 by the creation of industrial apprenticeship schools, known as " fabzavooch " (an abbreviation of the Russian name *Shkola fabrishno-zavodskago oochenichestva*). These schools were founded not by the Glavprofobr but on the initiative and by the combined efforts of the Union of Communist Youth (the " Kom-

[1] " Vocational Education in Soviet Russia ", p. 5. Published by the Glavprofobr as a commentary on the reform scheme. Moscow, 1920.

somol "), the All-Russian Trade Union Council, and the Supreme Economic Council. They were to supplement the elementary vocational schools, but unlike these, which were merely old schools reformed, they were entirely new institutions.

As soon as they were set up they found plentiful support, and the institution rapidly became " the spoilt child of the Revolution. All the organisations concerned, more particularly the trade unions, were ready to make any sacrifice to ensure their progress[1]. " As Mr. Lunacharsky said to the Tenth Soviet Congress :

> The industrial apprenticeship school, which is purely Marxist in idea, and realises Marx's principle of the fusion of the school with production, will become a model for all the unitary labour schools[2].

And the Congress affirmed in a resolution that :

> The apprenticeship school is the only one which corresponds to the needs of the workers and is of use to the young persons employed in factories.
>
> The creation of the industrial apprenticeship school satisfies a two-fold need, that of forming a fully skilled labour force, and of educating the many young persons employed in industry[3].

It should be added that the elementary vocational schools were not much trusted; most of them were merely the former elementary technical schools or craft schools.

Admission to an apprenticeship school requires the same preliminary training as does an elementary vocational school, namely, attendance at the first grade of a unitary labour school. The period of instruction is also four years (from 14 to 18) ; but an important feature of the apprenticeship school is that it does not qualify for admission to more advanced vocational educational institutions, its sole aim being to train skilled workers. It should also be observed that the instruction given in the factory or in specially organised apprenticeship workshops is in close relationship with production. As an example the following curriculum in use in the metal industry may be quoted, an industry which occupies the first place as far as apprenticeship schools are concerned[4].

Instruction is given 40 weeks in the year for four years, and

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[1] *Viestnik Trooda*, No. 4, 1924.

[2] Report of the Tenth Soviet Congress.

[3] " Public Education ", No. 2, 1923, p. 60.

[4] Cf. *Fabzavooch v metallurguii* (Factory Schools in the Metal Industry), pp. 13-15. Published by the Central Committee of the All-Russian Union of Young Workers and the Glavprofobr. Moscow, 1924.

includes both theoretical study (20 hours a week in the first two years, and 16 hours in the last two), and practical work (24 hours a week in the first two years, and 34 in the last two). In addition, the pupils must spend 8 hours a week during the whole period in work for political clubs.

The subjects in the theoretical syllabus are : mathematics (elementary arithmetic, algebra, and geometry), 440 hours ; Russian (including a course of literature), 400 hours ; natural science (including physics and chemistry), history and sociology, and drawing (including machine drawing), 320 hours each ; strength of materials, the technology of metals, and an optional special course, 280 hours ; mechanics and the study of machinery, 240 hours ; geography, 160 hours ; electro-technics and industrial electricity, 80 hours ; industrial hygiene and scientific management, 80 hours ; and a descriptive course on production, 40 hours.

The school is run by[1] : (*a*) a director, appointed by the local subdivision for vocational education, in agreement with the local committee of the Union of Communist Youth and the trade union council ; (*b*) a school council, under the chairmanship of the director, consisting of the whole teaching staff, representatives of the local trade union council, the works committee of the factory to which the school is attached, the management of the factory, and the local committee of the Union of Communist Youth, the school doctor, and representatives of the committee of pupils of the school who constitute one-quarter of the council. The general meeting and committee of pupils have independent functions in the organisation of school conditions.

Admission to the industrial apprenticeship schools is reserved in the first place to young persons employed in the factory to which the school is attached. Other young persons (from 14 to 16 years of age) are admitted through the employment exchanges. Pupils are admitted once a year, in the autumn. They are under the protection of the Labour Code (sections 121-128), which governs their status and prohibits all exploitation of their work in the schools.

A special financial system applies to the apprenticeship schools. Under an agreement between the Supreme Economic Council and the Central Trade Union Council, their expenses since they were started, have been met by the institutions directly concerned, and not by the Treasury.

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[1] Organisation approved by the Glavprofobr on 27 February 1923.

Progress of Elementary Education

According to the " Statistical Bulletin " there were, on 1 January 1924, 2,807 elementary vocational educational institutions, with 208,764 pupils. Details are given in table III below.

TABLE III. ELEMENTARY VOCATIONAL EDUCATION ON 1 JANUARY 1924[1]

Type of school or course	Number of schools, courses, or workshops	Number of teachers	Pupils				Total
			Boys		Girls		
			Number	Per cent. of total	Number	Per cent. of total	
Vocational schools and long period courses	1,408	13,060	75,573	65	35,291	35	110,864
Industrial apprenticeship schools	719	7,830	44,374	81	8,683	19	53,057
Short vocational courses	595	4,062	24,474	55	16,616	45	41,090
Model workshops	85	399	2,240	60	1,513	40	3,753
Total	2,807	25,351	146,661	70	62,103	30	208,764
Special schools and courses :							
Short preparatory courses for teaching staff	265	2,033	8,517	35	16,383	65	24,900
Schools of music	114	1,253	4,009	34	8,747	66	12,756

[1] " Statistical Bulletin ", No. 92.

The Central Statistical Department makes no distinction between vocational schools proper and long period courses, which are nevertheless entirely different both in nature and origin. We must therefore try to compare the statistics of the " Bulletin " with other data in order to make the distinction.

The *Viestnik Trooda* has published figures, derived from the Commissariat of Education, relating to the schools of Central Russia on 1 April 1923 and those of the Ukraine on 1 October 1923. The position of elementary vocational education indicated by these figures is shown in the following table.

TABLE IV. ELEMENTARY VOCATIONAL EDUCATION IN 1923[1]

Type of school or course	Number of schools or courses			Number of pupils		
	Central Russia	Ukraine	Total	Cental Russia	Ukraine	Total
Vocational schools	481	418	899	36,751	47,125	83,876
Industrial apprenticeship schools	593	264	857	37,653	19,500	57,153
Courses	493	279	772	26,360	11,256	37,616
Model workshops	140	—	140	4,586	—	4,586
Total	2,668			183,231		

[1] Cf. *Viestnik Trooda*, April 1924. A comparison of these figures with those given in the "Bulletin" shows very marked differences, which cannot be ascribed to the fact that the area covered is not the same in the two cases, nor to the difference in period. Further examination of the data in the "Bulletin" used to draw up the general table will show that in the five columns giving the number of pupils the addition of the number of boys and girls is wrong, and alters the total by nearly 5 per cent.

The figures for elementary vocational education show a rapid increase in the industrial apprenticeship schools, at the cost of the vocational schools, the number of which tended to fall, as is shown by the following figures for Central Russia:

	1921	1922[1]	1923[2]
Number of schools	540	319	232
Number of pupils	36,088	22,800	21,071

[1] "Public Education", No. 1, 1923.
[2] *Viestnik Trooda*, No. 4, 1924. In both cases the figures were derived from the Commissariat of Education.

On the other hand there was a substantial development of the industrial apprenticeship schools, as will be seen from table V.

TABLE V. INDUSTRIAL APPRENTICESHIP SCHOOLS

Industry	1921		1 January 1923		1 January 1924	
	Number of schools	Number of pupils	Number of schools	Number of pupils	Number of schools	Number of pupils
Central Russia :						
Metals	24		157	11,132	142	11,376
Textiles	4		54	3,053	106	6,036
Leather	8		23	1,396	18	1,083
Printing			35	1,707	35	1,895
Clothing			53	4,239	42	3,669
Wood	5		19	334	18	701
Food			10	452	32	943
Chemicals	2		10	563	32	1,550
Paper			4	144	11	534
Municipal services			7	455	7	518
Mines			3	116	11	492
Construction			13	707	17	727
Roads and communications			138	6,549	172	14,468
Miscellaneous			37	4,756	45	5,377
Total	43		563	35,603	688	49,369
Ukraine	2		103	8,606	267	19,500
General total	45	1,825	666	44,209	955	68,869

These figures[1] show that in two years (1922-1923) a widespread network of apprenticeship schools was created in Central Russia and the Ukraine ; it is stated that these schools were attended by 50 per cent. of the young persons employed in industry. The Decree of 20 August 1920[2] fixed 1 September 1925 as the date by which the apprenticeship schools must have admitted all young workers, but even Soviet writers consider it very unlikely that this will actually have taken place.

Reference has already been made to the preference for this type of school shown by the Government, the trade unions, and the Communist Party, which is the chief reason for their rapid development[3]. In many cases, already existing elementary vocational schools were turned into industrial apprenticeship schools. Enquiries made in 1923[4] show that nearly all the apprenticeship schools opened in 1921 were mere former elementary technical or craft schools. Those founded in 1922 and 1923 were of more independent origin, but there were still frequent cases of vocational schools being merely converted into apprenticeship schools[5].

It is impossible to give any estimate of the quality of the instruction given in the new schools. They have not been working long enough, and the pupils who entered in 1921-1922 have not yet completed their training. Some information, however, is available, the most interesting being the results of the enquiries already mentioned, and the discussion in the last All-Russian Congress on Workers' Education held at the end of December 1924. Certain general conclusions may be drawn from these data.

The following statement on the general position of the apprenticeship schools, more particularly their financial situation, was made by Mr. Seniushkin, Reporter to the Congress :

> The present position (end of December 1924) of the industrial apprenticeship schools is not satisfactory, whether from the point of view of premises and equipment, teaching staff, or the adaptation of the syllabus to practical needs. Some of the schools are out of touch with

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[1] Taken from *Viestnik Trooda*, No. 4, 1924. They do not cover the whole Soviet Union and differ from those published in the " Statistical Bulletin ", which are lower, although they relate to the whole Union.

[2] Collection of Laws, 1920, No. 73.

[3] The Decree of 20 August 1923, relating to schools of all kinds, prohibited preferential treatment for industrial apprenticeship schools.

[4] Enquiries were made in several branches of industry, the most interesting being that conducted by the Metal Workers' Union in 1923. According to the report on " Factory Schools in the Metal Industry ", the enquiry covered 93 out of the 142 schools for this industry.

[5] " Factory Schools in the Metal Industry ", p. 264.

production. . . . The apprenticeship schools, like the elementary vocational schools, are not sure of the morrow, for the economic organisations do all in their power to reduce their general expenses, and therefore the expenses of technical education. It is the duty of the trade unions to see that the apprenticeship schools are properly housed and equipped. In addition, the number of female pupils should gradually be increased in both vocational and apprenticeship schools[1].

Very much the same views were expressed by the *Viestnik Trooda*[2] :

The internal organisation of the schools and their equipment are far from excellent. Even in the schools in the metal industry, which are the oldest, conditions are not yet normal. The apprenticeship schools lack the necessary materials and equipment.

The syllabuses of the apprenticeship schools are also said to be far from satisfactory, and the instruction given, even in the courses on production, which are an essential feature of the schools, quite inadequate. The criticisms made by the Metal Workers' Union give full details:

Out of the 170 schools set up not even 100 have apprenticeship workshops. The others confine themselves to teaching the processes of production during the actual work in the factory. This is in fact the best method, since the workshops lack the necessary equipment. In this connection one must deplore the absence of interest on the part of the economic authorities.

The purpose of the apprenticeship schools does not yet seem to have been understood. Often, instead of training skilled workers and giving the pupils a general political and social education, which is the real purpose of these schools, they urge their pupils to go to the technical colleges or workers' faculties, with obvious bad effects on the syllabuses[3].

Recently a further difficulty has arisen:

It is difficult to give theoretical instruction in the apprenticeship schools owing to the shortage of specialists in the factories, and to give practical instruction owing to the absence of tools and machinery. The pupils soon outstrip their masters and the workers who give the courses, but so far nothing has been done to train the teaching staff[4].

Consequently the full course (normally four years) is not followed in most schools, which prefer a two-year, or less often a three-year, course[5].

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[1] *Trood* (daily, published by the Central Trade Union Council), 20 Dec. 1924.
[2] No. 4, 1924, p. 128.
[3] " Factory Schools in the Metal Industry ", p. 264.
[4] *Trood*, 17 Dec. 1924.
[5] " Factory Schools in the Metal Industry ".

The distribution of the pupils by age is as follows : 14 years and under, 1.7 per cent. ; from 14 to 16, 38.6 per cent. ; from 16 to 18, 49.2 per cent. ; over 18, 10.5 per cent. In 1924 in many schools, even those considered to be model, the proportion of pupils over 18 was still higher (as much as 20 per cent.). This fact, which is contrary to the constitution of the apprenticeship schools and the provisions of the Labour Code, creates difficulties with respect to the reduction of the hours of work[1].

According to Mr. Siemashko, Commissary of Health, the state of health of the pupils in December 1924 may be summarised as follows :

52 per cent. of the pupils lived under unsatisfactory conditions, 38 per cent. were even without beds of their own, 13 per cent. were underfed. The provisions of the Labour Code on the protection of apprentices were often ignored. More than 20 per cent. of the workers under age were employed in excess of the hours laid down in the Code[2].

A particularly striking feature is the animosity of the workers, and sometimes the technical staff of the factories, against the pupils in the apprenticeship schools, whom they regard as future rivals. Further, the masters, who are themselves insufficiently trained, do not help on the apprentices, but even give preference to unskilled workers. It is therefore not surprising that the pupil does not feel any bond between himself and the factory, and thinks only of leaving it. Where instruction is given in the factory itself, discipline is too lax, and the apprentices do not work well. As a delegate of the Province of Yaroslav stated at the Congress on Workers' Education :

It is all very well to speak of the links which should unite the school and production, but the question remains how to establish this connection, since the director of the apprenticeship school is forbidden to visit the factory.

It is asserted that the other vocational schools are " still more defective than the industrial apprenticeship schools."[3] According to the organ of the Commissariat of Education:

The state of the elementary vocational schools is incredible[4]. . . . The teaching staff (specialists) are so badly paid that it is a wonder how they live[5]. . . . The teachers consequently leave the vocational schools to take up ordinary work in the factories. The enquiry made

[1] " Factory Schools in the Metal Industry ", p. 264.
[2] *Trood*, 19 Dec. 1924.
[3] *Viestnik Trooda*, No. 4, 1924, p. 129.
[4] " Public Education ", No. 1, 1923, p. 32.
[5] *Idem*, No. 2, 1923, p. 11.

by the Commissariat of Education at the end of 1923 showed that the masters in these schools were leaving in large numbers. To take a single example, at Buzuluk, in the province of Samara, the teaching staff of a vocational school, consisting of skilled workers, left in a body[1].

A further point to which attention may be drawn in discussing elementary vocational education is the creation of separate courses for adult workers. The Soviet sources contain practically no details on their working, so that it is extremely difficult to estimate their value and importance. It seems certain, however, that they are used mainly for political purposes, as a means of Communist propaganda.

These courses reached their maximum degree of development towards the autumn of 1921, when there were 1,160 of them, attended by 50,000 pupils[2]. Early in 1922 a rapid fall set in, and in 1923 only 250 courses were held, with 12,000 pupils. According to the statistics of the Glavprofobr the number of courses registered in 1924 had fallen to 157, with 8,289 pupils, for Central Russia[3]. The course of events in the Ukraine was much the same. In 1920-1921, 410 courses were held, with 20,883 pupils; in 1922, 113 courses, with 4,600 pupils; in 1923, 106 courses, with 4,997 pupils[4].

These figures show that the enthusiasm of 1921 did not last. The trade unions, in seeking the causes of the setback, came to the following conclusion:

> The instruction given proved altogether unsatisfactory. Most of the courses left out all practical work. There was a complete shortage of textbooks and other books. As a rule 50 to 100 persons registered at the beginning, but soon gave up attending the courses, which dragged on miserably, attended by an insignificant number of pupils, about 8 to 10 per cent. of those who had registered. The courses were often of no interest, being incapable of making any real contribution towards improving the qualifications of the workers, chiefly owing to their inadequate length[5].

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[1] *Ibid.*, p. 14.

[2] LUNACHARSKY : " Five Years the Soviet Régime ", p. 502.

[3] *Viestnik Trooda*, loc. cit.

[4] This gives a total of 263 courses, with 13,280 pupils, for Central Russia and the Ukraine together. These figures differ widely from those given in the " Statistical Bulletin ", according to which the number of short courses on 1 January 1924—i.e. at the same date—was 595, with 44,473 pupils.

[5] *Viestnik Trooda*, No. 4, 1924, p. 126. As will be seen from the above, these courses cannot be grouped with the vocational schools or the industrial apprenticeship schools, as is done by the " Statistical Bulletin ". If the number of pupils attending the courses is deducted from the total number in vocational educational institutions, we get the following results for the whole of the Soviet Union :

Type of school	Number of pupils
Vocational	84,000
Industrial apprenticeship	55,000
Total	139,000

The Progress of Secondary Education

According to the " Statistical Bulletin " of 1 January 1924, there were 829 secondary vocational schools, with 143,944 pupils, classified as follows :

TABLE VI. SECONDARY VOCATIONAL SCHOOLS ON 1 JANUARY 1924.

Special subject	Number of schools	Number of teachers	Pupils	
			Number	Percentage of total
Medicine	67	1,389	11,064	8.0
Pedagogics	260	4,505	43,891	30.5
Agriculture	144	2,400	17,055	11.8
Industry	168	4,248	33,391	23.0
Means of communication	949	1,557	8,946	7.7
Industrial economics	53	1,186	10,634	6.0
Music and arts	73	1,698	17,378	11.9
Drama	15	200	1,585	1.1
Total	829	17,183	143,944	100.0

[1] It is to be noted that there again are mistakes in addition. The " Statistical Bulletin " gives a total of 144,168 pupils, although the separate figures add up to 143,944. Similarly the total number of schools is given as 831, instead of 829.

The secondary vocational schools train many more industrial and economic specialists (the pupils in these branches constitute 36.7 per cent. of the total) than agricultural technicians (only 11.8 per cent.). Such a disproportion between industrial and agricultural specialisation in a country where agriculture is of preponderating importance is abnormal. This has been recognised and criticised as the weak point of the present system of education.

It is difficult to make an exact estimate of the progress of secondary vocational education, for the statistics are even more contradictory on this point than on others. The reason may perhaps lie in the fact that the very term " secondary school " or " technicum " is not adequately defined. It applies to institutions which differ not only in different districts but also at different dates. According to Mr. Lunacharsky, many elementary vocational schools were temporarily converted into technicums in 1921. In the Ukraine, on the other hand, the technical colleges were called technicums in 1924.

All that can be said, therefore, is that this type of school has not yet been given final form. In brief, the present technicum

corresponds to the old secondary technical school, under a different name and with new methods of teaching. But as it is difficult, in point of fact, to give effect to the main principle of the new method of teaching, that of bringing the school into direct touch with production, it may be admitted that the change has in reality been merely nominal. It remains to determine the schools which have been turned into technicums, but here the available data are incomplete. Yet they clearly show that hitherto the secondary technical school has been neglected. Owing to the increasing shortage of subordinate technical staff, however, more interest is beginning to be taken in this type of school.

The Reform of Higher Vocational Education

Scope of the Reform

The reform of higher education was taken in hand some months after the creation of the Glavprofobr, and was carried out by degrees by way of legislation. Its main points were as follows :

(1) All colleges, of whatever kind, were considered to be vocational, and their purpose to be that of training specialists[1]. They were placed under the sole management of the Glavprofobr.

(2) Higher education became a form of national service, to be performed by the pupils, under strict supervision, as state employees nominated by various organisations. This sudden change in the status of students was introduced by the decree of 9 June 1920 (section 6), defining the constitution of technical colleges. The length of the course was fixed at three years (section 3). The number of students to be admitted each year was to be fixed by the Glavprofobr, in agreement with the Commissariats and the organisations needing specialists (section 4). Preferential rights were to be granted to former pupils in the workers' faculties (section 5). Finally, the instruction given was to correspond to the current requirements of the Republic, and to be based on the actual working of state undertakings.

(3) Under the 1921 decree (section 3)[2], instruction in the colleges was made free of charge, but this provision was left out

[1] Constitution of the colleges as decreed on 2 September 1921. Collection of Laws, 1921, Section 486.

[2] *Ibid.*

of the decree of 1922[1]. Shortly before, a decree of 1 June 1922[2] had provided for the granting of scholarships to enable persons belonging to the proletariat or the peasantry, and more gifted pupils, to attend college. The scholarship was to include board and lodging and a payment in cash corresponding to the local average wages[3].

(4) The revolution of March 1917 had given the colleges complete independence, so that the faculties themselves were entitled to appoint the teachers. This independence was abolished by the decrees of 5 October 1920[4] and from that date the teachers were appointed by the Commissariat of Education.

(5) A new class of teacher was created. The decree of 16 February 1921[5] constituted a corps of " red " teachers. Some months later[6] all the scientific qualifications hitherto necessary to obtain the title of teacher (" doctor " and " master ") were abolished, and anyone may now become a teacher who is considered suitable by the Commissariat of Education.

(6) The syllabuses of the colleges were considerably altered. This question was dealt with only twice in the various legislative measures governing the details of the work of the colleges. The two decrees in question[7] fixed only a compulsory minimum, consisting of " Marxian social training ", including the following subjects : (1) the materialist conception of history ; (2) capitalism and the proletarian revolution ; (3) the political system of the Soviet Union. The object of teaching these subjects was to familiarise the students with the political and economic principles of the Soviet system. It is impossible to judge of the scientific value of the other subjects in the syllabus, though they must be considered as going beyond the compulsory minimum. To judge from these two decrees, and the total absence of other legislation on this point, there seems to have been a substantial fall in the level of higher education in Russia.

As concerns the workers' faculties, the legislation on their constitution adopted after 1920 first altered the status of the pupils in accordance with the changes in the status of students. The

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[1] *Idem*, 1922, Section 518.
[2] *Ibid.*, Section 413.
[3] The Decree of 4 July 1923 (Collection of Laws, No. 66, Section 643) laid down that in principle these advances were to be repaid on leaving college, in the form of compulsory service at the rate of one year's service for each year's study.
[4] Collection of Laws, 1920, Sections 395-396.
[5] *Idem*, 1921, Section 79.
[6] *Ibid.*, Section 695.
[7] *Idem*, 1921, Section 119, and 1922, Section 929.

decree of 25 September 1920[1] made study in the faculties a national service. The decree of 1922[2] created scholarships, fixing the amount at the average wage paid in local undertakings of the third class.

Classification of Students

In 1923-1924 the number of vacancies in the colleges was 29,019[3], while the number of candidates was 67,413, of whom 34,144 were nominated by various organisations as shown in the ollowing table.

TABLE VII. NOMINATION OF CANDIDATES FOR HIGHER EDUCATION IN 1923-1924

Organisations nominating candidates	Candidates	
	Number	Per cent. of total
Trade unions	18,862	55.2
Workers' faculties (persons having completed their studies)	4,793	14.1
Communist Party	2,862	6.7
Union of Communist Youth	1,837	5.4
Other bodies	5,790	18.6
Total	34,144	100.0

Thus most of the candidates for higher vocational education were proposed by the trade unions. Relations between the students and the trade unions are very close. On 1 December 1923 nearly 100,000 belonged to a union[4].

The classification of the students by subject was as follows[5] :

TABLE VIII. DISTRIBUTION OF STUDENTS BY SUBJECT

Institution	Number of institutions	Students	
		Number	Per cent.
Universities	44	77,734	37.0
Technical schools	22	39,864	18.7
Schools of medicine	23	25,918	12.5
" pedagogics	43	22,511	10.5
" agriculture	25	21,615	10.3
" music and arts	21	10,006	4.6
" economics	9	10,497	4.8
" roads and bridges	3	3,824	1.6
Total	190	211,969	100.0

[1] *Idem*, 1920, Section 381.
[2] *Idem*, 1922, Section 270.
[3] " Public Education ", No. 2, 1924, p. 83.
[4] *Viestnik Trooda*, No. 4, 1924, p. 105.
[5] " Statistical Bulletin ", No. 92.

Here, as in the secondary schools, the number of students of agricultural science (10 per cent. only) was far from consistent with national requirements.

The influence of sex on choice of subject is shown by the following figures, taken from an enquiry into the position of students in 1923-1924[1].

TABLE IX. PERCENTAGE DISTRIBUTION OF STUDENTS BY SEX AND SUBJECT

Subject	Male students (per cent.)	Female students (per cent.)
Technique of industry	80.1	19.9
Agriculture	75.2	24.8
Social economics	64.9	35.1
Fine arts	61.0	39.0
Medicine	40.1	59.9
Pedagogics	32.9	67.1
Total	61.9	38.1

The choice of subject is thus seen to differ entirely with the sex of the student. Women, who form more than one-third of the total number of students, take up pedagogics, medicine, or the fine arts, while men prefer the technique of industry, agriculture, or social economics.

The influence of social status on the choice of subject appears from the following percentages :

TABLE X. PERCENTAGE DISTRIBUTION OF STUDENTS BY SOCIAL STATUS AND SUBJECT

Social status	Pedagogics	Agriculture	Technique of industry	Social economics	Medicine	Fine arts	Total
Factory workers	6.7	13.3	40.7	25.5	10.6	3.2	100
Workers' children	14.3	10.0	35.8	7.5	31.1	1.3	100
Peasants	7.9	27.0	21.5	27.4	14.5	1.7	100
Peasants' children	17.6	25.6	27.0	6.1	23.0	0.7	100
Non-manual workers	9.3	11.7	30.9	23.2	21.4	3.5	100
Non-manual workers' children	11.6	8.9	36.5	14.3	27.1	1.6	100
Intellectual workers	15.3	15.4	30.6	10.7	23.4	4.6	100
Intellectual workers' children	18.9	18.0	23.7	7.2	31.7	0.5	100
Persons of the " non-working " classes	9.9	27.0	10.0	21.3	30.9	0.9	100
Children of such persons	10.8	21.2	24.7	6.1	37.0	0.2	100
Others	6.5	23.4	31.2	11.7	18.6	5.6	100

[1] " Public Education ", Nos. 6-7, 1923, p. 82.

The most striking fact brought out by this table is the attraction of social economics for adult workers and peasants as compared with the marked preference of their children for medicine and pedagogics. In the group of persons belonging to the so-called " non-working " classes, about 40 per cent. choose medicine or pedagogics, 37 per cent. wish to be engineers or agricultural experts, and only 0.9 per cent. (0.2 per cent. in the group of their children) propose to take up an artistic profession.

Finally, from the point of view of the age of the students, it will be found that two-thirds are young persons and only one-third adults ; the latter, however, is a high proportion as compared with other countries.

The available data contain no statistics for estimating the previous education of students.

The Present Situation and Results of the Reform

It is impossible, on the basis of Soviet documents only, to describe the instruction given in the colleges, but it cannot be denied that the scientific standard of the courses has fallen considerably for two reasons. First, many recently admitted students had not sufficient grounding for higher education ; and secondly, although the teaching staff should have been substantially enlarged, as the number of students has grown almost threefold since the revolution, it was very heavily reduced owing to political[1] and academic disputes. The Soviet authorities have frequently drawn attention to the bad condition of the colleges as regards building and equipment. No improvements in either have been made since the war, and during the war considerable economies had already been effected under this head.

The teaching staff is very badly paid, and Mr. Lunacharsky has more than once stated that they are literally in danger of starvation. Similarly, the grants made to students are inadequate. As Mr. Lunacharsky said to the Tenth Soviet Congress :

> The students are sometimes taken away from quite valuable work, are brought together in large towns, and left without lodging or heating, clothing or textbooks. In 1923, in the large centres, a student's scholarship was only 8 gold roubles a month[2].

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[1] At the Tenth Soviet Congress (at the end of 1922) Mr. Lunacharsky stated that the teachers in the colleges were one of the most dangerous political elements in Russia.

[2] " Public Education ", No. 3, 1924, p. 81.

Again, at the end of 1923, he said : " The position of proletarian students is wretched ", but added that " the great merit of the Glavprofobr was to awaken the admirable body of youth which constituted the new Russian intelligentsia, who were closely bound up with the people, had gained wide revolutionary experience, were possessed of great enthusiasm and an ardent desire to learn, although they were reduced to the utmost distress[1]. "

The workers' faculties as an institution of higher education were the outcome of creative action of a truly Soviet character ; in this respect they may be compared with the industrial apprenticeship schools in elementary vocational education. As Mr. Lifshitz, Director of the workers' faculties, stated at the second session of the Glavprofobr[2] :

> The workers' faculties must as soon as possible form bodies of " red " engineers recruited from the ranks of the proletariat, for it is out of the question to wait until the reformed ordinary schools can give higher education to the new generation of workers.

In other words, the faculties were a compromise between the ideal end in view and the actual possibility of " proletarising " the colleges to the desired extent. It may be asked whether this end has been reached, and at what cost ; whether the workers' faculties have succeeded in raising the intellectual standard of those who follow the full course to that of an ordinary student, or whether, on the contrary, the colleges have had to adapt themselves to the always inadequate standard of the pupils leaving the workers' faculties. It is impossible to answer these questions, for on this point only vague comments, or no statements at all, are made.

The workers' faculties are better off as regards buildings and equipement than the other schools. Owing to their privileges they have had more funds, and since 1920 their growth has been rapid, there being scarcely any falling off in the critical year of 1922.

Attendance at Vocational Schools

The growth of vocational schools since 1920 is illustrated by the following figures for the whole of the Soviet Union[3] :

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[1] *Idem*, No. 9, 1923, p. 2.

[2] Report of the Session, p. 43.

[3] Taken from the " Statistical Bulletin ", No. 92, 1 Nov. 1924.

TABLE XI. INSTITUTIONS AND PUPILS ON 1 JANUARY 1924

Institutions	Number of institutions	Number of pupils	
Elementary schools and vocational courses	2,807	208,764	
Secondary schools	829	143,944	
Colleges	190	211,969	257,570
Workers' faculties	136	45,601	
Total	3,962	610,278	

It should be observed that of the total number of pupils receiving elementary education (208,764) only 139,000 attended schools. Taking this latter figure, the number of pupils in the various types of vocational school was as follows on 1 January 1924 :

Type of school	Pupils	
	Number	Per cent.
Elementary	139,000	26
Secondary	143,944	27
Colleges	257,570	47
Total	540,514	100

The table shows that there were almost twice as many pupils in the colleges as in the elementary and secondary schools. As was said by the *Viestnik Trooda*[1] :

> The abnormal growth of higher education and the absurdity of our system of vocational schools are patent. The result of the system is the production of an excessive number of engineers and an acute shortage of subordinate technical staff, who are needed much more.

This disproportion is not purely accidental. An examination of the curriculum devised by the Glavprofobr will show that it is dominated by the main principle of turning a scarcely literate worker into an engineer within the shortest possible period[2]. This is the object of the colleges, which, instead of being merely one stage, however important, in the system of vocational education, become its centre and almost the prime reason for its existence.

The hope of becoming an engineer attracts so many candidates that they are far more numerous than the vacancies[3]. The Glavprofobr

[1] No. 4, 1924, p. 122.

[2] Cf. Mr. Alexandrof's report to the Second Session of the Glavprofobr (Report, p. 59) : " In a technicum we can turn a worker who knows his three R's into a specialised engineer in six years ".

[3] In 1923-1924 there were only 29,000 vacancies in all the colleges, for 64,000 candidates.

has had to take this disproportion into account, and considerably reduce the number of persons admitted to the colleges. Thus, in 1924-1925 this number was reduced from 46,000 to 13,000, while the number admitted to the workers' faculties was reduced from 16,305 to 6,000[1]. In addition, in the spring of 1924, the Glavprofobr considered it necessary to expel from the colleges, after very careful selection, nearly 20,000 students who had already begun their studies.

Various information on pupils and students is available. The percentage distribution by sex of persons receiving vocational education was as follows[2] :

Institutions	Male pupils (per cent.)	Female pupils (per cent.)
Elementary schools	70	30
Colleges	62	38

The proportions vary with the kind of school and special subject studied. The proportion of boys is particularly high in the industrial apprenticeship schools, being as much as 81 per cent. Female pupils show a marked preference for pedagogics, and constitute 65 per cent. of all pupils attending elementary pedagogic courses and 67 per cent. in the pedagogical colleges.

The distribution of pupils by social status was as follows :

TABLE XII. PERCENTAGE DISTRIBUTION OF PUPILS BY SOCIAL STATUS

Institutions	Workers and their children	Peasants and their children	Non manual workers and their children	Others	Total
Vocational schools	33	39	23	5	100
Industrial apprenticeship schools	62	7	20	11	100
Secondary schools	26	32	36	6	100
Colleges	15.6	22.5	34.4	27.5	100

The industrial apprenticeship schools have the highest proportion of proletarian elements, the colleges the lowest. The number of peasants is highest in the elementary vocational schools, and lowest in the industrial apprenticeship schools. More than two-thirds of the pupils in the elementary schools are of the worker and

[1] *Viestnik Trooda*, No. 4, 1924, p. 105.

[2] The " Statistical Bulletin " gives no figures for secondary vocational schools.

peasant class, and in the colleges more than one-third. As a matter of fact the proportions are even higher, a large number of workers and peasants being classified as non-manual workers.

An enquiry conducted in 1924 gave the following results on the political views of the pupils in colleges[1] : members of the Communist Party, 6.9 per cent.; members of the Union of Communist Youth, 6 per cent.; and 10 persons belonging to other political parties. The enquiry covered 139,787 pupils, and the vast majority (119,993, or 86 per cent.) preferred not to belong to any political party.

In the workers' faculties the Communist party was much better represented, 36 per cent. of the pupils being members of the party and 28 per cent. of the Union of Communist Youth, while 36 per cent. belonged to no political party[2].

The Defects of the New System

In 1923 Mr. Lunacharsky described the changes in the system of vocational schools in the following terms[3]:

As soon as the Glavprofobr set to work there was an extension of vocational education, an extension which was unfortunate in several respects. . . . From the point of view of vocational education the whole period previous to 1921 may be considered one of vast growth and bold experiment. Vocational schools sprang up like mushrooms. In many branches schools were opened without any previous examination of their future financial basis, and even without adequate proof that they were needed. This phenomenon was particularly striking in the case of colleges, a number of which were set up on an absolutely insufficient basis. Many took the place of secondary technical schools, without any real change; that is to say, there was the same organisation, the same equipment, and the same teaching staff. The only change was one of name, and was quite uncalled-for.

The position was much the same with respect to elementary vocational education, intended for the masses. Many elementary schools were suddenly turned into technicums, without being given sufficient funds or a properly qualified staff.

By 1921 it was already clear that the system of vocational schools was not consistent with national resources, but went far beyond them. Yet this was not understood until the financial crisis of 1922, when a policy of closing down was adopted. The measures were most methodical in the case of higher education, and 43 colleges were closed in 1921-1922[4].

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[1] The results were published in "Public Education", No. 67, 1924.

[2] *Viestnik Trooda*, No. 4, 1924, p. 105.

[3] "All Russia", pp. 295 *et seq.*; 1923. "Five Years of the Soviet Régime", p. 500. Moscow, 1923.

[4] The total number of colleges in 1917 was 50.

The closing down of the elementary schools began in 1922 and rapidly became calamitous. Education outside the schools suffered most. This type of education, after a period of rapid growth, has now ceased to exist for lack of funds. . . . As a rule the reduction was found to have affected mainly the lower grade schools. The statistics show that from April to September 1922 the number of elementary vocational schools was reduced by over 66 per cent., that of model workshops by 27 per cent., whereas that of secondary schools (technicums) was reduced by only 18.5 per cent.

These statements, which cannot be considered as exaggerated, show that 1922 was a disastrous year for vocational education. They also show that the initiative taken in 1921 was out of proportion to the available resources. Even though it is difficult to determine the exact figures of the budget of the Commissariat of Education from 1920 to 1922, it may safely be stated that it was lower than that for 1924, which was fixed by the financial authorities at 49.5 million gold roubles. The amount of local funds to be allocated for educational purposes could not be very high, since the collection of this money was very inadequate ; the amount is further reduced by the fact that the chief taxpayers, the trade unions and economic institutions, have gradually reduced their participation to very small sums. So-called local resources thus constitute only a secondary item in the budget of the Glavprofobr. As Mr. Lunacharsky said in September 1923, " Financially the Glavprofobr is dependent on the state, and its situation is naturally deplorable[1]. "

Still, even with these reservations, the figure of 50,000,000 gold roubles may be taken as a basis of comparison with the situation under the old régime. In 1914 the expenditure of all the Ministries concerned in education was estimated at 238,000,000 gold roubles. If the contributions of the municipalities and zemstvos are added, a total of some 340,000,000 roubles is reached. Thus the budget for education has been heavily cut down, indicating an extremely serious situation, especially if it is remembered that even before the war the schools were not fully equipped.

The expenditure of the Government on vocational education proper in 1922 absorbed nearly one-third of the budget of the Commissariat of Education[2]. Assuming that this proportion was maintained, the sum for 1924 would be 17,000,000 gold roubles. In 1914 the total expenditure on vocational education was estimated

[1] " Public Education ", No. 9, 1923, p. 11.
[2] *Idem*, No. 1, 1923, p. 8.

at 40,000,000 gold roubles. This sum, which is two and a half times the budget of the Glavprofobr in 1924, was used to maintain a system of schools about a quarter the size of that of 1924. In other words, in 1924 each school received only one-tenth of what it had had in 1914, and yet it must be remembered that the equipment of the 1914 school was by no means perfect.

Further, the training of teachers has not increased at the same rate as the creation of new schools. This has meant a shortage of teachers in all branches of vocational education.

To sum up, it may be said, in agreement with Soviet criticisms, that the too rapid extension of the schools has led to a certain hypertrophy of the whole system of vocational education. The limits of what is possible and necessary have been exceeded, and this is in fact beginning to be realised:

> The present system of vocational schools should be reduced as much as possible, so as to exclude elements which are of little or no use to Russian industry. The remainder must then be given the impetus needed to satisfy the real demand for skilled labour[1].

[1] *Trood*, 25 Oct. 1924.