Education in the USSR

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Foreword

THE OFFICE of Education issues a series of studies on education in other countries. They are based principally on official documentation and other primary sources. The subject is presented within the framework of the political, economic, social, and cultural setting of the particular country.

The studies are undertaken to provide information and assistance to schools, colleges, universities, non-governmental and governmental agencies, educators, scholars, government officials, and other groups and individuals.

This *Bulletin*, in keeping with others in the series, presents education in the Soviet setting. Since completion of the manuscript, more complete and up-to-date statistics on the Soviet educational system have become available from a Soviet source.[1] While they differ slightly in some respects from the best figures earlier available, they do not alter the major conclusions of this *Bulletin*.

Also since completion of this work, the reorganization of Soviet economic administration initiated in May 1957 along lines proposed earlier in the year by Nikita Krushchev, abolished a number of the industrial ministries which formerly exercised operational control over many higher and specialized secondary educational institutions. Although de-

[1] Tsentral'noe Statisticheskoe Upravlenie, Otdel Statistiki Kul'tury. *Kul'turnoye Stroitel'stvo SSSR: Statisticheskii Sbornik [Cultural Development of the USSR]*. Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956. 331 p.

tails of the effect of this change on the educational system are not yet clear, the future educational administrative hierarchy obviously will differ somewhat from that described in this *Bulletin*.

To the many persons who have aided in bringing this study to completion, the Office of Education expresses its appreciation.

Lawrence G. Derthick

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United States Commissioner of Education.

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Introduction

TO SOME EXTENT the educational problems in the USSR and in the US are the same. Both Nations are committed to the principle of universal education; both have many differing racial and cultural traditions within their borders; both have large land masses with great diversity in climate and topography, crops and industries; and both have courses and programs to train millions of people.

The Western student is struck by the sharp contrast between the Nations. Authoritarian theory and authoritarian practice characterize the Soviet educational system. Both are anathema to persons who cherish freedom. The people of the US are dedicated to freedom and democracy. They believe the goal of education is the individual development of the human being with freedom and opportunity to choose his own life's work.

In an outline and description of the Soviet educational system, it is appropriate to present Soviet beliefs and policies in a straight forward manner. It would be distracting to call attention each time to the nondemocratic, authoritarian nature of a particular Soviet method or measure. In lieu of such repetition, readers are expected to keep the marked difference between USSR and US basic philosophies clearly in mind.

Scope

In presenting education in its Soviet setting, initial chapters point out various influences on education such as size of the country, diversity of peoples, the governmental system, and Soviet administrative and organizational measures developed to run the schools and training programs. Then attention focuses on the various levels of education

and related subjects; namely, preschool education, general primary-secondary education, auxiliary primary-secondary schools, extra-curricular work-activities, vocational training, semiprofessional training, higher education, and the teaching profession.

Sources

With respect to Soviet education one finds a field of high controversy, with a broad body of sharply debated data. Therefore, readers are entitled to know the sources of information upon which this survey is based.

Because the Soviet Union is proud of its educational system, it makes more information about its plans and programs available to Westerners than it does about some facets of Soviet life. The Library of Congress has a large number of Soviet law books containing the decrees and resolutions underlying the Soviet educational structure, and a fairly complete collection of the major Soviet education journals, periodicals, and such basic reference materials as statistical compendiums, handbooks for Soviet students, and descriptions of the school system as a whole or special parts of it.

Considerable care must be exercised in obtaining facts and in making generalizations and interpretations of facts from official Soviet sources. Articles in the Soviet press provide supplementary data. While propaganda pamphlets or official speeches may present glowing accounts of educational achievements, Soviet educators writing for their own people frequently are self-critical. Magazine articles and newspaper accounts written for home consumption often reveal discrepancies between official education policies and actual practices.

A careful analysis of these day-to-day reports by educators, parents, students, and Communist Party administrators and planners reveals many areas of disagreement and gives insight into Soviet thinking about educational problems as well as some concept of the realities of Soviet school life.

Conversations with several prominent Soviet educators and officials associated with phases of Soviet education revealed information on current educational policies and practices and on changes contemplated for the near future. Further light was shed by discussion of problems posed by the Soviet plan to introduce universal secondary education and by their efforts to raise professional qualifications of teachers and to challenge academically superior children.

From no other source was it possible to learn so much that was fresh and unobtainable elsewhere as from persons who had gone to

school in the USSR or taught there. Particularly valuable in this respect were the accounts by a small number of people who had been students both in the USSR and in the US or Western Europe, and the observations of teachers and professors who had taught the same subject matter to Soviet and to Western students. Also taken into account were studies compiled by specialists, educators, and students who had visited the USSR and later made their findings available.

The statistical data used in the study are drawn from open Soviet literature—statistical yearbooks, journals, and newspapers. The following considerations relate to their reliability: (1) Prewar data are taken largely from comparatively detailed statistical compilations published for Soviet use in planning; (2) data since World War II are consistent with prewar trends; (3) scarcity of data may indicate restriction of information by withholding; (4) classified data for 1941, seized by the Germans and later published, agree well with information which had appeared in open publications. Problems of correct interpretation arise all too frequently because of inconsistent classifications and terminology, omissions, insufficient explanation of what the data include, and failure to indicate the precise date for figures recorded.[1]

[1] For a discussion of the reliability of Soviet education statistics and the "perplexities and pitfalls" associated with their use see Nicholas DeWitt, *Soviet Professional Manpower: Its Education, Training, and Supply.* (Washington: National Science Foundation, U. S. Government Printing Office, 1955), p. xxvi–xxvii.

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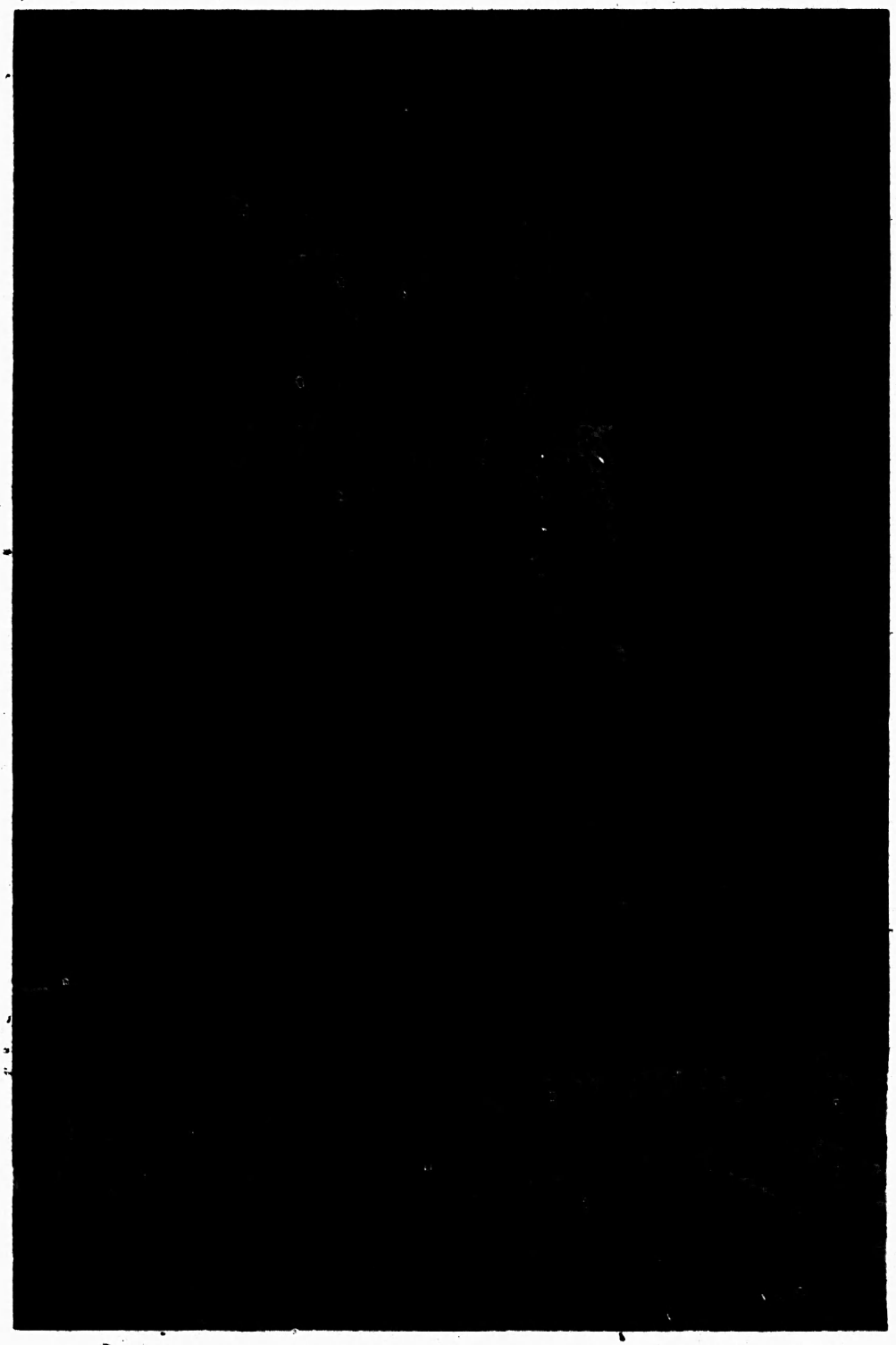

A ballet lesson in the Tashkent Choreography School, Uzbek SSR.

Chapter I

Education in the Soviet Setting

THE WAY in which a nation brings up its children and the type of educational activities it provides its citizens tend to reflect the thinking in that country. A study of the education of a people can be a clue to what a given culture considers important, what its expectations are, and in what direction it is heading. This generalization particularly applies to the USSR, where national life is controlled and dominated by a totalitarian government with a specific political philosophy.

This philosophy is an amalgam of Marxist theory, traditional Russian practice, and the experiences of the Soviet State during the years of its existence. The evolution from the beliefs and aspirations of its early years to the practices of today is reflected in the development of Soviet institutions; nowhere is it more clearly mirrored than in the Soviet educational system, which has been transformed from vague and idealistically "progressive" theories into a machine intended to produce loyal and qualified workers in various fields and at various levels.

The evolution of Soviet education has not taken place in a vacuum. This chapter points out some of the forces which have molded Soviet education and given it shape. It describes the land itself, the diversity of peoples, and the political and governmental structure which carries out the will of the rulers. It also discusses briefly the Marxist attitude toward education prior to 1917, the Russian educational heritage, and finally the function of education and some of its principal characteristics as decreed by the Soviet regime. Table I presents a statistical summary of the population and enrollment by educational levels and by republics in 1955.

Table 1.—Area, population, and enrollment by education levels in Soviet Republics in 1955 [1]

Republic	Area in square miles	Estimated population April 1956 in millions	Enrollment, in thousands, in:		
			Primary-secondary schools	Semiprofessional schools	Higher institutions
1	2	3	4	5	6
Total, USSR	**7,877,596**	**200.2**	**38,070.2**	**1,968.5**	**1,867.0**
RSFSR	5,525,090	112.6	16,303.2	1,193.6	1,171.9
Ukrainian SSR	232,664	40.6	5,882.0	374.6	325.9
Belorussian SSR	80,154	8.0	1,289.7	60.1	50.5
Uzbek SSR	156,640	7.3	1,339.4	58.1	65.5
Kazakh SSR	1,062,242	8.5	1,354.6	67.4	49.2
Georgian SSR	29,498	4.0	704.5	30.7	38.0
Azerbaidzhan SSR	33,089	3.4	641.4	29.3	34.7
Lithuanian SSR	25,174	2.7	436.1	22.3	22.7
Moldavian SSR	13,050	2.7	398.9	18.5	17.2
Latvian SSR	24,903	2.0	291.9	25.4	15.7
Kirghiz SSR	76,718	1.9	326.1	13.6	13.6
Tadzhik SSR	54,826	1.8	333.8	13.4	14.4
Armenian SSR	11,506	1.6	298.1	17.0	19.4
Turkmen SSR	187,181	1.4	232.3	13.6	12.2
Estonian SSR	17,413	1.1	160.8	16.1	11.9
Karelo-Finnish SSR [2]	68,819	.6	77.4	6.8	4.2

[1] For columns 2–5: Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khoryaistvo SSSR: Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956) p. 18, 226, 232, 231; for column 1: New York World-Telegram and The Sun, *The World Almanac 1957* (New York: The World-Telegram and The Sun, 1957) p. 440 and 442.

[2] The Karelo-Finnish SSR is now incorporated into the RSFSR.

The Land

With a land mass of more than 8,500,000 square miles, the USSR is the largest continuous State territory in the world. It is almost three times the size of the United States and exceeds the area of South America. Stretching from the icy wastes of the Arctic in the north to the cotton and tea plantations and fruit orchards of the south, and west to east from the Baltic Sea and the Carpathian Mountains to within sight of Alaska across the Bering Strait, it covers one-sixth of the earth's surface.

The country is land-and-ice locked, with few exits to the sea. Since oceans served as the chief highway for trade and cultural intercourse until recent times, Russia's lack of easy access to warm water ports constituted an important factor in isolating her from other parts of Europe and from the main streams of civilization that influenced the character of the Western World. For many other reasons as well, Russia missed out in large part on the free flow of ideas—scientific, literary, artistic, technological—until relatively late in her history. Because she did not feel the impact of the industrial revolution, she entered the 20th century a backward country still in a state of primitive agriculture, despite the fact that she is, like the US, almost self-sufficient in industrial potential and possesses some of the richest natural resources in the world.

Many Peoples—One Nation

Like the US the USSR is a multinational state. In both, diverse peoples and ethnic strains mingle and live side by side under one government. However, the USSR is not a melting pot as is the US. In America minority groups have emigrated from abroad, settled over wide areas of the country, and to a great extent become assimilated. In the USSR, in contrast, some 177 different minority groups, speaking more than 125 languages and dialects and worshipping in some 40 different religions, have lived side by side for thousands of years, all the while struggling to maintain ethnic unity, clinging to tribal customs and national traditions.

The Soviet State has capitalized on the national pride of these minority groups. It has organized the larger ones into 15 political entities described as Soviet Socialist Republics (SSR's), 17 Autonomous Soviet Socialist Republics, 9 autonomous regions (oblasts), and 10 national districts (okrugs). While it popularizes their linguistic and cultural heritage, the Soviet regime subjugates these national minorities by controlling their economy and politics, repressing their religious and nationalistic aspirations for independence, and infusing communist ethics and points of view into their way of life.

Despite the great variety of peoples in the USSR, about three-fourths of the total population (in April 1956 estimated at 200.2 million as compared to the US total population in June 1956 of 167.9 million) are Slavs. Probably about 50 percent of the total Soviet population are the Slavs known as Great Russians. Ukrainian Slavs constitute another 20 percent, with the Slavs from Belorussia constituting the third largest Slav segment. The remaining quarter of the

population is composed of peoples different from the Slavs, such as the Armenians, the Georgians, the Kirghiz, the Kazakhs, the Uzbeks, the Buryat-Mongolians, the Finns, the Manchurians, and so on. The problem of numerous strong national minorities remains a constant one for the Soviet regime, and measures continue to be taken to achieve communist Russification.

Formation of the Soviet Union

When the Communists took over the country in 1917 and set up a government, the first Constitution enacted on July 19, 1918, related to one single republic: The Russian Soviet Federated Socialist Republic, later renamed the Russian Soviet Federative Socialist Republic (RSFSR). It is by far the largest of the union republics, containing more than half the total population and covering three-fourths of the territory. Because of its preeminence, the RSFSR serves as the model for, if not the dominator of, the other union republics.

By December 1922, Communist Party control in the Ukraine, Belorussia, and the Transcaucasus had been established, and these territories were joined to the RSFSR to form the Union of Soviet Socialist Republics (USSR). When the second Constitution was adopted on January 31, 1924, they became union republics.

In May 1925 the Constitution was amended to admit the Turkmen and Uzbek Soviet Socialist Republics, and in 1929 the Tadzhik Autonomous Republic, formerly a part of the Uzbek SSR, also became a union republic. With the Constitution of 1936—the present one—the Transcaucasian Soviet Federative Socialist Republic was abolished, and its three constituencies—Armenia, Georgia, and Azerbaidzhan—were each given union republic status within the USSR. At the same time, the Kazakh and Kirghiz Autonomous Republics, formerly parts of the RSFSR, became union republics.

In 1939, through the partitioning of Poland, some of the peoples to the west of the Ukraine and west of Belorussia were incorporated into each of these two republics; and in the spring of 1940, the Karelian Autonomous Soviet Socialist Republic and the bulk of the territory acquired from Finland as a result of the Russo-Finnish war were combined to form the Karelo-Finnish SSR.

In the summer of the same year a large part of Bessarabia, much of the population being Moldavian, was incorporated with the Moldavian Autonomous SSR (which had formerly constituted part of the Ukrainian SSR) to form the Moldavian SSR.

In August 1940, three formerly independent nations were annexed

by the USSR: the Baltic Republics of Estonia, Latvia, and Lithuania. In the summer of 1955 the Karelo-Finnish SSR was made an autonomous republic.

Today the USSR is an elaborate federal structure consisting of 15 constitutent Soviet Socialist Republics (union republics) and many subordinate components. The incorporation of additional territory helps to explain part of the increase in Soviet school enrollment statistics and should be remembered in surveying Soviet enrollment growth.

Governmental Machinery

It is necessary to understand something about the governmental machinery [1] (called apparatus in the Soviet Union) in order to get perspective on how education is administered and financed.

The government of the Soviet Union is formally set forth by the Constitution enacted in 1936. The Communist Party—the only party permitted to exist in the USSR—controls and dominates Soviet society. Although members of the Communist Party comprise only about 3 percent of the Soviet population, the influence of this minority is pervasive. Party membership is organized in a pyramid fashion: members at the base elect representatives to the organization at the next higher echelon, and so on until at the top a few key members form a powerful clique which determines and dictates Soviet plans and policies affecting life in the USSR. Party members at the lower echelons are responsible for seeing that the plans and policies are carried out by the people at large and are abetted in this task by the secret police.

It is important to remember also that the Communist Party exercises control not alone through the formal Party organization. It operates directly through governmental channels as well. Article 126 of the Constitution of the USSR defines Party members as "the most active and politically conscious citizens" united "to strengthen and develop the socialist system." The Party is "the leading core in all organizations of the working people, both public and State." A high percentage of the most important State functionaries in all spheres of Soviet life are members of the Communist Party. In general, high Party officials also hold the most responsible and important governmental posts. Because so many members of the Soviet Govern-

[1] For a comprehensive treatment of this subject, see such references as that compiled by Merle Fainsod: *How Russia Is Ruled* (Cambridge: Harvard University Press, 1953).

ment are subject to Party discipline—and loyalty to the Party comes before any other loyalty—the Soviet Government is not in fact the mechanism for expressing the desires of the people despite constitutional declarations to the contrary. It is a device utilized by the Communists to subject the will of the many to that of the few.

In the light of this background let us view the Soviet Constitution and the governmental machinery which it defines and which is of interest as an operational force in education in the USSR.

The Soviet Constitution contains extensive sections devoted to the "rights" of Soviet citizens. One of these alleged "rights" is election of governmental representatives.

The Soviet Constitution provides that the people shall be formally governed by Communist Party and non-Party members popularly elected by all Soviet citizens over 18 years of age from a single slate of candidates to serve a 4-year term as deputies in the Supreme Soviet of the USSR. This is a bicameral body with executive and administrative functions as well as judiciary and legislative ones. Because the Supreme Soviet itself meets only once a year to approve legislation, these responsibilities are delegated to and carried out by other organs whose members are elected by the deputies to the Supreme Soviet. After these meetings the deputies return to their homes and to their regular jobs in the various parts of the USSR with news for the local population about what has been enacted and why.

The two bodies of the Supreme Soviet are: (1) The Soviet of the Union whose members are elected according to electoral districts on the basis of 1 deputy for every 300,000 of the population; and (2) the Soviet of Nationalities whose members are elected on the basis of 25 deputies from each union republic, 11 deputies from each autonomous republic, 5 deputies from each autonomous region, and 1 deputy from each national district. The two houses have equal powers. They jointly elect a presidium to carry on the work of the Supreme Soviet between sessions. The presidium has 15 vice presidents, one from each union republic.

The Constitution also provides for a Council of Ministers (Soviet Ministrov) known as a Council of People's Commissars (Sovnarkom) prior to 1946. It is defined by Article 64 as "the highest executive and administrative organ of State authority." Ministers are elected by the Supreme Soviet after the Central Committee of the Communist Party approves the name of a single candidate for each post.

There are several types of ministries in the USSR with their status depending on their functions. The major ministries for the country as a whole are those concerned with foreign affairs, foreign trade, administration of defense, the defense industry, communications, and

transportation—in short, international relations and those domestic affairs the Soviet Union considers to be most important.

The minor ministries for the country as a whole are responsible for directing affairs such as public health, the food industry, higher education, culture, internal trade, justice, and light industry. For example, the Union-Republic Ministry of Health controls the Republic Ministries of Health throughout the Nation; the Republic Minstries of Agriculture come under a ministry for the country as a whole; and the Union-Republic (previously "All-Union") Ministry of Higher Education alone controls higher education for the Nation. The Ministry of Higher Education for the Ukrainian Republic is the only such ministry at the republic level and is itself subordinate to the Union-Republic Ministry. Medical schools, for example, are operated by the appropriate Ministry of Health; they come under the *supervisory control* of the Union-Republic Ministry of Higher Education.

In each union republic there are ministries responsible for matters within the competence of the republic such as health, agriculture, education below the higher education level (except as noted in the case of the Ukraine), local industry, social maintenance, and municipal economy. Aside from the fact that the Supreme Soviets of the union republics are unicameral, the governmental structure parallels that of the central Government. Each of the union republics also has a council made up of its own ministers and representatives of autonomous republics within their borders and representatives of the all-union ministries.

Marxist Attitude Toward Education Prior to 1917

Prior to 1917, Marxists considered education as a "weapon" of the bourgeoisie through which they educated themselves and their own children in order to insure their continuing rule and domination over the "masses." At the same time, the Marxists declared it was essential for factory and plant owners in a capitalist economic system to see that their workers were given essential vocational and technical education in order to man developing industry more efficiently. With such education they would be better workers, and therefore better able to raise labor productivity and bring in more money for their capitalist "bosses." The spread of popular education in capitalist countries the Marxists denounced as education not for the betterment of the workers, but for selfish capitalistic interests. Genuine education, Marxists

maintained, was available only to members of the ruling class which further used their intellectual superiority to elaborate ideologies justifying the status quo. The *Large Soviet Encyclopedia* quotes Engels as saying:

> In capitalist society, the bourgeoisie gives the workers only as much education as is in its own interests. And that indeed is not much.[3]

Education affects the economic basis of society. It could not be divorced from politics in the USSR. To wrest the "weapon" of education away from the capitalists became a fundamental objective of the Communists. They promised themselves that when they came into power they would make education—including university training—open to all, and that they would replace other ideologies and religion by communism.

At the Geneva Congress of the First International, Karl Marx stated that education should be mental, physical (gymnastic and military training), and technical (acquainting children with the process of production).[3] In his book, *Capital*, he wrote:

> Modern Industry, indeed, compels society, under penalty of death, to replace the detail worker of today, crippled by life-long repetition of one and the same trivial operation, and thus reduced to the mere fragment of a man, by the fully developed individual, fit for a variety of labours, ready to face any change in production. . . . One step already spontaneously taken towards effecting this revolution is the establishment of technical and agricultural schools and of *écoles d'enseignement professionel*, in which the children of the working-men receive some little instruction in technology and in the practical handling of the various implements of labour. Though the Factory Act, that first and meagre concession wrung from capital, is limited to combining elementary education with work in the factory, there can be no doubt that when the working-class comes into power, as inevitably it must, technical instruction, both theoretical and practical, will take its proper place in the working-class schools.[4]

In other words, in 1917 the Communists were armed with theoretical beliefs about the possibilities of education for all as well as some definite ideas of how that education might be used to increase technical efficiency in the new society which they planned to set up.

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[2] Gosudarstvennyi Institut, "Sovetskaya Entsiklopediya," "Pedagogika." *Bol'shaya Sovetskaya Entsiklopediya*, Vol. 44: p. 428 (Moskva: Ogiz), 1st ed., 1939. Hereafter cited as *Bol'shaya Sovetskaya Entsiklopediya*.

[3] Ibid., p. 429.

[4] Karl Marx, *Capital* (US edition). Edited by Frederick Engels, revised and amplified according to the fourth German edition by Ernest Untermann. (Chicago: Chas H. Kerr & Co., 1921), Vol. 1: p. 534.

Educational Heritage From Tsarist Russia

From Tsarist Russia the Soviet regime inherited an intellectual tradition, a respect for learning, and certain academic and scientific excellence. The education received by a minority of the population was considered to be good; much of the university and higher scientific and technological training compared with the best then available in Western Europe. In fact, many scholars were brought into Russia to staff her higher schools. And the aim of most Russian students was to top off their intellectual careers with advanced study in Western Europe. At the secondary level, the four prevailing types of State-controlled schools (gymnasia, pro-gymnasia, real schools, and commercial schools) were primarily designed to prepare a few students—estimated by the Soviet Union to be about 7 percent of the school population in 1914–15, or 564,600 out of 7,800,600—for government service (chinovnichestvo), for professional careers, or to impart a general "liberal" education without consideration for practical purposes or eventual pursuits. Factual learning was paramount with minimum attention given to integration of the pupil with his immediate environment.

This educational system was designed for the few. The Russian peasantry remained outside the halls of learning. Elementary education usually was unavailable to them. There were islands of educational progress, with schools for the common people set up as the result of the zeal and almost missionary fervor of individuals—people who wanted to help lift the Russian peasantry out of its backwardness, ignorance, and superstition. Such schools as these individuals started and such educational inroads as they made among the people generally were accomplished in direct opposition to the Tsarist Government and the hierarchy of the Russian Orthodox Church.

The revolutionary ferment seething in Russia prior to World War I was beginning to have noticeable success in educating the people. By 1914 an optimistic estimate is that about half of the Russian children of primary school age were going to some sort of school. On the eve of the Communist Revolution in 1917 the educational system was in a state of expansion. Even so, the situation would seem to support Communist claims of illiteracy in the Nation to have been between 60 and 70 percent.

Many educators in the Russia of 1917 desired to introduce the new educational ideas then being discussed in the Western World. These centered on giving the child more freedom in the classroom and in general on abandoning the authoritarian teaching methods prevalent in Tsarist schools. Such methods and ideas were in high favor by

the Communists following their seizure of power in 1917 as they aided the new regime in drastically demolishing old institutions and making a clean break with the past. Coupled with Marxist educational views, these methods and ideas came to play a decisive role in Soviet schools in the early years of the regime. Not until the early 1930's were such methods forsaken in favor of the traditional methods of education utilized in Tsarist Russia.

Soviet Policy

Soviet policy precisely enunciates the function of education in the USSR: to serve the needs of the State. The State is preeminent. To its full development every person is expected to contribute his best efforts as his primary obligation. The growth and development of his own individuality are of secondary importance. Part-time educational programs to provide adults with schooling equivalent to that in grades I through VII and moves to introduce compulsory education for children between 7 and 14 years of age, are considered necessary by the State in order to attain the minimum educational base for the many types of additional training believed necessary to the build-up of Soviet culture and economic and military power.

Educational activity embraces the range of influences which can be brought to bear on the Soviet citizen and particularly on his children. The movies, radio, television, the press, the concert hall, the theater—all are utilized by the Party-State to mold the attitudes and shape the beliefs of the people along desired communist lines. This broader aspect of Soviet education is what is meant when discussion centers on the announced communist intention to create the "new Soviet man."

From these basic premises other seemingly inherent aspects of Soviet educational policy and practice are derived. The State attempts to decide through its planning mechanism what skills are needed and in what proportion they are needed for the most efficient development of the State. For example, the State decides that a certain number of ballet stars are needed to entertain the people. In turn, aspiring children throughout the USSR compete for enrollment in the few ballet schools. Of the ones permitted to enroll, only those judged best according to Soviet standards survive the years of study and practice necessary to become stars for the State.

In athletics the situation is the same. There are 16 physical education schools. Sports events are held periodically throughout the Soviet Union, and potential athletic talent is spotted, tested, and selected for further training in these institutions, with emphasis on producing

champions and excellent coaches. It is the duty of these athletes—trained at State expense—to win glory and honor in the international arena.

Similarly exacting admission requirements apply to the university or the engineering institute, the excellence of whose graduates is considered to be fundamental to the advancement of the Soviet State both economically and militarily. Whatever the type of training or whatever the kind of school or educational program the individual is permitted to enter, it is his duty to contribute his maximum to the State in return for State-provided education.

Soviet education aims at education for excellence with freedom of choice resting with the State to the end that the State may be developed to the optimum. By contrast, education in the US aims to give every individual the right of free choice to the end that each may have opportunity to develop his individual capacities to the optimum consonant with his abilities and his desires.

All citizens of the USSR have the "right" to education—according to Article 121 of the Soviet Constitution. This right is "guaranteed" by free, universal, compulsory primary-secondary schooling; by a system of State stipends for students considered likely to be of greater service to the State as a result of semiprofessional or higher education; by provision for instruction in the native language of pupils; by provision of industrial, technical, and agricultural training in factories, on State and collective farms, and at machine-tractor stations for those who are employed.

Schools are opened, approved, and run by the State. The State determines the curriculum and methods of instruction to insure that education is in line with Party and State policy and that it can be planned and directed for the Nation as a whole. A small number of educational establishments, which also function under the guidance of State authorities, are maintained by public organizations such as the trade unions and religious denominations. The latter maintain some seminaries for the training of religious leaders. Such seminaries are required to use curriculums and methods of instruction determined by the State.

The State system of education covers all levels—from preschool through the university—and cultural-educational programs for adults. The USSR is vocal on its policy of non-discrimination in education on the grounds of race, color, sex, language, or national or social origin. It is silent on its policy in education relating to discrimination on the grounds of political beliefs and opinions.

According to one of the first Soviet decrees on education the State is separated from the church and the church from the school. This

decree prohibits the teaching of Scripture in any school where general educational subjects are taught and forbids observance of religious ceremonies in the schools. Schools and educational establishments—including the seminaries—give a "scientific-materialistic" or atheistic explanation of natural and social phenomena. Leaders of Communist Party youth organizations—the Pioneers and *Komsomols*—work actively to indoctrinate young people in the aims and ideals of the Party. The latter disapproves of the traditional role of the church in the Western World.

Education is conducted in the native tongue. The same basic curriculum is taught and the same subject matter is required, whether, for example, children are taught in Ukrainian, Tadzhik, or Estonian. Russification is carried out intensively. Children of the non-Russian speaking republics are taught the Russian language; Russian literature, history, and traditions are incorporated in their curriculum to develop an appreciation for the Russian "big brother" republic.

Schools are coeducational. (Some Soviet semiprofessional and higher educational programs have a preponderance of women students such as education with about 80 percent and medicine with about 60 percent. These are more or less balanced by programs such as in technical and engineering fields where 30 to 40 percent are women.)

There are no electives in the primary-secondary schools. These schools are expected to provide a foundation for further training. Almost half of the primary-secondary curriculum is made up of courses in the physical and natural sciences, mathematics through trigonometry, and mechanical drawing, because leaders believe that these subjects contribute most directly to mastery and control of the material environment. Soviet semiprofessional and higher educational institutions also concentrate on preparing graduates in science and engineering. Of advanced degrees conferred, 70 percent are in scientific and technological fields. In creating the technical-scientific base on which the development of the country and the consolidation and expansion of communism depends, training of manpower and womanpower for the use of the State is considered of major importance.

Internationalism in education—interpreted as teaching respect for all peoples—emphasizes the Soviet claim of superiority of the Soviet way of life with its opportunity for the worker. The student is required to interpret from a communist point of view the information he is given about the rest of the world.

Chapter II

Planning and Administration

TRIAL AND ERROR have gone into USSR efforts to create and maintain a working arrangement between (1) policy and directional control from the center to insure implementation of Party-State plans and (2) operational responsibility at other levels to take account of differences beyond the control of the State, stimulate initiative, and encourage support for Party-State policies, plans, and actions. Trial and error are reflected in organizational structure and administrative procedure intended, on one hand, to promote technical proficiency and, on the other, to insure a communist point of view. This chapter gives an overview of Soviet planning and administration, including financing for education. It also indicates the major types of in- and out-of-school education and training from preschool through postgraduate. These major types are discussed in further detail in succeeding chapters.

Planning for Education

The economic life of the USSR is determined by the State National Economic Plan. The purpose of the plan is to insure interrelated development of the branches of the national economy to produce the type of economic growth believed desirable by the Party-State leaders. The major development plans are for 5-year periods; where applicable, the 5-year plans are broken down into annual and quarterly plans.

The planning bodies of every republic, city, village, factory, farm research institute, or office revise, adjust, and coordinate their parts of

the national plan. At the top, the State Planning Commission (Gosplan) prepares the long-range plans for the country as a whole. The State Economic Commission is responsible for preparing the operational plans for 1 year or less. The plans for the Nation are based on drafts submitted by ministries and governmental departments whose own plans, in turn, are based on drafts from successively lower echelons. The State Planning and Economic Commissions have sections in which educational needs are integrated with the economic.

Information on requirements for trained personnel is sent by a particular enterprise to the ministry or governmental agency under which it operates. There, the training needs are collated by the ministry's education directorate and submitted with the ministry's developmental plan to the republic planning agencies—if it is a republic ministry—where they are incorporated in the republic plan. Republic plans, in turn are submitted to the State Planning and Economic Commissions. If a ministry is at the federal level, the republic planning commissions are bypassed, and the draft plan goes directly to the State commissions, where the educational requirements are analyzed and coordinated with other phases of the national budget. After a time, the education part is worked out—plans for staffing, construction, maintenance, enrollment quotas, equipment—and along with the rest of the national economic plan, becomes law.

An illustration may help to show how the process works in the field of education. During the fifth 5-year plan (1951–55) it was decided to expand petroleum production at an accelerated rate. Production of petroleum industry equipment, conversion of crude petroleum, range of products manufactured from petroleum, and other sections of the industry were to expand rapidly.

A significant increase in the number of petroleum specialists was necessary to carry out this program. The number of postgraduate students specializing in subjects pertinent to the field was doubled over that in the previous 5-year plan. Through an increase in the enrollment quota in appropriate school faculties and in the value of individual stipends and the overall amount offered for such study in the Nation's higher educational institutions and semiprofessional schools, undergraduates were encouraged to major in some specialty of use to the petroleum industry. New technicums for training semiprofessional people were opened and old ones offering subjects of less immediate importance to the national economy were converted to petroleum training programs. The industry was allocated a larger proportion of the skilled and unskilled workers graduating from labor reserve schools. Some of the research scientists in petroleum plants were

brought into the schools as guest professors, and some professors served as consultants to the plants.

Under centralized planning, the USSR believes money, materiel, and manpower can be directed, allocated, and utilized to achieve specified goals. Soviet planners also point out problems connected with centralized planning.

The "planners' preference function" enters the picture. This term means that the State Planning Commission allocates national resources in accordance with Party-State objectives, in preference to demands for consumer goods or requirements and capabilities of individual units. The request of one university department for equipment, personnel, and facilities might be approved in total or doubled because of the demand of the Party-State for students trained in its field; the request of another might be halved or denied in the interest of concentrating on priority political targets.

The USSR, committed to a planned economy for its 40 years of existence, believes its system of rational distribution of training facilities and adjustment of enrollment quotas in terms of needs in specified areas, makes for the most efficient utilization of manpower by guaranteeing the number and types of graduates needed for each branch of the national economy. Below are some of the reasons frequently given by Soviet spokesmen for their manpower problems.

1. There has been poor planning by the ministries. Plans, some maintain, are based on immediate needs and not on probable future needs. And, as is frequently reiterated, a qualified, effective person cannot be trained overnight.

2. Ministries are not necessarily to blame for inability to estimate future needs. Ineffective planning is inherent in rapid industrial transformation. It is hard to predict where and what types of personnel will be needed in a changing technological world. Five years from now unforeseen fields of industry and research may emerge which need large numbers of specialized personnel.

3. There are too many engineers and not enough technicians. Graduates of higher educational institutions trained at great expense in time and money, are being used in inefficient ways because plans for a supporting base of skilled and technician-level assistants have been inadequate.

4. Shortage of technicians is traceable to two causes: (a) Many are given training which is too extensive and too theoretical; and (b) semiprofessional personnel are unable to switch satisfactorily from their particular field to a closely allied under-staffed field because their training has been too narrowly defined.

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5. Insufficient staff, buildings, and equipment in outlying areas have led to abnormal concentration of educational institutions in highly populated centers in European Russia, necessitating relocation of personnel in newly developing industrial and other economic sites east of the Ural Mountains.

6. "Ivory towerism" causes difficulty. For example, a professor in the Uzbek Republic's Central Asiatic University continues to devote his life to studying a rare spider when needs of the State demand attention to the possibilities of eliminating common insect pests plaguing Uzbek fruit orchards.

Administrative Hierarchy

While there is no single federal ministry of education, the educational system of the USSR is highly centralized and control is retained by the Party and State. Operational responsibility for the education and training of millions of students has, of necessity, been delegated in ever-widening concentric circles until it rests on local communities and groups.

The nature of the Soviet regime might lead one to imagine that the identical subject is taught at the same time, in the same way, in the same grade, in the same type of school throughout the land, and that professors lecture only on prescribed subjects in a prescribed manner. Such is not the case. Ideas frequently originate at the grassroots level as well as at higher levels.

The USSR is a vast country, with people living in widely separated areas, many isolated for months of the year. In the far North, pupils with cultural traditions akin to those of the Eskimos are going to school. These children have experiences which are very different from those of children in the Moscow schools. Throughout Central Asiatic Russia, many pupils are from Moslem cultures and speak entirely different languages. Then there are the Georgians, the Armenians, the Baltic peoples, the Ukrainians, and others with differing needs, motivations, traditions, and environments. Thus, some Soviet children live in tents and are accustomed to seeing camels as beasts of burden. Others live in farming centers where community life revolves around getting in the wheat harvest. Some live in areas that depend on reindeer for providing them with milk, meat, and with hides for their clothes. In a country of so many contrasts effecting absolute centralization of education would be difficult.

Bearing in mind that Soviet leaders attach great importance to "correct" education of the Soviet citizens of today as well as those of tomorrow, that education in the USSR is all-embracing, and that in

law as well as in practice the highest Party and State organs reserve directional control over education and training, let us see how they have resolved apparent contradictions with measures to allow for local differences, stimulate local initiative, and encourage local support. What administrative procedures have they worked out to make for technical competence and proficiency in the training programs while seeking to demand from their citizens a uniform communist outlook on life?

Guiding directives on education are discussed at Communist Party Congresses and in meetings of its Central Executive Committee. Laws and resolutions having significance for the general educational development of the whole country are promulgated by the Supreme Soviet of the USSR and the USSR Council of Ministers. Sometimes they are co-signed by the Party. Such decrees specify types of schools to be established, basic organization, academic programs to be followed, and general provisions concerning compulsory education.

Levels of government concerned with education include the national Government, union and autonomous republics, local administrative units within republics, and administrative bodies responsible for different types of educational facilities.

At each level and for each type of training a Party organ exists to insure that State and Party policy is carried out. Party organs are charged with insuring political indoctrination and maintaining discipline, influencing the school programs through the communist youth organizations which function in schools to explain the latest Party-State decrees and innovations, and with popularizing training programs.

Of importance in the administration of Soviet education is the surveillance maintained by the secret police on the political reliability of administrative personnel, teachers, students, and the others—the minister on down through the lowest in rank. The secret police operate through the "special department" (spetsotdel'), an integral part of every administrative unit. In the files of the secret police are dossiers on persons within the jurisdiction of each "special department." The chain of command of the secret police runs parallel to that of the Party and State administrative machinery, with little if any crossover up to the highest echelons.

The major governmental organs concerned with schools include: (1) The Union-Republic Ministry of Higher Education; (2) the ministries of education in the Soviet Republics; (3) the Chief Directorate of Labor Reserves under the USSR Council of Ministers with local branches subordinate to the republics' councils of ministers; and (4) the Union-Republic Ministry of Culture with subordinate ministries of culture in each of the republics.

In addition a number of other ministries and governmental agencies through their directorates of education administer funds appropriated for their schools and training courses, are responsible for maintenance and business management, and coordinate matters of staffing, curriculum, enrollment, quotas, and job assignments with other governmental organs.

"General" or non-specialized education along with most of the teacher training for the kindergartens and the primary-secondary schools—including those for working and rural youth and adults—and most of the extracurricular activities, are administered by a republic ministry of education (respublikanskoe ministerstvo prosveshcheniya) in each of the Soviet Republics. The ministry has responsibility for the educational attainments of the republic—in keeping with its national and other characteristics—and exercises control and direction over the education ministries of autonomous republics within its boundaries.

The RSFSR Ministry of Education has facilities for educational research in its Academy of Pedagogical Sciences. The RSFSR Ministry takes the lead in formulating standard study programs, working out new procedures, setting up academic attainment criteria, transmitting results of particular educational experiments, and so on. The union republics exercise autonomy in translating approved textbooks and getting them published and distributed, in preparing grammars and books devoted to local history and literature, expanding school curriculum and examination schedules to provide additional hours for non-Russian-speaking children, and in deciding various other matters peculiar to a given republic.

Some union republics have one or more autonomous republics within their borders. Since an autonomous republic is a large administrative unit generally composed of people with a different cultural background and speaking a different language from that of the union republic itself, there is a subordinate ministry of education in each autonomous republic.

In addition to any autonomous republic ministries of education, there are regional administrative subdivisions with responsibility for educational activities within the region as a whole. Regions in turn are divided into smaller units or *raions*. These units and cities located within them, also have education administrations. The education administrations of large cities are further subdivided. In certain sparsely populated and predominantly rural areas there may be a territorial (krai) education administration. The head of each of these sub-administrations is appointed by the Soviet of Workers' Deputies (general administrative council) at the corresponding administrative levels. Each Soviet of Workers' Deputies has a standing

committee for education whose members generally are selected from among persons with experience in education.

At the local level there is close cooperation among the responsible education authority or committee, the Soviet of Workers' Deputies, the branch of the teachers' trade unions organized at the school, and the local Party unit. It is the education authority which is charged with appointing school heads and approving the appointment of teachers recommended by the head of each school. Together with branches of the teachers' trade unions, the education authority provides refresher courses for teachers, enlists teachers in advanced study and in-service training programs, and arranges for local teachers' conferences. Considerable responsibility for school construction and primary responsibility for repair and maintenance of classrooms rest at the local level. Local groups concerned with education are expected to work together to provide supervised, systematic programs of extracurricular activities for children and various types of educational-cultural pursuits for parents.

Each ministry of edueation maintains a staff of inspectors who visit schools in their assigned areas. Inspectors, who are generally appointed from among those considered to be the better teachers, work with the school head and share in some measure responsibility for the school's reputation. Their primary function is to insure approved teaching standards in the schools. They sit in on lessons and examinations, survey Party youth organizational work, check on school discipline, review teaching problems with the staff, and so on.

Some former teachers have commented that since inspectors have been teachers who had achieved a certain amount of success in their profession, they are able to help solve local school problems through their direct contacts with the ministry. Some former teachers from the Baltic Republics say inspectors are political informers. In any event inspectors represent the Party and State in insuring that official policy and procedure are carried out in the Nation's schools.

Financing Education

Presented below are some pertinent facts relating to the financing of Soviet education. No attempt is made to draw direct comparisons between financial data relating to education in the USSR and in the USA because data for the countries are not comparable.

1. The meaning of the term "education" differs between the two countries. Funds for education in the USSR come under the division of the planned budget which is for "health and educational-cultural

activities and social services," regardless of the national, republic, or other governmental channel through which monies are to be distributed. Soviet news releases announced 26.1 percent of the 1955 planned budget as the amount for such services and activities as a whole.

After the USSR planned budget is announced, later releases usually present the same material in terms of planned allocations to the union republics. Since many government functions do not fall within the jurisdiction of union republics,[1] the percentage of their planned total budgets for "health and educational-cultural activities and social services" is high. In 1955 this percentage appears to be 54.6 in the Ukrainian SSR, 66.2 in the RSFSR, 62.6 in the Latvian SSR, 68.1 in the Belorussian SSR, and 68.9 in the Georgian SSR.

Within the broad division for "health and educational-cultural activities and social services," the portion which appears to be considered as "educational-cultural activities" for the 200.2 million people of the USSR was 68.4 billion rubles or about 12.1 percent of the total planned budget as compared, for example, with 24.5 billion rubles for what it classifies under housing. In 1952, it was 12.5 percent. These "educational-cultural activities" include, for example, subsidies to finance: (a) Deficits of State-controlled political rallies and rural clubs; (b) deficits of radio, press, and television systems of the country; (c) State-owned theaters and national symphony orchestras; (d) public libraries, orphanages, lecture series to popularize scientific and engineering knowledge, and research establishments including many which directly support military development programs; and (e) schools and institutions of higher learning.[2]

In contrast to the USSR data, "education" expenditures compiled biennially by the US Office of Education include only expenditures relating to schools and institutions of higher learning. To illustrate more detailed differences, funds planned for physical education in the USSR are provided under the portion for "health"—not for "educational-cultural activities." The training of teachers of USSR history according to the philosophy of Marx, Lenin, and the Party is not an educational item. Its cost is borne by the Communist Party. In the US the cost of physical education is a part of educational expenditures. The financing of training for teachers of American history in no way differs from that of teacher training in other subject matter fields.

2. Financial data presented on the USSR relate to the planned

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[1] See p. 10–11.

[2] For a brief, comprehensive survey of what the budget includes, *see* N. N. Rovinskii, *Gosudarstvennyi Byudzhet SSSR*, chap. XIII, "Raskhody na Prosveshchenie," (Moskva: Gosfinizdat, 1951), p. 268–88.

budget; those on the US relate to expenditures, unless otherwise indicated.

3. Under the centrally controlled, planned economy of the USSR, the planned budget relates to *public* funds from the general revenue of the State. Taxes are not levied specifically for educational purposes and there is no privately financed educational system. Planned budget figures for education in the union republics appear again in the total planned budget for the USSR.

Under the decentralized capitalist economy of the US, powers not specifically mentioned in the Federal Constitution are reserved to the States. Powers relating to education are vested in the States—not the Federal Government. Publicly controlled and privately controlled educational programs exist—often side by side. Type of control over an educational institution in the US is not necessarily synonymous with its type of financial support. A private educational institution may be entirely supported by private funds, or it may receive most of its funds from private sources and some from public sources, or it may receive public funds in excess of its private funds. The source of funds for a public educational institution may be public or it may be public and private. The totals for State and local public expenditures, for Federal expenditures, and for private expenditures are discrete totals. When added together, expenditures emerge for education throughout the Nation.

Complete figures are not yet available for educational expenditures in the US and the outlying areas for fiscal year July 1, 1955 through June 30, 1956. The Office of Education estimates the combined State and local, Federal, and private expenditures for elementary and secondary schools, higher education, residential schools for exceptional children and Federal schools for Indians for fiscal year 1955–56 to be 15.5 billion dollars for the 166.9 million people in continental US—not including the 1 million in outlying areas.

4. The USSR has officially pegged the rate of exchange [3] for the

[3] According to US Government researchers, the official rate of 4 to 1 overstates the general purchasing power of the ruble. The amount of overstatement with respect to a particular sector of the Soviet economy is difficult to calculate. Researches on Soviet expenditures for education indicate approximately 50 percent of such expenditures are for labor and services and 50 percent for other items such as building materials, supplies, and fuel. The rate of exchange applicable to the labor and services component and the rate applicable to the other 50 percent for calculating dollar equivalents is perhaps 3 rubles and 9 rubles respectively to 1 dollar, indicating a probable rate of 6 rubles to 1 US dollar for calculating the dollar equivalent of Soviet *expenditures* on education. The number of rubles to 1 dollar would increase further if *purchasing power* dollar equivalents rather than Soviet education expenditure dollar equivalents were being calculated.

ruble at the artificial figure of 4 to the US dollar. The value of the Soviet ruble in terms of internal purchasing power is worth what the Soviet regime decides it to be worth at a given time. The US dollar is a hard currency which is convertible on the free money market. Its value in terms of purchasing power can be readily calculated.

Budgetary Process

The director of each educational institution sends his budget estimates for the coming year to the authority having jurisdiction over his school. For a Bashkir 10-year school it would be the Bashkir Autonomous Republic Ministry of Education; for an agricultural vocational school in Frunze, the Kirghiz Ministry of Agriculture; for the University of Leningrad, the Union Republic Ministry of Higher Education. After adjustments considered appropriate, the estimates are included in the overall estimate for the ministry or other governmental body concerned, and submitted through channels to the republic or national level where they are worked on by the republic and national ministries of finance and coordinated with materials of the planning committees. The USSR planned budget for this function is the financial reflection of the "educational-cultural activities" of the long-range, 5-year, and annual national economic plans for the country's development.

The State budget—a consolidation of all the others—is presented annually by the Ministry of Finance to the USSR Supreme Soviet for approval. The budget is for the calendar year. In the past it frequently has been presented in the early spring of the year it covers. Available data on planned budgets are more detailed and specific than data on expenditures and tend to show changes in emphasis. The approved State budget is the planned estimate of expenditures for the year.

After the budget has been approved, money appropriated for each educational establishment and training program is supposed to be made available to its director. As the person charged with the allocation of funds to meet school expenses, the director has a certain leeway in determining how funds are spent. He also is held personally responsible for their use and detailed accounts are maintained. While the director in a higher educational institution usually has a deputy responsible for financial affairs, in primary and secondary schools and other educational establishments where enrollments are small, the directors themselves handle such matters.

Out of the budget allotted to the director come funds for the following, depending upon the type of school: (1) Salaries of the teaching

and auxiliary staffs and staff traveling expenses for attending meetings, conventions, and the like; (2) laboratory materials, audio-visual aids, and equipment including desks and maps; (3) reimbursement for students' practical training periods in industrial, agricultural, and other economic enterprises; (4) library facilities; (5) stipends and other subsidies for students; (6) building construction and upkeep, furniture procurement and repair, plant maintenance (water, electricity, heating, cleaning); and (7) equipment for dormitories.

Local Support

Local support exists for various types of educational facilities and programs in the USSR. The monetary value of this support does not appear in the State budget. (In the US the monetary value of voluntary action is not included in educational expenditures.) This community support may take a variety of forms.

Parents or other community groups may bear the expense for making repairs in the local school. The farm management in a rural area may allot land to the schools for experimental agricultural projects, or supply food. Collective farms are required to provide their teachers with housing and an adjacent plot for a garden, supply schools with fuel, and help with janitorial service. Most urban schools have neighboring industrial plants or factories which act as sponsors or patrons, and make equipment available for a workshop or finance other facilities. A trade union may bear the expense of a particular improvement or addition to a school. Some schools, such as theological seminaries, have been built wholly on the initiative of local groups through voluntary contributions in the form of gifts in kind, work, or money.

Soviet Views on Plans and Action

According to the planned budget, money is provided year after year to build educational institutions. According to Soviet leaders, getting the schools constructed continues to be a major problem throughout the USSR. The socialized building industry, they say, does not keep pace with demands for buildings, so hampered is it by red tape, poor planning by local contractors, and inefficient utilization of manpower and construction equipment. Construction trusts obtain electrical equipment for schools from the ministry controlling the electrical industry, desks from the ministry controlling light industry, and so on. Delays in fulfilling contracts and breakdowns in the distribution process are frequent occurrences. Soviet leaders point out that the training of manpower rates high on the priority list; nevertheless, if

an electrical industry plant supposed to be filling orders for a school receives a request from a major ministry like the Ministry of Defense, the Defense Ministry's order comes first and school construction is further delayed.

Types of Education and Training

It is a proud boast of the USSR that there is an educational program available for all ages from the cradle to the grave for rural and urban dwellers, for rich and poor. By adding the informal or part-time courses on-the-job and in the Party network as well as the school programs, more than 50 million children, youth, and adults—or approximately one out of every 4 Soviet citizens—is enrolled in some sort of program. In 1955–56 one out of every four US citizens was enrolled in a formal school program. Many millions more were taking part-time, extension, or correspondence courses, or participating in adult education programs in fields of their choice, or receiving in-plant or on-the-job training.

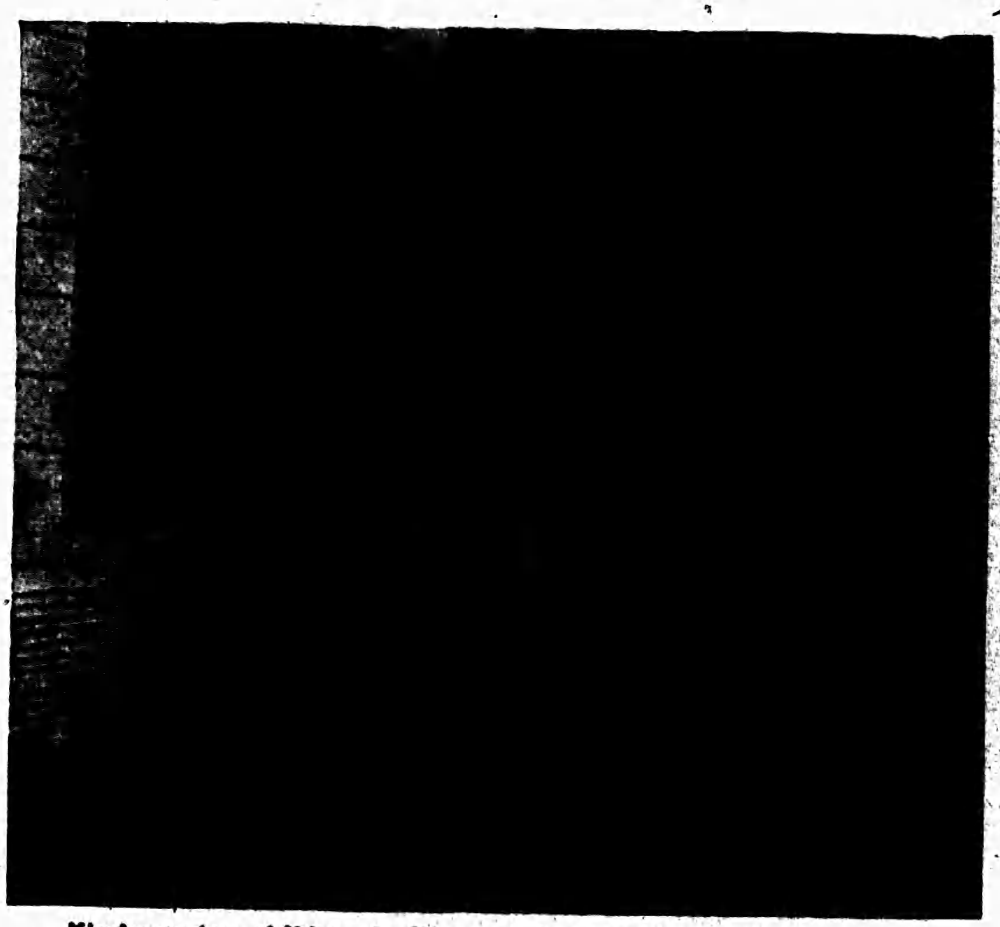
Chart I, p. 30 indicates the broad outlines of the Soviet educational system at approximate age levels—preschool, primary; secondary, vocational, semi-professional: higher education and postgraduate and advanced-degree programs. For comparison, Chart II, p. 31 shows the educational system in the US at approximate age levels and by grade, type of degree, and type of diploma awarded.

Preschool Education

The facilities ranges in the USSR in the preschool education category are subdivided into two age levels. For children under 3 years of age there are nurseries or crèches. For those between 3 and 7 there are full-time and seasonal kindergartens, playgrounds, homes for orphaned and homeless children, and kindergartens for the handicapped. Fees are usually required for enrollment in preschool institutions.

General Primary-Secondary Education

According to law, children at the age of 7 are required to enroll in the first grade. The general primary-secondary education program in the USSR concentrates within a 10-year course of studies about the same number of hours of instruction as are spread over 12 years



Kindergarten children in Kiev out for a walk near Kindergarten No. 1, Pecherski District.

in the public school systems in the US. Completion of the full primary-secondary school is a prerequisite for higher education and advanced training.

The standard regular primary-secondary school program in each of the Soviet Republics is for children between the ages of 7 and 18. It is divided into three stages which somewhat approximate the elementary and secondary levels of education in the US. In the USSR, the three stages are not grouped into separate schools by educational levels as they frequently are in the US. The Soviet schools are organized into 4-year or primary schools consisting of grades I through IV for children aged 7 to 11; 7-year or incomplete secondary schools consisting of grades I through VII for children in the age range of 7 to 15 (including the junior secondary schools for ages 11 to 15); and 10-year or complete secondary schools with grades I through X for children in the age range of 7 to 18. The same curriculum is covered in grade III, for example, whether it is located in a 4-year, a 7-year, or a 10-year school.

CHART I.—EDUCATIONAL SYSTEM IN THE SOVIET UNION

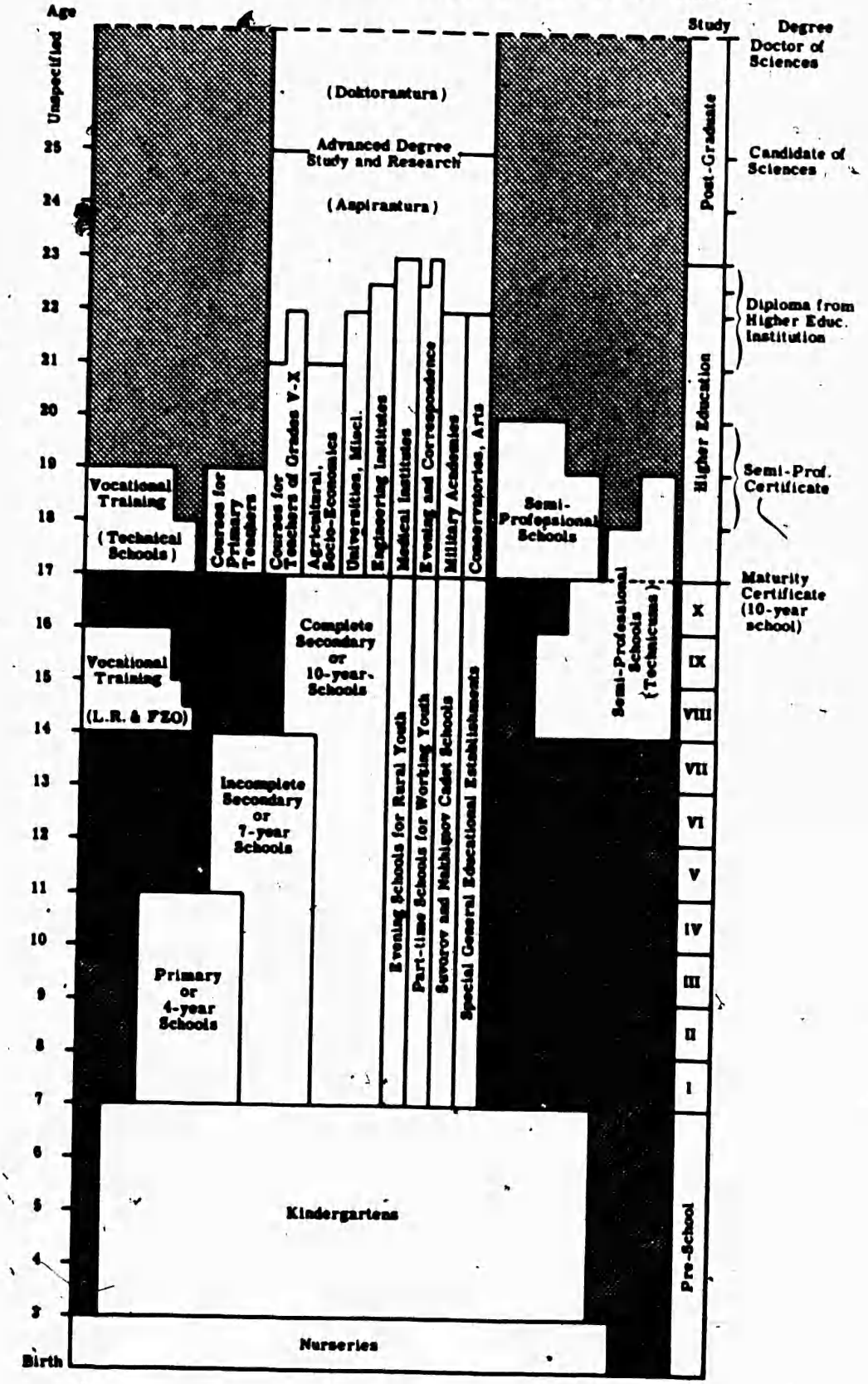
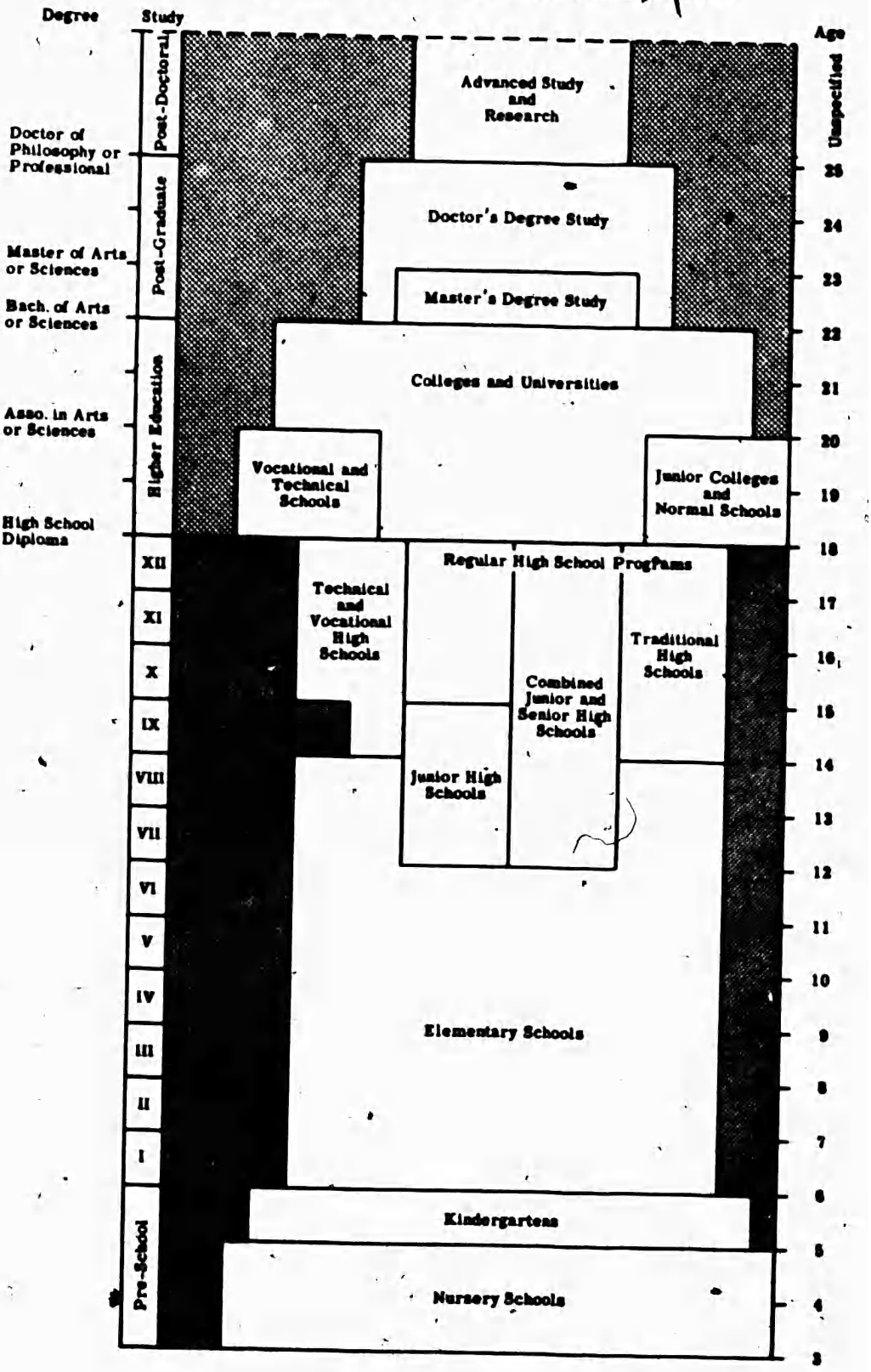


CHART II.—EDUCATIONAL SYSTEM IN THE UNITED STATES



Several kinds of general educational programs are geared to meet special needs. They cover approximately the same curriculum as is required at the different levels of the regular schools. Among these are such part-time programs as those provided by the Schools for Working Youth, which operate on a shift basis to conform to the employment schedules of children and youth, and the Evening Schools for Rural Youth. Originally, they were set up during World War II to enable children and youth who missed out on education as a result of the war to complete the 10-year school in their free time. Both offer classes from grades I to X. Courses for adults and correspondence-extension programs represent another means to permit Soviet citizens to complete a 10-year education on a part-time basis.

Residential schools were formed during World War II for the sons of men killed in action and for sons of other military officers and men. In these schools—the Suvorov schools (for military training) and the Nakhimov schools (for naval training)—the general educational curriculum is supplemented with military subjects and intensive physical and military training.

Residential schools offering a modified general education include schools for the handicapped. Other residential facilities include children's homes maintained for orphans and those maintained for juvenile delinquents.

There are schools and programs for the artistically gifted and the exceptionally bright—some residential, others not—which in addition to the general curriculum provide courses and training facilities in particular fields such as music or chemistry.

As in the US, no particular year prior to graduation from the complete secondary school program is regarded as terminal, although in both countries a large proportion of students drop out of school before reaching that level. In the USSR, State examinations are required of all children at the end of the 4th, 7th, and 10th grades, with certificates being issued to pupils on satisfactory completion of the respective programs. After grade VII where compulsory schooling ends, there is a division into three main educational streams: Vocational, semiprofessional, and senior secondary. The first two generally are regarded as terminal, whereas the secondary school, at least until the middle 1950's, has been chiefly concerned with preparing youth for higher education. The rapid increase in numbers of students completing the senior secondary school since the early 1950's, is beginning to alter this primary function somewhat. New vocational and semiprofessional programs have been developed with the intent to absorb the surplus, since at the present time there are places for only about 30 percent of the 10th-grade graduating class in the higher educational institutions.

Vocational Education

The major vocational training to supply industry and agriculture with skilled and semiskilled labor, is administered by the Chief Directorate of Labor Reserves under the USSR Council of Ministers (Glavnoe Upravlenie Trudovykh Rezervov pri Sovete Ministrov SSSR). Through its organs at the local level, the directorate recruits students, seeks to popularize available vocational training, and coordinates programs with the ministries which set up and finance them and absorb the graduates. Each ministry, governmental agencies, and many factories, farms and other economic enterprises administer and finance short-term courses and less formal on-the-job training for their own employees or for workers for whom they are responsible. The training of personnel for the military services, the secret police, the Party, and special categories of management is assumed by the education directorate of the governmental or Party machinery concerned.

Vocational training for industry is given in: (1) Basic elementary vocational schools—2-year trade and railroad schools, 6-month to 1-year factory apprentice schools (FZO schools), and schools for factory and plant training (FZU schools) with courses varying in length from 6 months to 2 years; (2) 1- and 2-year vocational technical schools training graduates of the 10-year school in specified technical trades; (3) employer operated courses and vocational schools lasting from 3 months to 2 years; (4) informal and formal on-the-job and job-related training programs organized by individual factories, plants, and other economic units.

Agricultural vocational education is given in: (1) Basic 1- and 3-year vocational agricultural courses for farmers and for youth going into farming; (2) 1- and 3-year agricultural management courses; (3) 3-year on-the-job training programs in agronomy and animal husbandry; (4) vocational schools for the mechanization of agriculture which seek to train youth in 1- and 2-year courses as farm machine operators and mechanics; and (5) vocational technical schools which seek to train graduates of the 10-year schools in technical trades for agricultural employment.

Semiprofessional and Professional Training

Semiprofessional schools or technicums, as they are commonly called, provide training for students between the ages of 14 and 30 for jobs in the Soviet economy and culture requiring the services of "middle grade specialists." Since 1954 semiprofessional education is being

organized into programs for 2 academic levels: (1) 2- to 5-year courses (almost all are 4-year courses) for students who have completed the 7-year school; and (2) 2- and 3-year courses for graduates of the 10-year school.

Although the semiprofessional schools are not regarded by the Soviets as higher educational institutions, they are administered by the Union-Republic Ministry of Higher Education. Of the total number of students enrolled in semiprofessional schools in 1955–56, about half were in programs based on the 7-year school and half in programs based on the 10-year school.

Other schools offering specialized training at either a semiprofessional or professional level are, for immediate financial and administrative matters, under the ministry or governmental department for which they are training students. Thus, the Ukrainian Ministry of Health maintains the Ukrainian semiprofessional schools for training nurses, dental technicians, medical aides, and laboratory technicians as well as higher educational institutions in medical and public health fields. In addition, it maintains graduate medical programs designed to prepare medical research scientists and medical school professors.

The Chief Directorate for Physical Culture under the USSR Council of Ministers (Glavnoe Upravlenie Fizicheskoi Kul'tury pri Sovete Ministrov SSSR) administers semiprofessional schools for training physical education teachers and athletic directors—for primary-secondary schools, children's clubs, and sports societies—and higher educational institutions for training coaches and potential athletic champions.

Higher Education

Higher education in the Soviet Union implies professional training in a basic field of knowledge. The course of instruction ranges from 4 to 6 years depending upon the field studied. Agricultural, socio-economic, and teacher-training institutes have 4-year courses; universities and most other higher institutions have 5-year courses; engineering institutes have 5½-year courses; and medical schools have 6-year courses.

Admission to higher educational institutions is based on competitive entrance examinations, although honor students from the senior secondary schools and technicums are eligible to be admitted automatically. Award of a diploma follows a program of instruction which, depending upon the field, concludes with the student's defense of a diploma project or thesis, or the successful passing of State examinations—sometimes both. No degree is given.

The Union-Republic Ministry of Higher Education exercises supervisory control, including control of general academic standards over *all* Soviet higher educational institutions and semiprofessional schools. It controls teaching staff, curriculums, textbooks, enrollment quotas, and the assignment of graduates. Higher educational institutions whose students are being trained for the national economy at large rather than for a particular ministry or governmental agency are directly under the Union-Republic Ministry.

The Union-Republic Ministry of Higher Education is a powerful organ since it is *the* one directly concerned with anticipating and meeting all needs for manpower in the USSR. Its decisions and recommendations are submitted directly to the USSR Council of Ministers as representing the opinions of their foremost Soviet scientists and scholars. Responsibilities assigned by the USSR Council of Ministers to the Union-Republic Ministry of Higher Education include:

1. Recommending solutions to problems pertaining to the development of Soviet professional and semiprofessional training.

2. Formulating the annual and 5-year plans for professional and semiprofessional education including financial estimates, enrollment quotas, school construction plans, and plans for graduate placement.

3. Approving top staff appointments and transfers including those for the director, his deputy for academic and scientific affairs, professorial and instructional staff, and librarians for higher educational institutions.

4. Determining the number and types of higher educational institutions, composition of their faculties and departments, and subjects to be taught.

5. Approving textbooks and study aids.

6. Governing admission and graduation procedures.

7. Coordinating research work in higher educational institutions with that of other governmental agencies, ministerial research institutes, and institutes of the academies of sciences.

8. Requesting and distributing scientific and laboratory equipment.

9. Supervising the importing of foreign scientific equipment and literature.

10. Approving detailed plans submitted by other governmental agencies on the selection and training of postgraduate students and allocation of those who complete such studies.

11. Determining, after study of the academic qualifications of professorial staff and the relative quality of library and research facilities, which higher educational institutions may supervise postgraduate study, and in which fields.

12. Maintaining a roster of staff members in Soviet higher educational institutions.[4]

[4] See M. I. Movshovich (*comp.*), *Vysshaya Shkola; Osnovnye Postanovleniya, Prikazy i Instruktsii.* Edited by A. M. Khodshaev. 2d ed. (Moskva: Gosizdat, "Sovetskaya Nauka," 1948), p. 20–23. Hereafter cited as *Vysshaya Shkola.*

Postgraduate Training and Advanced Degree Research

Soviet higher educational institutions offer training which in many cases approaches that in American institutions for the master's or first professional degree. For persons who are or will be engaged in research activity or in teaching, there are two degrees at two successive levels. Each is awarded after an appropriate period of advanced or postgraduate study. The lower of the two, a 3-year course of studies approximating the general requirements of an American doctorate program, leads to the candidate of sciences degree. Men and women of standing recognized in the Soviet scientific and academic world may enroll in the more advanced postgraduate program, leading to the doctor of sciences degree. The production of a dissertation meeting rigid scholarly standards is an essential part of the program.

Expert Assistance

Control, vested in a single center—the Union-Republic Ministry of Higher Education—is used to coordinate and collate judgments of scientists, scholars, engineers, and others considered to be the Nation's most highly qualified. Once a particular solution has been decided upon, dissenters are compelled to go along with it. Sometimes they may protest a decision in articles or at subsequent conferences; under Soviet policy and procedures they are required to abide by it. Perhaps the following examples will be illustrative of the complex machinery through which experts are expected to assist in solving problems pertaining to higher education and professional training.

Academic Methods Council (Nauchno-Metodicheskii Sovet)

This Council is a consultative body concerned with devising means for improving higher education and postgraduate training. It is composed of professors and directors of higher educational institutions, members of the academies of sciences, specialists from other ministries and research institutes, and chiefs of the directorates in the Ministry of Higher Education.

For working purposes, the Council is divided into 6 sections dealing with academic organization, methods of teaching in higher educational institutions, academic and practical training, evening and correspondence-extension training, postgraduate study and methods of raising

the professional qualifications of the teaching staffs, and study of foreign higher educational methods. The following responsibilities indicate the range of activities assigned to this body:

1. Studying the work of higher educational institutions and devising methods for standardizing it and for raising academic standards.

2. Working out basic organizational and educational-methodological problems and outlining the direction and the form of training.

3. Examining and working out problems connected with postgraduate study and devising general methods for raising the professional qualifications of the teaching staff.

4. Devising methods of educating students in various fields and drafting educational methods regulations pertaining to improvement of training programs.

5. Developing ways of coordinating the work on the academic methods problems of the directorates of the Ministry of Higher Education.[5]

Expert Commissions

Soviet professors and instructors, research scientists, engineers, and others may be called upon at any time to serve on expert commissions (ekspertnye komissii) created to advise on problems within a particular field of competence.

According to the resolution which established this commission, members were to be appointed and confirmed by the Supreme Soviet upon recommendation of the Chairman of Committees on Higher School Affairs under the Supreme Soviet. The latter was to serve as head of the Supreme Certification Commission. The commission reads and passes on the merits of graduate dissertations, reviews the evidence of scholarship submitted as justification for confirming academic "ranks," prepares and examines manuscripts of textbooks, compiles course syllabuses, and considers educational problems in specialized fields.[6]

Supreme Certification Commission

This organ within the Ministry of Higher Education has been vested with the authority to confirm, deny, or revoke advanced degrees (candidate and doctor of sciences) and academic ranks (professor,

[5] See M. I. Movshovich, *Vysshaya Shkola*, p. 37–39. Resolution of the USSR Ministry of Higher Education, October 30, 1946, "O Nauchno-Metodicheskom Sovete pri Ministre Vysshego Obrazovaniya SSSR."

[6] M. I. Movshovich, *Vysshaya Shkola*, p. 420–22. Resolution of the Committee for Affairs of the Higher Schools, Jan. 23, 1945, "Polozhenie ob Ekspertnykh Komissiyakh Komiteta po Delam Vysshei Shkoly pri SNK SSSR."

docent, and senior scientific associate); to determine in which disciplines and at which institutions postgraduate study may be undertaken; and to publish instructions and information on them. To the Commission are submitted the judgments of expert commissions on (1) the quality of scholarship and academic attainments of applicants recommended by higher educational institutions and research institutes for advanced degrees and academic ranks and (2) the relative quality of departments and faculties seeking authority to supervise postgraduate study.[7] To help insure political orthodoxy in Soviet dissertational and professorial work, some of the scholars and scientists in this group also are Party members.

Cultural-Educational Establishments

The Union-Republic Ministry of Culture (Soyuzno-Respublikanskoe Ministerstvo Kul'tury SSSR) is responsible for cultural-educational establishments for adults including those concerned with music, art, drama, movies, ballet; general public libraries; public lectures; houses of culture, museums, rural clubs, and others. Operation of most of the schools and courses in these fields comes under the subordinate ministries of culture in the Soviet Republics.

[7] Ibid. p. 419–20. Resolution of the USSR Council of People's Commissars, No. 367, Feb. 26, 1945, "Polozhenie o Vysshei Attestatsionnoi Kommissii po Delam Vysshei Shkoly pri Sovnarkome SSSR."

Chapter III

Preschool Education

AS THE TWIG is bent the tree's inclined is a maxim many societies use as a guide in their educational processes. Less than a week after the Revolution of October 1917, the new People's Commissariat (now Ministry) of Education of the RSFSR created a Directorate of Preschool Education which has functioned ever since. It went on record as considering preschool training to be one of the most important in the system. In 1918 an Institute of Preschool Education was established to supervise the training of teachers in this field, and during the next few years several nationwide conferences were held.

The decades since the Revolution of 1917 have brought about changes in the organization and methodology of preschool education (doshkol'noe obrazovanie) in the Soviet Union. The level has now been subdivided into two distinct phases: the nurseries (yasli) or crèches, as they are sometimes called, for children from 6 weeks to 3 years of age; and the kindergartens (detskie sady) for children from 3 to 7 years of age. Each phase includes part-time, summer, and seasonal programs at playgrounds, resorts, and camps in addition to programs in the permanent year-round institutions.

The USSR has become a nation of working mothers, and since the State requires a large number of women in factory and farm work, preschool programs have become an integral part of the national economy. An unusual amount of attention is focused on this component of the Soviet educational system. Nurseries in the Soviet Union are regarded as preschool establishments; their major function is to render child care service. The kindergartens, while providing such service, also carry on educational activity. Since care of babies and toddlers is

largely a physical matter, the nurseries are under the jurisdiction of the health ministries of the republics, as are the physical education and medical aspects of the kindergartens. The kindergartens, in other respects, remain a responsibility of the directorate of preschool education in the republic ministries of education.

Often the working mother can find a preschool institution near where she is living or at the economic enterprise where she is employed. If the mother is on night shift she may have her children cared for on a 24-hour basis and take them home only on weekends. Enrollment of children in nurseries and kindergartens is not compulsory. The demand for placement far exceeds available vacancies, particularly in rural areas and small towns where preschool facilities are available only during the summer and at harvest time. The grandmother continues to exercise a primary role in rearing the preschool child.

Attention in this chapter is focused on Soviet kindergartens. Nurseries are brought into the discussion only where a particular topic applies to them as well as to the kindergartens.

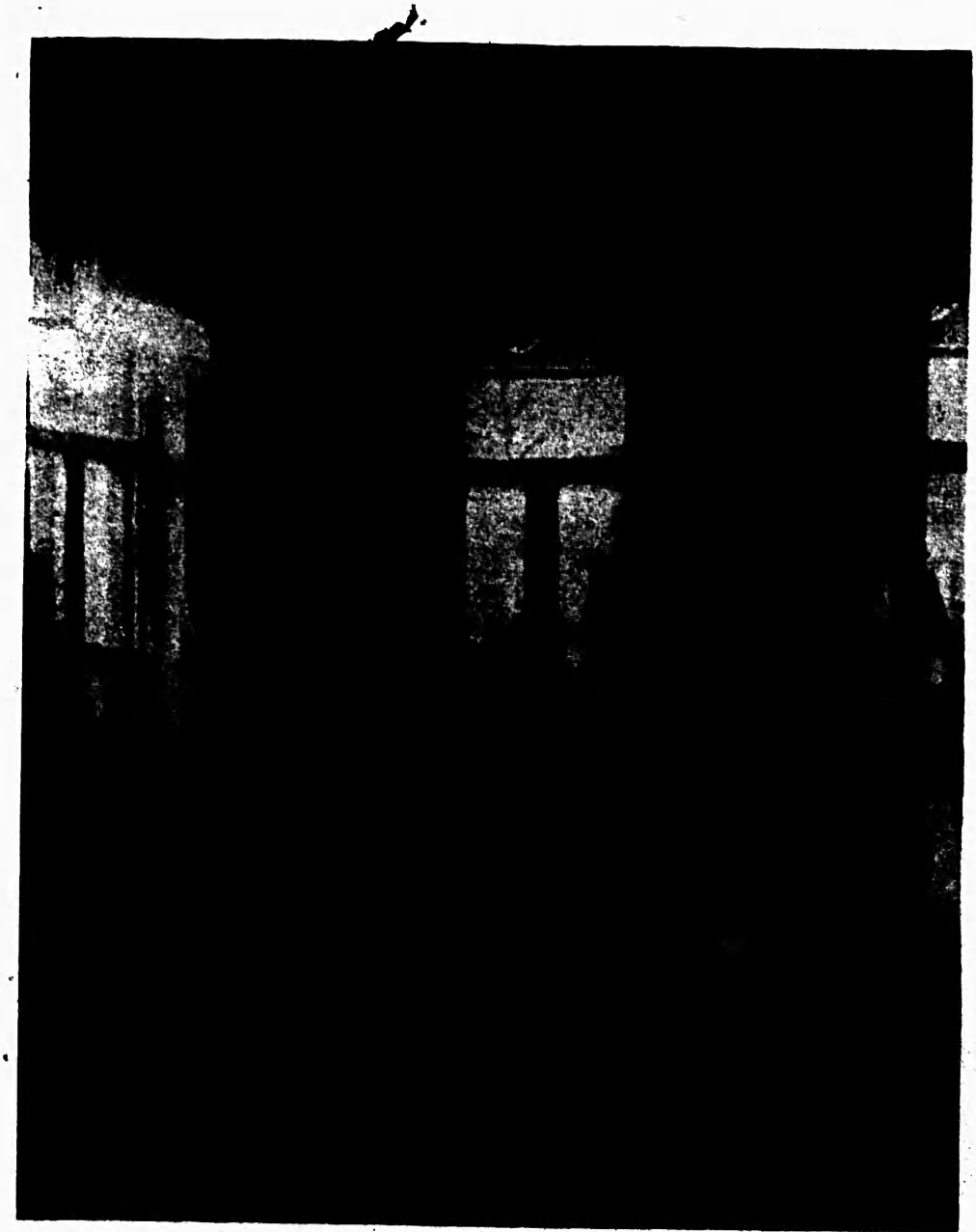
Under Soviet law, any group—in a factory, trade union, cooperative enterprise, apartment house, or collective farm—can establish a nursery or kindergarten provided it is staffed and supervised in conformity with Government regulations and standards. Such local groups bear part of the financial burden; ultimate financial responsibility rests with the ministry or governmental agency to which the enterprise is subordinate.

Preschool institutions are housed in a wide variety of facilities ranging from thatched-roof peasant cottages, dilapidated ex-office buildings, and crowded quarters to spacious, modern specially designed buildings. Regardless of accommodation, Western visitors comment that the nurseries and kindergartens are clean and provided with attractive, educational toys. The children, they note, appear to be healthy, well scrubbed and cared for, with a warm spirit of affection prevailing.

The nursery or kindergarten staff includes a director, teachers, their assistants, one pediatrician and medical nurse, and a domestic contingent with a bursar, cook, and cleaners. The local education authority appoints the head of each institution and has approving authority over the director's selection of staff. In most instances, heads of preschool institutions are women.

In 1955 more than 5 million children under 7 years of age were said to have participated in some type of preschool program. Nurseries accommodated 906,000; full-time kindergartens enrolled

1,713,000; seasonal nurseries and kindergartens provided for another 2 million; and summer kindergartens served 565,000. Table 2, p. 42 indicates the growth of nursery care and full-time kindergarten enrollment.



A Kindergarten playroom in the Shcherbabov Silk Mill, Moscow.

Table 2.—Enrollment in Year-round Soviet Nursery Schools and Kindergartens, by Specified Years[1]

(Year end; in thousands)

Year	Enrollment in nursery schools			Enrollment in kindergartens		
	Total	Urban	Rural	Total	Urban	Rural
1	2	3	4	5	6	7
1928	62	54	8	130	119	11
1940	859	559	300	1,172	906	266
1950	777	512	265	1,169	958	211
1954	862	589	273	1,577	1,305	272
1955	906	623	283	1,713	1,410	303

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR: Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 248. Hereafter cited as *Narodnoe Khozyaistvo SSSR.*

Financing

Tuition fees to Soviet nurseries and kindergartens range from 30 to 150 rubles a month based on the parents' ability to pay. These fees are prorated on the basis of family income, number of children in the family, number of hours the child is at school (9–10 hours a day, 12–14 hours a day, and 24-hour periods), and the location of the institution. Fees for rural schools usually are scaled at least 10 rubles a month lower than those in urban centers. For children of parents on disability pension, unmarried mothers, war invalids, and some others, no tuition fees are charged.[1]

Despite required tuition fees, preschool facilities in the USSR are largely State supported. For example, the 1954 budget of the Dechorskii Kindergarten—one of 280 in Kiev—which cares for 175 children and has a teaching staff of 12, was reported to total 1,086,000

[1] N. A. Pomanskii (*comp.*), *Finansirovanie Prosveshcheniya i Zdravookhraneniya* (Moskva: Gosfinizdat, 1949), p. 78–79. Resolution of the USSR Council of Ministers, No. 3290, Aug. 31, 1948, "O Razmere Platy Roditelei za Soderzhanie Detei v Detskikh Sadakh i Detskikh Yaslyakh, Prinadlezhashchikh Gosudarstvennym Predpriyatiyam i Uchrezhdeniyam." Hereafter cited as *Finansirovanie Prosveshcheniya.*

rubles of which the State paid 91.4 percent and the parents, 8.6 percent. As a general rule, however, the fees paid by parents are expected to cover between 25 and 35 percent of the annual cost.[7]

The Soviet Kindergarten

The basic functions of this educational level were expressed in the "Rules for Kindergartens"[8] adopted in December 1944. These rules declare that, although the fundamental purpose of the Soviet Kindergarten is to achieve all-round development of children between the ages of 3 and 7, such institutions should also be recognized as a means of providing mothers of young children with the opportunity to participate more actively in the "productive, governmental, cultural, and socio-political life" of the Nation. The order outlines the work of the kindergarten as follows:

> 1. To take care of the health and physical development of the child, providing him with nourishing food 3 or 4 times a day and plenty of exercise indoors and out.
>
> 2. To develop the general character of the child, his mental abilities, speech, willpower; to teach him painting, drawing music, etc.; and to take him on excursions.
>
> 3. To teach the child independence and self-reliance in looking after himself; to help him form habits of cleanliness, to accustom him to working and to taking care of his belongings.
>
> 4. To teach the child to be organized in his work, to get along with both children and adults, to respect his elders, and to love his parents.
>
> 5. To instill in the child love of the Soviet homeland, its leaders, the Soviet Army, the rich resources of the nation.
>
> 6. To prepare the child for successful study in school.

From long lists of applicants Soviet kindergarten directors give first priority to children whose parents both work and who have no grandmothers at home to take care of them. Day pupils are generally chosen from those living close by; boarders may come from farther away. Kindergartens having buses to transport children may choose day students living some distance away. Kindergartens estab-

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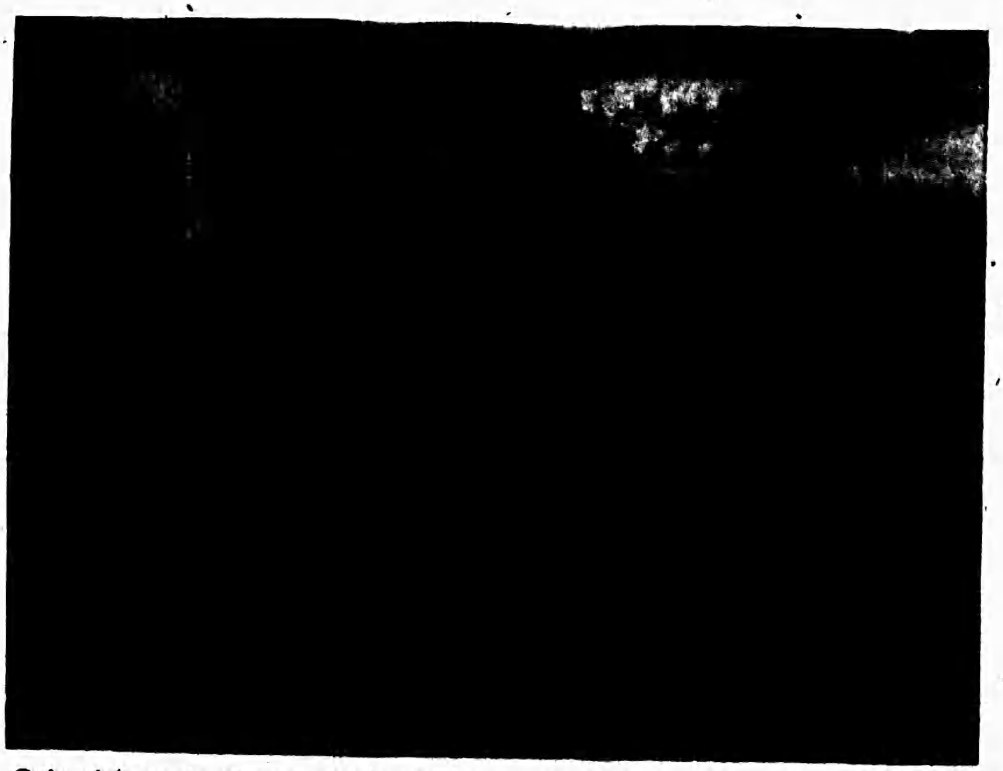
[7] Ibid., p. 76. Instruction of the USSR Ministry of Finance, No. 238, April 21, 1939, "O Poryadke Finansirovaniya i Sostavleniya Planov i Otchetov po Raskhodam na Soderzhanie Detskikh Sadov."

[8] A. M. Danev. (*comp.*), *Narodnoe Obrazovanie; Osnovnye Postanovleniya Prikazy i Instruktsii* (Moskva: Gosudarstvennoe Uchebno-Pedagogicheskoe Izdatel'stvo, 1948), p. 272–73. Order of the RSFSR People's Commissariat of Education, Dec. 15, 1944. Hereafter cited as *Narodnoe Obrazovanie*.

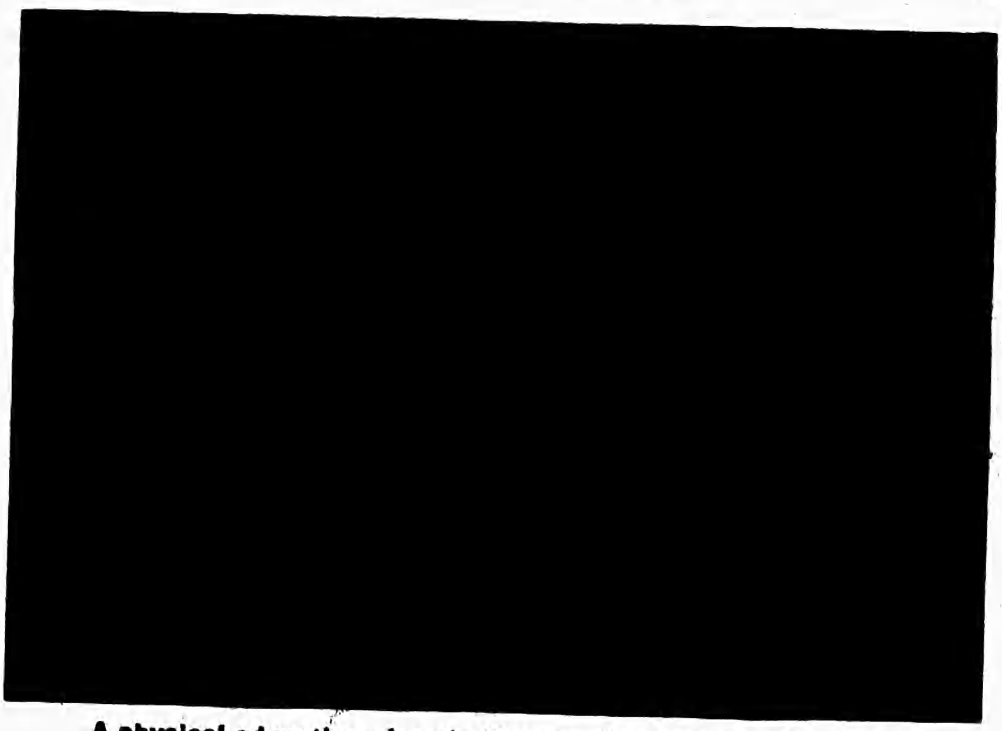
lished by a given enterprise limit their enrollment to children of employees.

Kindergartens usually have 3 or 4 groups of 25 children each, though some have only 1 or 2 groups. The groups are divided by age, the youngest children of 3 or 4 years of age in one, those of 4 or 5 in the middle group, and those of 5 or 6 in the senior group. The schedule of the boarder is integrated with that of the day pupils. Each group of up to 25 pupils has one teacher and one assistant assigned to it.

Day pupils arrive between 7 and 10 in the morning, depending upon when their parents go to work. The boarders generally get up about 8 a. m. As a rule, the children play for an hour before breakfast. After breakfast they take part in supervised intellectual and physical activities ranging from 12 to 20 minutes each for the younger groups, from 25 to 30 minutes for the middle groups, and from 30 to 40 minutes for the older groups. After the morning outing they have lunch and rest periods of 1½ to 2 hours, followed by afternoon tea, more recreation and supervised activity, with dinner scheduled between 6 and 7 in the evening. After dinner the day children are sent home. The boarders are put to bed by 8 or 8:30 p. m.



School boys in the corridor of School No. 35, Frunze District, Moscow.



A physical education class in Moscow Kindergarten No. 450.

In Soviet kindergartens the native language is used, and children learn chiefly through planned forms of play. There are games invented by the children, playground and didactic games and other group and individual activities, all under the guidance of the teacher.[4]

In the senior groups play, both as an activity and as a means of education, remains important, although more formal teaching begins to be of significance. The older pupils begin the transition to the regime they will follow in the first grade. They are given instruction on how to listen attentively to directions and explanations and to observe and imitate a demonstration. They usually are seated at tables for two facing the teacher instead of the more informal grouping at large tables for the younger groups.

Music is emphasized in Soviet kindergartens—singing, listening to music, exercising and marching to music, and playing musical games. (Soviet students preparing to be kindergarten teachers receive musical training and are required to learn to play the piano or a national instrument.) In their drawing lessons, Soviet kindergarten children concentrate more on design—stylized flower shapes on diamonds or circles of paper, for instance—than do children in the US, although the pictures they make of domestic scenes are about what we would expect.

[4] See E. N. Medynsky, "The USSR." *Yearbook of Education* (London: Evans Bros., Ltd., 1948), p. 408.

Soviet children use colored pencils rather than crayons with which to draw. Visitors have reported seeing small plasticine figures which the children had made. None of the visitors to Soviet kindergartens have reported seeing blackboards or easels on which children might make large, free pictures with uncramped arm movements.

During periods of free play there is no restriction on talking, and the children select activities they wish to undertake. Some draw; some head for the book corner hoping the teacher will be able to read a story or two. A few may roughhouse or play a noisy skittles game. Some play picture lotto. The toys in one kindergarten included a number of large plaster animals—roosters, geese, cows—which were about 2½ feet high and big enough for the children to sit on. In most kindergartens there are structures made of blocks which the children play around as well as blocks of the variety found in US kindergartens which the children use for building. Dolls include those with dark and those with light skin.

Probably the biggest shortcoming of kindergarten education in the USSR, which the Soviets readily admit and hope to correct, is the lack of urban outdoor play space and equipment. Out-of-door activity frequently must be limited to walks to city parks and to group play at community recreation areas. As seen in the illustration on page 44, they walk two by two.

Some of the walks are planned by the teacher to enable the children to acquire new experiences and impressions. After their return to kindergarten, the children are assembled in small groups and asked to describe what they have seen and learned. Frequent opportunities for oral self-expression are designed to help the child develop poise and ability to think on his feet. Oral recitations and examinations are an integral part of the Soviet educational process.

As seen in the photographs on pages 44 and 45, many children attending kindergarten in the USSR are required to wear uniforms. These vary in type from school to school. Several visitors have reported that, in the kindergarten they visited, all the boys and girls were dressed in the same kind of smock made by the children's mothers according to a pattern established by the school.

Partly as a result of inadequate outdoor equipment, the Soviets have developed many forms of indoor exercise. The photograph on page 45, illustrates the use of hoops in gymnastic activities to teach children rhythm, grace, and coordination, as well as to provide opportunities to strengthen and develop muscular control.

Character and habit training play an important part in the Soviet educational process, perhaps more noticeably so in the nurseries and kindergartens than in the grades. As in the US, teachers seek to train children to be self-reliant by encouraging them to do whatever they

can for themselves, and to be helpful to others by asking them to assist younger children with such tasks as removing wraps. Responsibility and willingness to accept their fair share of the work are instilled in the children through a "duty" system. Each day two duty children are appointed; they wear red armbands and red aprons. Their identifying animal or bird is posted on a small duty board which displays an enlarged photograph of the two duty children carrying out their functions. The duty children are required to help clear tables, act as monitors for cloakrooms, water plants, feed the animals, and so on.

In Soviet kindergartens children begin their life-long process of communist orientation. Pictures on the walls include portraits of Soviet leaders. The musical games, songs, and poems they learn have to do with communist themes as well as fairy tales. Soviet children often hold small Soviet national flags in their marching games. Or the orientation may come in art classes when the teacher has the children draw the Kremlin towers or the hammer and sickle emblem.

Kindergarten teachers and parents are supposed to meet in small organized groups once a month and in a general meeting 3 or 4 times a year. In addition, there are informal contacts between parents and teachers at the school. Home visits by the teacher are considered mandatory.

The kindergarten teacher is expected to observe such things as living conditions and general pattern of life and, primarily, the interaction of the child with members of the family—their upbringing and discipline policies, their behavior toward the child, and his response. The teacher may call the attention of parents to "incorrect" behavior towards the child in such things as excessive affection or too harsh treatment and explain the type of training given at school. Parents are taught to expect the child to perform some duties such as keeping his clothes and personal possessions in order, helping about the house, and assisting with the care of smaller brothers and sisters. Parents are encouraged to read to their children, teach them little poems and songs, and listen to what they have learned at school.

Every Soviet kindergarten is supposed to have a parents' corner in which a list of recommended children's books, toys, sample pieces of children's furniture, recommended types of meals, and examples of self-made toys are displayed. On the bulletin board in the parents' corner are admonitions concerning the health and upbringing of children, notices of lectures, and literature on child development.

To ensure the child's preparation for the grades, certain skills are expected of him before he leaves kindergarten. He should be able to "count up to 20 or 30, recognize and compare figures, add and subtract numbers of one digit, use simple units of measurement such as the kilogram, meter and liter; name the days of the week, and tell time by

the clock at least in terms of hours. He should be able to express his ideas using an adequate vocabulary and be able to form sentences which are correct, coherent and understandable to others. In addition, he should be able to retell short stories, relate an incident from his own experience, and recite several poems from memory."[8] He is then considered ready for formal schooling.

[8] E. N. Medynskii, *Narodnoe Obrazovanie v SSSR* (Moskva: Akademiia Pedagogicheskikh Nauk RSFSR, Uchpedgiz, 1952), p. 49-50.

Chapter IV

General Primary-Secondary Education

GENERAL primary-secondary education in the USSR consists of a 10-year coeducational program of studies for youth between 7 and 17 or 18 years of age. It is compulsory through grade VII and available through grade X in cities and industrial centers. By 1960, the Soviets hope to have the 10-year program available throughout the USSR.

This chapter describes the type of education some 28 million Soviet boys and girls are receiving in the regular primary-secondary schools. The chapter immediately following outlines other types of general education at the primary-secondary level for particular groups of students on a part-time basis or at special schools.

Historical Development

Although the aims of education in the USSR have remained practically unaltered since the Communists seized power in 1917, educational practices have undergone major changes.

Within a few months following the October Revolution all schools—including private, religious, and specialized institutions—were transferred to the jurisdiction of the State. By September 1918, the prerevolutionary school system had been abolished and replaced by a 9-year unified labor school (edinaya trudovaya shkola or devyatiletka). The 9-year school was divided into: stage I of 5 years' duration for children 8 to 13 years of age; and stage II of 4 years in length for

adolescents 13 to 17 years of age. In both, education was to be free, coeducational, and compulsory for all school-age children. The lack of facilities made compulsory education impossible. Priority was given to children of proletarian origin.

During these years there was a great deal of controversy over the educational program. Lenin set about transforming the school into an essential component of Soviet society, declaring that "The task of the new education is to unite teaching activities with a socialist organization of society . . . teachers must consider themselves as agents of communism as well as general education."[1] This view of education as a "political weapon" met with immediate and widespread disapproval by teachers who held traditional or religious views and by the teaching profession in general. The latter held that schools should be neither bourgeois nor proletarian; they should impart knowledge useful for all pupils, regardless of class origin.

Some Soviet educators of the time even prophesied the imminent withering away of the school; in their opinion the labor process should replace schooling and the study of life at large should replace physics and arithmetic. "What must the new labor school be?" wrote V. N. Shulgin, director of the Marx-Engels Institute of Pedagogy, "not preparation for life, but life itself—that is the answer. Life, a life common to school children and school workers and, since in life there are neither subjects nor desks, so there should be none in the school; and since productive labor is the basis of life, so it must be the basis of the school commune."[2]

The prevalent opinion of certain members of the *Komsomol*, which at that time consisted primarily of communist young people between 14 and 26 years of age drawn from the working class, was that scholarship and intellectual knowledge in general were a reflection of "capitalist culture, class distinction, and bourgeois presumptuousness." Lenin's speech to them on October 2, 1920, suppressed this idea by emphasizing need of Soviet youth to learn and to surpass the bourgeoisie in culture, organizational ability, and technique, and thus, "beat the enemy with their own stick."

Despite Lenin's advocacy of a program based on acquisition of knowledge upon which subsequent specialization could be based, many at the first Party Congress (Dec. 31, 1920–Jan. 24, 1921) who were devoted to education realized the need for skilled and technical man-

[1] V. I. Lenin, *Sochineniya*, Vol. 17: 4th ed., p. 409 and 18: p. 68. Cited by E. Koutaissoff, "Soviet Education and the New Man," *Soviet Studies*, vol. 5: p. 105, No. 2 (October 1953).

[2] V. N. Shulgin, "Detskaya Kommuna," *Narodnoe Prosveshchenie*, 1918, Nos. 23–25, quoted by E. Koutaissoff, ibid., p. 106.

power, favored narrow vocational training from the start and labeled general education "bourgeois prejudice." Because of the influence of Lenin's wife, Krupskaya, and Commissar of Education Lunacharskii, the former view prevailed. Still, some teachers feared that the influx of all kinds of students into the school system would lower the standards, while others continued to regard general education as a capitalistic survival.

The chaotic condition of the country—civil war, famines, purges, and flight, coupled with almost complete economic collapse—made it temporarily impossible to carry out an effective program of any kind. Until 1924 schools continued to shut down for lack of teachers, school supplies, and equipment. Those that remained open frequently were supported by local communities and manned by teachers who went unpaid for months. The New Economic Policy, inaugurated to get the country back on its feet economically, had a stabilizing effect on the school system as well. By 1926, the census reported that 9.3 million out of 11 million in the 8 to 11 age group were enrolled in school.

The years between 1924 and 1931 were marked by upheavals. These years following the death of Lenin saw the growth of Stalinism, abandonment of the New Economic Policy, enactment of the first 5-year plan with its emphasis on industrializing the country at maximum speed and forced collectivization of the peasants. In education this was a period of experimentation, much of it superficial and hastily introduced. The ideas of John Dewey found favor in the Soviet Union, as did American educational experiments. The demand for large numbers of graduates from all types of training programs within the shortest possible time brought deterioration in the quality of training.

Primary schools were reduced from a 5-year to a 4-year period of instruction, with general secondary education consisting of an additional 3 years, making the common school one of 7 years. Although a few 9-year schools continued to function, many of the 8th and 9th grades were absorbed into 4-year technicums for training technicians, factory foremen, and semiprofessional personnel.

"Complex programs"—so-called because they did not compartmentalize knowledge into traditional subjects—replaced the previous textbooks. At first the complex programs revolved around "nature," "labor," and "society." Children were taught that labor is the basis of human life, that collective labor is more productive and progressive than individual labor, and that nature and natural resources are not subjects for abstract study but exist for man to harness and put to use for the common good. They were taught that the workers in capitalist countries were exploited and that only under the socialist

system could workers and peasants join forces and work for mutual benefit.

Subsequently, the Dalton Plan, evolved by Helen Parkhurst in Dalton, Mass., and the project method were widely introduced. As developed in the Soviet Union, these methods required the teacher to organize the work of pupils around projects whose execution was frequently left to the child's initiative. The children worked in groups known as brigades. Testing became "collective" with each brigade leader answering for his group.

These "active" methods of learning were intended to provide children with opportunities to develop initiative, organizational ability, and self-government. Annual surveys of the educational authorities showed that many pupils did not have a grasp of minimum essentials.

Annual curriculum revision, acute shortage—of textbooks, teaching aids, and laboratory facilities—a teaching body inadequate in number and in professional experience to handle new teaching methods, coupled with Party personnel assuming charge of school administration and teaching responsibilities, combined to produce a critical, negative result.

According to the Webbs, at one meeting members of the Central Executive Committee complained that their own children "though eager and bright, could not spell, were weak in arithmetic, and knew more about the bad conditions of labour in capitalist countries than about the geography of the USSR." [3]

From the People's Commissariat of Education came the admission that graduates of the Soviet primary and secondary schools who entered higher educational institutions could not solve second degree equations, had no idea of Newton's binomial, and were not always proficient in using fractions; they had little knowledge of geographical data, confused notions of historical events, and their complete ignorance of foreign languages hampered their understanding of scientific terminology.[4]

The first intimations of the educational counter-revolution of the 1930's were given in a decree of the Party Central Committee of September 5, 1931. It began by commending the achievements of Soviet education under which, it stated, the number of pupils in elementary and secondary schools had increased from 7,800,000 in 1914 to 20,000,000 in 1931. After further complimentary remarks on the superiority of the Soviet school to bourgeois schools, the decree pointed out "cer-

[3] Sydney *and* Beatric Webb, *Soviet Communism—a New Civilization*, 1935, p. 897. Cited in E. Koutaissoff, "Soviet Education and the New Man," *Soviet Studies*, Vol. 5: p. 113, No. 2 (October 1953).

[4] E. Koutaissoff, op. cit., p. 113.

tain serious defects" in Soviet education. "School instruction," it declared, "is not covering a broad enough field of general educational subjects, and is not coping satisfactorily with the problem of producing for the semiprofessional and higher educational institutions completely literate pupils with a good mastery of the fundamentals of knowledge, i. e., physics, chemistry, mathematics, the native language, geography, etc." [5]

To improve the situation the decree reintroduced regular timetables and specified what subjects were to be taught. A year later, the Party Central Committee issued another decree more precisely delineating the program to be taught and replacing the laboratory-brigade method of organizing school work by the systematic exposition of each subject in lessons arranged and planned by the teacher in accordance with a strictly defined schedule. Teachers were to check the progress of each pupil at the end of each quarter and to give a grade in each subject. The teacher's authority again was to be respected in all phases of school activity. Students who behaved in hooligan fashion, insulted the teaching staff, broke school rules, or damaged or stole school property were to be suspended for periods of from 1 to 3 years.[6]

The next step was taken in 1934 when the 7- and 10-year schools were introduced. Concurrently with the reorganization of the school structure and the return to traditional teaching methods came reforms relating to subject matter. School work had become so permeated with politics that much of it had lost contact with reality and had become in effect detrimental to the interests of the Soviet State. One American professor notes, "The abandonment of 'political education' . . . was probably one of the greatest sacrifices made by the Communist leaders in the course of the momentous years 1934–39. . . ." [7] Its abandonment made room for the study of those subjects which had been neglected under the former curriculum, especially the mother tongue, foreign languages, literature, history, and geography.

By the mid-1930's the general outline of the Soviet primary-secondary school system as it is today had taken shape. Measures in

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[5] N. I. Boldyrev, *Direktivy VKP(b) i Postanovleniya Sovetskogo Pravitel'stva o Narodnom Obrazovanii: Sbornik Dokumentov za 1917–1947* (Moskva-Leningrad, Akademiya Pedagogicheskikh Nauk, 1947), Vol. I; p. 151–52. Resolution of the Central Committee of the Communist Party, Sept. 5, 1931, "O Nachal'noi i Srednei Shkole." Hereafter cited as *Direktivy*.

[6] N. I. Boldyrev, *Direktivy*, Vol. 1, p. 163–64. Resolution of the Central Committee of the Communist Party, August 25, 1932, "Ob Uchebnykh Programmakh i Rezhime v Nachal'noi i Srednei Shkole."

[7] Nicholas S. Timasheff, *The Great Retreat* (New York: E. P. Dutton and Co., Inc., 1946), p. 220.

subsequent years have aimed at raising standards of education and tightening discipline while imbuing children with a communist outlook on life.

The stern conditions of the war years brought about hardships and changes. Schools were destroyed and attendance fell sharply. Among the changes was the abolition of coeducation in September 1943 in the 10-year schools of 76 cities following its successful trial in several 10-year schools in Moscow the previous spring. By 1944–45 separate education was effected in the 10-year schools of 146 cities, and later in a total of 176 cities. Separate education was not introduced in the smaller towns.

This war-time measure made it possible to give a small percentage of boys limited military training in school, and facilitated the development of lessons around military problems. For the girls, classes in domestic arts were arranged. Following World War II there was much pro and con discussion in the Soviet press of the theory and practice of coeducation. Coeducation came into strong favor again on the grounds that separation of the sexes was inconsistent with the principle of equality of the sexes, and was unduly expensive in requiring duplication of school organization and equipment. When separate education was ordered abolished in 1954, it was revealed that about 13 percent of the Soviet enrollment had been educated in separate classes.

During the war years the attitude of the Party and the State changed toward the Pioneer and *Komsomol* organizations. In 1944 they were forbidden to interfere with the work of the teachers or to criticize them at meetings or in school wall newspapers. No longer were they authorized to make school inspections without permission of the local educational authorities, or call pupils from their classes to engage in "socially useful" work.[8]

These limitations imposed upon the heretofore *avant garde* of the Nation's politically conscious and active youth marked a trend toward evolution of an elite youth based on demonstrated ability rather than on political activity only. In the 1920's and 1930's *Komsomol* membership had favored youth who were enthusiastic communist agitators; in the 1940's and 1950's membership has striven to embrace those considered to be outstanding students—the potential scientists and scholars—and to make of them not only intellectual leaders, but communist leaders in every sense of the term—men and women who can be trusted and depended upon to advance the cause of the Party and State on all fronts.

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[8] E. Koutaissoff, "Soviet Education and the New Man," *Soviet Studies*, Vol. 5: 116, No. 2 (October 1953).

Following World War II, Soviet educational authorities were busy with school reconstruction in war devasted areas, building new schools, equipping schools with laboratories and libraries, and rewriting certain textbooks in line with "ideological decrees" promulgated during the late 1940's. These decrees subjugated all aspects of Soviet life—including music, art, drama, movies, science, and literature to the Party's demand for revitalized, disciplined, communist citizenry.[9]

During these years of the fourth 5-year plan, the intensified subordination of education to the aims of the Communist Party took the following form:

(1) The inculcation of patriotism was the first and foremost task of teachers. This was interpreted as narrow nationalism which demanded "fanatical loyalty to the regime and unmitigated antagonism toward the outside world." [10]

(2) Teachers were required to show Soviet and Russian achievements as superior to Western achievements in science, art, literature, and culture in general.

(3) The "older brother" role of the Great Russian people toward the minority peoples in the USSR was underscored throughout the educational process.

(4) The glorification of Stalin as the leader of genius to whom the Soviet people owed all its success became of paramount importance in teaching. Student isolation from general information about foreign cultures and peoples was carried to extremes. Information was omitted, slanted, distorted.

A major development during the fourth 5-year plan was the decision to make 7 years of education compulsory. Desired since 1934, initial shortage of teachers and later war destruction and general dislocation had forced postponement of this decision until 1949. By then a 7-year education was becoming available for most children in cities and industrial centers. Within a few more years children in isolated hamlets and mountain villages were beginning to be affected by the 7-year compulsory education law.

When the fifth 5-year plan was announced in 1951, it contained the goal of compulsory 10-year education for urban children by 1955 and for rural children by 1960. The experience of Soviet educators during

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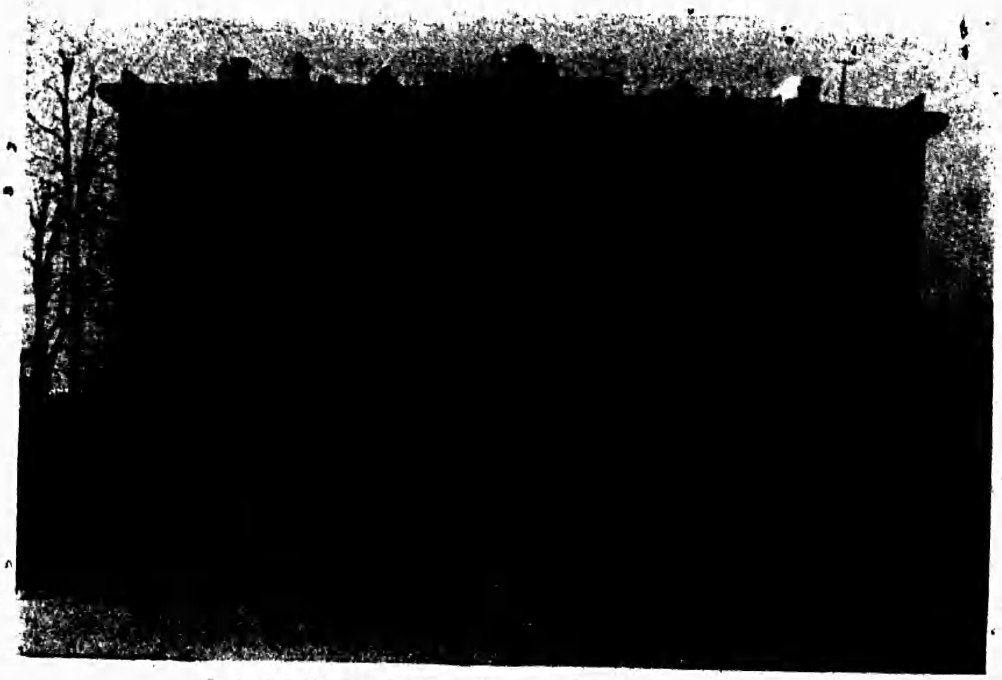
[9] For a comprehensive account of these ideological decrees and a discussion of their ramifications see George S. Counts and Nucia Lodge, *The Country of the Blind; The Soviet System of Mind Control.* (Boston: Houghton Mifflin Co., 1949) p. 244–80; also U. S. Department of State, "Thought Control in the Soviet Union: The Educational System," *The Department of State Bulletin* 25: 719–22; November 5, 1951.

[10] *The Department of State Bulletin*, ibid., p. 720.

the years 1952–55, altered this decision. Too many children were found unable to cope satisfactorily with the curriculum in grades VIII–X. The press reported that in many cases from 30 to 50 percent of the children were failing.

At first it was decided to lower academic standards. In the process textbooks were revised—the material simplified and condensed—and the number of required standard examinations was cut down. Courses such as logic were eliminated. Nonacademic subjects like physical education, singing, handicrafts, and practical courses for learning by doing, were introduced. In order that a more or less average student body might cover the program in science courses believed essential by the authorities—a program equal to the earlier one in scope if not in comprehensiveness—additional time was allotted to science instruction at the expense of courses in the humanities.

Official pronouncements repudiating the so-called "Stalin cult" were followed by immediate steps to revise courses in history and literature. To accord with political decisions, particular attention was henceforth to be paid to the decisive role of the people, not of one man—Stalin—as the maker of history. The teaching of literature was now to be less an analysis of "ideological content" and more an appreciation of literary and artistic values "to which due attention was not paid in the old curriculum."



A secondary school, Frunze District, Moscow.

The recent innovations in the Soviet secondary school program mark a phase in the Soviet struggle to attain quantitative secondary education. Between 1951 and 1955 a fourfold increase was announced in the number of pupils graduating from Soviet 10-year schools. Although USSR population is 35 million larger than US population, it was June 1956 before the reported total of graduates from Soviet secondary schools (1.5 million) exceeded the total from American high schools (1.3 million).

With the expansion of the secondary school system new problems are necessitating a review of the functional effectiveness of the program. The primary function of the secondary school previously was to prepare a rather select group of people for higher education. A majority of the 10-year school graduates continued their studies in colleges and universities. By 1953, this function could no longer be the main one since only about 30 percent of the graduates could be accommodated in Soviet higher educational institutions. Consequently, admission requirements were raised and selectivity intensified.

The large number of young people completing the 10-year school has confronted the regime with the problem of making the best use of graduates who do not get into higher education. Ways had to be developed to train them for non-professional jobs. This adjustment has been taking place concurrently with the introduction in the school program of polytechnical training.

The new courses, which have been added to the 10-year school curriculum and some of the old courses which have been revised (such as surveying, diagram and graph drawing, abacus calculation), introduce obligatory practical studies for students who will enter trade or technical work without obtaining a higher education. In grades VIII–X, 2 hours a week are allotted to practical study during which students are acquainted with the main implements and mechanized processes of industry and agriculture and taught skill in handling such mechanisms as motors, generators, transformers, radios, and telephones. Students are being given more laboratory work and a greater number of excursions to see how scientific and engineering principles are applied in industry.

The Soviet policy of making 10 years of education universally available by 1960 raised the question of tuition fees for grades VIII–X which had been charged since 1940. It was announced in 1955 that beginning in September 1956, the tuition fees of 200 rubles a year in Moscow, Leningrad, and republic capitals, and 150 rubles a year in towns and villages would be abolished.

Although tuition fees were scheduled to be abolished, primary-secondary education in the USSR is not entirely free. Textbooks, writ-

ing materials, and school uniforms (worn primarily by children in urban areas) are paid for by the parents. A charge is made for dormitory accommodation which is provided at some schools for children from outlying rural areas.

Function

Education is viewed by the Communist Party as an instrument for the formation of a communist society. Because its chief function is the creation of communist citizens who will create the communist State, Soviet educators point out that education necessarily must be completely subordinate to the interest of the regime. Communist outlook and service to the State are inherent in Soviet educational policies and practices.

Subjects in the primary-secondary schools are taught in conformity with the prevailing interpretation of Marxist doctrine favored by the Communist Party. Although specific courses in the fundamentals of Marxism-Leninism or communist political philosophy are not indicated at this level, political indoctrination permeates the program. Certain functions are regarded by the regime as basic to communist education at the primary-secondary level. Among these are:

(1) The fostering of an atheistic attitude toward unexplained natural phenomena;

(2) The instilling of Communist morality—defined as the training of "courageous citizens of the Socialist State who deeply love their motherland and are prepared and able to defend it against its enemies; people conscious of their civic duty, able to fight for the common cause of the working people, disciplined, staunch, strong of will, straightforward, honest, industrious, devoted to the interests of the workers, active, and resolute champions of communism." [11]

(3) General esthetic training through which the rising generation is taught to appreciate past and contemporary achievements in art, music, and literature;

(4) Physical training and the all-round development of the body;

(5) Systematic mental training in which children become familiar with the principles of science; develop memory, perception, imagination, and ability to express themselves fluently and easily in speech and in writing; and learn to acquire knowledge independently and to synthesize and apply it in practice;

(6) Polytechnical education through which pupils acquire the

[11] E. N. Medynskii, *Narodnoe Obrazovanie v SSSR* (Moskva: Akademia Pedagogicheskikh Nauk, Uchpedgiz, 1952) p. 11.

principles of science (basic to understanding the main branches of industry, importance of machinery, operation of large-scale industrial and agricultural production, and use and operation of simple tools and instruments) and a socialist attitude toward labor and work.

Organization

Soviet schools are organized into: (1) Primary schools (nachal'nye shkoly) composed of the first 4 grades; (2) 7-year schools (semiletki), also known as "incomplete secondary schools" (ne polnye srednie shkoly) composed of grades I-VII; and (3) 10-year schools (desyatiletki) or "complete secondary schools" (polnye srednie shkoly) with classes in grades I–X. There may be several parallel grades in a large school, but no schools are reported for junior secondary pupils only or for senior secondary pupils only.

Although it is planned that the 10-year school will be the standard primary-secondary institution for general education in the USSR, other organizational patterns have been devised for non-Russian speaking children. In some areas inhabited by ethnic minority groups a preparatory class is required before children begin the first grade. In some non-Russian speaking republics all schools are based on a 4–4–3 pattern, with the extra year providing for study of the Russian language and literature. The Georgian Republic followed this pattern until 1955; the Latvian and Estonian Republics were following it in 1956. In other non-Russian speaking schools, extra time to study Russian is provided through a lengthened school day and year.

The academic year in Soviet primary-secondary schools is divided into 4 quarters with an additional period set aside for review and final examinations. Schools open early in September and close in late May for grades I–III and on various dates in June for the other grades. Grade X is the last to complete its work, which ends the latter part of June. Scheduled holidays include celebration of the 1917 Revolution on November 6 to 8; a 12-day winter holiday at the end of December and beginning of January; and a 10-day spring holiday at the end of March and beginning of April.

Lessons are scheduled for 45 minutes, with 10-minute breaks after the first, third, and fourth lessons, and a 30-minute mid-morning break after the second lesson. The schedule of primary schools in the RSFSR consists of 4 lessons daily, 6 days a week (24 hours a week) for the first 3 grades. In grade IV children have 26 hours of class instruction a week, with lessons scheduled for 4 hours a day on 4 days

and 5 hours a day on 2 days. In grades V–VII, 5 hours of classes are scheduled on 4 days a week, 6 hours on 2 days a week. In grades VIII–X, 5 hours of classes are scheduled on 3 days and 6 on the other 3 days a week. In republics other than the RSFSR, in autonomous republics, and in schools in the RSFSR where the language of instruction is not Russian, 5 classes a day are scheduled in grades I–IV, and 6 lessons a day starting with grade V to provide time to study Russian language and literature.

The number of hours children are expected to spend in the formal school program prior to entrance into institutions of higher learning in the USSR and in the US is very nearly the same though the Soviet program is concentrated in a 10-year period while the US extends over 12 years. Table 3, below, presents some idea of the Soviet and US time-tables for 1955–56. These data are rough approximations because Soviet figures relate to the number of attendance days *required*

Table 3.—Academic year in regular Soviet primary–secondary schools and in Schools in the United States: 1955–56

Soviet Student						American Student			
		Time scheduled for school program				Time spent in school program			
Age	Grade	Total days of instruction	Days for preparing and taking final examinations	Total number of days	Total number of hours	Total number of hours	Total number of days	Grade	Age
1	2	3	4	5	6	7	8	9	10
						890	178	I	6–7
7–8	I	210	----------	210	840	890	178	II	7–8
8–9	II	210	----------	210	840	890	178	III	8–9
9–10	III	210	----------	210	840	890	178	IV	9–10
10–11	IV	213	5	218	944	890	178	V	10–11
11–12	V	213	6	219	1, 168	890	178	VI	11–12
12–13	VI	213	7	220	1, 174	895	179	VII	12–13
13–14	VII	213	11	224	1, 194	895	179	VIII	13–14
14–15	VIII	213	10	223	1, 224	895	179	IX	14–15
15–16	IX	213	14	227	1, 247	895	179	X	15–16
16–17	X	205	26	231	1, 271	895	179	XI	16–17
						895	179	XII	17–18
Total	-------	-------	---------	2, 192	10, 742	10, 710	2, 142	------	------

for pupils in the Russian-speaking schools only. They do not show actual attendance. The US figures relate to the number of days children *actually* attended school during the 1955–56 year as reported by the various States and averaged for the Nation as a whole. They do not include time scheduled but lost by absence because of illness, blizzards, and the like.

In the US, where schools are designed to meet the needs of the communities and the States which support them, each of the States makes its own laws and regulations concerning school attendance. In practice, the various State minimum legal attendance requirements are exceeded. In general the American pupil starts school at 9 a. m., has classes until noon, an hour for lunch, and classes again in the afternoon from 1:00 to 3:00. Most States report 5 hours of classroom instruction a day, 5 days a week, for an average of 178 days a year for grades I–VI and 179 days a year for grades VII–XII, during the months September to June.

The curriculum scheduled for primary-secondary schools in the USSR provides for 33 weeks a year in which to cover the prescribed syllabus. Time scheduled in the school program ranges from 35 weeks in grades I to III to 38½ weeks in grade X. As seen in table 3, the additional time is for annual final examinations and for class excursions spaced throughout the school year at the discretion of the teacher. Former Soviet students report that extra days are provided to compensate for time out from formal instruction for the students to march in the May Day parade and to take part in assemblies and programs organized as part of the communist citizenship-training of students.

Enrollment

Table 4 p. 62 presents urban and rural enrollment in primary-secondary schools by academic level for selected years. The data reveal the decline in total enrollment resulting from the low birthrate during the years of World War II and the increased number of students in grades VIII–X, which more than doubled between 1950–51 and 1955–56.

Table 5 p. 63 presents enrollment for selected years by type of school. By 1955–56, 13 percent attended primary schools, 33 percent the 7-year schools, and over half—54 percent—attended the 10-year schools.

Class Lesson

The class lecture is the principal teaching method. Although lesson plans necessarily vary with different subjects, the lesson form commonly followed consists of: (1) Review of old material and introduc-

Table 4.—Urban and rural enrollment in regular Soviet primary–secondary schools, by grades in specified years[1]

(Figures in millions)

Grade and location	Enrollment in—				
	1927–28	1940–41	1950–51	1954–55	1955–56
1	2	3	4	5	6
Total	11.5	34.8	33.3	29.6	28.2
Urban	3.2	10.8	11.7	12.4	12.1
Rural	8.3	24.0	21.6	17.2	16.1
In grades I–IV	9.91	21.37	19.67	12.7	13.6
Urban	2.13	5.33	6.14	5.1	5.7
Rural	7.78	16.04	13.53	7.6	7.9
In grades V–VII	1.33	10.77	12.03	11.6	9.3
Urban	0.92	3.97	4.66	4.3	3.5
Rural	0.41	6.80	7.37	7.3	5.8
In grades VIII–X	0.13	2.37	1.50	5.14	5.25
Urban	0.12	1.37	0.86	2.28	2.88
Rural	0.01	1.00	0.64	2.18	2.37

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR; Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 224 (figures quoted). The figures for groups of classes do not include schools for overgrown children and special schools for physically handicapped children. Separate figures for enrollments in grade X appearing in the original table are not included.

tion of new material; (2) elaboration of new material and drill; (3) repetition; (4) examination and verification of student grasp of new material; (5) explanation of homework assignment and instructions for carrying it out; and (6) summation of new material, including its integration with the overall subject. Depending on the subject, the lesson is supplemented with classroom excursions to agricultural, industrial, and construction sites, with laboratory and field work, and with organized extra-curricular activity.

Emphasis is placed on training pupils to listen attentively, accept what they read and are told, and repeat what they have been assigned to learn in a logical and grammatically correct written and oral form. Repetition accounts for an estimated 20 percent of class time. According to Soviet educators, time spent on memorizing does not handicap the pupil because there is no alternative way to master a foreign lan-

guage, fundamentals of science, historical events, geographic data, mathematical formulas, and so on.

The degree of spontaneity found in the American classroom is not present in the USSR. Pupils in Soviet schools have little opportunity for debating and resolving issues. Children sit two by two in rows of double desks facing the teacher and the blackboard. The atmosphere is formal; the pupils rise when the teacher enters and leaves and when they recite.

Discipline

Discipline is regarded as a matter of State importance as well as of parental concern in the USSR. At an early age Soviet children are taught conformity—a passive acceptance of personal and social dis-

Table 5.—Regular Soviet primary–secondary schools: number and enrollment[1]

(Figures in thousands)

Type of school	1927–28	1940–41	1950–51	1954–55	1955–56
1	2	3	4	5	6
Total number of schools	**118.6**	**191.5**	**201.6**	**197.7**	**195.3**
4-year schools	108.8	125.9	126.4	111.1	108.8
7-year schools	6.6	45.7	59.6	60.5	58.7
10-year schools	1.8	18.8	15.0	25.2	26.9
Total enrollment	11,500.0	34,800.0	33,300.0	29,600.0	28,200.0
In 4-year schools	8,400.0	9,800.0	7,500.0	3,600.0	3,600.0
In 7-year schools	2,100.0	12,500.0	15,500.0	10,700.0	9,400.0
In 10-year schools	900.0	12,200.0	10,200.0	15,200.0	15,100.0
In special schools (for overgrown and physically handicapped children)	100.0	300.0	100.0	100.0	100.0

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR; Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 223. The discrepancy between the total number of schools and the sum of the figures given for the three types of schools is probably accounted for by failure to show the number of special schools. This is apparent from the enrollment figures.

cipline. Approved methods of upbringing are made known to parents of pre-school age children. Once the child reaches school age, he is taught "The Rules for Pupils" which are to govern his conduct in and out of school. These rules were promulgated by the Soviet of People's Commissars of the RSFSR on August 2, 1943. Pupils are required to memorize them and may be expelled for failure to observe them. To illustrate the type of behavior expected, the code is reproduced in full:

It is the duty of every school child:

1. To acquire knowledge persistently in order to become an educated and cultured citizen and to be of the greatest possible service to his country.

2. To study diligently, to be punctual in attendance, and not arrive late at classes.

3. To obey the instructions of the school director and the teachers without question.

4. To arrive at school with all the necessary textbooks and writing materials; to have everything ready for the lesson before the teacher arrives.

5. To come to school clean, well groomed, and neatly dressed.

6. To keep his place in the classroom clean and tidy.

7. To enter the classroom and take his place immediately after the bell rings; to enter and leave the classroom during the lesson only with the teacher's permission.

8. To sit upright during the lesson, not leaning on his elbows and not slouching; to listen attentively to the teacher's explanations and the other pupils' answers, and not to talk or let his attention stray to other things.

9. To rise when the teacher or the director enters or leaves the room.

10. To stand at attention when answering the teacher; to sit down only with the teacher's permission; to raise his hand if he wishes to answer or ask a question.

11. To take accurate notes in his assignment book of homework scheduled for the next lesson, and to show these notes to his parents; to do all the homework unaided.

12. To be respectful to the school director and teachers; when meeting them, to greet them with a polite bow; boys should also raise their hats.

13. To be polite to his elders, to behave modestly and respectfully in school, on the street, and in public places.

14. Not to use coarse expressions, not to smoke, not to gamble for money or for any other objects.

15. To protect school property; to be careful of his personal things and the belongings of his comrades.

16. To be attentive and considerate of old people, small children, the weak and sick; to give them a seat on the trolley or make way for them on the street, being helpful to them in every way.

17. To obey his parents, to help them to take care of his small brothers and sisters.

18. To maintain cleanliness and order in rooms, to keep his clothes, shoes, and bed neat and tidy.

19. To carry his student's record book with him always, to guard it carefully, never handing it over to anyone else, and to present it upon request of the teachers or the school director.

20. To cherish the honor of his school and class, and defend it as his own.[12]

Soviet beliefs about discipline are set forth in detail in books, parents' magazines, and journals for teachers, and they are expounded in thousands of lectures for parents annually. It is the duty of every parent and educator to help the child "strengthen his belief in himself, in his ability to become a better person; they must not blunt but sharpen in him the feeling of pride in achievement that demands work, effort, and self mastery, and must emphasize always those broad perspectives of social significance which such an upward movement of the child and adolescent makes possible."[13]

Only within the frame work of these "broad perspectives of social significance"—group goals—is individual striving approved or rewarded. A child may strive to improve his "personal position" only in relation to the social target. "Character traits unbecoming to a young communist are not only stigmatized by the term 'petty bourgeois,' but as personal preoccupations and selfishness."

Corporal punishment is not to be exercised, nor must adults frighten children with threats of "a strange man," "black man," "bear," and so on. The withdrawal of group approval is supposed to replace corporal punishment and frightening threats.

"Frequent and severe punishments are disapproved on the ground that they lose effectiveness." Verbal reproaches such as scolding, grumbling, lecturing, moralizing must be controlled, and "in no event may be used as catharsis for adult feelings."[14] It is Soviet custom to withhold verbal reprimand wherever possible until after a cooling-off period. In school, this often takes the form of weekly sessions during which the wrong doings of each child are brought up before his classmates by the class counselor who afterwards explains the correct and expected behavior.

The strictness with which Soviet children are trained to conform to a predetermined social pattern by measures imposed by the State, probably accounts for the strong impression the precise behavior of Soviet school children makes on Western visitors. It may also account to a degree for outbursts of hooliganism and other forms of juvenile delinquency prevalent in the USSR.

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[12] *Sovetskaya Pedagogika* (Moskva), Vol. 10: p. 2, Oct. 1943.

[13] A. A. Lyublinskaya "O Detskikh Prostupkakh," *Sem'ya i Shkola*, No. 1, 1948.

[14] Margaret Mead *and* Elena Calas, "Child-Training Ideals in a Postrevolutionary Context: Soviet Russia," *Childhood in Contemporary Cultures.* (Chicago: University of Chicago Press, 1955), p. 187.

Staff

The number and type of staff assigned to each school are officially established and depend on size of the enrollment. The staff in the usual 10-year school consists of the school director, deputy director for instruction (responsible for the level of teaching, maintenance of academic standards, and conducting of pilot or experimental programs), adviser or class counselor for each class, senior Pioneer leader, librarian, subject-matter teachers, administrative help, custodial force, and cafeteria employees if the school is one of the few which has a cafeteria. The teachers, Pioneer leader, and librarian together with the school director and his deputy form the academic council of the school. Meeting at least once a month, the council reviews current difficulties, implements policy decisions from the ministry, and discusses general school problems. Minutes of the meetings are kept under seal in the official school record book.

Each grade may be divided into one or more classes. It is Soviet custom for the primary school teacher to advance with her class, starting with the pupils in grade I and guiding their learning process through grade IV. Then specialized subject teachers take over for grades V–X. Wherever possible, the subject teacher also follows her class. For example, the same physics teacher may teach all the physics classes in the school, from elementary physics in grade VI through more advanced material in grade X.

Soviet educators feel this is the most efficient way to insure that specialized teachers teach specialized subjects and that pupils master the required subject matter systematically. Since such a teacher knows what his pupils have covered, a minimum of time is needed for review each year before plunging into new aspects of the subject.

This teaching assignment policy is related to the organization of the curriculum. For example, algebra and geometry are introduced in grade VI, and are continued through grade X. Soviet educators believe that the curiosity of children can be stimulated at an early age through elementary presentations, and that each year additional information and wider application of the facts already learned can be assimilated. The result is a kind of spiralling mastery of the material through repetition and expansion of the original concepts imparted. Cramming is discouraged; pupils are expected to achieve a satisfactory record from year to year, and teachers know that their own effectiveness will be judged according to the success of their pupils in State examinations at the end of the 4th, 7th, and 10th grades. The results of the State examinations are evaluated in each of the republic ministries of education to enable authorities to spot weaknesses in a school, a district, or a republic.

Curriculum

The ministries of education implement decisions of the USSR Council of Ministers and the Communist Party through detailed curriculum instructions. Each course has its syllabus outlining the material to be covered and the reading assignments to be completed. There is no choice of subjects. Standardized textbooks and examinations are utilized to insure that each Soviet child will cover the same subject matter at a given level. Regional variations exist primarily in the teaching of language skills and in vocational orientation.

By the time a student completes 10 years of training—usually at the age of 17 or 18—he has been introduced to the basic disciplines of literature, history, geography, physics, chemistry, mathematics and biology. He is expected to have a good foundation of general information and to know fairly well where his particular abilities lie.

The curriculum of the 10-year school from the mid-1930's to the fall of 1955 required the devotion of about 40 percent of the total school hours to study of the sciences, 6 percent to physical education, and 54 percent to the social studies and humanities. It was announced that beginning in the fall of 1955, "more time will be devoted to teaching physics, chemistry, and biology by reducing the study of humanities to secondary importance." Humanities and social studies now appear to constitute about 47 percent of the secondary school program.

The emphasis on science in Soviet schools contrasts sharply with the situation in the United States. Whereas the Soviet students graduating from secondary schools in June 1955 had taken courses in physics for 5 years, astronomy for 1 year, chemistry for 4 years, biology for 5 years and mathematics including arithmetic, algebra, geometry, and trigonometry for 10 years, less than a third of the American high school graduates had taken a year of chemistry, about a fourth had had a year of physics, and less than a seventh had taken advanced mathematics.

Table 6, p. 68 gives the formal hours of instruction and the subjects required under the curriculum for grades I–IV in Soviet schools. Table 7 depicts the curriculum required in grades V–VII. Table 8 outlines the curriculum of Grades VIII–X. Table 9 shows the time allocated in the 1955–56 curriculum to the required subjects.

Russian and Native Language and Literature

The syllabus for Russian grammar, reading, and writing pursues the following aims: (1) To teach pupils to read correctly and expressively and to write without mistakes; (2) to acquaint them with liter-

ature suitable for their age, from works by Russian and Soviet writers considered to be the best; (3) to develop the speech of pupils and to teach them to express their thoughts fluently; (4) to give the pupils an elementary knowledge of grammar and to teach them to spell correctly.

During the first 2 or 3 weeks of school, the first-grade teacher tells the children about their school, their responsibilities, and what is expected of them. During this preparatory period instruction is given in how to listen attentively, how to ask questions, how to answer the teacher, how to hold a pencil and sit correctly for writing, and how to write the alphabet. Pictures are used to illustrate the lectures.

The teaching of reading and writing is done through analysis, synthesis, and sounding. Children are expected to become acquainted with basic sounds, to become familiar with printed and written letters and to form words out of letters and syllables.

In grade I the pupils are expected to master the consonants, vowels, and usage of Cyrillic characters. In grade II they review the alphabet

Table 6.—Curriculum for grades I–IV in Russian-speaking schools: 1955–56 [1]

Subject	Class I		Class II		Class III		Class IV		Total
	Hours per week	Hours per year	Hours per week	Hours per year	Hours per week	Hours per year	Hours per week	Hours per year	Hours per subject
1	2	3	4	5	6	7	8	9	10
Russian grammar, reading, and writing	13	429	13	429	13	429	9	297	1, 584
Arithmetic	6	198	6	198	6	198	6	198	792
Drawing	1	33	1	33	1	33	1	33	132
Singing	1	33	1	33	1	33	1	33	132
Physical education	2	66	2	66	2	66	2	66	264
Practical work	1	33	1	33	1	33	1	33	132
History							2	66	66
Geography							2	66	66
Biology							2	66	66
Total	**24**	**792**	**24**	**792**	**24**	**792**	**26**	**858**	**3, 234**

[1] E. N. Medynskii. *Prosveshchenie v SSSR.* (Moskva: Ministerstvo Prosveshcheniya RSFSR, Uchpedgiz, 1955) p. 84.

[2] Computed.

Table 7.—Curriculum for grades V–VII in Russian-speaking schools: 1955–56 [1]

Subject	Class V		Class VI		Class VII		Total hours per subject [2]
	Hours per week	Hours per year [2]	Hours per week	Hours per year [2]	Hours per week	Hours per year [2]	
1	2	3	4	5	6	7	8
Russian language and literary reading	9	297	8	264	6	198	759
Mathematics	6	198	6	198	6	198	594
History	2	66	2	66	2	66	198
Geography	3	99	2	66	2	66	231
Biology	2	66	2	66	3	99	231
Physics			2	66	3	99	165
Chemistry					2	66	66
Foreign language	4	132	4	132	3	99	363
Physical education	2	66	2	66	2	66	198
Technical drawing					1	33	33
Practical work in shop and agriculture	2	66	2	66	2	66	198
Drawing	1	33	1	33			66
Singing	1	33	1	33			66
Total	32	1,056	32	1,056	32	1,056	3,168

[1] E. N. Medynskii. *Prosveshchenie v SSSR.* (Moskva: Ministerstvo Prosveshcheniya RSFSR, Uchpedgiz, 1955).

[2] Computed.

and are expected to learn Russian grammatical rules governing stressed and nonstressed, hard and soft, and unpronounced consonants. In grade II, more hours are allotted to spelling than to any other aspect of grammar in the belief that through a firm grasp of spelling the foundation is laid for grammatical writing. In grade II children are given instruction on nouns, adjectives, verbs, and the main parts of sentences—subject, object, and predicate—and the modifiers. Then children study the parts of a word—its root, prefix, suffix. In grade IV they study adjectives, personal pronouns, verbs, and simple, complex, and compound sentences.

At the end of the primary school Soviet pupils are expected to have acquired the habit of correct, conscious, and expressive reading of popular scientific literature prepared for children of primary-school age. They are expected to be able to express orally and in writing what

Table 8.—Curriculum for grades VIII–X in Russian-speaking schools: 1955–56[1]

Subject	Class VIII		Class IX		Class X		Total hours per subject
	Hours per week	Hours per year	Hours per week	Hours per year	Hours per week	Hours per year	
1	2	3	4	5	6	7	8
Literature	*6/5	181. 5	4	132	4	132	445. 5
Mathematics	6	198	6	198	6	198	594
History	4	132	4	132	4	132	396
Geography	*2/3	82. 5	3	99	------	------	181. 5
Biology	2	66	1	33	------	------	99
Physics	3	99	4	132	*5/4	148. 5	379. 5
Chemistry	2	66	3	99	*3/4	115. 5	280. 5
Foreign language	3	99	3	99	3	99	297
Physical education	2	66	2	66	2	66	198
Technical drawing	1	33	1	33	1	33	99
Practicum in agriculture							
Machine construction and electrotechnology	2	66	2	66	2	66	198
Constitution of the USSR	------	------	------	------	1	33	33
Astronomy	------	------	------	------	1	33	33
Psychology	------	------	------	------	1	33	33
Total	**33**	**1, 089**	**33**	**1, 089**	**33**	**1, 089**	**3, 267**

[1] See E. N. Medynskii, *Prosveschchenie v SSSR*, p. 84. (Moskva: Ministerstvo Prosveshcheniya RSFSR, Uchpedgiz, 1955). In addition to the above scheduled hours, 6 days a year are set aside for excursions.

[a] Computed.

*Indicates change the second semester.

they have read, be able to write up simple observations and compose a simple business letter. During these first 4 years the children have been introduced to Russian folklore and to the works of such authors as Pushkin, L. N. Tolstoy, Nekrasov, Krylov, Mamin-Sibiryak, Gorky, Mayakovski, A. N. Tolstoy, Fadeev, Gaidar. They have studied passages and short stories by these authors and have been required to memorize verses and fables.

The syllabus for the Russian language and literature course in grades V to VII includes a systematic coverage of spelling, grammar and punctuation, as well as the reading of some of the literary works which the State considers to be the best. Literary movements are also

studied— classicism, romanticism, and others. As part of their training pupils are called upon to analyze literary works and are expected to enlarge their vocabulary.

The aim underlying the teaching of literature in the senior secondary school is to have the pupil gain a concept of the historical development of literature, its significance in Russian society and in the struggle of the people for liberation; to develop skill in understanding the essence of composition such as theme, plot, characters, language; to familiarize himself with main periods in the development of literature and particularly with socialistic realism. Through the course it is hoped that Soviet pupils will develop a life-long appreciation for Russian literature and a love and respect for great literature in general.

Soviet pupils in grade VIII study Russian literary works written between the 10th and 19th centuries, starting with an analysis of the *Chronicles* and ending with Griboedov, Krylov, Pushkin, Lermontov, and Gogol. In grade IX, students start with the literary critic Belin-

Table 9.—Percent of time allotted to subjects required for graduation from Soviet 10-year primary–secondary schools: 1955–56

Subject	*Percent of time*	
Humanities:		
Russian language and literature	28.3	
History	6.7	
Constitution of the USSR	.3	
Geography	4.9	
Foreign language	6.7	
Total		46.9
Sciences and related technical training:		
Mathematics	20.1	
Biology	4.0	
Physics	5.6	
Astronomy	.3	
Chemistry	3.5	
Psychology	.3	
Drafting	1.3	
Practicums	2.0	
Visits to industrial and scientific sites	1.9	
Technical practice	3.4	
Total		42.4
Other training:		
Physical and military training	6.7	
Drawing and singing	4.0	
Total		10.7
		100.0

Table 10.—Comparison of 1955–56 curriculums in hours per week in

in Ukrainian language

Two numbers in a column indicate

Subject	Grade I			Grade II			Grade III			Grade IV		
	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine
1	2	3	4	5	6	7	8	9	10	11	12	13
Russian language and literature	13	13	.....	13	10	3	13	10	4	9	6	4
Ukrainian language and literature	.....	.....	13	.....	3	10	.....	4	10	.....	4	6
Arithmetic	6	6	6	6	6	6	6	5	5	6	6	6
Algebra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Geometry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trigonometry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Physics	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chemistry	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Astronomy	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Geography	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2/1	2/1
History	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	2
Constitution of the USSR	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foreign language	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Physical education	2	2	2	2	2	2	2	2	2	2	2	2
Natural science or biology	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1/2	1/2
Psychology	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Drawing	1	1	1	1	1	1	1	1	1	1	1	1
Drafting	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Singing	1	1	1	1	1	1	1	1	1	1	1	1
Handicrafts	1	1	1	1	1	1	1	1	1	1	1	1
Practical training	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Practicum in agriculture, machine construction, and electrotechnology	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total hours per week	24	24	24	24	24	24	24	24	24	26	26	26

[1] E. N. Medynskii, *Prosveshchenie v SSSR*, p. 84, 88, 89 (Moskva: Ministerstvo Prosveshcheniya RSFSR, Uchpedgiz, 1958).

sky and continue with the Russian literature of the second half of the 19th century, ending the year with a survey of Western European literature, particularly Shakespeare and Goethe. In grade X the literature of the 20th century is studied, with major attention being devoted to the works of Gorky (both in pre-revolutionary and Soviet literature), Mayakovsky, Sholokhov, A. N. Tolstoy, and Fadeev, and literature of non-Russian peoples of the USSR. Besides taking a considerable number of hours in the school program, students have a heavy

Russian language schools in the RSFSR and in the Ukraine and schools in the Ukraine

hours in first and second semester]

Grade V			Grade VI			Grade VII			Grade VIII			Grade IX			Grade X		
Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine	Russian schools in the RSFSR	Russian schools in the Ukraine	Ukrainian schools in the Ukraine
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
9	7/6	5/6	8	6/5	5/6	6	6	6	6/5	5/4	5/4	4	4	4	4	4	4
	5/6	7/6		5/6	6/5		5	5		3	3		3	3		3	3
6	6	6	6	2	2												
			2	2	2	3	3/2	3/2	3	4/3	4/3	2	2	2	2	2	2
			2	2	2	3	2/3	2/3	3	2/3	2/3	2	2	2	2	2	2
												2	2	2	2	2	2
			2	2	2	3	2/3	2/3	3		3	4	4	4	5/4	5/4	5/4
						2	2/1	2/1	2	2	2	3	2/3	2/3	3/4	3	3
3	3/2	3/2	2	2	2	2	2	2	2/3	2/3	2/3	3	2	2	1	1	1
2	2	2	2	2	2	2	2	2	4	3/4	3/4	4	4/3	4/3	4	4	4
							1/2	1/2							1		
4	3	3	4	3	3	3	3/2	3/2	3	3/2	3/2	3	2/3	2/3	3	2/3	2/3
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	3	2	2	2	2	2	1	2/1	2/1			
1	1	1	1	1	1										1	1	1
						1	1	1	1	1	1	1	1	1			
1	1	1	1	1	1										1	1	1
2	1/2	1/2	2	1	1												
									2	2	2	2	2	2	2	2	2
33	33	33	36	33	33	32	33	33	33	31	34	33	34	34	33	34	34

homework load in this course. In addition to the reading assignments, compositions are required periodically.

In the schools of the non-Russian republics the chief difference in the curriculum is that instruction in the language and literature of the republic is added. As table 10, p. 72–3, reveals, the other basic subjects are treated the same, whether taught in a school in the RSFSR where the language of instruction is Russian, or in a Ukrainian school where the language of instruction is Ukrainian.

Foreign Language

The aim of the foreign language program is to teach the Soviet pupil, by the time he completes the 10-year school, to read with correct pronunciation and intonation, comprehend and summarize what he has read, understand what is said to him in the foreign language, ask and answer questions in that language, translate texts of average difficulty with minimum use of a dictionary, and express himself grammatically in writing.

The study of one foreign language (exclusive of Russian in native language schools) begins in grade V and continues through grade X. The Deputy Minister of Education of the RSFSR reported that during the 1955–56 school year approximately 40 percent of the pupils in the secondary schools were studying German, 40 percent English, while the remaining 20 percent were taking either French, or, in a few schools, Spanish or Latin. The Deputy Minister also remarked that English was most important for those going on to higher educational institutions. About 65 percent of the students in higher educational institutions study English.[15]

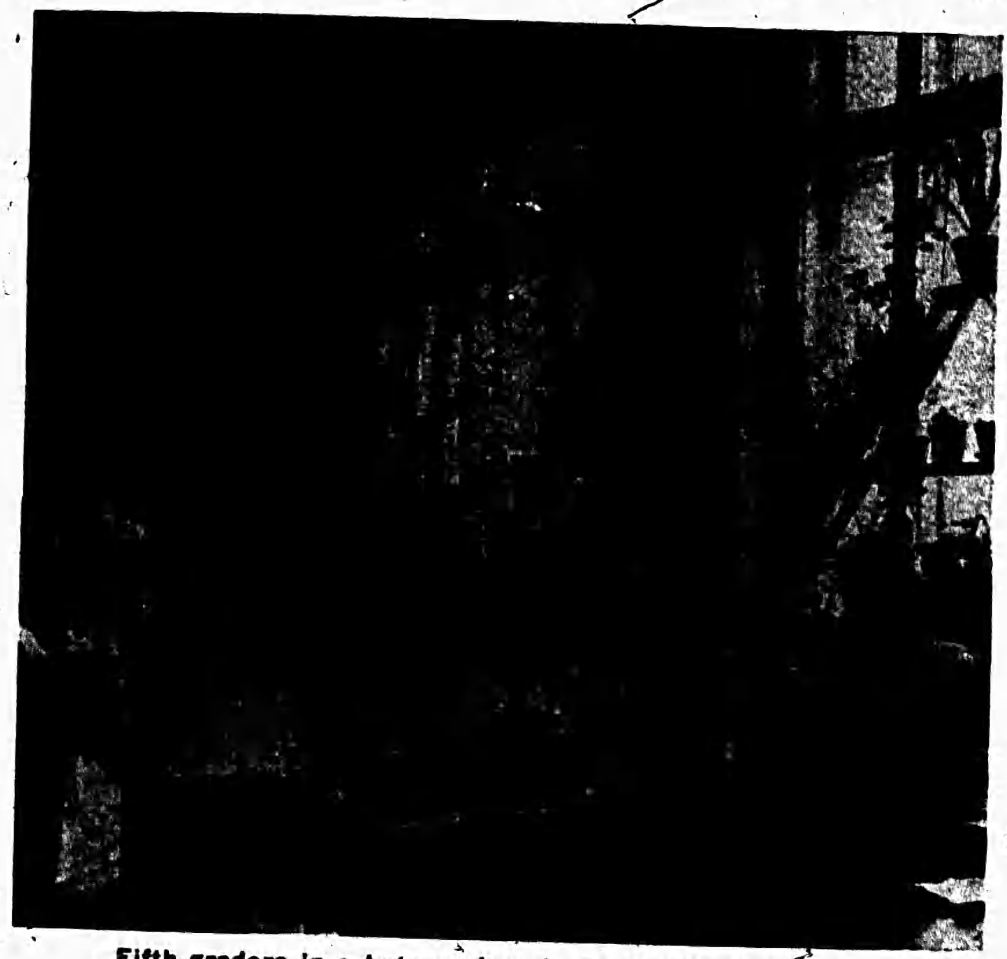
Arithmetic and Mathematics

In grades I–IV the arithmetic syllabus covers addition, subtraction, multiplication, and division of whole numbers; the metric system and measures of time; addition and subtraction of fractions; and elementary mensuration. Pupils are expected to apply their knowledge and solve simple problems involving whole numbers and fractions.

The arithmetic cycle is completed with grade V, which includes fractions, decimals, percentages, and proportions. Slide rules and arithmometers are introduced at this time. Algebra and geometry begin in grade VI, continue in grade VII, and are studied in some detail in subsequent grades. Arithmetical calculations are made from time to time as review work.

Mathematics courses continue with algebra and geometry through grade X and with trigonometry and an introduction to calculus in grades IX and X. Throughout the 3-year course emphasis is placed on the application of theory in the solution of problems in such related subjects as physics and astronomy and on solving problems in agricultural technology. Students are required to complete a number of practical problems such as surveying lots, determining distances, and making blue prints.

[15] Conversation with the Deputy Minister of Education of the RSFSR, March 1956.



Fifth-graders in a botany class in School No. 8, Moscow.

Natural Science

The role of natural science in the primary school program is to awaken and stimulate interest in nature, dispel misconceptions and superstitions about nature and natural phenomena, and lay a materialistic foundation for the subsequent study of botany, zoology, anatomy, and the physiology of man. Children in grades I to III are given elementary concepts in natural science through reading assignments in their Russian language class.

In grade I they are told about the seasons of the year, types of trees in various regions of the USSR, and domestic animals. In grade II they are given information about gardening, animals in other parts of the world, migratory birds, and something about forests and vegetation. In grade III children study about fields and grains (rye, barley, wheat), orchards and fruit trees, and are given more advanced instruction about animal life and habits of hygiene. In conjunction

with their reading they carry out gardening projects in school plots, go on trips and excursions, and are encouraged to observe nature and to report what they have seen. As a class they carry out simple experiments on plants.

Natural science as a separate subject begins in grade IV where children are introduced to a systematic presentation of inanimate nature—air, water, mineral resources, soil. This course includes simple practical work, and excursions. Simple materials explain that phenomena are susceptible of change and that man can alter relations between various phenomena of nature.

The natural science course aims to contribute to the development of a materialistic view and an understanding of the scientific basis of the Soviet economy by studying vegetation, animal breeding, poultry breeding, and the combating of agricultural pests. Beginning in grade V Soviet pupils study botany—an anatomical and physiological study of vegetation. In grade VI the botany course surveys the bases of systematization.

This 3-year course in natural science includes laboratory work, microscope observations, and work in the school experimental plot. A number of excursions to State farms, collective farms, and natural science museums are specified. For the summer, students are assigned practical homework in applying techniques and methods for cultivating crops, caring for animals, and so on. Urban and rural extracurricular clubs aim to teach about transplanting, grafting, and hybridization. Students are expected to keep records of this summer homework, noting procedures used and results.

Natural science classes in grade VII include a study of zoology, the anatomy and physiology of man, hygiene, and sex instruction. The principles of Darwinism are included in grade IX, and general psychology including the main concepts of logic are presented in grade X.

Geography

The chief aim of the geography course is to give children an understanding of how natural phenomena influence agriculture and how man can change geography. Like natural science, geography begins as a separate subject in grade IV. However, during the process of learning to read and during special weekly lectures and excursions, children in grades I to III are introduced to background knowledge relating to topography, weather, the horizon, and the visible movement of the sun.

The geography program in grade IV begins with an elementary conception of the planet and the universe. Then follows a short survey of the topography of the USSR—its rivers, lakes, seas, land forma-

tions. Next a picture of the characteristics and occupations of Soviet people in different regions is introduced followed by a study of the most important natural resources of the USSR. Natural resources, they are told, have been properly developed only by the Soviet regime.

The geography course starts with an introduction to physical geography in grade V; includes physical geography of the world in grade VI; and ends with physical geography of the USSR in grade VII, plus a short survey of Soviet economic geography. Like the natural science course, the syllabus for physical geography is designed to give students a materialistic view of the world. Students study about the various parts of the world, are expected to be familiar with the political map and to be able to identify nations and territories. In studying the physical geography of the USSR they are given factual data which can serve as objects of national pride such as the size of the country and the rich natural resources for Soviet economic growth.

Geography classes in grade VIII cover economic geography of foreign countries and in grade IX, economic geography of the USSR. Through specific examples, students are repeatedly told of the advantages of socialist economy. They study the economic growth of the Soviet republics and concentrate on the significance of the development of natural resources in the USSR.

History

History in the primary school also is introduced gradually during the process of the reading course. In grade I children hear about the revolutionary holidays which the Communists celebrate. In grade II they are told about the life of peasants and workers in prerevolutionary Russia, the fight of the working class against exploiters, and about Lenin, Stalin, and the October Revolution. In grade III children read about the struggles of their Nation against foreign aggressors. They learn more about the struggle of the workers under the leadership of the Communist Party, and more about the October Revolution and the establishment of the Soviet regime. They read about the construction of factories and plants and the organization of collective farms in the USSR. Toward the end of the year they read about separate episodes of World War II, and "how the USSR was victorious in the fight against fascist aggression."

In grade IV history is begun as an independent subject. Children are introduced to a brief chronological history of their country beginning with Kievan Russia. They are encouraged to become familiar with historic episodes, obtain an elementary notion of the development of social structure and relations between the social classes, and

learn about the foreign affairs of the Soviet Union. Particular attention is accorded the Soviet period and the leading role of the Communist Party in this period. By citing specific examples, the students are told how the Party led the workers' movement before the October Revolution and how Lenin founded the Party in Russia. They hear about the creation of the Soviet Government, the construction of socialism in the USSR, and the growth of agriculture and industry under the leadership of the Party. In the final part of the course the pupils are introduced to development of the Soviet economy and culture in the postwar era.

The history course relates to the prehistoric period, the ancient Orient, ancient Greece, and ancient Rome in grade V; Rome to the Middle Ages in grade VI; and the Middle Ages to the "English Bourgeois Revolution of 1648" in grade VII. The announced aim is to give students a conception of the origin and development of social structures. The students are expected to know historic events, dates, and the approved interpretation of major events and of key persons on the historical stage.

Throughout the history lessons runs the theme of Marxist-Leninist historical theory; namely, the progressive development of human society and the inevitability of the annihilation of the old society and victory of the more progressive new society. The students study the disintegration of slavery in the ancient world and the transition to feudalism in the Middle Ages, which in turn developed into capitalistic society. Through the study of history Soviet students are expected to become acquainted with struggles for liberation and are taught which wars the State considers to be justified and which it considers are unjustified.

History courses are devoted to modern world history in grade VIII, history of Russia in grade IX, and history of the USSR in grade X. The syllabus points out that "bourgeois revolutions were limited, whereas the socialist revolution in 1917 led to magnificent accomplishments in the USSR" in politics, economics, culture, governmental structure, and so on. Through the course, efforts are to be made to inspire students with a feeling of pride in the Russian past and in the achievements of the Soviet regime.

Drawing

The classes in drawing aim at teaching the pupils rudiments of representation and realistic drawing as well as skill and practice in painting. Through drawing lessons, Soviet educators believe children develop visual perception; become able to differentiate form, the color

of objects, perspective; learn to understand the meaning of a picture; become adept at using the habits and knowledge obtained in the drawing class in other subjects and in nonacademic pursuits; develop creative abilities; and acquire a taste for and love of art. Art classes involve: (1) Painting from nature; (2) painting on a given theme; (3) decorative painting and design; and (4) lectures on representative art with examples or with slides and pictures.

Singing

The course in singing aims to develop a musical ear in children, musical memory, imagination, love for singing and music, and finally the development of a singing voice and the ability to read notes. Each year children are introduced to about a dozen songs, including the Hymn of the Soviet Union, songs of Soviet composers, Russian folk songs, and songs of different peoples in the USSR and countries of the "peoples democracies," as well as selected works of Russian and Western classics. In addition to choral singing, the music classes require listening to records—songs and instrumental composition, during which children hear what the State considers to be the best in contemporary and classical music.

Handicrafts and Practical Work

In the early years of primary-secondary school, pupils are expected to learn simple skills in the use of fabrics, paper, and cardboard. As they grow older they are shown ways of working with wood and metal, first with tools such as hammers, saws, screw drivers, and pliers—eventually with machines. The purpose of practical work periods for children in the late primary and early secondary grades is to teach them basic production principles.

Physical Education and Military Training

Physical education in the primary grades is designed to strengthen and develop the child by means of drill, gymnastics, and games; help him acquire physical skill, resistance, dexterity, and habits of personal and social hygiene; instill in him a spirit of daring, comradeship, courage, and discipline. The program in the physical education classes includes gymnastic exercises, walking, running, jumping, marching, games, and, in the third and fourth grades where applicable, skiing.

As a rule, public mention is not made of military training in Soviet primary-secondary schools by Soviet educational authorities. Soviet

boys are given military instruction for one hour per week during one of the periods scheduled for physical education in grades VII through X. Military training takes such forms as drill practice, military tactics, and weapons instruction. The program for grade VIII reportedly includes close-order drill, instruction in disassembling a standard army rifle, military courtesy, extended-order drill, and textbook instruction. The program in grades IX and X is apparently the same except that military regulations are discussed, and in grade X boys have rifle and machine-gun marksmanship with live ammunition. Marksmanship previously had been taught in grade IX, but accidents in the handling of ammunition led the school authorities to delay this training until grade X. Target practice with submachine guns was eliminated for the same reason. Girls are excluded from military training and take gymnastics during this weekly hour.

Military training serves several practical purposes according to Soviet educational authorities. First, it provides the pupil with preliminary instruction in military duties and thereby shortens the period required for his basic training in the Soviet armed forces. Secondly, it creates a pool of potential partisans in the event of a war—former pupils say that the partisan aspects of the training were emphasized and partisan activities during World War II were constantly glorified. Thirdly, this course prepares the students psychologically for eventual military service, a goal many consider more important that the practical instruction imparted. Ninth-graders reportedly show an inordinate amount of pride when they are registered for military training. Their heads are shaved then (though they are allowed to let their hair grow out later), and they consider this to be a symbol of approaching manhood.

In addition to the 1 hour a week of military training, military matters are brought into many other subjects. For example, the functioning of a jet engine is explained in physics, and the elementary principles of atomic energy are dealt with in chemistry. War stories are emphasized in literature classes. A geography class may provide an opportunity to lecture on the border defenses of the USSR. Problems in mathematics occasionally deal with military situations.

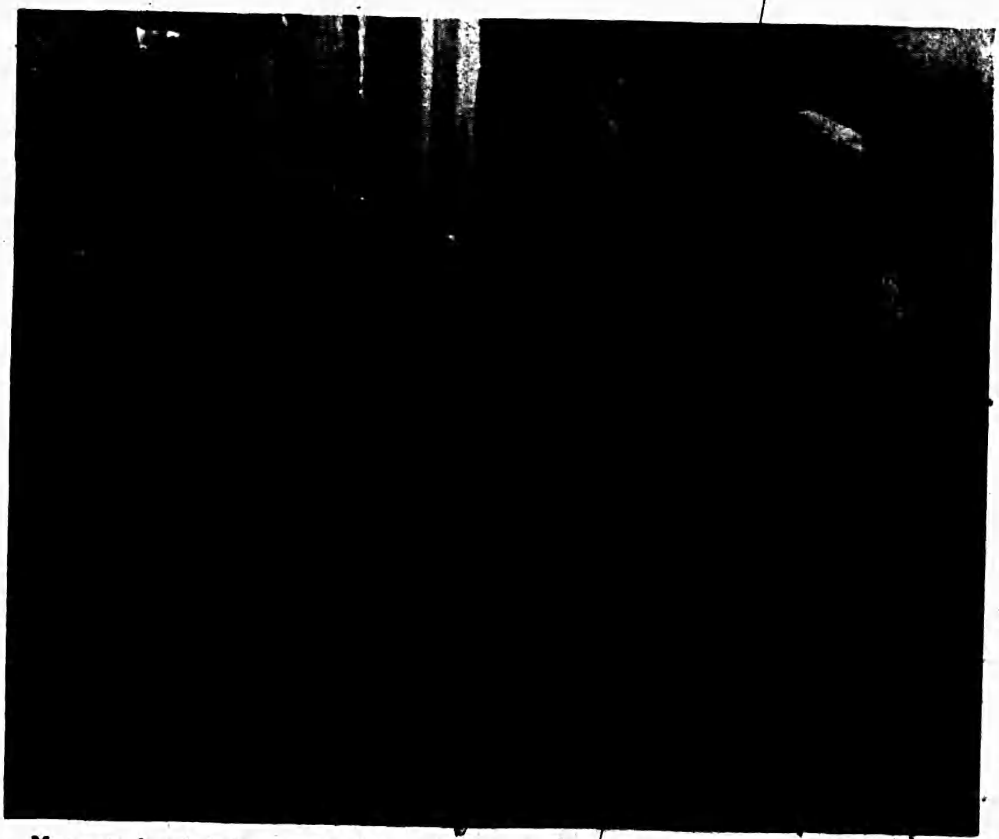
Military training is emphasized in extracurricular programs. Summer training camps with programs lasting 6 hours a day for 17 days, are scheduled for boys going into grade X to give them training under conditions resembling those of a regular military unit. In the sport stadium of the country marksmanship contests are held during the summer with an army rifle at a distance of 300 meters and with small caliber rifles and revolvers at a distance of 50 meters. There are also competitions in other athletic activities with a military connotation. The Voluntary Society for Assistance to the Armed Forces is spon-

sored in many Soviet schools and enterprises for youth over 14 years of age. Club membership opens opportunities for Soviet youth to learn to drive trucks and cars and fly planes and gliders, join parachute groups, work with radios, ride motorcycles, ski, and get in some target practice.

Physics

Physics, introduced in grade VI, relates to the rudiments of mechanics and hydrodynamics. In grade VII the branches dealing with heat, light, and electricity are introduced. The teaching of physics includes demonstration and experimentation.

Physics courses continue with a more detailed and systematic study of mechanics—kinematics, dynamics, and statics—heat, light, and electricity in grade VIII; molecular physics and heat in grade IX; and electricity, optics, and sound or aerodynamics in grade X. The amount of required laboratory work is considerably increased. As the basis for their lectures and demonstrations, teachers are instructed



Young physicists connecting electric lamps in series and in parallel—a contest in Sverdlovsk.

Eighth-graders in a chemistry class in School No. 132, Baku.

to take examples from such industries as radio, telephone, and plumbing, and from agriculture. Required excursions are intended to show practical application of physics to industry and agriculture.

Closely associated with the physics courses are the practicums or practical study groups devoted to agriculture, machine construction, and electrotechnology with variations in emphasis for urban and rural students. This practical study is intended to acquaint pupils with the main machine-driven implements, methods of mechanized processing, use of electrical measuring instruments, and to provide opportunities for practical experience.

Chemistry

Chemistry is started in grade VII, with a short outline of the main chemical conceptions—substances, elements, atomic-molecular structure, oxides, salts, laws of weight preservation, plus a study of oxygen, hydrogen, air, and water. Demonstration and experimentation accompany the course. A systematic presentation of inorganic chemistry is required in grades VIII and IX, and an introduction to organic chemistry in grade X.

During the first introductory course and in the subsequent 3 years

where chemistry is emphasized, the syllabus is designed to give students a systematic understanding of the basis of chemistry, stress mastery of chemical facts, and develop ability to observe and explain chemical phenomena and understand the bases of the Soviet chemical industry and how chemistry is applied in the power, mechanical, and agricultural industries, in transportation, and in daily life. By the end of the course students are expected to be able to use chemical formulas, set up experiments, and use apparatus. Excursions to plants where chemical processes are being used are arranged wherever possible.

Astronomy

An introductory survey of astronomy including the movement, structure, and development of celestial bodies, is required in grade X.

Constitution of the USSR

The function of the course on the Constitution of the USSR, given in grade X, is to convince students that the USSR is the highest form of "democracy." USSR victories and development were possible, it is claimed, only because it is a socialist country which will make the transition to communism, and that this plan for transition makes the USSR incomparably superior to a country which is just socialistic but does not plan to become communistic. The students study the governmental structure, the role of the Communist Party, and the provisions specified in the Soviet Constitution as "rights" of Soviet citizens.

Examinations and Grading

In the Soviet Union the State as well as the parent is interested in how well the child is doing: (1) In relation to what is expected of the school; (2) in comparison with others in his grade; and (3) according to his ability. Education is costly in money and time, and the Soviet State wishes to channel each child into an occupation needed for maintaining the national economy and serving the national culture and to have this channeling most nearly coincide with individual capacity, inclination, and motivation. Parents and teachers—and students too—agree that there seems to be no single "best way" to determine this information. However, the Soviet education authorities feel they have devised a fairly effective method of assessing a student.

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Daily work is evaluated through homework assignments, oral recitations in class, and periodic tests. Marks are entered in the record book of each pupil which he keeps with him and which is to be signed by the child's parents each week. A mark of 5 is considered excellent, 4—good, 3—passing, 2—unsatisfactory, and 1—failure. In order to pass, a pupil's marks must average "3" in each subject. Pupils who receive a "2" in one or even two subjects may take repeat examinations in the fall after completing a summer reviewing session. Those who receive more than two unsatisfactory marks or who fail a subject are required to repeat the grade.

It is up to the class adviser to inquire into the home life of children having a difficult time with their lessons and to try to enlist the active cooperation of parents and older members of the family. Pupils are given extra lessons and extra coaching by the teachers of subjects in which they are having difficulties or by an older pupil. In addition, schools organize special courses during the summer and winter holidays in those subjects in which pupils need extra help. There is evidence that it is considered a reflection on the ability of the teacher if less than 90 percent of the class pass the examinations.

While a 10 percent repeater problem is the generally accepted national average, the percentage of repeaters varies by grade. About 50 percent of the total number of repeaters are in the primary grades, with about 25 percent of all repeaters being in grade IV. In the rural primary schools where one or two teachers handle four grades, the highest percentage of repeaters are said to exist. Most of the repeaters in the primary grades have failed in Russian, the native language, and arithmetic; in grade VII physics and chemistry are the major causes of failure, although Russian and arithmetic continue to present difficulties.

Prior to 1956–57 promotion from all but the first 3 grades was based on the passing of the following final examinations:

Grade IV—Russian language, and arithmetic (written and oral)
Grade V—Russian language (written), arithmetic (oral)
Grade VI—Russian language and arithmetic (written), botany (oral)
Grade VII—Russian language and algebra (written), Russian literature and geography (oral)
Grade VIII—Literature and algebra (written), geometry (oral)
Grade IX—Literature and algebra (written), modern history, geometry, and foreign language (oral)
Grade X—Russian language (written composition), geometry and trigonometry (written), literature, algebra, physics, chemistry, and history of the USSR (oral).

In schools where the language of instruction is not Russian, final examinations are required in native language and literature.

Beginning with the 1956–57 school year promotion from all grades except IV, VII, and X is to be based on the pupil's cumulative record of daily work, home work assignments, periodic quizzes and tests, and quarterly subject examinations; promotion from the other 3 grades is to be based on final standardized examinations in addition to the cumulative record. These are State examinations which are centrally prepared and distributed through the republic ministries of education to the schools in the USSR. They relate to what Soviet pupils are expected to know. State inspectors verify the administration of the examinations, and the republic education authorities evaluate the results. In this way the State aims to maintain a check on the attainment standards of individual, district, and republic schools.

An oral examination in geography at Secondary School No. 1, Uzhgorod, Transcarpathian Region of the Ukraine.

Written tests are conducted in much the same fashion as in the US. Each oral examination is conducted by a panel consisting of the subject teacher, the teacher of the same subject at another school or the deputy director for instruction, and the school director. About half the class sits for oral examination at one time. The pupils are called before the panel one by one. Each draws a ticket and is allowed about 15 minutes to think through his answers to the 2 or 3 questions printed on the face of the ticket. He is given approximately 10 minutes in which to make his replies.

Qualitative Aspects

Many factors are involved in assessing the intangible "quality" of education. Although "quality of education" itself cannot be defined, it is possible to give some insight into the relative quality of Soviet primary-secondary education.

One criterion is the pupil-teacher ratio. For a number of years the Soviet regime has expended effort to train a body of teachers numerically sufficient to insure a reasonable amount of individual guidance in the classroom. During the school year 1927–28, 33.1 primary-secondary school pupils per teacher were reported. The pupil-teacher ratio was reported as 28.6 to 1 by 1940–41, and to 23.2 to 1 by 1950–51, with more improvement during the 1950's because of the continued emphasis on teacher training and the drop in student enrollment.[16] In 1954–55 the pupil-teacher ratio was reported to be 18.3 to 1 in the regular primary-secondary schools, and in 1955–56, 17.0 to 1.

School textbooks in the US are probably more numerous, more colorful, and present greater diversity in content and point of view than textbooks anywhere else in the world. They are published by hundreds of private publishers and selected in a variety of ways by schoolboard and education authorities at state and local levels—not at the National level. In contrast, the production of Soviet textbooks is a monopoly. Books to be used in the schools are prepared, reviewed, published, and revised under State auspices to insure that they include no more and no less than the prescribed basic information for each subject and that they present it from the approved point of view.

A textbook for Soviet schools must include a currently correct ideological interpretation of material and conform completely with the school syllabus. "Textbooks must reflect the latest thinking and knowledge and be suited to the age of the school children. Each idea and concept in a textbook must be clear and presented in a form pupils can understand."[17] Soviet textbooks also must be inexpensive because pupils must purchase their own books.

Soviet authorities unequivocally recognize textbooks as "a powerful instrument for forming the Marxist-Leninist world outlook," and requirements placed on authors are formidable. Although textbook authors are well paid and benefit from prestige and honor, authorities continue to have difficulty in attracting the number of authors required, in securing sufficient copies of approved texts and in achieving the quality educators consider essential.[17]

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[16] The average ratio in public schools in the US in 1955–56 was 26.9 to 1.

[17] *Pravda*, July 6, 1958.

Many Soviet textbooks are detailed and some tend to be brought up to date through revision rather than replacement. Until 1955–56 when some of the science books were changed, most of the texts in mathematics, physics, chemistry, and grammar had remained the same for almost two decades. In such fields as biology, literature, and particularly history—subjects especially prone to political and ideological pressures—textbooks are constantly being replaced by new books whose contents and point of view have been adjusted to current ideological pronouncements and shifts in policy. In these subjects shortages of approved textbooks, and gaps in time between the rescinding of old texts and the distribution of new ones often occur.

To be sure that they are on safe ground, Soviet teachers reportedly try to stick to undisputed facts, which in turn leads to emphasis on names, dates, places, descriptions. Synthesis and "interpretation" are postponed until such time as the official point of view has been announced—sometimes just in time to prepare for examinations—rather than as an integral part of a given course as desired by Soviet authorities. Thus, while there is evidence that Soviet students are indoctrinated with the "world view" of Marxism and Bolshevism, credence also is given to indications that this indoctrination is not as thorough as might be expected.

"Stable" textbooks help insure common standards of achievement. Teachers are free to provide supplementary information from additional "officially approved" publications. The problem facing the American teacher in seeking to insure that students have a chance to study all sides of a controversial issue, does not face the Soviet teacher. Supplementary learning materials in the USSR are State-sponsored and State-approved; on controversial issues only the Party-accepted version is authorized. Thus, Soviet students lack the encouragement given to American students to freely develop critical faculties, learn to differentiate among opposing points of view, and make up their own minds on controversial questions.

Facilities

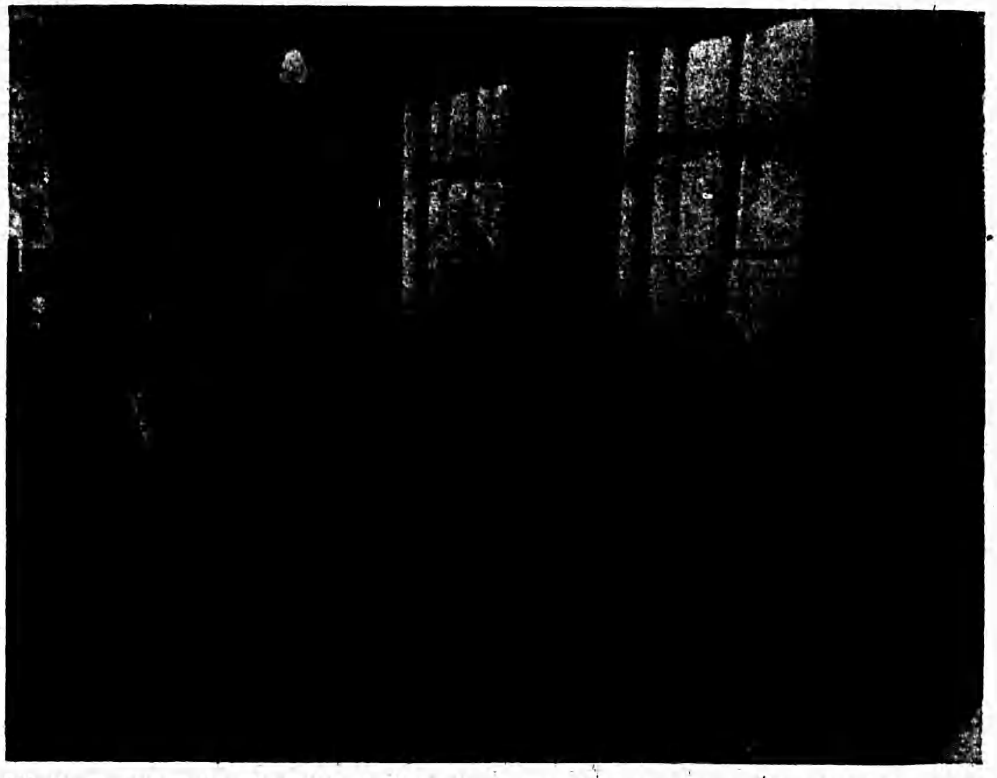
The Soviet press reports that the majority of Soviet children attend school on a shift basis, because of the lack of classroom space which was intensified by war destruction. The schedule is generally arranged so that pupils in grades I–IV study in the morning shift from 8 a. m. to 12 or 1 p. m., and grades VII and X, from 8 a. m. to 1 or 2 p. m. The afternoon shift, which starts at 2 and runs until 7 or 8 p. m., is usually composed of grades V, VI, VIII, and IX.

Soviet schools vary from the small wooden 1- or 2-room country school on a collective farm to the multi-storied brick structure in an industrial town. Schools in the USSR vary less in architectural detail and plant layout than they do in the US. Where possible Soviet schools conform to centrally prescribed, standardized blue-prints. The majority are built for the following enrollment during one shift: (1) Ten-year schools with a capacity for 720, 860, or 1,400 students; (2) 7-year schools for 640, 720, or 860 students; and (3) 4-year primary schools for 210, 240, and 380 students. A 10-year school with 720 pupils per shift calls for 18 classrooms plus a minimum of 18 rooms for administrative offices, laboratories, cafeteria, and library. A separate auditorium and gymnasium have been added in some of the newer schools.

Eighty-seven percent of the Soviet pupils attend the larger 7- and 10-year schools. A majority of the 4-year primary schools enrolling the remaining 13 percent, have from 2 to 4 teachers, 1 of whom assumes the duties of school director in addition to teaching. Not quite a fourth of the primary schools are reported to be 1-room country schools having 1 teacher and frequently fewer than 20 pupils. In these rural schools the teachers work a 6-hour day for 1½ times the normal base salary scale for their professional category. The Soviet educational authorities regard these isolated schools as expensive and educationally inefficient, but no immediate way to dispense with them has been found. Older children are more and more frequently being sent to school in the nearest large center where they live in boarding houses attached to the school. Previously, parents in rural areas who wanted their youngsters to complete more than a primary education sent the older children to board with relatives or friends in a large city.

Laboratory facilities in Soviet schools have, from all available reports, improved considerably since World War II in both quality and quantity of equipment. It is less expensive per pupil for the Soviets to install laboratories, because the schools are large and usually operate on two shifts (serving between 1,280 and 2,800 students per school). Because Soviet pupils start laboratory science in grade VI, the equipment is utilized throughout the day for different classes and grades. Although high schools of several thousand students are found in large cities in the United States, the majority are relatively small. The average number of students enrolled in a single high school for the entire country is about 200. Frequently the American school plant, unlike its Soviet counterpart, serves only the student body of a single shift.

Most Soviet schools have a "patron" which helps the school acquire special facilities. In urban areas the patron may be a factory or a local trade union branch; in rural areas, a collective farm or possibly the



Ninth-graders in chemistry class in a rural secondary school in Yasnaya Polyana, where Tolstoy lived.

local machine-tractor station. A neighboring theater or an army or navy unit may fill this role. In any event, patrons provide schools with equipment for workshops; seeds, tools, fertilizer for agricultural plots; perhaps some photographic equipment, athletic equipment, or books. Limitations are not put on the type or amount of help which a school may receive through this medium, provided the help is consistent with political and ideological concepts.

Homework

In 1952 a special decree was issued setting maximum limits for the amount of homework a Soviet pupil might be assigned as follows: For pupils in grade I not more than 1 hour a day, grade II between 1 and 1½ hours, in grades III and IV up to 2 hours, in grades V and VI from 2 to 3 hours, in grade VII from 2½ to 3½ hours, and in grades VHI to X from 3 to 4 hours a day.[18] The problem of over-

[18] *The Current Digest of the Soviet Press* 5: 10 and 25; April 25, 1953. Translation of Decree of the Ministry of Education of the RSFSR, No. 1093, December 12, 1952.

work in recent decades has been of concern to parents, educators, and school doctors.

An article in *Literaturnaya Gazeta* (May 10, 1956), signed by 9 prominent Soviet physicians and pediatricians, charged Soviet educational authorities with endangering the health of school children by over-loading them with lessons and homework. They said: "Chronic over-exhaustion, frequent headaches, weakened memory and vision, proneness to infectious diseases with various complications, result in a general weakening of the child's organism." The article said that the working day of pupils aged 10 to 13 reached 8 to 10 hours; those aged 15 to 17, 10 to 12 hours. In schools of music and art the pupils were reportedly compelled to spend 14 to 16 hours a day. "Such a long workday greatly exceeds the psycho-physiological capacity of the children and, far from contributing to better progress in their studies, reduces their ability to assimilate the material," the physicians declared. They cited two large textbooks from which half the material could be deleted without harm. One of the goals of the secondary school curriculum as revised in 1953 and 1954, was to lighten pupil load and introduce more vocational training and recreation.

Matriculation Examinations[19]

At the end of their tenth year of primary-secondary schooling, Soviet boys and girls who have received marks in grade X of "3" (passing) or better for each subject, and no less than "5" (excellent) in behavior, are eligible to sit for the State matriculation examinations (ekzameny na attestat zrelosti) covering the work of grade X and the essential topics studied in previous grades. In addition, those over 17 years of age who, through study on their own or in a part-time program, have prepared to take them, may do so. Those who successfully pass these month-long comprehensive examinations (about 90 percent according to Soviet press reports) are awarded a matriculation certificate (somewhat equivalent to the US high school diploma), prerequisite to study in programs at the next higher level.

The function of the matriculation examinations is to insure that graduates of the 10-year schools: (1) Have mastered information be-

[19] A. M. Danev, *Narodnoe Obrazovanie*, p. 111–14. Resolution of the Council of People's Commissars of the RSFSR, No. 508, June 19, 1944, "Polozhenie ob Ekzamenakh na Attestat Zrelosti." See also Instruction issued by the Ministry of Education of the RSFSR of October 30, 1946, "Instruktsiya o Provedenii Ekzamenov na Attestat Zrelosti," ibid., p. 114–24.

lieved essential for Soviet citizens; (2) are able to relate theory to its practical application in society; and (3) display the communist attitude in their interpretations, judgments, and analyses of questions and problems presented. Decrees on education state that graduates must demonstrate:

1. An understanding of trends in the history and development of Russian and Soviet literature; a knowledge of literary works considered the most important and of basic facts in the biographies of persons considered to be the major Russian and Soviet writers; a comprehension of the nature of their work; and a knowledge of the fundamentals in the communist theory of literature.

2. A knowledge of historical events and data deemed most important, contributions of historical figures considered most important, historical and political maps of the world, a Marxist understanding of the cause and effect connections in the historical process; and an understanding of the role of Russia and the USSR in world history.

3. A knowledge of mathematical laws and rules, and understanding of the logical connection between them, and an ability to prove theorems and apply them in the solutions of practical problems. Ability to solve problems of any sort studied in secondary school.

4. A knowledge of physics laws and concepts in mechanics, acoustics, heat, electricity, and optics; an ability to explain physical phenomena by applying physical theory; an ability to illustrate physical laws with examples from daily life and modern technology, an ability to solve problems and conduct experiments.

5. A knowledge of the basic chemical elements, compounds, and their properties; an ability to write equations of chemical reactions and to perform calculations; knowledge of the periodic law and an ability to use the periodic system of elements of D. I. Mendeleev; an ability to explain chemical reactions in everyday life and in application, to solve simply industrial, agricultural, and military problems.

Until 1955, an examination in the foreign language studied was required as part of the matriculation examinations. In the fall of that year this examination was eliminated at the secondary school level and added to the entrance requirements of applicants to Soviet higher educational institutions. The following "basic subjects" have been made obligatory for matriculation examinations:

1. Russian language (a written composition on a selected theme)
2. Russian literature (oral, on the main works of Russian classical literature and on Soviet literature)
3. Plane and solid geometry (written)
4. Trigonometry (written)

5. Algebra (oral, with a problem to be solved)
6. Physics (oral, with a laboratory problem)
7. Chemistry (oral, with a laboratory problem)

Some weeks before the matriculation examinations a pamphlet outlining the general subjects on which *oral* questions will be asked throughout the USSR in Russian literature, physics, chemistry, algebra, and history of the USSR, is prepared and issued by the RSFSR Ministry of Education. The one exception is that oral examinations on Russian literature for students in non-Russian schools are compiled and distributed by union republic and autonomous republic ministries of education for each of the minority groups. As a rule, there are some 90 topics per subject providing a basis for formulation of particular questions. Thus, in the literature examination, a question on the general topic of Leo Tolstoy's creative life may be limited, at the teacher's discretion, to a description of one or two periods of his life.

Ten days before the examinations teachers formulate their questions and write them on cards known as *bilety*. There are usually three questions per card. In algebra, one question is a problem or an equation to be worked out on the blackboard, while for physics and chemistry one of the three problems requires the examinees to perform a laboratory experiment and to make any necessary related calculations.

While pupils are permitted to see the general topics for the oral examinations ahead of time, they do not know what specific questions will be asked nor precisely what problems in chemistry and physics they will have to solve.

The written examinations, centrally prepared, are not made available to school directors until one or two days before they are to be administered, and pupils do not see them until the examination begins. During the period before examinations, teachers go over material with the pupils stressing difficult or complicated aspects of each subject. The written examination in Russian language and literature is given first, and only those who pass it are allowed to take the others. The procedure for both the oral and written examinations follows that to which the pupils have become accustomed in the lower grades.

A formal examination panel similar to those in the lower grades evaluates the answers of each student. The panel includes: (1) The subject teacher; (2) the school director, or in the larger schools the deputy director for instruction; (3) a teacher of the same subject from another school or from another class; and (4) formerly, two or three representatives from the ministry of education of the republic concerned and the local education authority. Since 1955 neither official representation has been obligatory.

Pupils who fail to pass matriculation examinations or who are not

permitted to take them, because of medical excuse or inadequate school records, are not kept back for a second year but are issued a certificate indicating average marks received in the subjects studied. They are given the right to take their matriculation examinations in the same school the following year.

Each year between 2 and 5 percent of grade X graduate with honors: They are the recipients of gold and silver medals. Gold medals are awarded to those who pass each subject on which they were examined with a grade of "5", receive "5's" in the other secondary school subjects, and have excellent behavior. A silver medal goes to those whose behavior is excellent and who have passed with "5's" all subjects covered by the matriculation examination, but who have received not more than 3 marks of "4" in other subjects, such as physical education and mechanical drawing.

To honor students goes first priority in gaining admission to a Soviet higher educational institution. They also are assured of stipends (scholarships). Gold medalists usually are admitted automatically to the institution of their choice. Silver medalists, formerly extended unconditional admission to higher educational institutions though ranking second in priority, have since 1954 been required to pass the entrance examination in the subject of greatest importance for their college major in cases where the number of honors applicants is unusually high.

Chapter V

Auxiliary Primary-Secondary Schools

IN EVERY NATION there are people with needs which the regular school system cannot meet. To meet certain of these needs, the USSR has devised auxiliary primary-secondary schools. Some are operated on a part-time basis for children, youth, and adults who are regularly employed. Others are schools fo[illegible]ceptional children. This chapter discusses the major types of auxi[illegible]rimary-secondary schools.

Part-Time Schools

Confronted with a population largely unable to read and understand literature on communism, the Soviet authorities, after entrenching themselves in power, began to develop programs to combat illiteracy, estimated at between 60 and 70 percent for the Nation as a whole. A network of evening schools for the liquidation of illiteracy and semi-literacy (shkoly po likvidatsii negramatnosti i malogramotnosti) was establishd throughout the country. ABC primers were prepared which discussed the policies and aims of the new regime in simple language and in large type. Those who knew how to read were called upon to teach others, and, in the process, to begin the political reeducation of the population.

Two other types of programs were inaugurated—the adult evening schools and the workers' faculties. The adult evening schools of the

first level (shkoly vzroslykh pervoi stupeni) were designed to give adults the equivalent of at least junior secondary education and where possible a full secondary course. Prior to the education reforms of the mid-1930's, a preparatory course (kursovaya podgotovka) also was offered in the regular schools at night for adults who had completed junior secondary education and wished to study for entrance into a semiprofessional school or a higher institution.

Workers' faculties (rabfaki), jointly operated by the economic commissariats and the higher educational institutions, were established. These schools, offering day and evening courses of about 4 years in length, covered the regular primary-secondary school program. They prepared employed workers for enrollment in higher institutions. The workers' faculties began in 1919 and served thousands of workers and peasants for the next twenty-two years.[1]

The adult evening schools, preparatory courses, and workers' faculties are no longer in existence; their place has been taken largely by other part-time programs. During the 1955–56 school year, 6 percent of those enrolled in primary-secondary school were reported to be part-time students, and about one-fifth of the 10-year school graduates in June 1956 were said to have completed their education on a part-time basis. In keeping with the nationwide emphasis on giving everyone a secondary education, the part-time programs for employed children, youth, and adults are considered as integral components of the general primary-secondary educational system. These programs aim to provide opportunity for completion of general education at the 4-year, 7-year, or 10-year level, and for meeting admission requirements of vocational, specialized secondary, or semiprofessional schools and higher educational institutions. They should not be confused with the part-time vocational training programs.

Certificates granted to persons at the completion of part-time programs are reportedly regarded in the Soviet Union as equivalent to those granted in regular schools. There are many factors—some operational, some inherent—which result frequently in an inferior level of attainment.

The provision of part-time educational facilities enables the State to retain the full-time services of its labor force, and simultaneously to have its labor force in process of achieving additional training. The following section describes and discusses in varying detail main types of part-time general secondary educational facilities and notes the types of persons served.

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[1] For a comprehensive treatment see: Fredrika M. Tandler, *The Workers' Faculty (Rabfak) System in the USSR.* (Microfilmed Ph. D. dissertation, Columbia University, 1955), 338 p.

Schools for Illiterates and Semi-Literates

Considerable work in combatting illiteracy was done in the USSR before World War II, but progress largely halted between 1941 and 1945. Very little has been published since 1950 about the schools for illiterates and semi-literates or about the extent of current measures.

At the end of the war the RSFSR Ministry of Education reported "at the present time the RSFSR has a significant number of illiterates and semi-literates both among the adult population and the youth."[2] The fourth 5-year plan (1946–50) set out to remedy the situation. Persons between the ages of 14 and 50 were urged to join study circles and to accept individual and class instruction by regular school primary grade teachers. The teachers were duty bound to help teach these people. The heads of subdivisions of the ministries of education were to supply books, notebooks, and writing materials except in factory schools where the trade unions were to furnish them. The whole country was expected to cooperate in wiping out illiteracy, and thousands of literate children and adults became members of the so-called "Cultural Army" and were pressed into an "each one teach one" campaign. Literacy teaching constituted one of the many forms of "socially useful" work required of citizens.[2]

Recent Soviet claims are that illiteracy has been conquered and that such illiterates as remain are mostly people too old to care, living in districts too remote to be easily reached by educational forces, or having family or tribal backgrounds too stubborn to be easily overcome by new forces.

On the other hand, the reluctance of Soviet authorities to publish figures on the number and the enrollment of these schools may indicate a significant body of illiterates or semi-literates. It is known that these schools do not cover the whole primary program and that pupils completing the course are not prepared to enter grade V.

Schools for Adults

In each of the ministries of education a directorate supervises adult education at the primary-secondary level, including the formal schools for adults and the correspondence secondary schools. As noted in table 11, p. 97, of 120,500 adults reported enrolled in 343 7-year and 10-year

[2] A. M. Danev, *Narodnoe Obrazovanie*, p. 262 ff. Decree of the RSFSR Ministry of Education, No. 620, June 27, 1946, "O Zavershenii Likvidatsii Negramotnosti i Malogramotnosti Vzroslogo Naseleniya RSFSR."

Table 11.—Number of Establishments and Enrollment in Schools for Adults [1]
(At the beginning of the school year)

Year	Number of schools	Number of students enrolled in grades—				
		I–IV	V–VII	VIII–X	X	Total
1	2	3	4	5	6	7
		(000)	(000)	(000)	(000)	(000)
1945–46	164	1.6	15.9	13.7	3.7	31.2
1950–51	406	6.8	36.4	44.7	15.6	87.9
1954–55	376	5.9	33.0	81.7	31.5	120.6
1955–56	343	4.7	32.2	83.6	32.0	120.5

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khoryaistvo SSSR; Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 225.

schools in the USSR in the 1955–56 school year, 70 percent were in grades VIII–X. These schools are located primarily in large industrial centers.

Correspondence Secondary Schools

Correspondence secondary schools (zaochnye srednie shkoly) aim to meet the needs of people over 16 years of age in isolated areas such as the Kharbarovsk region in Russia's Far East, in Kazakh SSR and in Siberia, or who live on board ship with the navy or the sea and river fleet. Total enrollment in 1955–56 is not known. On Oct. 1, 1952, *Izvestia* reported that in the RSFSR more than 60,000 students were enrolled in the 80 correspondence secondary schools functioning in that republic. Although the immediate postwar years witnessed a gradual decline in this type of training, there now seems to be an expansion.

Correspondence schools are established chiefly in the more highly populated areas. The curriculum and instructions originate in the ministries of education, while operating responsibility rests on local education authorities, school directors, and staffs. The local education authorities, who appoint directors of the regular secondary schools, also appoint directors of correspondence schools. When a correspondence secondary school has an enrollment of over 500 students, a deputy director for instruction is usually appointed. The school director selects his staff subject to approval by the local educational authority. Generally, the teachers also hold positions in the

regular secondary schools. A correspondence secondary school usually has a librarian, a secretary, a typist, and a bookkeeper.

Acting as a central clearinghouse, the correspondence school operates through a number of subordinate study consultation centers, which may be organized where 40 or more students express a desire to enroll. In areas with at least 5 of these centers a methods instructor usually helps supervise studies. The study consultation centers are manned principally by teachers in the regular secondary schools. The correspondence school supplies its centers with approved textbooks, notebooks, and other school materials and helps organize tests and the annual final examinations.

Instructions describe in detail the content of the lessons and methods to be used in completing assignments. The programs provide for individual and group consultation at the centers. The timetable for consultation has been established at 8 hours a week for pupils in grades V–VII, and 6 hours a week for those in grades VIII–X. In addition, 10 hours a week is set aside for each grade so that teachers may review the required written work, hear oral reports, and explain particularly difficult questions. It is not known how many hours of consultation are actually given at the centers; the time is probably less than is scheduled in many cases. In general, instruction is geared to groups of 30 pupils; in outlying areas the suggested number of pupils per group is 10–15.

Schools for Working Youth[3]

After the Soviet Union was attacked in June 1941, children who had reached 12 years of age were needed to work in factories, plants, and agriculture. A fairly large number left school to help out in the war effort. Others, orphaned, homeless, or otherwise left to fend for themselves, were forced to earn a living. The State issued a decree on July 15, 1943, "About the Education of Youth Working in Enterprises," which ordered enterprises employing a sizable number of children to provide educational facilities in the plants so these and other employees might complete the 10-year school program.

Originally established as a war measure, these schools for working youth (shkoly rabochei molodezhi) have been continued and expanded. After the war they were found suitable for meeting needs

[3] See A. M. Danev. *Narodnoe Obrazovanie*, p. 247–65, for legislation pertaining to the schools for working youth. A former Soviet student who attended such a school from September 1947 to June 1949 affirmed that, at least in the school he attended, the basic provisions of the decrees were carried out. His comments are used in this section to shed light on practices in these schools.

of returning veterans and other dislocated youth whose education had been interrupted and who could have been absorbed into the regular school system only with difficulty.

Children and young adults between 14 and 25 years of age who are regularly employed are admitted to these schools. About a third are reported to be between 18 and 22 years of age; more than a half between 15 and 17.[4] Students are required to buy their textbooks and materials. Since the program is recognized as equivalent to the regular primary-secondary program, a student who has successfully completed any grade of the regular school is admitted to the subsequent one in the part-time program and vice versa. A student who has completed grade X in a school for working youth and passed the State matriculation examination is said to be entitled to seek admission to a university or institute on the same basis as graduates of the regular 10-year schools. Since the mid-1950's, there has been evidence that these schools are becoming a standard channel for routing senior secondary students considered to be of noncollege caliber.

Table 12 indicates the number of schools and enrollments reported for selected years. During the first decade of operation, 1943–53, the number of schools for working youth is reported to have increased 3½ times and enrollment more than 7 times. During this period some 300,000 are stated to have received the 7-year certificate and about

Table 12.—Number of Establishments and Enrollment in Schools for Working Youth [1]

(At the beginning of the school year)

Year	Number of schools	Number of students enrolled in grades—				
		I–IV	V–VII	VIII–X	X	Total
1	2	3	4	5	6	7
		(000)	(000)	(000)	(000)	(000)
1945–46	2, 210	21. 7	224. 5	102. 2	26. 2	348. 4
1950–51	4, 501	85. 6	460. 4	292. 3	81. 9	838. 3
1954–55	6, 555	72. 8	589. 9	753. 9	195. 4	1, 416. 6
1955–56	6, 637	54. 0	533. 9	799. 2	222. 9	1, 387. 1

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR; Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 225.

[4] E. N. Medynskii. *Prosveshchenie v SSSR*, p. 111.

120,000 the 10-year certificate. Making these courses available to the military forces since the school year 1949–50 has increased the enrollment. According to *Pravda*, there have been "numerous instances where young workers who wished to continue their education while employed had been refused admission because there were not enough vacancies in the schools."[5]

The schools have operated since their inception under the general supervision and control of the Directorate of Schools for Working and Rural Youth, and Adults, in each of the republic ministries of education. Classrooms, heat, light, laboratories, and equipment are provided by industrial plants and factories, with local educational authorities furnishing teaching staffs, visual aids, and textbooks. Trade union councils at all levels are charged with fulfillment of decrees on these schools by the management of industrial enterprises. Trade unions (1) help recruit students; (2) work out housing so that students have space in which to prepare their lessons; (3) provide reading rooms and reserve-shelves in trade union libraries; and (4) publicize, through press and radio, the programs and results.

Three fourths of the schools for working youth are listed as 10-year schools, one fourth as 7-year schools. Prior to 1954 there were no primary grades officially in this system. If a sufficient number of persons with incomplete primary education was found in one locality, a preparatory class covering work of the lower grades was sometimes organized. Since 1954 formal classes for grades II through IV have been established.

These schools run on a 10-month schedule, from the first of September to the end of June. The year is divided into two semesters—the first lasting 17 weeks, the second, 18 weeks plus 4 weeks for final examinations. Classes meet 4 days a week with consultation periods arranged for the 5th day. Theoretically, the schools operate on a shift system, paralleling the job shifts of the students. In practice the majority seem to function as night schools. Stated the October 1, 1952, issue of *Izvestia:*

> In the RSFSR only 571 of the 2,074 7-year and 10-year schools for working youth have their own educational premises; all the others are accommodated in the buildings of the regular schools and therefore can only conduct courses for working youth at night in the third shift, from seven or eight o'clock on.

Articles in other papers confirm this state of affairs.

Since factory directors set working hours according to plant needs, the courses held there show a percentage of drop-outs, reported as over 20 percent in some instances. Irregular attendance also presents a

[5] *Pravda*, Oct. 9, 1954.

problem. A former student at such a school from 1947 to 1949 described the regime as follows:

> Lectures were held four times weekly for 4 to 5 hours per day, from 7:00 to 11:00 or 12:00 in the evenings. School days were Monday, Tuesday, Thursday, and Friday. Attendance was obligatory, but a certain tolerance was shown to students who did miss a day now and then; the school administration realized that all students had to work hard during the day to make their living, and sometimes just couldn't manage to attend all the lectures. On the other hand, since enrollment was on a voluntary basis, students did their best not to miss any lessons. Naturally, every lecture one missed would increase the homework load.
>
> Every lecture was 50 minutes long with a 10-minute break between lectures. In addition to attending lectures, students had to do homework, especially in the Russian language, mathematics, science, and less often, geography and history. Studying was done either right after school from midnight on, or, much more often, on Wednesday or Saturday evenings, when there were no lectures in the school, or on Sunday, when there was no work at the plant or factory.

Table 13, p. 102, lists the curriculum reported for the school year 1954–55. The program of studies is a modified version of that in the regular primary-secondary schools, and lasts the same number of years as the regular program. The syllabuses for the basic subjects of the primary-secondary school are supposed to be covered in about two-thirds the usual instructional time. Difficulties arise because of pressure.

Only subjects considered by Soviet authorities as of primary importance are taught. Science and mathematics—which together receive almost half the instructional time—are emphasized and physical education and military training are excluded. Since it is impossible for students to take all subjects concurrently the subjects are presented in cycles. It is considered essential to review systematically throughout the year because many of the students are not accustomed to studying and need to develop skill in assimilating and retaining the material presented.

As may be noted in table 13, p. 102, 4 hours of consultation have been set aside each week for individual work with students who require special aid. It is reported that in practice these tutorial hours often turn into regular lectures. Consequently, instructors have little or no time to offer individual assistance to students.

Because of inadequate time, there has been discussion of how best to test students. Although it is customary in Soviet secondary schools to question each student orally during the term, evening schools favor the more rapid written test procedures. One teacher noted that while he preferred to question students individually, to do so would mean he could give marks to only four or five in the class, and that too much

Table 13.—Curriculum of schools for working youth: 1954–55[1]

[Two numbers in a column indicate hours for the first and second semesters]

Subject	Number of hours per week in grade—								
	II	III	IV	V	VI	VII	VIII	IX	X
1	2	3	4	5	6	7	8	9	10
Russian language and literature	11	11	9	5	5	3/4	2/3	2/3	2/3
Mathematics	5	5	4	5	5/4	4/3	3	3	4
History	----	----	1	2/1	1	1	2	–/2	3/2
Constitution of the USSR	----	----	----	----	----	–/2	----	----	----
Geography	----	----	1	1/2	1/2	2/1	2/1	1/2	----
Biology	----	----	1	1	2/1	2/0	–/2	2/0	----
Physics	----	----	----	----	–/2	2	3/2	2	2/3
Astronomy	----	----	----	----	----	----	----	----	1/–
Chemistry	----	----	----	----	----	–/2	2/1	1/2	2
Foreign Language	----	----	----	2	2/1	1	1/2	2/1	2
Drafting	----	----	----	----	----	1/–	1/–	1	----
Total class instruction	16	16	16	16	16	16	16	16	16
Consultation	4	4	4	4	4	4	4	4	4
Total	20	20	20	20	20	20	20	20	20

[1] E. N. Medynskii, *Prosveshchenie v SSSR*, p. 112. (Moskva: Ministerstvo Prosveshcheniya RSFSR, Uchpedgiz, 1955).

time would be lost in such individual questioning at the expense of covering new material.

These tests are in addition to final examinations each year and State examinations given to graduates of grades VII and X.

A former student in these schools describes the examination and testing regime in his school in this way:

> After completion of each grade, a student was required to pass a final examination. Although, during the educational year, there was constant testing of students in all subjects (which afforded the teachers quite a good knowledge of each student's performance and ability), the annual examination was still given to ascertain his standing in a final and official way.
>
> Examinations were always attended by special representatives of the District's Educational Board as well as by the school principal. Students who failed the examination had to repeat the class or study during the summer months in preparation for a make-up examination the next fall. Students who passed the final examination were issued certificates of successful completion of the particular grade; they then had the right to enroll in the next higher grade of any regular Soviet school. I never heard of

a case where a student was dismissed from school during the school year for absenteeism or for unsatisfactory work.[6]

The law provides that students preparing for the special State examinations at the completion of grades VII and X shall be given leave with pay to prepare for them: For grade VII—15 working days; for grade X—20 working days. Students in other grades are eligible for leave with pay on examination days only.

Evening Schools for Rural Youth

The evening schools for rural youth (vechernie shkoly sel'skoi molodezhi) were established July 6, 1944, on the pattern of the schools for working youth and under the same directorate.[7] Organized on a less formal basis than their industrial counterparts, they may be modified somewhat to suit conditions of a particular rural community. As table 14, below, indicates, they offer principally primary and 7-year education. Facilities for completing grades VIII–X were not available until the 1950's.

The schools are supervised by the Directorate of Schools for Working and Rural Youth, and Adults in the ministries of education. They are organized in larger villages, on State farms, collective farms, and

Table 14.—Number of Establishments and Enrollment in Evening Schools for Rural Youth[1]
(At the beginning of the school year)

Year	Number of schools	Number of students enrolled in grades—				
		I–IV	V–VII	VIII–X	X	Total
1	2	3	4	5	6	7
		(000)	(000)	(000)	(000)	(000)
1945–46	10, 108	212. 5	122. 4	-------	-------	334. 9
1950–51	15, 564	259. 8	248. 3	3. 6	0. 3	511. 7
1954–55	12, 165	68. 0	320. 4	7. 4	1. 9	395. 8
1955–56	10, 772	44. 1	277. 8	23. 5	5. 1	345. 4

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR; Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 225.

[6] Conversation with a former evening school student.

[7] A. M. Danev, *Narodnoe Obrazovanie*, p. 251–52. Decree of the USSR Council of People's Commissars, No. 829, July 6, 1944, "Polozhenie vo Vechernikh Shkolakh Sel'skoi Molodeshi."

at machine tractor stations and receive equipment and facilities from the ministries of agriculture and State farms.

Classes for children and young people 14 to 25 years of age meet in the evening, usually in the classrooms of regular school buildings for 4 hours, 5 times a week, during the 6-month slack season in agriculture; that is, for the 25 weeks between November 1 and May 1. Each class is supposed to consist of no more than 20 pupils; frequently fewer are reported. Teachers attempt to cover the same materials as regular schools at the same levels, but it is officially recognized that the quality of academic work is not up to standard.

Operational and inherent problems plague these evening schools. First, the lack of a specially developed program with complementing textbooks causes difficulties. As one Soviet educator noted:

> It is common knowledge that the programs in the regular general schools are overloaded with material and that the teachers can complete them only with difficulty in the 9-month school year. It is obvious that the teachers in the schools for rural youth have an impossibly difficult time trying to present the same amount of material in 6 months, with shortened weeks of instruction.[8]

Probably a major reason for difficulty lies in the fact that rural administrative units have given these schools little money and less attention.[9] Local educational authorities have provided inadequate teaching staffs. "As is known, teachers in schools for rural youth are also teachers in general schools. Often they view their work as an unwanted extra load, are negligent toward it, and prepare their lessons poorly." They also pointed out that many teachers "have had no experience in adult education, and so far nothing has been published which would aid them in solving the special teaching problems encountered in these schools for rural youth." Grown students with practical experience are studying from books written for children." [10]

While the number of schools for working youth and their enrollment are reported as more than tripling since the war, enrollment in the schools for rural youth in the RSFSR, for example, shows no significant change: In 1947 the RSFSR reported an enrollment of 199,700; [11] in November 1954 "slightly more than 200,000 people." [12] As a rule the enrollment plans appear to have been about 30 percent unfilled.

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[8] *Izvestia*, June 4, 1953.
[9] *Izvestia*, Oct. 1, 1952.
[10] Ibid., June 4, 1953.
[11] E. N. Medinsky, "The USSR," *The Year Book of Education* (London: Evans Bros., Ltd., 1948), p. 414.
[12] *Pravda*, Nov. 2, 1954.

One point appears certain: the education of Soviet Russia's rural population continues to present a real problem, at the minimum hindering the advancement of agricultural training and the demands of military training.

Although the opening of new agricultural lands and the settlement of thousands of Soviet youth on them increases the need for rural youth school programs, their future appears to be undecided. It has been suggested that the 3-year vocational courses in agronomy should be supplemented with general educational subjects, or in some way on-the-job training in agriculture should be coordinated and combined with general educational training. One of the difficulties is that to many youths who expect to be collective farmers for the rest of their lives, the traditional secondary school curriculum seems to offer little of practical significance.

In any event, many Soviet officials consider the education of rural inhabitants as the weakest part of the educational system and believe that the matter must be given prompt attention if the goal of "universal 10-year education by 1960" is to be met. As educational levels and examination standards are raised, adequate educational provisions for older rural citizens become more and more important if the State is to be served equally well by both its urban and its rural populations.[13]

Schools for Exceptional Children

Research and pilot educational programs have resulted in the expansion and improvement of educational facilities for exceptional children. In the Soviet Union the following are considered exceptional: (1) Deaf and hard of hearing; (2) blind and partially seeing; (3) mentally retarded and emotionally disturbed; (4) exceptionally bright; (5) artistically gifted; (6) those needing physical rehabilitation, such as the sick and crippled; and (7) homeless and orphaned, including those in residential military schools. Teachers are given special training to work with exceptional children and by law are entitled to receive salaries 25 percent higher than teachers in regular school programs.[14] This section describes some of the general educational establishments provided for these children.

[13] It has been argued that peasant resistance to Soviet practices accounts to some degree for the slower development of educational programs in rural areas.

[14] N. I. Boldyrev. *Direktivy*. Vol. 2, p. 228. Letter of Instruction NKF SSSR, Oct. 15, 1942, No. 668.

Mentally Retarded and Educationally Backward

Schools for retarded children in the USSR are of different types: (1) For feeble-minded or encephalitic children; (2) for children whose retardation is believed physiological; (3) for children with partial defects of vision or hearing; (4) for children retarded because of illness, absence from school, emotional problems, and similar causes which result in educational backwardness and in behavior problems. The process for determining how to classify a child may take 6 months to a year.

These schools aim to provide general education and vocational training to the limit of the child's capabilities, insure good health, correct speech defects and inculcate habits of self-reliance and good behavior. Admission is determined by the entrance commission at each school. Only those believed capable of mastering the special syllabus are enrolled, others are placed in special homes or in hospitals where psychiatric care is available. No tuition fee is quoted for these schools although room and board fees may be charged in accordance with family income for children living at such schools.

Organization of the training program follows the pattern established for regular schools—academic calendar, class lessons of 45 minutes' duration, home work, examinations, oral recitations in class, and so on. The size of the student body is reportedly limited to 200, and class size to 16. The staff are trained in defectology, and in specialties they teach—speech correction, eurythmics, and so on. If after 3 years at a special school the pupil has shown no progress, he either is to be returned to his parents or sent to a special home.

Classes for educationally backward children may be organized at a regular school, although such children usually are sent to central city schools which have been established solely to help children with academic and/or behavior problems. Attention is accorded particularly to physical education, extracurricular activities, and vocational training. Conferences with parents are held periodically, and methods of encouragement are employed to stimulate these children and help them return to regular schools.

Blind or Partially Seeing

Some schools exist for children who are blind and others for the partially blind. An eye specialist is expected to determine the extent and nature of affliction. No child is to be admitted to either type of school who has an infectious eye disease or suffers from serious mental and motor retardation.

Admission is controlled by a commission organized in association

with the local education authority and the ministry of education. It includes, in addition to the doctor at the regular school, an inspector, the director and two teachers from the school for the blind or for the partially seeing, and an eye specialist. They review each application and supplementary documents, interview the child, and then decide on admission.

The full Soviet 10-year primary-secondary curriculum is expected to be covered in 11 years (with the primary school lasting 5 years). In addition, beginning with grade V, vocational instruction is included in the curriculum to prepare children for certain occupations if they do not continue their education in a higher educational institution.

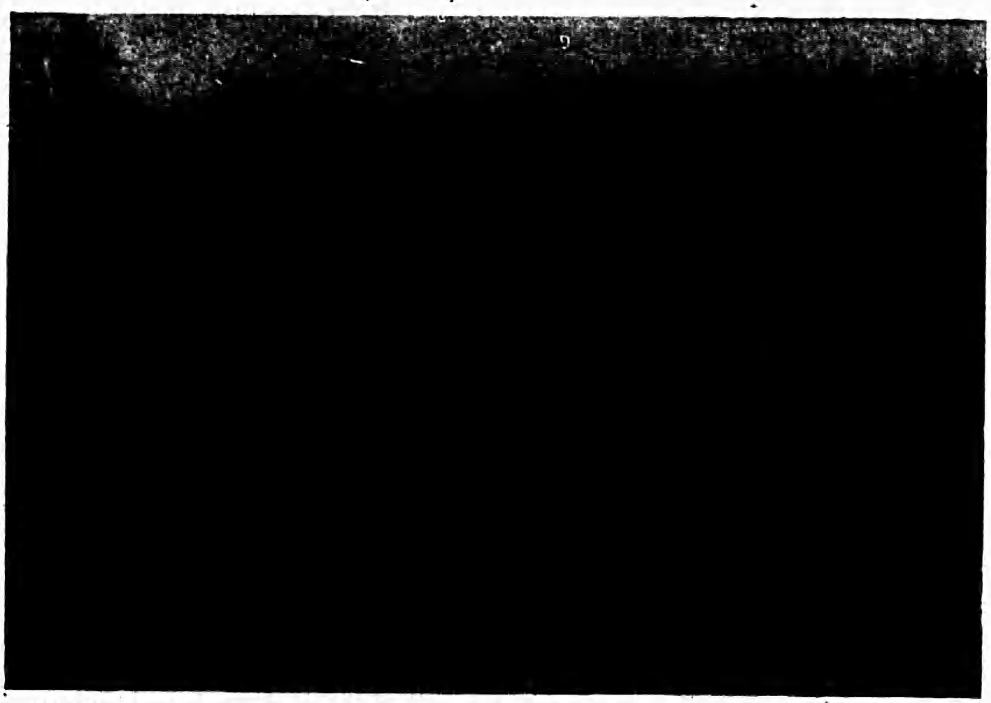
Deaf or Hard of Hearing

There are also schools for: (1) Deaf mutes; (2) mentally retarded deaf mutes; (3) congenital hard of hearing who can speak; (4) hard of hearing who have speech difficulty; and (5) children who have become deaf or hard of hearing. These schools exist in the largest cities in the USSR and are planned to serve surrounding areas. Generally they consist of a preparatory class and 8 grades which attempt to cover the basic subjects in the regular 7-year school. A few have classes for grades VIII to X. Deaf children with marked ability are eligible to enter higher educational institutions exempt from the standard entrance examination.

Physical Rehabilitation

Children with delicate health, and illness such as tuberculosis and rheumatic ailments may get medical treatment and simultaneously continue their studies at combined boarding schools and sanitariums where they follow as closely as possible the normal syllabus. Some of these establishments are maintained by trade unions which report free care for children of members. A greater percentage, known as "forest schools," are under the administration of the ministries of education. At forest schools parents are asked to pay for their children's maintenance in accordance with their means. During the 1954–55 school year, 35,000 children were reported as cared for in forest schools. Usually located on small farms in resort areas, they normally have orchards, vegetable gardens, poultry, bees, and cows, and offer the advantage of a healthful climate and nourishing food.

The curriculum is modeled on that of the regular school although considerably curtailed. Lessons are short, half an hour being the



Children of railway workers with their teacher-nurse at a sanitarium school for physical rehabilitation.

maximum length. Fresh air, correct diet, sleep, and rest periods are stressed more than lessons. Creative self-expression through the arts is considered important, and, in the rural setting, nature studies find a special place in the curriculum. Some of the tubercular children are placed in open-air schools with classes for walking cases held out-of-doors if possible, and with individual coaching for the bed-ridden.

For crippled children who are enrolled in special schools, the regular syllabus is followed as closely as possible, combined with individual guidance to help pupils acquire maximum physical ability and learn a vocation. Children remain in these schools until they are rehabilitated or until the end of the school period, when they are 17 or 18 years of age.

Exceptionally Bright

Some educational programs have been established to challenge exceptionally bright children. When teachers in secondary schools spot children of marked academic ability, they are expected to make every effort to place them in programs directly sponsored by a university. There, in small groups, children work directly under the guidance of professors and instructors considered to be outstanding. A child especially able in a field such as mathematics, for example, then has access

to tutorial help in developing that ability.[15] Existing laboratory and library facilities are made available for work at a more advanced level than the average child can handle. On completion of this senior secondary program, the child is automatically eligible for admission into a higher educational institution.

Artistically Gifted

In some of the larger cities of the Soviet Union there are 11-year schools for artistically gifted children (spetsial'nye shkoly muzykal'nogo i khudozhestvennogo vospitaniya) designed to develop natural talent as well as to provide a general education. Such schools are usually attached to a higher school of the same specialty. Thus, a music school will be located near a conservatory, an art school near an institute of art, a school of ballet adjacent to a theater. This arrangement facilitates use of professional staff from higher educational institutions and takes advantage of existing facilities such as music rooms and art studios. The schools are under the administration of the USSR Ministry of Culture; according to law, they are financed by the local department of public education.

When a child of 6 or 7 shows unusual talent, his kindergarten teacher, parents, or a friend may arrange for him to take a test in the local Pioneer Club or at an institute or conservatory. If the child shows promise he may be recommended for admission to a special school. In some cases, when the test is given at a distance from the child's home, the collective farm or other local organization bears the expense of the journey. A *New York Times* correspondent in the Soviet Union has written that of the 500 annual applicants for admission to the Moscow Ballet School, 30 are accepted each year—15 boys and 15 girls. "Three quarters of them survive the whole course and emerge after ten years at the age of 18 or 19 as superbly trained dancers."[16]

In general, music schools accept children of 7 or 8; exceptional 4- and 5-year-olds frequently are admitted to preparatory classes. The art schools usually accept students from the primary schools; that is, at about age 11, although here too there seems to be wide variation. The 14 ballet schools in the Soviet Union generally accept children of 7 or 8.

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[15] Conversation Dec. 5, 1955, with a professor of history at Moscow University who formerly taught history in a Soviet secondary school.

[16] Clifton Daniel, "The Bolshevik and the Ballerina," *The New York Times Magazine*, May 15, 1955, p. 14, 76, 78.

Tuition is free in these schools, as is board when necessary. At the Moscow Ballet School, there is a "nationalities" section for "boarding students from the non-Russian Soviet Socialist Republics and from the countries of the people's democracies." Sometimes stipends are awarded.

The curriculum includes the same basic syllabus as regular schools. In other respects each school has its own individuality. In grade IV at the Moscow Art School, regular subjects take up 28 hours a week and special subjects, 8 hours a week—a total of 36 hours compared with 26 hours in a regular school. By the time the child is in grade VII, the proportion is 24 hours a week for general subjects and 18 for special studies or a total of 42 hours a week compared with 31 hours in the regular school. At the Moscow ballet school in addition to the regular academic course of the 10-year secondary school, pupils take dancing 2 or 3 hours a day in the lower grades and 4 or 5 hours a day in the senior classes. Because practicing absorbs so much of the day, the schools for artistically gifted children take 11 years for the regular 10-year primary-secondary school curriculum.

Pupils demonstrate their achievement at weekly art exhibits, concerts, and programs in the schools. Attendance at art galleries, theater, opera, and at symphony concerts is required as an integral part of the training. If at graduation from the junior secondary school at the age of 14 or 15, the child's talent is not considered to be exceptional, he may enter an art or music technicum to train for general work in the profession. Only outstanding pupils continue in special schools, graduate at about 17 years of age, and enter a conservatory or art institute for advanced training, or perform in the big national theaters and concert halls.

These schools appear to typify Soviet training policy. While there are not many of them, quality of instruction and facilities for teaching are reportedly the best available. Enrollment is small as the Soviet regime has ordered it that way. In planning for its total economy the State does not need many artists, but wants those it has to excel. The pupils are trained not because they have within them a burning desire for creative expression in an artistic medium but because it is believed that with their talents so trained the pupils later will serve the best interests of the State.

Children's Homes

The chaos of the 1917 Revolution, famines and disruptions in the 1920's, economic and social upheavals including purges in the 1930's, and war in the 1940's left the Soviet Union with a vast number of home-

less and vagrant children. The organization of children's homes (detskie domy) begun in the early days of the regime, continues today. These residential establishments for homeless children are regarded by Soviet authorities as integral components of the educational system. The homes are administered and financed by a special department in each of the ministries of education. Professional staffs are subject to the same regulations as teachers in regular schools.

In the category of homeless children in need of full support are: (1) orphans without relatives able to care for them; (2) children who lost contact with parents and relatives during the war; (3) children taken from their families by court decision because of parental abuse or because their parents are considered to be criminal, immoral or otherwise unfit according to Soviet political and social standards; and (4) abandoned children.

Into the category of homeless children needing partial support fall: (1) vagrants whose parents are unable to support them, or are "temporarily absent," and (2) children completely dependent upon mothers who are unable to provide adequate support. In the RSFSR in 1946 of the 393,000 children reported to be in these homes, about 120,000 had one parent living—usually a mother—and about 20,000 had both parents. Of the orphans and semi-orphans, the Soviets estimate 80 percent lost their parents during World War II.[17]

Some children's homes care only for children of preschool age. The rest are for children in the 7- to 16-year-old-bracket. A few of the latter are classified as special children's homes with enriched instruction in music, art, and sculpture. Children in these establishments are scheduled for thorough communist indoctrination and upbringing. Almost all children in the appropriate age group are reported to be members of the Pioneers; 40 percent of the older children members of the *Komsomol* organization.[18] Extracurricular programs characterize children's homes, and vocational training receives substantial emphasis.

Boarding Schools

The 20th Congress of the Communist Party decided in February 1955 to establish boarding schools (shkoly-internatov) throughout the country. According to this decision, the schools were scheduled to begin operation in 1956–57 and to admit children of widows and children of parents who work. Children are to live at the schools the

[17] E. N. Medynskii, *Prosveshchenie v SSSR*, p. 119.
[18] Ibid., p. 121.

year round, and parents will be permitted to visit them during the vacation periods. The fees charged parents are to be based on family income. Children of parents with low income or from large families are to be admitted free of charge.

Bolshoi Theater Ballet School children performing the Suvorov dance in the Tschaikovsky Concert Hall, Moscow.

Military and Naval Schools[10]

The Suvorov military and Nakhimov naval boarding schools, established during World War II had a two-fold purpose: to provide free care and education for war orphans of Soviet officers, enlisted men and partisans, and to train a body of young boys from which future officers of the armed services would emerge. The schools took their names from Alexander Suvorov, an eminent military commander of the time

[10] *Bol'shaya Sovetskaya Entsiklopedia*, 2d ed., Vol. 29 (1954), p. 271–72; and Vol. 41 (1956), p. 194–95; and George S. Counts, *The Challenge of Soviet Education* (New York: McGraw-Hill Book Co., Inc., 1957), p. 258–60.

of Catherine the Great, and Pavel Nakhimov, a brilliant naval commander during the Crimean War.

In decrees relating to the establishment of these schools, it is stated that they are patterned after the pre-revolutionary "cadet schools." Boys who have finished grade III of regular school are eligible for admission to the Suvorov schools, and 12- or 13-year-olds who have completed grade V are ready to enter the Nakhimov schools. Both types offer the regular 10-year curriculum with special emphasis on mathematics and, in addition, drill, target practice, use of weapons, and fundamentals of military theory. Physical training includes riding, fencing, and field sports. Summer camps operated by both types of school afford opportunities to put into practice military principles learned during the school year.

The program proceeds in strict military style, and the pupils wear State supplied uniforms. They move from activity to activity at the sound of the bugle, perform their work, and carry on their recreation on a rigid schedule from the rising call at 6:30 a. m. until "lights out" at 9 p. m. for younger pupils and 10 p. m. for older ones. A former pupil of one of these establishments describes the campuses as attractive, and the atmosphere is reportedly one of smartness and military efficiency. The enrollment ranges between 150 and 500 pupils.

High-ranking officers generally head these schools, and civilian men and women as well as men of officer rank make up the teaching staff. Each of the officers is responsible for the general character training and discipline of a unit of 25 boys from the day of arrival until graduation. These unit heads are expected to know the boys thoroughly, not only their school activities but their interests, problems, and backgrounds as well. They supervise the homework and out-of-class time of their charges and encourage and reprimand them.

Each officer is required to keep a detailed observation diary or *dossier* on each boy in his unit which serves as a record on the boy and his family and as a basis for evaluating the officer. During their last year at the school, the boys are interviewed by a commission from the ministry responsible for the school. It is claimed that pupils in these schools are not compelled to choose a military career and that they may apply to a civilian higher educational institution for preparation as engineers, doctors, or teachers. In practice, it appears that the majority of graduates eventually enter the Soviet armed forces.

Chapter VI

Extracurricular Work-Activities

EXTRACURRICULAR ACTIVITIES are an integral part of the Soviet educational system. They include "work" programs organized for children after class at school (vneklassnaya rabota), or at establishments specifically created to provide for and supervise out-of-school activities for Soviet children (vneshkol'naya rabota) and to keep their holidays and summer vacations occupied.

Regardless of type, activities are planned and integrated with the school curriculum. Each of the ministries of education in the Soviet Union has its directorate for extracurricular activities. The Communist Party works directly with the Nation's children and through the Party youth organizations, the Pioneers and *Komsomols*, actively providing for children's out-of-school activities. So do the trade unions. Financial provisions for extracurricular activities are integral parts of the education budgets of each of the sponsors. The State bears most of the financial burden; part of it comes out of Party funds and those of local organizations, factories, and collective farms.

This chapter describes some of the provisions for the activity of Soviet children outside the formal school program which the Party and State have developed and fostered. Extracurricular activities for university and institute students are discussed in the chapter on higher education.

Purpose

The Soviet authorities believe that providing for out-of-class time of Soviet children through a planned extracurricular program is important. First of all, a vast number of children live in 1- or 2-room

apartments, from which their parents are absent during the day. To prevent youngsters from falling into mischievous or delinquent behavior through idleness or nowhere to go, Soviet planners make as careful arrangements for keeping their time filled as they do for outlining any other part of Soviet life. Through after-school and out-of-school programs the communist education of the Nation's youth is expanded and intensified.

Secondly, and of equal importance, is the function extracurricular activities perform as a supplement to the regular primary-secondary school curriculum. Because Soviet educators believe that boys and girls must sample each of the basic disciplines before graduating, the required curriculum is uniform and heavily weighted on the academic side. Soviet educational authorities refer to extracurricular activities as a means through which Soviet young people can find an outlet for individual interests, develop individual aptitudes and talents, uncover hidden abilities, and be encouraged to develop ingenuity. The attention given these activities and their coordination with the regular school program indicate that they are relied upon to undergird class work and to carry out projects which will directly benefit the school and indirectly, the State.

For example, around the required study of the Russian language and the rules of grammar voluntary extracurricular activities are organized to reinforce and enlarge the required language minimum; namely: Editing, writing, proofreading the school wall-newspaper;[1] participating in literary or debating clubs; serving as class officer or speaking at meetings; performing in school plays; and serving on a committee carrying on correspondence with other schools.

In school workshops pupils may make test tube racks for chemistry laboratories, pointers for geography classes, and geometric shapes for use in advanced mathematics classes; they may also undertake such work as rebinding worn library books and textbooks and making bookcases and tables.

The use of extracurricular activities to extend classroom instruction is particularly evident in science clubs. Pupils interested in chemistry, for example, may carry out a variety of experiments in which they learn advanced laboratory techniques and undertake more difficult chemical analyses. The work of the physics clubs may be experimental—in radio, aviation, electricity, remote control of machinery, and other subjects in which it seems particularly desirable to awaken and develop the interest of young experimenters. Or it

[1] A newspaper compiled on a bulletin board rather than printed and distributed.

may involve learning research techniques through preparation of papers on the history of physics or through compilation of digests of popular accounts of current physical theories. When charts, models, or pieces of apparatus made in these circles are found useful in the regular school physics lessons, they may be manufactured for mass distribution or suggested for duplication in other schools.

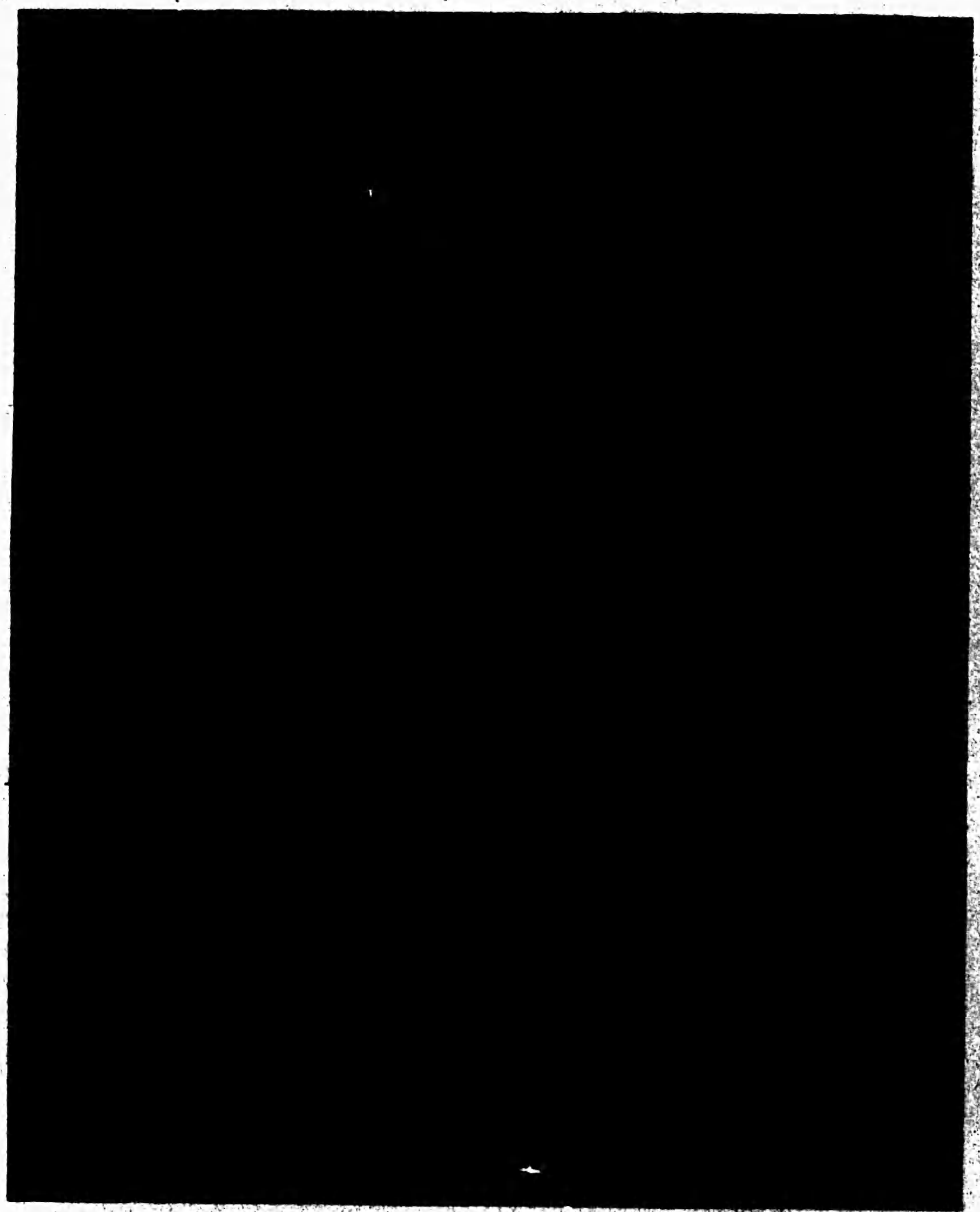
Activities at School

Extracurricular activities at school take two forms: Those organized in special clubs (kluby) or circles (kruzhki) and those organized for general student participation (massovaya vneklassnaya rabota). The latter are designated as "general out-of-class work." For the younger children both kinds of activities have the character of play; as the age level rises the activities become more complicated and serious. Games grow into organized sports. Imaginative and constructive play develops into work with technical, artistic, literary, or scientific content.

School clubs and circles can be roughly divided into the following categories: (1) General-educational and scientific—such as literary clubs, clubs for young mathematicians, historians, geographers, explorers, or astronomers; (2) artistic—such as clubs devoted to drama, choral and instrumental music, ballet and folk dancing, drawing, painting, and sculpture; (3) handicraft and technical—such as the "Skillful Hands" circle for children in grades III–V and circles specializing in sewing, radio, photography, airplane models, naval craft, engines; (4) athletics—including clubs for field sports, gymnastics, mountain climbing, skiing, and skating.

Participation is "voluntary-compulsory" (dobrovol'no-prinuditel'no). Children are usually not assigned to clubs. In the interest of the State they are expected to participate and are required to confine their participation to one, or at most, two groups at a time. Circles meet several times a week for 2 or 3 hours after class. In some circles children are grouped on the basis of interest irrespective of age or grade. In others grouping approximates the age-grade level.

As a rule, activities are supervised by trained leaders and instructors aided and assisted by students from teacher-training institutions as part of their practice teaching. The services of some regular school teachers are enlisted although this practice reportedly has decreased as more and more persons have been trained for after-school club work.



Pupil and teacher in a school Art Circle, Cheboksary, Chuvash Autonomous SSR.

Directions on how a circle should be organized and run are centrally prescribed. Syllabuses outlining the material to be covered and correlated with the required school curriculum are issued regularly, as are teaching aids and work plans. Frequent consultation and close cooperation between circle leader and class teacher are expected.

Extracurricular activities for general pupil participation usually are organized by the school director, and often scheduled during the evening. They may take the form of concerts, special exhibitions,

plays and shows, excursions, or lectures and meetings where authors, musicians, industrial engineers, scientists, and others may tell about their work or perform for the pupils, read excerpts from their poetry or prose, show slides of travels and explorations, and so on.

Many similar activities are found in schools of the US. There are major differences. Soviet programs are centrally planned, controlled, and integrated into school work. Educators in the US recognize the importance of constructive activity and appreciate the educational dividends which clubs provide. Extracurricular activities in the US usually originate spontaneously and develop in keeping with interests of the children. The added understanding of regular school subjects which is gained through extracurricular activities contributes to the individual advancement of pupils.

Activities Organized Outside the School

The largest variety of extracurricular programs is organized at establishments created primarily to provide activities for the out-of-school time of children. These activities are under Communist Party and trade union auspices. The Party establishments, called "Pioneer Palaces" and "Pioneer Houses," are duplicated to a large extent in clubs, known as Palaces and Houses of Culture, which are maintained by trade unions. At such clubs, which are integrated with the school curriculum, members and their families may engage in the same kinds of extracurricular activities as those available in the schools. There also are children's theaters, movies, television programs, nationwide clubs for "Young Technicians" and "Young Naturalists," athletic clubs, and in a few cities junior-sized railways and fleets manned and operated by children.

Pioneer Palaces and Houses

Pioneer Palaces and Pioneer Houses acquired their names in the early days of the Communist regime when they were organized for members of the Young Pioneers. By 1954 an estimated 75 percent of the eligible age group were Pioneer members; today the Pioneer club houses are open to children between 7 and 18 years of age who have good marks in school. Activities roughly divide into those dealing with the arts and those with the sciences, although each term is broadly defined. Boys and girls who wish to become members of a Pioneer Palace are given two weeks in which to decide on the

Opera Circle rehearsing at the Leningrad Palace of Pioneers.

circle they wish to join. Once their choice is made they are expected to remain in the circle at least a year.

Facilities of the Pioneer Palaces in Leningrad, Tashkent, Alma-Ata, Ashkabad, Tbilisi, and many other cities are reportedly extensive. The one in Leningrad, for example, formerly was an imperial palace. It is one of the largest and most elaborate in the country with a library and provisions for activities in technology, science, art, sports, and political work. Its technology division, for example, claims: (1) An aviation engineering section with shops for work in aerodynamics, motors and engines for aircraft, model airplanes, and gliders; (2) a transportation section with workshop facilities for learning about motors, railroads, ship building, and city electric transport systems; (3) a photography motion-picture section with laboratories and dark-rooms; (4) a communications section with rooms set aside for work with radio, telephone, and telegraph equipment; (5) an electrical power section with 5 laboratories; (6) a mechanics section; (7) a graphics section; (8) a carpentry-mechanics section; (9) a machinist, pipefitter, repair, or installation mechanics section; (10) a laboratory for work with house painting techniques; (11) a machine assembly laboratory; and (12) a machine construction section.[2]

Arts activities are provided for by: A theater for stage plays and

[2] See E. N. Medynskii, *Prosveshchenie v SSSR*, p. 97.

movies; a hall for concerts and dances; music rooms for glee clubs, orchestras, or for private lessons; and an auditorium seating some 150 people for lectures. There also is a library and a reading room, several studios for painting and sculpture, and facilities for games and sports. There are rooms where younger children may engage in handicrafts and art work or where they may read or listen to stories.

Since Pioneer Palaces are centers for cultural education where values are to be inculcated, draperies, carpets, sculpture and paintings, plush furniture and ornate fixtures are purposely designed to expose children to luxurious surroundings.

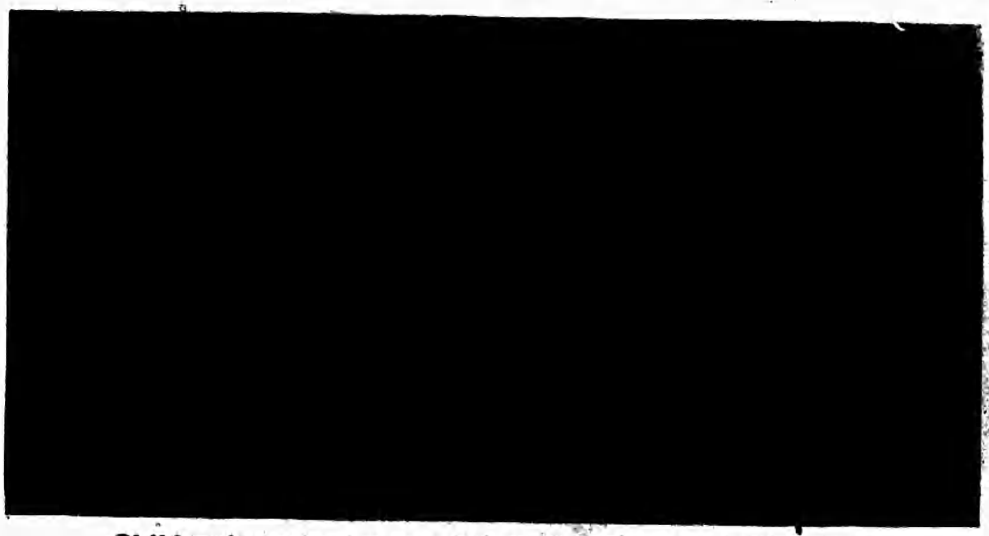
In charge of a Pioneer Palace is a staff consisting of the director, his assistant, the bursar, general office employees, and instructors. In 1955 at one of the Pioneer Palaces in Tbilisi, capital of the Georgian SSR, 80 full-time and 120 part-time instructors were reported to be directing approximately 400 clubs or circles. Many instructors are regarded as authorities in their particular fields—professors, chemists, physicists, engineers, musicians, artists, ballet mistresses, athletic coaches. According to reports, they frequently "donate" part of their time. A certain amount of such "socially useful" work is required of every Soviet citizen.

Opportunities for experience in government are provided through election of members to the "Pioneer's Committee." In addition, circles have their young chairmen and secretaries who help circle instructors. Pioneer Houses are modest versions of the Palaces.

Central Houses for the Arts Education of Children

Music, art, dramatics, and handicrafts organized on an extracurricular basis are supervised and directed by regional institutions known as "Central Houses for the Arts Education of Children." Here research is carried out on types of activities to be made available and on methods of presentation. Groups of youngsters participate in experimental programs at the Central Houses under research staff supervision. The staff studies and discusses songs, plays, dances, games, and craft work and writes up projects it considers worthy of introduction elsewhere.

Central Houses are responsible for publishing songs, plays, games, and dances; issuing instruction manuals on methods of organization and presentation; distributing aids and directions to those working in this field; and training leaders and instructors—particularly those for the communist youth organizations. In addition, Central Houses maintain correspondence advisory service.



Children's orchestra practice in the Metallurgists' Palace of Culture, Magnitogorsk.

Other Organized Activities

Young Naturalist Stations have been designed for boys and girls especially interested in living things. They, too, are organized both centrally and locally, with the central stations providing direction and assistance through regular publication of syllabuses and courses of instruction and through correspondence with young naturalists throughout the Soviet Union. Youngsters are encouraged to collect specimens of local flora and fauna, and perform simple planting, grafting, and soil experiments.

Technical Stations are clubs where boys and girls are taught to make things and to observe how they work. Two or three days a week pupils with an inventive or mechanical bent are scheduled to meet and, under the guidance of science teachers or engineers, construct working models of planes and boats, build and assemble radio transmission and reception apparatus, and participate in similar activities.

Children's Railways and Children's Fleets, used primarily during summer holidays and on Sundays, provide another type of extracurricular activity planned for its educational value. More than a dozen junior-sized railways in various cities of the USSR are maintained, operated, and managed by boys and girls between the ages of 11 and 17 who have received instruction from railway engineers. Each train has about 8 cars large enough for several children and runs on some 2½ miles of track. Children's Fleets of motor and sailing craft at some of the Soviet sea and river ports are organized in a similar way.

Sports for children are receiving increasing attention both as a

result of official interest in achieving international prestige in the athletic arena and as a means of combatting delinquency and hooliganism. Sports circles in schools and clubs are expanding as more coaches and athletic directors are being trained; children's sports stadiums are being built in the larger cities. Supervised water sports are growing in favor.

Theaters

The theater is extensively used in the Soviet Union as an extracurricular activity for youth. Because Soviet boys and girls under 16 years of age are prohibited by law from attending adult movies or theatrical performances in the evening, authorities provide special movies and plays for school children. These performances—many of them free or with low admission fees—are integrated with the school curriculum.

Children's theaters, each with permanent orchestra, producers, scene designers, and workshops for making properties and costumes, are located in various centers in the Soviet Union. The casts are composed of professional actors. Associated with some of these theaters are schools for training future actors, producers, and other theatrical talent. An educator is usually included in the staff to maintain liaison with the schools. Plays called for in the school syllabus are included in the regular repertory, and, although the production plans generally are drawn up for the entire year, schools may request a special play connected with some subject pupils are studying.

An increasing number of free puppet theaters cater to the entertainment of children under 7. Central puppet theaters with workshops and libraries, guide local theaters in costuming, story selection, and staging techniques. Animal and fairy stories are the usual themes of puppet shows, with plenty of vocal music incorporated in the productions. Children come in parties from kindergartens or are brought by their families. Traveling companies give puppet shows to children in rural areas.

Performances for primary school children are given in the afternoon after classes. Plays for secondary school pupils—12 to 17 or 18 years of age—are scheduled for about 6 p. m. Children generally attend in school parties; those whose behavior at school has been unsatisfactory may be excluded as punishment. Plays presented are those considered suitable to the age level of the audience. Popular with primary school children are the fairy tales and children's stories of many lands presented as plays or operettas. Dramatized versions of Kipling's *Just So Stories* and of *Mowgli* are frequent presentations

Adventure stories—some of them dealing with war heroes and incidents—are equally popular.

The older age group see classics such as *Romeo and Juliet* or plays dealing with "the great adventure of socialist construction" or with the life and work of those considered to be great scientists. In this way the Soviet Union hopes to motivate youth for careers in science and industry.

One of the components of the Union-Republic Ministry of Culture is the Chief Directorate of Cinemaphotography—responsible for creation and production of films considered desirable for the education and entertainment of the Soviet people. Producing movies for children is the responsibility of a section of this Chief Directorate, working in collaboration with the republic ministries of education. Movies are made for school children "in accordance with our requests and directions," stated the Minister of Education in the RSFSR in a conversation with William Benton who visited the Soviet Union in 1955.[3]

The 1954 film catalog distributed by the Union-Republic Ministry of Culture lists 937 titles for children, many grouped around basic subjects in the school curriculum. Those relating to astronomy, for example, deal with such topics as the universe, thunder and lightning, solar and lunar eclipses, the rainbow, the changing of the seasons, and the sun. Sample titles of movies about physics include: "A Drop of Water," "In the World of Crystals," "In the Laboratory of the Sun," "Rays of the Spectrum," and "Marked Atoms."

While a majority of the children's films are produced specifically to supplement class lessons, many films, reportedly excellent by US standards, deal with Soviet industry, agriculture, physical culture and sports, medicine, fire-fighting, traffic regulations, and arts. As with theatrical presentations, movies are produced for special age groups.

Broadcasting

Radio and television are becoming more important in the extracurricular life of Soviet school children. No restrictions in the USSR bar the broadcasting or televising of the latest plays, films, operas, concerts, ballet performances, symphonies, or sports events considered appropriate for school children. Radio programs are available 24 hours a day on approximately 10 million privately owned sets (compared

[3] "William Benton Reports on the Voice of the Kremlin" (Educational and Classroom Films), *The 1956 Encyclopaedia Britannica Book of the Year* (Chicago: P. F. Collier & Son, 1956). Feature article. Pages unnumbered.

with about 110 million in the US in the same year, 1953) and on approximately 30 million loud-speakers set up in public places and wired to community antennas. Radio Moscow, reports William Benton, devotes about 50 percent of its time to good music, 30 percent to drama, and 20 percent to oral presentation—news, international affairs, sports, popular science, agriculture, talks by people in industry, government, and the arts, and children's programs.

Soviet television programs are available only during the evenings Monday through Saturday, and from 2 to 11:30 p. m. on Sundays. They consist primarily of major dramatic productions, operas, and ballet performances—generally live—running from 2½ to 3 hours. There are also feature and educational films running from 30 to 90 minutes. While in 1955 there were reported to be 1 million privately owned television sets plus thousands of publicly owned ones, the USSR hopes by 1958 that 6 or 7 million sets will be privately owned. Mr. Benton noted that there were 33½ million TV receivers in the US in 1955, but only from 7 to 10 million outside the US.

He reports: "Broadcasting within the Soviet Union, both radio and television, is far less thoroughly exploited for propaganda purposes than we Americans might suppose, in view of our own experience with its potentialities in advertising and politics."[4] He quotes Mr. Skachko, Deputy Minister of Culture in the Ukraine, as saying that no politics is carried on programs for children under ten "because they wouldn't listen;" as for the older youngsters, "we try to give them an idea of what is happening in the world—and one lecture a week is to help them understand Marxism as taught them in the schools."

Vacation Activities

Under Party and State auspices organized vacation activities are planned to provide supervision for many of the children otherwise unattended because both parents work. During the summer, groups of school children attend numerous Pioneer camps and hundreds of other children attend camps organized by trade unions of which their parents are members.

Under the guidance of more than 100 children's excursion and tourist centers, thousands of pupils are taken on trips within the USSR. Some go on hiking tours or climb mountains. Others take cycling trips. Still others explore rivers by boat or raft. Itineraries prescribed often

[4] Ibid., (Broadcasting).

include visits to historical spots, construction sites, large plants and factories, and model collective and State farms. Children camp out of doors at night. Part of the program includes preparing collections of plants, butterflies, other insects, rocks, and so on for presentation to schools in the fall. Leaders of these summer activities usually are school teachers, senior Pioneer leaders, or students training to be teachers and senior leaders.

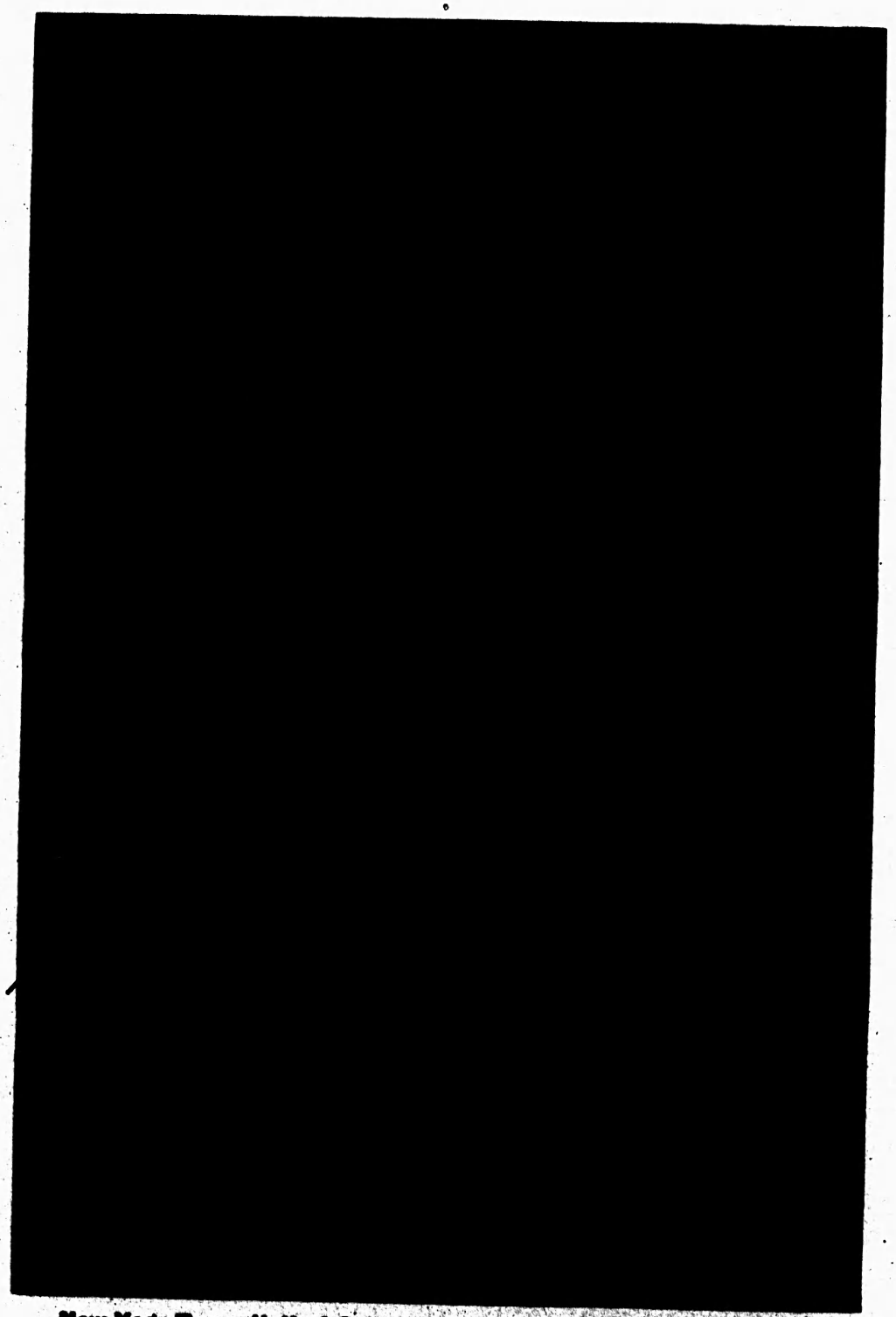
Winter holidays are equally planned and supervised. Children are taken to visit exhibitions of work done by pupils in the clubs of young technicians, biologists, model aircraft builders, and similar groups. Young chemists, physicists, historians, and nature-lovers hold conferences and science fairs in larger urban cities. A program of children's sports events is also mapped out for the holidays. Hockey championship contests, ice skating competitions, ski meets, and other contests are all organized by the State.

Soviet museums and exhibitions welcome school children. Some 300 school classes reportedly visit the Tretyakov Art Gallery of Moscow during the holiday period. The Leningrad Hermitage arranges excursions for children and provides a series of special lectures for pupils from upper-grades to acquaint them with its collection and the history of Russian and world art. The Lenin Museum of Moscow appoints children's guides to serve school children during the winter holidays. A series of lectures on celestial bodies and the solar system is given at the Kiev planetarium.

In some cities such as Riga, capital of the Latvian SSR, winter recreation camps are opened for the holidays. The children spend a good part of the day in the open air, engaging in sports and games. In addition, camps hold morning and evening gatherings for discussion of such topics as "the peace effort of the Soviet peoples," "the great construction projects of communism," "the achievements of Soviet science and technology," new books, and so forth.

Since the Communist Party does not recognize religion, Christmas or Hanukkah celebrations are not authorized for Soviet children. Instead, the State substitutes New Year festivities, with a Grandfather Frost instead of Santa Claus and a New Year's Fir Tree instead of the Christmas Tree. In some 360 cities of the USSR New Year's festivals are arranged by the Party and State through the trade unions. Lighted fir trees are set up in community centers—clubs, schools, Palaces of Culture, theaters, and Pioneer Palaces and Houses.

The largest celebration takes place in the white marble Hall of Columns of the Moscow House of Trade Unions where a huge fir tree is lavishly decorated. The lobbies of the Hall of Columns are decorated by State-supported artists and sculptors. Visitors come from



New Year Tree—Hall of Columns, Moscow House of Trade Unions.

around the country to see the tree, which stays lighted for 2 weeks. Parties for children include dancing around the tree (p. 126), performances by trained animals, puppet plays, and dramatic scenes presented by State-supported actors.

Extracurricular activities in the Soviet Union form a definite part of the educational program and serve simultaneously as media through which communist ideas and ideals are to be impressed upon the minds of children. They are intended to mold the development of boys and girls to make useful servants of the Party and the State.

Chapter VII

Vocational Training

IN THE USSR where skilled and semiskilled manpower for factory, office, and farm has been in critical supply for many years and where industrialization and mechanization have intensified demand, vocational training and retraining have been accorded considerable attention. The function of the training is to enable men and women to acquire or improve their skills, knowledge, working habits, and attitudes to make them capable workers for the communist cause.

Vocational education in the USSR is training for a specific job or type of work in industry or agriculture, with instructional programs reflecting different and constantly changing occupational needs. This chapter, therefore, merely outlines in general terms the types of vocational training for industry and agriculture for Soviet youth.

Unlike the US where extensive vocational education is an integral part of public school offerings, the Soviet Union maintains a variety of terminal vocational programs which are administratively and organizationally separate from the regular school system. Training is available to persons over the age of 14 in a network of schools administered federally by the Chief Directorate of Labor Reserves under the USSR Council of Ministers and in schools, courses, and on-the-job training programs organized by ministries or other governmental agencies for their own employees or for workers for whom they are primarily responsible.

Vocational training for industry is offered in: (1) Basic elementary vocational schools; (2) 1- and 2-year vocational technical schools training graduates of the 10-year school in specified technical trades; (3) State and employer-operated schools and courses ranging in length from 3 months to 2 years; and (4) formal and informal on-the-job and job-related training programs organized by individual factories, plants, and other economic units.

Basic Elementary Vocational Schools for Industry

Basic vocational schools train adolescents for industrial employment as semiskilled and skilled workers. These schools, sometimes referred to as lower professional educational institutions (nizshie professional'-nye uchebnye zavedeniya), are known popularly as "labor reserve schools" since three of the four principal types of training programs offered are under the Labor Reserves Administration. The four types are:

1. Schools for factory and plant training or *FZU* schools (fabrichno-zavodskie uchilishcha) with courses of 12 to 18 months' duration primarily to train workers for light industry. Although an integral part of the elementary vocational training program, these schools are managed by plants and factories to which they are attached. They are not part of the labor reserves system.

2. Factory apprentice or *FZO* schools (shkoly fabrichno-zavodskogo obucheniya) with 6-month to 1-year courses to train youths between 16 and 19 years of age, irrespective of previous education, as semiskilled workers for basic industries (concrete workers, stonecutters, house painters, streetcar line repairmen, plasterers, and mass-production workers).

3. Two-year trade schools (remeslennye uchilishcha) open to boys and girls between the ages of 14 and 17 (usually with 7-year education), offering training in different trades, primarily for work in ocean and river transport, in the communications industry (printing and publishing), and in metallurgical, chemical, mining, and petroleum industries.

4. Railroad schools (zheleznodorozhnye uchilishcha) similar to the trade schools. They prepare machinists' helpers, traffic control workers, mechanics for repairing locomotives and railroad cars, and bookkeepers.

FZU Schools

The systematic training of an industrial labor force was undertaken in the first years of the Soviet regime. In 1920 schools for factory and plant training—FZU schools—were set up primarily in the metal and textile industries. By 1921, 43 such schools were reported with 2,000 pupils. The system spread to other fields of industry, and by 1923 50,000 pupils were reported to be in FZU schools.

During the 1920's a large percentage of the youth enrolled in FZU schools were semiliterate. The period of training, therefore, was of 3 or 4 years' duration with general educational subjects occupying half the instructional time or 4 hours a day in the first 2 or 3 years, and 2 hours daily in the final year. Vocational and industrial training absorbed the time remaining in each 8-hour day. As the educational level of the applicants improved, the FZU courses were shortened. Since 1933 most of them extend from 12 to 18 months, with a few lasting 2 years.

The period of greatest growth was between 1930 and 1932, when FZU schools were reported to have had 1,700,000 pupils. During the first 5-year plan (1929–32), FZU schools reportedly trained 450,000 workers for industry; a goal of 2.5 million trained workers was set for the second 5-year plan. FZU enrollment in selected years [1] was announced as follows:

Year	*Enrollment*
1921 [a]	2,000
1923 [a]	50,000
1926 [a]	96,000
1929 [b]	163,000
1930 [b]	582,000
1931 [b]	975,000
1932 [c]	1,170,000
1938 [b]	224,262
1939 [b]	242,236

Directors of these schools are responsible to ministries of education for teaching procedures and to the administrative staff of the particular economic agency sponsoring the school for maintenance, financial support, and technical and productive aspects involved in training.

The director is assisted by a council composed of the instructors, a representative of the local trade union concerned, a member of the factory management, the school doctor, and a representative of the school's Party Unit.

Since 1933 students 15 to 18 years of age have been admitted to programs in which about 80 percent of the training is concentrated on vocational instruction and production practice and 20 percent on general information concerning the work they are training for, on political indoctrination, and on physical education.

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[1] [a] E. N. Medynskii, *Prosveschenie v SSSR*, p. 131.

[b] A. Pinkevich, *Science and Education in the USSR* (New York: G. P. Putnam's Sons, 1935), p. 54.

[c] *Bol'shaya Sovetskaya Entsiklopediya*, Vol. 56 (1926), p. 548–50.

Labor Reserve System

As more and larger plants and factories were built, the shortage of skilled and semiskilled labor became of major concern. To help meet this urgent requirement the Presidium of the USSR Supreme Soviet announced a decree on October 2, 1940, on the State labor reserves of the USSR.[2] This decree declared that the State was faced with "the task of further expanding industry which entails a steady flow of new labor forces to the mines, the transportation systems, and plants and factories."

This decree established the current Soviet method of planned, compulsory labor recruitment. It ordered the conscription of from 800,000 to 1,000,000 boys annually for industrial training to be drawn from urban areas and collective farms.

The original edict required chairmen of collective farms to select 2 boys aged 14–15 years for the trade and railroad schools and 2 boys aged 16–17 to be trained in the FZO schools for every 100 members of the collective farms between the ages of 14 and 55—roughly 500,000. City Soviets of Deputies were required to furnish yearly a number established by the USSR Council of People's Commissars. The fact that a fixed percentage was established for farm boys and a flexible number for those in cities indicates that one intent of the decree was to force large numbers of boys to leave farms for industry. According to newspaper accounts, between 1940 and 1945 an average of 500,000 labor reservists were graduated each year. It seems probable that a large percentage came from the farms.

The labor reserve schools have a practical purpose. No official claim is made that they aim to raise the general cultural level of young people enrolled. The late A. S. Shcherbakov, then a member of the Politburo, stated shortly after the schools were organized that the system was directed against those "who mistakenly understood the right to work to mean the right to choose their own place of employment in disregard of the interests and needs of the State."[3]

The organization of studies in the trade, railroad and FZO vocational schools rests with the Chief Directorate of Labor Reserves under the USSR Council of Ministers.[4] It is up to the Labor Reserves Directorate to work out the curriculums and education plans, prescribe textbooks, and eliminate shortcomings in operation of the schools.

[2] N. I. Boldyrev, *Direktivy*, Vol. 2, p. 109–11, "O Gosudarstvennykh Trudovykh Rezervakh SSSR."

[3] *Pravda*, Jan. 22, 1941.

[4] Between 1946 and 1953, the USSR Ministry of Labor Reserves.

Upon trade unions and local Party organizations, including *Komsomols*, in each plant, noted *Pravda* on September 21, 1954, lies the responsibility for instilling in pupils of these educational establishments "the best traditions of the working class, a high production discipline, the spirit of collectivism, a love for their future trade, and a striving to increase labor productivity and improve the quality indices of labor."

On June 19, 1947 a further decree of the Presidium of the Supreme Soviet of the USSR [5] extended recruitment to girls as well as boys. Since then, girls aged 15 to 16 have been conscripted for trade and railroad schools, and girls aged 16 to 18 have been drafted for factory and plant training schools. The 1947 decree also, extended the recruitment age limit of boys for the railroad and trade schools to 17 (instead of 15) and for FZO schools to 18 (instead of 17). Boys as old as 19 were drafted to be trained for underground work in mines and as steel workers, furnace attendants, rolling-press workers, diggers, welders of heat-treatment furnaces, and drillers for metallurgical and oil industries.

By 1955–56 more than 3,000 trade, railroad, and FZO schools were reported with approximately 350,000 enrolled. During their first 15 years the Soviets report that they trained more than 7½ million young workers in 500 specialties and trades.

Boys and girls ranging from 14 to 19 years of age are admitted without examination. Until the early 1950's, it is reported that many had completed only 4 or 5 years of education; by 1952 almost all who were admitted had 7 years of education. Since then, completion of the 7-year school has been the commonly accepted education minimum. A small percentage of the annual enrollment is said to be filled by students who voluntarily apply; students are usually drafted by local labor reserve organizations authorized to fill vacancies.

Draft policies have varied since 1940. In general recruits have been conscripted on the following priority basis: (1) Children neither enrolled in school nor regularly employed; (2) over-age pupils in the 7-year school (repeaters of one or two grades because of poor scholastic or attendance records); and (3) pupils in the 7-year schools from rural areas. Pupils in the senior secondary grades (VIII–X) or semi-professional schools (technicums) are automatically exempted.

Labor reserve schools, like other Soviet vocational schools are free; trainees are provided with room, board, uniforms, and work clothes. Soviet statements report that on the average the State spends 8,000 rubles on each enrollee in vocational schools; there is evidence that the

[5] Vladimir Gsovski, *Soviet Civil Law.* (Ann Arbor: University of Michigan Law School, 1948.) Vol. 1, p. 831.

State has not operated these schools at a loss. The training program includes industrial work experience for which trainees are paid a percentage of the standard wage rate—ranging from 33 to 50 percent in the trade and railroad schools and from 50 to 80 percent in the FZO schools. The income received by the State from such work performed by trainees apparently more than covers expenses incurred for housing, clothes, and food.

A survey of reports of former trainees indicates that each program is different. In general, the program of studies depends on the specialty for which training is given, and on the amount of previous education trainees have.

It is difficult to present a representative curriculum for a basic 2-year trade or railroad school because of the variety of specialties offered. Trainees in trade schools learning to repair industrial equipment, and to assemble and mount equipment and construction machinery follow the general curriculum pattern presented in table 15, p. 134. As a rule, industrial and vocational training occupies from 77.3 to 80.2 percent of the total number of instruction hours, with the time allotted to general educational subjects, political instruction, and physical education ranging from 19.8 percent for pupils who have completed grade VII to 22.7 percent for others. Of the total curriculum time, 39 percent (1,286 hours) is allotted to general instruction and 61 percent (2,033 hours) to industrial training.

The academic year is divided into 4 quarters, beginning the first of September and ending the middle of June for the first-year class and a week later for those who are graduating. Winter vacation the first part of January extends for ten days. Instruction is conducted 6 hours a day, 6 days a week the first year and 7 hours a day, 6 days a week the second year, with daily alternating periods of industrial training and classroom instruction. In the third and fourth quarters of the second year the class has industrial training, 7 hours daily except for the last 8 weeks when students are required to work 8 hours daily at an assigned job in industry and prepare a written description of what they have done. Thus, these vocational students are introduced to the Soviet industrial regime first in industrial training in school workshops and later on a job in a neighboring factory or plant.

One former trainee of a construction trade school between 1945 and 1947, recalled that some trainees had classes in the morning while others were engaged in practial projects in groups of 10 to 40 at work sites in the area. In the afternoon groups were reversed. In addition to classes and practical experience, pupils spent considerable time in school workshops. They also studied arithmetic, Russian, and some technical German. Five hours of physical training a week were the

Table 15.—Curriculum of 2-Year Trade Schools Specializing in the Repair, Assembling, and Mounting of Industrial Equipment and Construction Machinery: 1954–55[1]

Subject	Number of hours for students with—	
	4 to 6 years of schooling	7 years of schooling
Industrial training	2,033	2,033
Elements of technology	338	366
Types of materials	80	----------
Drafting	167	155
Mathematics	155	97
Physics	103	----------
Russian language	138	----------
Political instruction	167	167
Physical education	138	138
Survey of the general technology of metals	----------	138
Elementary principles of technical mechanics	----------	155
Elementary principles of electrical technology	----------	70
Total*	**3,319**	**3,319**

[1] E. N. Medynskii, *Prosveshchenie v SSSR*, p. 184. (Moskva: Ministerstvo Prosveshcheniya RSFSR, Uchpedgiz, 1955).

*Not in original table.

rule, part of which was premilitary training in use of infantry weapons including heavy machine guns and mortars.

At the work sites first-year trainees were not permitted to work; they watched what was being done. The instructor explained operational details they did not understand. Second-year pupils worked under the supervision of the teacher and the foreman of the construction crew.

Although this apprentice training program had its drawbacks, this former trainee observed that training was sufficient to produce skilled builders. The boys were graded on their daily work and on final examinations at the end of the apprentice period. Those who did not pass were forced to take poorly paid jobs as general laborers.

FZO schools have programs lasting from 6 months to 1 year, depending upon speciality. These programs include industrial training at the school and on-the-job, and 100 hours of instruction in the technical concepts considered important in their specialty and in elements of industrial safety. Mining industry schools (gornopromyshlennie shkoly) give a 1-year course. One who attended such a course said

that he received a summons to report to a mining apprentice school. There he presented his credentials required for admission: Passport,* birth certificate, autobiography, application questionnaire, 3 photographs, certificate of completion of primary school and medical certificate. No entrance examinations were required.

Over 250 boys recruited from the local area were divided into 4 training groups: Timbermen, loaders, cutters, and drillers. Each group was divided into platoons of 15 to 20 each. At the head of each platoon was a mining foreman, a specialist in the activity in which the group was to be trained.

During the first month instruction was given on types of coal, its quality, composition, positions of coal layers, and coal-mining procedures. During this initial period there were lectures and homework was assigned. The trainees were then taken to a coal mine every day where they worked under supervision of the platoon leader. Trainees were furnished two uniforms (military-type tunic and trousers), a pair of shoes, stockings, underwear, a heavy double-breasted coat, and a military-type cap.

Graduates of the labor reserve schools are mobilized workers obligated to work for 4 successive years at the particular factory, mine, construction site, or oil field, to which they have been assigned. Job assignments are handled through the Chief Directorate of Labor Reserves and its local organs. The State Inspection Board controlling utilization of labor is responsible for seeing that graduates work at jobs for which they are qualified and that enterprises where they are employed comply with requirements governing utilization of trained personnel. Graduates so assigned receive prevailing wages for workers of their ratings. Time spent in training is credited in the individual's labor book as part of his record.

A graduate, if ordered to work in a location other than his home town, is by law entitled to receive transportation, including luggage, to his destination and 7½ rubles for daily travel expenses. At the designated place of work he is entitled to accommodation in a boardinghouse and an advance of 300 rubles which is to be paid back through wage deductions during the next 6 months. After 3 months at work he may apply for a loan up to 2,000 rubles for clothing and household items. The loan is to be repaid within 2 years through equal monthly deductions from his earnings.

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* Every person in the Soviet Union of 16 years or over is obliged to carry with him at all times an *internal* passport. It is a requisite for entrance into any educational institution or employment and for movement from one part of the country to another. For further details on its use in the USSR see George S. Counts, *The Challenge of Soviet Education* (New York: McGraw-Hill Book Co., Inc., 1957) p. 131–35.

Before the expiration of his 4 years of compulsory service, the graduate may not be discharged by the director of the plant or enterprise to which he has been assigned, nor can be quit his job. If he leaves of his own accord, he is liable to court prosecution for desertion, an offense punishable by a term in prison and subsequent reassignment to the job he left.

Table 16 below reveals a significant decrease in the number of graduates from labor reserve schools. By the end of World War II these schools were fairly well established, and graduates were required to help with reconstruction. The year 1948 marked the high point of the program, with over one million reported enrolled that year. Since then the number of graduates has declined—proportionally more rapidly in the FZO schools than in the trade and railroad schools. This decline appears to be a consequence of compulsory 7-year education and extension of 10-year education which latter has reduced the number of students available for training in labor reserve schools.

Table 16.—Number of Students Trained in Vocational Schools of the State Labor Reserves for Industry: 1940–55 [1]

Type of vocational training program	Number trained in—		
	1941–51	1946–50	1951–55
1	2	3	4
Technical training schools	----------	----------	27, 000
2-year trade and railroad schools	685, 000	1, 024, 000	719, 000
FZO schools and mining schools (6 months to 1 year)	1, 790, 000	2, 368, 000	990, 000
TOTAL	**2, 475, 000**	**3, 392, 000**	**1, 736, 000**

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR; Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 197.

During the years of World War II, acquiring suitable instructors was a problem. Officials discovered that a highly skilled worker might not be a good teacher since effective teaching requires both practical knowledge and an ability to explain clearly the methods of work involved. Consequently, the Chief Directorate of Labor Reserves began to set up semiprofessional schools (technicums) to train skilled workers as teachers for all 3 types of schools.

Such a technicum in Moscow, for example, enrolls only those who have graduated with excellent records from a 2-year trade or railroad

school. During the 4-year technicum course students continue their industrial apprenticeship at local plants and acquire teaching practice at neighboring labor reserve schools. By the time students complete the course at this Moscow semiprofessional school, they are expected to have mastered one of three basic trades: (1) Machinist-mechanic (for machine tool repair work); (2) electrician (for jobs equipping industrial enterprises); and (3) radio technician-mechanic.

Some of the vocational schools have workshops, lecture halls, and laboratories with visual aids and samples of up-to-date machines and tools for demonstration and student practice. In some schools training metal cutters, for example, sections have been set up in training workshops with the latest Soviet high-speed cutting tools and machines. Reports from some other schools indicate serious shortages of modern equipment and critical lack of space.

During the time when trainees are not in classes or on work projects, they are expected to take part in activities of a political, cultural, and recreational nature. The director of a labor reserve school has a special assistant for "cultural-upbringing" work (pomoshchnik direktora) whose sole responsibility is to provide extracurricular activities for trainees and in particular to supervise their political education. Trainees who participate in musical groups sponsored by the authorities, are occasionally sent to such communist international youth festivals as have been held in Prague, Budapest, and Berlin.

Athletic activity is strongly encouraged. An All-Union Labor Reserves Sports Society has been organized, with local branches in schools devoted to skiing, fencing, boxing, marksmanship, and other activities.

In 1954–55, 6,343 technical circles with 100,000 active participants were reported to be functioning in labor reserve schools.[1] The work classed as the best in these circles is submitted to city, district, regional, and republic exhibitions, and winning projects are exhibited in the national "All Union Exhibition of Technical Work" in Moscow.

Holidays during the school year are not spent at the discretion of pupils; they are carefully planned by the State. Lectures are scheduled on socio-political, technical, literary, and art themes; and, where possible, excursions are conducted. Attendance at such activities is compulsory. The photograph on page 139 shows such a group of trade school trainees at the Pushkin Museum of Fine Arts.

The law setting up these trade, railroad, and FZO schools specifically provided that they could be called upon to fulfill "elementary production orders of the State." For the years 1940 to 1948, the value of student output was estimated to be between 7 and 8 billion rubles. According to the USSR, in 2 years during World War II one of the

[1] *Izvestia*, Oct. 2, 1955.

schools manufactured 30,000 mines and reconditioned 6,000 rifles, 280 guns, and 240,000 navigational instruments for the Soviet Air Force. That the Soviet labor reserve program depends on compulsory conscription of young boys and girls, often against their will and in opposition to their personal aspirations, must be remembered in assessing its methods and achievements.

Vocational Technical Schools

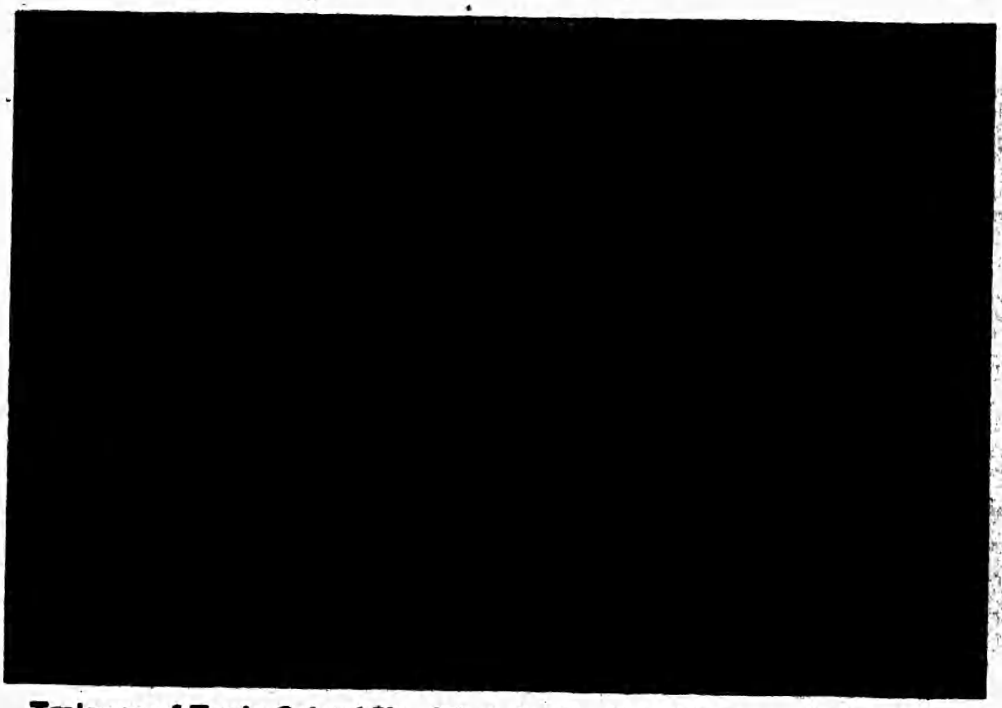
On September 20, 1954, a new vocational training program began in the Soviet Union in technical schools (tekhnicheskie uchilishcha) geared to train junior technical personnel and qualified workers from among graduates of the 10-year secondary school. The program is administered by the Chief Directorate of Labor Reserves.

It was established because the expansion of 10-year secondary education in the USSR between 1951 and 1955 resulted in higher educational institutions being unable to absorb the secondary school graduates. It was discovered that instead of taking jobs right away, many of the 70 percent not absorbed in higher educational institutions were staying at home preparing to take entrance examinations the following year. Despite efforts of the State to "re-orient" Soviet young people, it was found that the tradition persisted among them that those who have received a secondary education should not work with their hands. For example, of the 25,000 reported graduates from Leningrad schools in 1953, 400 were willing to take jobs in factories. Since secondary school graduates have had no training for employment in the national economy, it was decided to make available 1- and 2-year vocational programs to attract greater numbers to the labor force.

In September 1955, Soviet authorities reported admission of 88,000 10-year graduates to these programs, 31,000 more than the previous year, with the first graduating class numbering 27,000. As of the 1955–56 school year, about 450 [8] of these technical schools were said to be functioning.

Recent announcements of technical school offerings included 249 kinds of vocational training in 10 major worker categories: metallurgical; chemical industry and oil refining; construction, woodworking, pulp and paper; water transport; railroad; power, radio, and

[8] On Aug. 16, 1955, *Pravda* reported that 268 schools had been organized during the 1954–55 academic year; *Trud* reported on Sept. 15, 1955 that 176 new schools had been opened.



Trainees of Trade School No. 65 at the Pushkin Museum of Fine Arts.

communications; metal; coal and ore mining; agricultural; and junior technical.[9]

The schools admit without further examination persons between the ages of 17 and 25 who have graduated from secondary school and who are not employed. Applications are addressed to the director of the school selected and must include: the student's maturity certificate, a certificate from his place of residence, a health certificate, and 3 photographs. The student personally presents his internal passport to the school's admission committee.

Training in these schools is announced as free. Stipends equal to those prescribed for the 3rd-year students in specialized secondary schools (technicums) of the corresponding type are said to be awarded. Out-of-town students are supposed to receive dormitory accommodation. Students from children's homes and children of disabled veterans of World War II are provided with 3 meals a day, uniforms, and an allowance of 50 rubles a month.

Most of the programs last 1 year, a few 2 years. Instruction in basic theory and shop and laboratory practice is given at the schools, and in production training on-the-job. The students study industrial electrical equipment, automatic industrial devices, and fundamentals of applied mechanics; they are expected to reinforce their knowledge

[9] M. M. Deineko (*comp.*), *Gde Poluchit' Spetsial'nost'; Spravochnik dlya Okonchivshikh Srednie Shkoly.* (Moskva: Ministerstvo Prosveshchenlya. Uchpedgiz, 1955) p. 7–9.

of drafting and learn to read and make production drawings and diagrams. In general, training is designed to enable graduates to master quickly and easily such industrial techniques as may be required by their job assignments. Grades for daily work, demonstrated proficiency in skills of the trade, and the final examination mark determine the skilled labor rating the student receives with his graduation certificate designating his vocational specialty.

The plants and factories requesting students are required to contribute the services of those considered to be their best foremen and skilled workers as teachers of vocational aspects of the program. The willingness with which management complies has varied from industry to industry. Schools seem to be more successful in obtaining the services of theory teachers than of practical workers. Instructional staff members at neighboring higher educational institutions are invited to give review lectures.

Although some school laboratories have been set up or made available by the responsible plant, frequently laboratories of higher educational institutions in the vicinity are used for required practical studies.

Unlike semiprofessional schools (technicums), which have served in a small way as preparatory to higher technical training, vocational schools for technical trades are designed to be terminal to attract into industry those not accepted by the higher educational institutions and semiprofessional schools. Young people who graduate with the rating of "excellent" and wish to continue their education without abandoning their obligatory job assignments are said to have priority in admission to evening and correspondence programs subject to passing required entrance examination.

The vocational technical schools were not fully standardized as of 1956. As Premier Bulganin has noted, at the present stage of its development, the Soviet economy needs technicians and skilled laborers. In his report to the Central Committee of the Communist Party on July 4, 1955, he said that the country was training a sufficient number of engineers and professional people for a while and should concentrate on training people for lower level jobs. These schools may receive increasing attention as efforts to supply additional skilled laborers increase.

Employer-Operated Schools and Courses

Vocational schools and courses for young people and adults also are operated by ministries and governmental agencies to train prospective employees in professional trades. They are popularly known

as "prof schools" (professional'nye shkoly) and offer courses varying in length from about 3 months to 2 years. Applicants include some persons with extensive education and some with little more than primary schooling.[10]

On-the-Job Training in Industry

Soviet plants, factories, and other economic enterprises also have on-the-job training and retraining programs.

Individual-Brigade and Technical Minimum

In the USSR, "individual-brigade" training is looked upon as the first step in the vocational training of new employees. Under this system foremen and Stakhanovites train new and unskilled workers "in the process of production." Sometimes this instruction is given to several new employees at a time; that is, as a "brigade." The "brigadier" assigns the new worker to a variety of jobs and supervises him as he carries out assignments. As the learner grasps the work, he is moved to more responsible jobs. When sufficiently prepared, he is assigned to work for which he has shown most aptitude. After a period of practical work and further individual or class coaching, the new worker is assigned to what is called the "technical minimum" course.

In 1937 a "State Obligatory Technical Minimum" was introduced for workers in the major industries, and textbooks were published for use in 3- and 6-month courses designed to train workers up to this minimum. These courses are attended chiefly by recently hired young workers. They are given a survey of the plant and instruction in technical aspects and elementary theoretical principles relating to their jobs. Promotion is based on results of an examination at the end of the course.

Those teaching the new workers are paid by management at rates established by the State. Reportedly, instructors receive this payment in addition to their regular wages.

Advanced Technical Courses

Supervisors and foremen who appear to be the best prepared in technical aspects of their work are sent to advanced technical courses conducted at the plant after regular working hours. For varying lengths

[10] For detailed information on types of training offered, ibid. p. 45–126.

of time—2 to 3 years seem to be common—these workers study technical aspects of a particular field. In the telephone industry, for instance, they study communications, concentrating on the theoretical background of their individual job specialties. The student devotes the last semester to a research project, a practical assignment of value in his work. For example, in the communications field such a research project might be "The Design of an Automatic Telephone Station with a Capacity of 10,000 Numbers."

Stakhanovite School

Another method of vocational instruction is the "Stakhanovite School." To become a Stakhanovite, a worker must develop a highly efficient method of work. Through classes in the Stakhanovite School, workers by learning particular tricks of the trade are able to increase industrial efficiency and per capita output.

Lectures and Seminars

For the workers as a whole, lectures are set up which deal with theoretical principles underlying the activity of a given enterprise. In the telephone industry, for instance, engineers may lecture on such topics as "The Role of Permanent Magnets in Telephones," "Electrical Corrosion and Its Effects," or "The Arrangement and Method of the Regulation of Relays." The lectures are designed to increase the workers' knowledge of fundamental principles, deepen their appreciation of the problems to be solved, and keep them alive to the importance of the industry in the national economy.

For the technical and engineering staff of a plant seminars are arranged to familiarize them with discoveries and new techniques, or to stimulate them to work out new methods for improving the work.

Clerical Training

Whereas approximately 60 percent of all high school students in the United States take one or more business subjects such as typewriting, shorthand, bookkeeping, or business machine operation, [11] in the Soviet Union the secondary schools do not offer training of this type. Instead, it is left up to the management of each economic enterprise,

[11] U. S. Department of Health, Education, and Welfare, Office of Education. *Education in the United States of America*, Special Series No. 8, Revised 1955 (Washington: U. S. Government Printing Office, 1955), p. 42.

department, or agency to conduct its own training programs for new clerical personnel as well as to provide courses for improvement and upgrading of its regular employees.

Importance of On-The-Job Training

Between 1946 and 1950 according to Soviet reports, 38 million workers participated in some form of on-the-job instruction. By years, the number trained in millions was reported by two Soviet periodicals [12] as follows:

Year	*Number trained (in millions)*
1946	5.9
1947	5.4
1948	6.1
1949	6.6
1950	7.0
Total	31.0

Table 17 below shows the number of semiskilled and skilled workers which, according to Soviet reports have been trained for industry in specified years.

Table 17.—Semiskilled and Skilled Workers Trained for Industry, in specified years [1]

Type	Number of workers trained in—		
	1940	1950	1955
1	2	3	4
New employees trained by industrial management	1, 950, 000	2, 626, 000	2, 593, 000
Employees given additional training	1, 655, 000	5, 038, 000	4, 978, 000
Employees trained in factory apprentice schools	61, 000	93, 000	100, 000
Total*	3, 666, 000	7, 757, 000	7, 671, 000

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR; Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 198.

*Not included in original table.

[12] *Bol'shevik*, No. 4 February 1951, p. 28.

Since the bulk of the industrial labor force in the USSR has been recruited from the peasant class, and there is no tradition of industrial skill, importance is attached to constant retraining of workers. Industrialization in the USSR apparently has been limited as much by lack of competent workers as by almost any other single factor. Professional papers frequently comment on the inadequacy of the semiskilled and skilled labor force. Instructions for industrial workers are detailed and presuppose workers of low technical level. Priority fields like the aviation industry appear to be no longer so hampered, while the textile and light industries in particular continue to suffer.

There are many indications that engineers in production and technical management are frequently required to take refresher courses to keep abreast of new methods and equipment in their specialties.

Vocational Agricultural Education

The system of agriculture was drastically reorganized by the forced collectivization of peasant holdings in the early 1930's which put the land into the hands of the State. Acreage, double the size of the land mass of Poland, and exceeding that of France and Germany by 50 and 75 percent respectively, was formed into hundreds of gigantic State farms (sovkhozi). So extensive are these units that a Ministry of State Farms has been organized to supervise their work. On these so-called "model farms" farmers and agricultural specialists are employed by the State. Here experimental research is carried out on aspects of agriculture, such as cotton, livestock breeding, orchards, and vineyards. Here is to be found the latest Soviet farm machinery. Here also modern Soviet farming techniques are tested and applied.

In addition to the State farms collective farms (kolkhozi), were organized. These are not State-operated enterprises; they are forced consolidations of individual peasant holdings for joint operation by the peasants. Land, labor, work animals, and farm buildings, equipment, and tools belong to the farm as a whole. Peasant dwellings, small gardens adjoining them, possibly a cow and a few chickens for domestic use are considered personal property of the individual peasant families. Though not nearly so large as a State farm, a collective farm utilizes the labor of many peasant families.

In the middle of a group of collective farms there is a State-operated machine-tractor station (MTS). This permanent year-round center provides the surrounding collective farms with-tractor and farm-machinery service and agronomical and organizational direction in return for a share of the crop. About 90 percent of the principal types of agricultural machinery in the country (such as tractors, combines,

and tractor-plows) are said to be concentrated in these machine-tractor stations.

Although agriculture is less mechanized than in the US, the magnitude of developments in agrarian life and the increasing population to be fed have made it apparent to the Soviet State that vocational education in agriculture must be made available to the peasant class. To meet this need a nationwide State-supported and -sponsored system of vocational education in agriculture—including instruction in farm mechanics, radio, and electricity—has been developed under a coordinated plan worked out between the USSR Ministries of Agriculture and State Farms and the Chief Directorate of Labor Reserves. The programs are for out-of-school adolescents and for adult farmers.

Agricultural vocational education is offered in: (1) 1- and 3-year management courses; (2) basic 1- and 3-year courses for farmers and for youth going into farming; (3) 3-year on-the-job training programs in agronomy and animal husbandry; (4) schools for the mechanization of agriculture to train youth in 1- and 2-year courses as farm machine operators and mechanics; and (5) schools to train graduates of the 10-year schools for agricultural employment in technical trades.

The primary aims of vocational training in agriculture are: (1) To increase the peasant's proficiency in his occupation; (2) to stimulate his responsiveness to advances in agriculture; (3) to train large numbers in the mechanical skills required to utilize agricultural machinery and keep it in repair; (4) to train rural young people in the installation, use, and maintenance of electricity and electrical appliances and farm equipment; (5) to provide management training for persons who will direct and supervise complex agricultural activities. Each program caters to a specific Soviet agricultural need.

On-The-Job Training for Farmers

In 1944, 1- and 2-year basic agricultural courses were organized for farm hands, for orchard, vegetable, and livestock workers, for others engaged in general agricultural work and for youth desiring to become farmers. According to Soviet sources, by May 1946 about 16,000 were enrolled in 218 schools offering such courses sponsored by the USSR Ministry of Agriculture; by 1951 some 500 schools of this type had graduated 260,000; in 1950 such schools had an enrollment of over 70,000; by 1952 enrollment dropped to 48,000.

Numerous difficulties were reported. In some years as many as 30 percent of the students had had no previous farming experience. Sometimes as many as 40 percent of the graduates did not return to collective farm work. Because it became evident that the program

was not fulfilling its function, schools were reorganized in the spring of 1952 with programs specifically for collective farmers. Training was offered for forestry workers, heads of livestock farms and apiaries, foremen of agricultural brigades, and veterinary aids. Additional students were selected from among collective farm workers who had had not less than a primary education and who were over 19 years of age. The idea back of these schools is that those who are trained will pass on their knowledge to their fellow workers on the farms.

By 1954 Soviet sources reported 105 1-year agricultural schools training graduates of the 10-year school and others; by 1955 the number of schools had increased to 342. The type of training offered was broadened to include courses in bookkeeping and accounting. To encourage enrollment dormitory accommodation is provided for students, and stipends are offered.

Agricultural Management Courses

In accordance with a decree of the Central Committee of the Communist Party in February 1947, 2-year programs for management training were organized for leaders in agricultural communities: Directors of collective farms, deputy directors, brigadiers (section foremen), stock-farm heads, members of boards, and chairmen of inspection commissions of collective farms. Simultaneously, 6-month courses were organized for retraining collective farm directors.

According to Soviet reports, by 1949 there were over 100 of these 2-year management programs, with nearly 15,000 persons participating during the first 2 years of their existence and a first graduation class of 6,000. In 1950 over 25,000 persons reportedly were enrolled in the 6-month and 2-year management courses.[18]

A decree of the USSR Council of Ministers on March 31, 1951, reorganized these schools into 3-year and 1-year schools. Since then, persons enrolled are nominated by district committees from among those employed in management positions and from potential managers who have completed 7 years of education. While in training, students are scheduled to receive a State stipend of 200 rubles per month. The decree also "recommended" that collective farms from which the students come credit them with from 20 to 30 labor days per month and give them an additional monthly stipend of 200 rubles.

Instruction in these schools is based on problems of the agricultural leader in his working relationship with the collective farm and the State. Subjects include production of farm commodities, conserva-

[18] *Bol'shevik*, No. 20 (1950), p. 29.

tion of soil and other agricultural resources, and general farm activities and problems. Some general academic subjects are required in the 3-year programs. A graduate of the 3-year course receives a certificate of "junior agronomist" with rights and privileges similar to those of a graduate of an agricultural semiprofessional school (technicum). In the 1951–52 year, there were to be, according to the plan, 118 such intermediate-level agricultural schools offering management training to about 36,000.

Short-term courses (lasting 1, 2, and 3 months,) on management problems for collective farm directors, agricultural technicians, and collective farm accountants have been established periodically. These temporary courses have been sponsored by the State primarily to explain new agricultural policies and plans, and discuss particular problems.

Courses in Agronomy and Animal Husbandry

Beginning with the 1950–51 school year, a major program was launched by the USSR Ministry of Agriculture to give vocational agricultural education to the Nation's collective farm workers through 3-year on-the-job courses in modern agronomy and animal husbandry (agrotekhnicheskie i zootekhnicheskie kursy). These courses in the theory and practice of field-crop production soil management, and the breeding, raising, care, and judging of farm animals were designed to train collective farmers in the latest Soviet practices and techniques. It was planned to set up at least one study group of 30 persons on every collective and State farm throughout the Soviet Union. Soviet press reports indicated that in the first year of operation there were some 100,000 such groups with an enrollment of 2,800,000.[14]

Those in training are expected to spend about one-half their time in class and one-half in independent study during the off season. During the growing season they are to undertake agricultural projects worked out with the cooperation of the teacher and the farm concerned. Projects are approved which can be carried out over a long-term period and be in line with the permanent farming activities of the trainee.

Experimental projects are approved if their results are applicable to agricultural conditions on the home farm and on neighboring collective farms. During the course 100 hours of consultation are scheduled with the teacher on the initiation, development, and results of the project. At the end of the 3-year program, final examinations are conducted on a State-wide basis. Those who pass are certified as mas-

[14] *Pravda*, Sept. 24, 1951.

sters of agronomy or of live-stock breeding. Reports in newspapers indicate that many of the desirable measures outlined have remained on paper due to inefficiency, lack of staff, and lack of materials and equipment.

In the mountain areas of the Armenian SSR teachers assigned to agricultural training for farm-workers—agronomists and animal husbandry experts from the Nation's higher educational institutions—were scheduled to meet together at sponsoring machine-tractor stations to discuss problems with farmers from the surrounding collective farms, give instructions on improved farming techniques, and in some cases direct work on the farms themselves.[15]

Although organized by the USSR Ministry of Agriculture, these 3-year courses are operated by the staff of the machine-tractor stations, with other groups also being held responsible for the effectiveness of the programs.[15] The town councils (Soviets of Workers' Deputies) and local district organs of the ministry of agriculture help recruit students, popularize the program, and facilitate the organization of training on collective farms by seeing that there are buildings, equipped with visual aids, textbooks, and agricultural literature for the classes. The Chief Directorates of Agricultural Propaganda in the USSR Ministry of Agriculture and in the USSR Ministry of State Farms are responsible for supplying local organs with materials describing agricultural developments and for disseminating information about methods developed on other farms.

Propaganda officers of the Ministry of Agriculture in such republics as the Tadzhik SSR reported numerous difficulties: Classes were irregular; general instruction left much to be desired; students did not pay enough attention to what was being taught; and textbooks and study aids were not appropriate or did not exist. By the end of the 1952–53 school year it was evident that the courses were not fulfilling their function. In September 1953, the Plenum of the Central Committee of the Communist Party gave considerable attention to the status of agriculture in general and to methods of stepping up production by collective and State farms. The courses in agronomy and animal husbandry were considered to be sound in principle but in need of substantial improvement. The committee recommended that knowledge of up-to-date techniques and results of experiments and advances in agricultural science and practice be imparted more systematically to farmers, that excursions to model collective and State farms and to agricultural research institutes be organized as part of the courses so as to acquaint students with current developments, and that specialists at experimental stations, research institutes, and agri-

[15] *Izvestia*, Nov. 28, 1953.

cultural educational institutions be induced to take an active part in the work of these courses.

Although these recommendations were to be put into practice as rapidly as possible, marked deficiencies continued to hamper effectiveness of these courses. On December 14, 1954, *Pravda* reported that enrollment quotas were continuing to be underfilled in numerous districts—particularly those where such training was seriously needed, as in the Kirghiz SSR and among ethnic minorities in the Far East. Rooms for classes still were not available everywhere. Out of 12 textbooks scheduled for publication and distribution for the new term, 10 were still in preparation. In 1955, a Ukrainian newspaper described the state of affairs in these schools in the Ukrainian SSR as "deplorable." [16]

The student recruitment quota had not been filled in most of the farming districts of the Ukrainian SSR, the editorial stated, because there had been insufficient explanatory information about the courses, the system for collecting applications from interested farmers had been poorly organized, and some students who had completed the first or second year of the course had not been enrolled for the second or third years. In commenting on the operation of the courses the editorial said: (1) Lectures were given irregularly—instead of 8 lectures per month as scheduled; in some cases only 1 or 2 had been given in a 2 months' period; (2) textbooks were in short supply and even when available frequently had not been distributed widely; (3) in conducting practical training, some collective farms had assigned students to jobs that needed to be done whether or not they were related to the training syllabus.[17]

The Party has said that these courses are basic to the creation of more capable farmers upon whom rest in large part Soviet hopes for increased agricultural output. The 3-year on-the-job courses in agronomy and animal husbandry have been effective to a degree in influencing students to adopt improved agricultural practices while student experimental projects have been instrumental in overcoming peasant resistance to scientific methods. According to these reports, however, enrollments have diminished progressively from 3 million in 1951, and 2 million in 1954 to 700,000 in 1955. In 1954 200,000 completed the agronomy courses and 250,000 the courses in animal husbandry. Important deficiencies continue to be reported in the press.

For the benefit of the State, a Soviet individual is conscripted for and coerced to attend such programs to study "the latest methods of

[16] *Radyanska Ukraina*, Jan. 14, 1955.
[17] *Pravda*, Dec. 14, 1954.

work so as to improve the output of the collective and State farms." [18] For his individual benefit, a potential or actual farm owner, operator, or otherwise interested person in the US may enroll on his own initiative in somewhat similar courses to acquire agricultural knowledge or improve himself in a special aspect of agricultural work. Extensive, free advisory services, guidance on the use of new methods and equipment, and results of experimental research are available to US farmers in all parts of the country.

Programs for the Mechanization of Agriculture

At September 1953 Plenum, the Central Committee of the Communist Party discussed the urgent need for improving Soviet agricultural output. Major attention was concentrated on machine-tractor stations (MTS) which reportedly do about three-fourths of the agricultural work on collective farms. To meet agricultural targets set by the Party and State the Communist Party declared that "one of the vital factors for the further development of agriculture lies in improving the work of the machine-tractor stations." [19]

Previously each MTS had been responsible for training its own mechanics and machine operators in rather loosely organized agricultural mechanization courses sponsored by the USSR Ministry of Agriculture. The Plenum, in addition to adopting various measures for improving the work of machine-tractor stations in general, recommended that the system of training be reorganized and new courses be set up by the Chief Directorate of Labor Reserves for training machine operator personnel along lines similar to those found successful in vocational trade schools for industry.

Accordingly the USSR Ministry of Agriculture revamped its loosely organized course into formal 1-year "Schools for the Mechanization of Agriculture" (uchilishcha mekhanizatsii sel'skogo khozyaistva) in which more than one million young people over 14 years of age were to be trained as farm-machine operators for the machine-tractor stations.[19] Trainees were to be provided with tuition, room, and board and to receive a monthly allowance of from 200 to 250 rubles.

Although an order went out on the reorganization, the situation reportedly remained as before. The future machine operators were reported to be studying new equipment by correspondence. The

[18] Ibid.
[19] *Pravda*, Dec. 16, 1953.

schools lacked machines of the type with which students would be working when they graduated, study programs were not available, and so the instructors did not know what types of tractors and farm machinery should be studied or how many hours should be allotted to each aspect of the program.

In many schools a great shortage of teachers was reported. Men with practical knowledge of the technical end of the training program were forced to lecture on theoretical principles underlying the workings of the tractor, the combine, and other farm machines. Most of them had not taught before and many did not know the theoretical principles they were supposed to be explaining. Of the 3,500 teachers reported to be employed in the schools for the mechanization of agriculture, 40 percent—1,210—had a university-level technical education, and of these, 380 had majored in agricultural science. An additional 54 percent of the instructors—1,910—had semiprofessional training and practical experience on the job. The schools were short on dormitory facilities—frequently the students had to board with private families in surrounding villages. Cafeterias were reported to be far from satisfactory. In the Bykovskii school in Yaroslavl' Oblast, the cafeteria accommodated 200 of the 900 enrolled. To quote the school director, "70 of the 200 places were not equipped with chairs." Another school was said to have 45 plates for hundreds of boarders.

Reportedly the number of teachers for these schools has doubled and their qualifications have improved as have the facilities and equipment. It is claimed that by 1955 the schools had 11,000 tractors and farm machinery of other types such as grain combines, beet combines, and potato-lifting machines,[20] and syllabuses had been written allotting more than half the time to practical work in operating and repairing machines and less to theory. In addition, instruction was to be given in such agricultural techniques as the square-cluster method of sowing and planting, and narrow-gauge and cross-wise sowing methods with some attention devoted to practical techniques of mechanizing processes in animal husbandry. Reportedly 11 new textbooks had been compiled and 13 collections of colored posters and charts had been published as visual aids.

Agricultural Labor Reserve Schools

In conformity with the resolution of the Plenum of the Central Committee of the Communist Party of September 7, 1953, "About Measures for the Further Development of Agriculture," the Chief

[20] *Trud*, Feb. 15, 1955.

Directorate of Labor Reserves established 2 new types of schools offering vocational training in agriculture: (1) Trade schools for the mechanization of agriculture (remeslennye uchilishcha po mekhanizatsii sel'skogo khozyaistva) to train combine operators, tractor drivers, and mechanics for farm machinery in 2-year courses; and (2) schools for mechanizers of agriculture (uchilishcha mekhanizatorov sel'skogo khozyaistva), a type of FZO school with a 1-year course for training tractor drivers and combine operators with less training in mechanics and farm machinery repair work.

The Chief Directorate of Labor Reserves is responsible for recruiting trainees and for organizing and carrying out effective training programs. The USSR Ministries of Agriculture and State Farms are responsible for financing, housing, equipping, and staffing the schools. That the preparation of teachers, quality of training provided and the physical plant and equipment for these programs falls far short of the desired level is evident from repeated newspaper accounts calling upon responsible authorities to effect improvements with all speed.[21]

Tractor Driver-Mechanics Schools

One-year tractor driver-mechanics schools were introduced during the 1954–55 school year to train operators for tractors and persons to work on diesel tractors, combines, and other farm machinery. They also were to be instructed in agricultural practice in a fashion similar to that in schools for the mechanization of agriculture. Tuition, room, board, uniforms, and monthly stipends of 260 rubles were to be provided to trainees.

In June 1955, 78,000 were reported to be in the first graduation class and 155,000 to have enrolled for the 1955–56 school year. Tractor brigade leaders and their assistants were also scheduled for refresher courses under this program. Starting with the 1955–56 school year, training of tractor driver-mechanics was to be emphasized in all but a few schools for the mechanization of agriculture.

Soviet youth from collective farms and machine-tractor stations were to be enrolled in these schools provided they were 17 years of age or older and had at least a 7-year education. Four-year primary education was the only general education reported to be available to the rural population as late as the immediate post-World War II period; in the 1955–56 school year 20,000 graduates of the 10-year school were reported enrolled in these schools.

[21] *Pravda*, Sept. 26, 1955.

Vocational Technical Schools

When the network of vocational technical schools for industry was established in September 1954, the need for certain types of technical workers in agriculture was recognized. Consequently, 47 vocational technical schools for agriculture reportedly were organized to train graduates of 10-year schools for rural assignment as radio technicians, general mechanics, electromechanics, electricians, or agricultural laboratory assistants. As with vocational technical schools for industry, those for agriculture come under the Chief Directorate of Labor Reserves. Tuition, room, board, and uniforms are provided as well as stipends equal to those for pupils in the third year of an agricultural technicum. Indications are that these schools suffer from inadequate staffs, buildings, and equipment.

Pupils in rural secondary schools receive some vocational education in agriculture through supervised field work in natural science classes and in the agricultural practicum where they carry out experiments and projects with the cooperation of the teacher and the local collective or State farm.

Chapter VIII

Semiprofessional Training

SEPARATE from and at an academic level between the general secondary schools and the higher educational institutions, and to a certain extent overlapping them, are schools offering semiprofessional training (srednee professional'noe obrazovanie). As a general rule, *shkoly* or schools train semiprofessional personnal in public health—nurses, medical aids, dental and laboratory technicians; *uchilishcha* (another term for "schools") prepare semi-professional personnel in education, music, the arts; while *tekhnikumy* or technicums train technicians for Soviet industry, transportation, communications, agriculture.

All three commonly are called technicums. They are responsible for preparing students for employment in a single specific "support" service to be rendered to the engineer, lawyer, physician, research scientist, or other professional person.

The technicums offer 2 levels of training: (1) In specialized secondary schools with 3- and 4-year courses for graduates of the 7-year school; and in (2) 2- and 3-year courses on a higher level for graduates of the 10-year schools. Persons over 14 years of age may enroll in semiprofessional schools—those under 30 years of age as full-time students and those over 30 as part-time, night school, or correspondence students in specialties closely related to their employment.

Development

By the mid-1930's, after a period of experimentation, the pattern of semiprofessional education was fairly well stabilized. Specialized secondary educational institutions (srednie spetsial'nye uchebnye

zavedeniya)' as they came to be called, accepted students who had completed the 7-year school, and through 3- or 4-year courses gave them narrowly specialized training supplemented with some general educational courses comparable to those in the regular senior secondary school (grades VIII–X). Graduates received diploma-certificates claimed to be equivalent to the maturity certificate for graduates of the 10-year school in that they entitled the holder to apply for admission to a higher educational institution.

During the late 1940's, a number of accelerated courses were developed for students who had completed grades VIII and IX. Such students were given credit for their general education courses and in 1- and 2-year programs were permitted to complete the specialized technicum training. As the number of students completing the 10-year school reportedly doubled and redoubled during the first half of the 1950's, semiprofessional schools were reorganized to provide training specifically for graduates of the 10-year school. The general education courses were replaced by courses in basic theory underlying a specialty, and the program was geared to a somewhat higher academic level.

By 1954–55, reportedly about 40 percent of the enrollment in semiprofessional schools had previously finished the 10-year secondary school; during the school year 1955–56, the ratio was said to be about 50–50. Of the September 1956 admissions, reportedly 60 percent of the enrollment was based on 10-year education to 40 percent on 7-year schooling. While this trend may continue, according to the RSFSR Deputy Minister of Education, there were no plans as of 1956 to abolish the 7-year-based specialized secondary schools. Soviet pupils with artistic, athletic, mechanical, and other special talents and inclinations can be trained more effectively if they have the advantage of early specialization.[1]

Table 18 presents data on semiprofessional training in the USSR for selected years: The number of schools, enrollment and number of students admitted during each of the 5-year-plan periods. Of the nearly 2 million Soviet students reportedly enrolled in the semiprofessional schools during the 1955–56 school year, about 15 percent were part-time students. The percentages of part-time students ranged in recent years from 14 to 18.5 percent; the graduation rate in the same period averaged 9 percent of the total. (See Chart III.) Girls constituted at least 50 percent of the total, ranging by field from an estimated 30 percent in engineering to over 80 percent in medicine and public health.

[1] Conversation with the RSFSR Deputy Minister of Education, March 1956.

Table 18.—Semiprofessional training: Number of schools, enrollment, and admissions, in specified years[1]

Year	Number of schools	Enrollment			Admissions		
		Total	Full-time	Courses: Adult and correspondence	Total	Full-time	Courses: Adult and correspondence
1	2	3	4	5	6	7	8
		(000)	(000)	(000)	(000)	(000)	(000)
1927–28	1,037	189.0	189.0	.....	56.2	56.2	.....
1932–33	3,509	724.0	724.0	.....	424.0	424.0	.....
1937–38	[2] 3,496	[2] 862.5	[2] 862.5	.....	[2] 368.7	368.7	.....
1940–41	3,773	975.0	819.0	[3] 156.0	382.9	331.2	[3] 51.7
1950–51	3,424	1,298.0	1,117.0	[3] 181.0	426.3	365.1	[3] 61.2
1954–55	3,796	1,839.0	1,604.0	[3] 235.0	.....	.....	.....
1955–56	3,757	1,961.0	1,674.0	[3] 287.0	587.5	478.7	[3] 108.8

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR, Statisticheskii Sbornik* (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 221, 225, 227, and 228.

[2] Nicholas DeWitt, *Soviet Professional Manpower: Its Education, Training, and Supply* (Washington: National Science Foundation, U. S. Government Printing Office, 1955) p. 282 and 293.

[3] Computed.

Control

Semiprofessional schools have been set up, financed, and maintained by each branch of the economy and culture needing middle-grade specialists. By decree in July 1943, they were placed under the general supervision of the Chief Directorate of Semiprofessional Training in the USSR Ministry of Higher Education.[4]

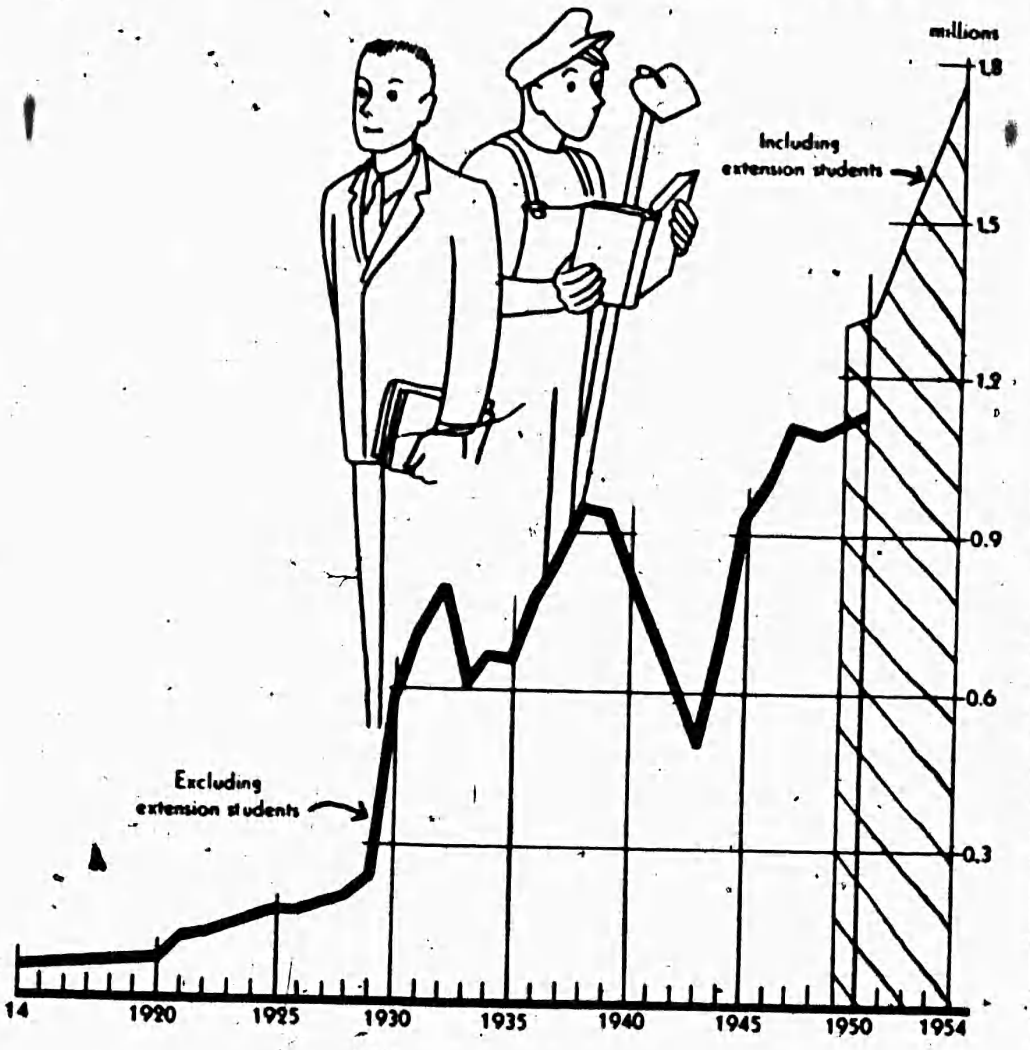
Specifically, the Chief Directorate was made responsible for: (1) Working out problems involving the development of semiprofessional education; (2) drawing up, on the recommendations of education directorates of ministries and agencies concerned, detailed plans for enrollment quotas and designating subjects to be taught; and (3) pre-

[4] M. I. Movshovich (*Comp.*), *Vyeshaya Shkola*, p. 23, Resolutions of the USSR Council of People's Commissars No. 721 of July 2, 1943; No. 1296 of July 21, 1946; and No. 56 of Jan. 11, 1946.

paring instructions governing admission and graduation requirements. In brief, while programs conform to requirements of the particular ministry or other governmental agency being served, the Chief Directorate of Semiprofessional Training is to keep an eye on academic standards teaching methods, caliber of teaching staff, and enrollment and graduation procedures.

Evidence indicates that paramount control has continued to rest with ministries and agencies being served and that they receive the credit for program achievements. The USSR Ministry of the Coal Industry, for example, was cited as being a model administrator of its schools; its increased production of specialists was particularly com-

CHART III.—TOTAL ENROLLMENT IN SEMIPROFESSIONAL SCHOOLS



mended.[3] The Soviet press noted in 1954 that in the 750 technicums maintained by the USSR Ministry of Agriculture, the training of the 250,000 students enrolled in them suffered from inadequate curriculums and syllabuses and from poorly worked out subject-matter sequence. The chief reason given for this was that the USSR Ministry of Agriculture paid inadequate attention to its schools and failed to put its plans and programs into full effect.[4]

Admission Policy

Applications to Soviet semiprofessional schools are submitted between June 1 and July 31, although when the number of applicants is excessive admission may be terminated ahead of schedule. The applications must be accompanied by the following documents: (1) Original education certificate, (2) original copy of birth certificate and internal passport, (3) autobiography, (4) three photographs, (5) information on military status for those subject to the draft, (6) medical certificate, and (7) residence certificate.

Certain schools require specialty examinations of all applicants to determine their talent and preparation for study in the field chosen. The specialty examination for those applying to pharmaceutical schools is chemistry; for architecture, drafting; for dentistry, physics; for law, the Constitution of the USSR. The specialty examinations are given first, and those who fail are not permitted to take the remaining entrance examinations.

A committee on admissions (headed by the school director and including the deputy director for academic affairs and 3 teachers) sifts applications and, except where specialty examinations are required, automatically admits honor students, and informs other eligibles of the date and place of the competitive entrance examinations. Of those who pass the entrance examinations, priority is accorded to war veterans and demobilized soldiers. According to the number of vacancies available, admission is granted to others on the basis of examination scores.

Competitive entrance examinations are prepared from uniform outlines furnished by the Ministry of Higher Education, and are administered by panels of subject matter teachers. They are held between August 1 and 20.

Graduates of the 7-year school are required to pass separately

[3] *Pravda*, July 6, 1953.
[4] Ibid., Sept. 15, 1954.

graded examinations in: (1) Russian language—written dictation; (2) Russian language and literature—oral; (3) history of the USSR—oral; (4) mathematics—written and oral.[5]

Prior to 1955 graduates of the 10-year school were similarly examined. In March 1955 the Ministry of Higher Education announced new rules for admission for 10-year school graduates. The number of entrance examinations was reduced. Applicants for admission to technicums in the fields of engineering, agriculture, and economics must now pass a written examination in the Russian language and an oral one in mathematics. Applicants for other fields are required to pass a written examination in the Russian language and an oral one in the history of the USSR.[6] There are some indications that the change was made to channel some of the higher educational institution applicants into semiprofessional schools offering training at the level where manpower is in shortest supply.

After the specialty examination, those in the Russian language are held. Applicants who fail are not permitted to take the other examinations. In semiprofessional schools giving instruction in the native language of the republic (such as Estonian, Georgian, Armenian, Tadzhik) an additional written and oral examination is required. With "5" as the highest grade, a score of "1" or "2" in any examination automatically disqualifies the applicant. Examination results are submitted to the Committee on Admissions for final determination as to which of the eligible candidates will be enrolled. New students are registered between August 21 and 25. When vacancies remain, persons may be admitted who have passed examinations elsewhere but for lack of vacancies have not been accepted at the school of their first choice.

Allowances

Between 1940 and 1955, when a decree announced their abolition, tuition fees ranging from 150 rubles for most schools to 200 rubles a year for schools in the capitals of the republics were required of full-time students; students attending night classes or enrolled in corre-

[5] For further details on admission requirements see: M. I. Movshovich, *Tekhnikumy (Srednie Spetsial'nye Uchebnye Zavedeniya); Postanovleniya i Prikazy*, edited by S. Ya. Plotkin. (Moskva: Ministerstvo Vysshego Obrazovaniya SSSR, Gosudarstvennoe Izdatel'stvo, "Sovetskaya Nauka," 1947. p. 26, 57, 62–64. Hereafter cited as *Tekhnikumy*.

[6] *Trud*, March 8, 1955.

spondence courses paid half the amount. Veterans, orphans of veterans, children of pensioned parents, and sometimes others were stated to be exempt from the fees. Since fall 1956, it is reported that fees are no longer charged.

Some 75 percent of the students in semiprofessional schools reportedly receive a monthly stipend, varying with the field of specialization and increasing with course seniority. By law, stipends ranging from 80 to 330 rubles a month are given to students who make grades of "3" or average, with a bonus of 25 percent to those who make all "5's" or excellent grades.[7] The stipend for the subsequent semester is cancelled if a student's grade is less than "3" in any subject.

Training

The majority of the semiprofessional schools admitting graduates of the 7-year school have 4-year courses. Those offering training in economics and finance are usually 3-year courses, while some of the schools for teachers of drawing and drafting are 5 years. Within a specialty there is variation. For example, semiprofessional schools under the USSR Council of Ministers' Chief Directorate for Physical Culture and Sports offer 3-year physical education teacher training, while such schools under the various republic ministries of education offer 4-year courses.[8] Since the early 1950's, some specialized secondary schools have offered accelerated courses of 12 to 18 months for students who have completed grades VIII or IX of the general senior secondary school. Technicums, which have reorganized their curriculums and now admit only graduates of the 10-year school, have programs of 2 to 3 years.

In general, a student in the technicum program is required to carry about 40 hours of instruction a week. A heavier load is required in many engineering technicians. An academic year seems to be composed of from 30 to 32 weeks of 6 days plus 3 or 4 weeks for examinations. It appears to consist of 1,200 to 1,300 hours of instruction, except in engineering technicums where the number is 1,500 or more per annum. What is termed "industrial practice" for engineering technicums, is known as "field practice" for geographers, or "teaching practice" for kindergarten teacher trainees. The amount of time for this type of job training varies greatly; it appears to be heaviest in agriculture.

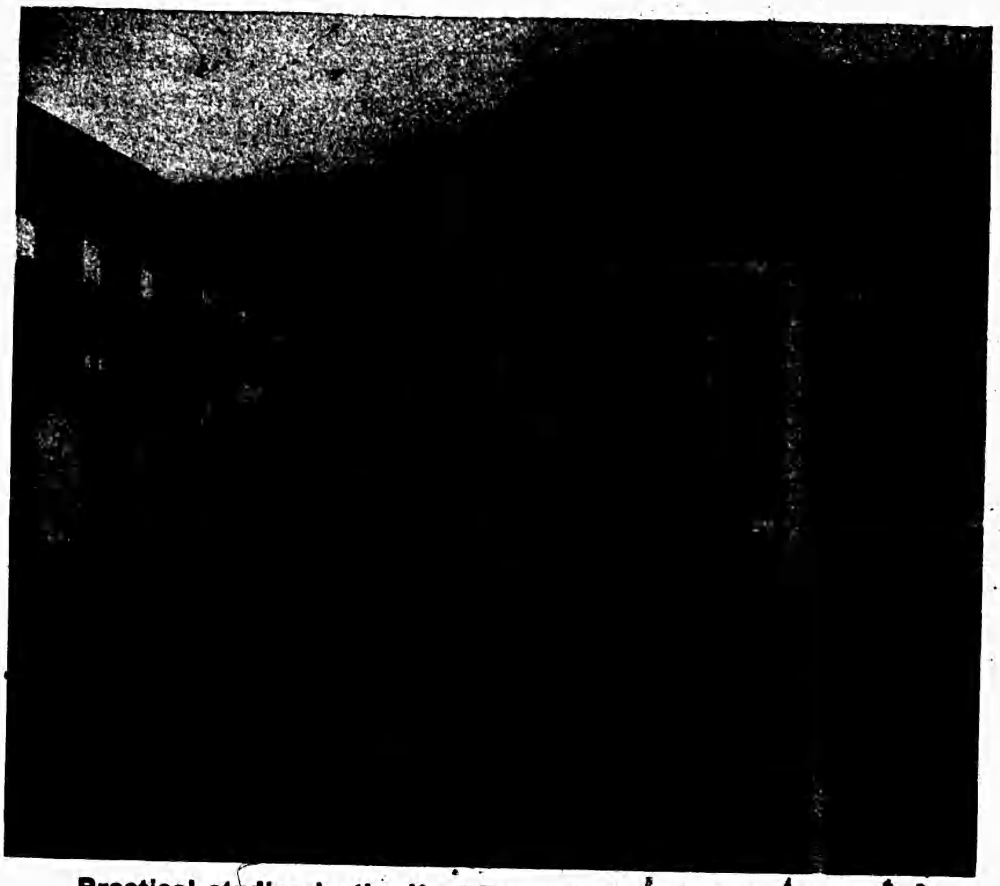
[7] M. I. Movshovich (*comp.*), *Vysshaya Shkola*, p. 217.
[8] *Izvestia*, May 19, 1954.

The fragmentation of semiprofessional training in the USSR is immense. The following list does not fully show this fragmentation; it gives an idea of the number and distribution of semiprofessional training establishments by industry or field in which the USSR reported students being trained in 1948.[9]

Types of schools by industry or field	*Number in 1948*
Fuel industry	96
Metallurgy	58
Power and electrical engineering	42
Machine construction and construction of apparatus	128
Chemical and rubber industry	35
Light industry	29
Textile industry	27
Food industry	111
Pulp and paper industry	53
Teacher training for the labor reserve schools	21
Polygraphic industry	4
Construction, construction materials, and communal economy	151
Transport (merchant marine, river fleet, auto transport, road and bridge construction)	148
Communications (radio, telephone, telegraphy)	19
Geodesy, geology, meteorology	21
Miscellaneous industrial	51
Agriculture	551
Forestry	22
Economics and law (banking, credit, trade, statistics, accounting, economics, law)	229
Education (teacher training for kindergartens, primary schools, orphanages)	701
Cultural enlightenment (libraries, extracurricular activities)	73
Art	197
Music schools	109
Art schools (creative and applied)	48
Theatrical schools	14
Choreographic schools	15
Movie industry and screen acting schools	11
Public health (obstetricians-medical aids and midwives, nursing, medical laboratory workers, dental technicians, pharmaceutical technicians, medical entomology)	615
Physical culture and sport	43
Total	3,425

The education directorate of a ministry is expected to know more about the type of training needed in its enterprises than would a nationwide organ such as the Ministry of Higher Education's Chief

[9] See Ministerstvo Vysshego Obrazovaniya, *Srednie Spetsial'nye Uchebnye Zavedeniya SSSR; 1948* (Moskva: "Sovetskaya Nauka," 1948).



Practical studies in the Heat Power Installations Laboratory, Moscow Power Institute.

Directorate of Semiprofessional Training. At the same time, coordination presents a problem. A *Pravda* writer complained, "Students are being trained in the same specialties at schools of many ministries and only on a very small scale everywhere." [10] The following examples are cited:

(1) Thirty-four ministries and agencies maintain schools for training semiprofessional personnel for industrial and public construction.

(2) In 1953, a number of technicums of the Ministry of Machine Building, the Ministry of Transport Machinery, and the Ministry of Heavy Machine Building each graduated from 13 to 15 students who had specialized in the identical field.

(3) Twenty-four ministries and agencies are training technicians specializing in metal cutting.

"Matters have gone so far," *Pravda* pointed out, "that the USSR Ministry of the Metallurgical Industry trains specialists in forestry and railroad operations, the Ministry of Power Plants and Electrical

[10] *Pravda*, July 6, 1953.

Industry in telephone communications, and the Ministry of the Building Materials Industry in the foundry production of ferrous metals, forestry, and architecture." Such departmental organization has led to "the monstrosity of a small educational institution breaking up into numerous pigmy departments for training specialists in entirely different fields." Cited as examples were the technicums in Dnepropetrovsk belonging to the Ministry of the Metallurgical Industry and the Leningrad Railroad Transportation Technicum of the Ministry of Transportation, both of which were training students in 10 different specialties. Such a high degree of specialization means that training is expensive and schools are harder to staff and equip. The average size of the student body in a technicum reportedly rose from about 260 students in 1940 to about 520 in 1955.

There is no uniformity in the curriculums of the different types of technicums, since each program is designed to give narrow training in a single occupation for a specific ministry or governmental agency. The following appears to be the characteristic general pattern for technicums admitting graduates of the 7-year school:

1. General foundation courses—Russian literature and language, mathematics, history, foreign language, physics, chemistry—similar in scope and level to what is required in grades VIII–X of the senior secondary schools, and designed to broaden the general education foundation;
2. General courses in the field of specialization;
3. Specialized courses considered essential for a particular occupation;
4. Practical work in school laboratories and workshops;
5. Industrial practice—at the type of work site where graduates will be assigned;
6. Military training and physical education including participation by boys in reserve military training programs generally scheduled after class and at least one summer reserve training camp program of about a month;
7. So-called extracurricular instruction including obligatory political indoctrination, professional and cultural activities.

Graduates of the 10-year school have already covered the material of the general foundation courses, and professional training for them begins with a more advanced program of work in the particular specialty. In other respects their curriculum parallels that offered in specialized secondary schools.

During their final semester students are expected to sum up what they have learned in a diploma project (diplomnyi proekt). In the process they are to focus attention on the immediate specialty for which they have been trained. In the engineering technicums, this assignment usually takes the form of a study with blueprints and calculations as appropriate to the design, maintenance, or production of a particular piece of equipment; an improved layout for a particu-

lar type of factory; or a method for stepping up efficiency on an assembly line. Some schools require the student to prepare a diploma thesis instead and to defend it before a panel of teachers and representatives from the ministry, trade union, and others concerned. In still other schools, final State examinations are used to help evaluate training acquired by students. Usually about 5 percent of a class are graduated with honors. These students have maintained outstanding academic records and have diploma projects, theses, or State examinations which were graded as excellent.

After successfully defending his diploma work or passing his State examinations, the student receives a certificate indicating that he has completed training in the particular specialty and is entitled to privileges accorded his new status such as pay differential, promotion advantage, and job prestige including the title of "technician" in a given specialty, such as technician-cartographer (tekhnik-kartograf).

Coal Mining Technicum in Kiev

According to information obtained in an interview,[11] the coal-mining technicum in Kiev had an enrollment in 1954–55 of 2,500, 7 percent of whom were girls. The regular teaching staff numbered about 100, plus several part-time instructors and numerous laboratory assistants. Money for running the school came from the coal mining ministry and amounted to 12,500,000 rubles. The school had been reorganized from a specialized secondary school into a 2½-year program restricted to graduates of the 10-year school.

According to the director the school has usually had 4 or 5 applicants per vacancy each year, and despite careful selection, about 15 percent have failed to graduate. Much of the equipment in the technicum was used standard mine equipment supplied by the coal mining ministry. The visitors reported that while the laboratories were a bit old fashioned, "there was certainly nothing to be ashamed of."

The director said most staff members—about 25 percent of whom were Party members—were graduates of higher educational mining institutions, although some who taught nontechnical and nonspecialized courses had graduated from pedagogical institutes. When the director was asked why teachers preferred to work in the technicum when their backgrounds might enable them to earn 2 or 3 times as much in industry, he replied that most of them liked the life of a teacher better. They enjoyed the 2-month summer vacation, there was far less pressure than there would be in industry, and many of

[11] With Homer and Norton Dodge, June, 1955, following their return from the USSR in May 1955.

them supplemented their incomes appreciably by undertaking industrial contract research work.

Railroad Technicum in Moscow

This technicum offered training for graduates of the 7-year school as railroad technicians specializing in signals, telegraphy, and radio. In 1951 it was one of 84 railroad technicums maintained for supplying the railroad industry with skilled personnel. This school, according to the director, had had 650 applications for 270 vacancies that year. Total school enrollment was 980. On the staff were 62 instructors plus the workshop masters and laboratory chiefs and assistants responsible for 7 laboratories and 10 workshops. Classes were held 6 days a week from 9 to 2:30. After lunch students studied in the library, engaged in sports, or took part in scientific and political circles.

Prospect for Further Study

By decree graduates must spend the 3 years following completion of technicum studies as employes in the specialty in which they have majored. They are customarily assigned to jobs for which they were trained by the ministry maintaining their school. Although semiprofessional training is designed to be terminal, higher educational institutions are not closed to all technicum graduates. The top 5 percent are exempt from the mandatory 3 years in an assigned job if within 2 years after graduation they enroll in a higher educational institution offering training in the same field as that in which they specialized in the technicum. As honor students they do not have to take the general entrance examinations, although since 1955 they have been required to pass the competitive examination of most importance to their major. Other technicum graduates may be admitted to evening or correspondence programs while on the job, or may apply for full-time studies in their specialization after their 3-year obligatory work assignment.

In practice it is estimated that technicum graduates constitute only about 4 percent of the students annually to Soviet higher educational institutions. The reason is twofold: (1) Those completing the specialized secondary schools tend to find that their training in one narrow field has not prepared them to pass entrance examinations for higher educational institutions in competition with senior secondary school graduates who have trained especially for university work and (2) graduates of the 10-year secondary school frequently enroll in semiprofessional schools after rejection by a university or institute.

Qualitative and Quantitative Factors

Soviet educators consider geographic distribution of technicums to be a problem. Education authorities periodically point out that semiprofessional schools are concentrated in industrial and commercial centers of the Soviet Union, primarily in central European Russia. There are relatively few in Siberia, Central Asia, Kazakhstan, the Far East, and in the vicinity of the Ural Mountains. For example, even in such a needed field as agriculture, only 6.6 percent of all agricultural technicums are located in Siberia, and only 9.7 percent are in all of the Central Asian Republics combined.[12]

Historically technicums were established in highly populated centers, preferably next to an industry to which they could be linked. The practice has been continued because the ministry can provide training for its prospective employees at lower cost by utilizing equipment in the plant for student practice and by drawing on plant personnel for part-time instruction at the school. Sometimes a technicum and a factory are housed in the same building. The possibility of being assigned good jobs in big plants on completion of studies attracts students to certain city schools.

Assessing the academic level of graduates of Soviet semiprofessional schools in terms of US educational programs is difficult. In both the US and the USSR scope of training varies from field to field and frequently from school to school. In addition, Soviet educators and employers of semiprofessional school graduates disagree on the academic level of achievement of Soviet graduates. The shortage of professional manpower has led to utilization of semiprofessional graduates in professional capacities. With this practice have come demands for training programs which would produce graduates with qualifications approaching those of professional specialists. To achieve this level, specialized training requirements have tended to be raised and narrowed. Within the confines of a sharply delineated specialty, the technicum graduate may be hardly distinguishable from the graduate in the same specialty from a Soviet higher educational institution.

In the Soviet Union semiprofessional schools are not considered institutions of higher education although they are under the jurisdiction of the Ministry of Higher Education. Limited surveys of Soviet semiprofessional training in specific fields appear to indicate that programs are at a level above that of trade schools or vocational and technical high schools and below that of 4-year technical institutes of higher learning in the United States. One recent survey of Soviet

[12] *Izvestia*, May 19, 1954.

4-year specialized education in geodesy, topography, and cartography concluded that what is expected of Soviet graduates compares with what is expected in theory and practice in the single narrowly defined field within the curriculum of the American junior college offering specialized training in that field.

Although there is variation in the quality of facilities available, former Soviet students and Americans and other Westerners recently returned from visiting the Soviet Union report in general that despite frequently cramped, drab quarters, and shortages of apparatus, such facilities as laboratories, study rooms, libraries, and workshops are adequate for carrying out an effective training program—at least in the schools they knew or visited.

As a rule, teachers are graduates of higher educational institutions. Many are teachers in other educational establishments employed on a part-time basis to teach their disciplines in a technicum. A large proportion are recruited from the industry concerned. There is Soviet reluctance to reveal size of the teaching staffs; it is estimated to have been about 200,000 in 1955–56.

The admission quotas, fixed for full-time students and those in evening courses, are somewhat adjustable for correspondence students. Through these quotas Soviet authorities maintain control over student-teacher ratios. According to law, technicums may have from 25 to 30 students per teacher in regular lecture classes. The ratio for evening classes is established as 1 teacher for 15 to 20 students. For foreign language and drafting classes, for laboratory sections and practical work in school shops, each class may be split into 2 groups of 12 to 15 students.[13]

Prior to the war, from 40 to 45 students out of every 100 admitted to engineering technicums were reported to have completed the course; in other fields the number ranged from 50 to 55 percent. Although precise statistical data are not available for the postwar period, it has been estimated that about 60 percent are graduating.[14]

Enrollments and graduations by field over the years indicate emphases in semiprofessional training. During the 5 years preceding World War II, enrollments in engineering and health fields reportedly

[13] See N. A. Pomanskii, *Finansirovanie Prosveshcheniya*, p. 158–59. Resolution of the Chief Directorate of Semiprofessional Training under the Committee for Higher School Affairs, July 4, 1944, "Ukazaniya k Raschetu Uchebnoi Raboty Prepodavatelei Tekhnikumov."

[14] *Cf.* Nicholas DeWitt, *Soviet Professional Manpower: Its Education, Training, and Supply*, (Washington: National Science Foundation, U. S. Government Printing Office, 1955.) p. 79.

remained at about 250,000 and agricultural enrollments reached about 140,000; enrollment in the socio-economics field remaining low, representing about 4 percent of the total technicum student body in 1939. Because of shortage of teachers created by the expanding school system, teacher training received the major emphasis and reportedly reached an enrollment of 270,000 in 1939. During World War II engineering training became dominant. It received still greater emphasis in the post-war years, expanding rapidly after 1952. The increased health and education training offered in universities and institutes since the war appears to be reflected in the decline in technicum enrollment in these fields.

"In our country," stated *Pravda* on September 15, 1954, "the total number of specialists with intermediate-level education just barely exceeds the number of specialists with higher education; in a number of branches of industry there are even fewer technicians than engineers. This is the case in the enterprises of the Ministries of Electric Power Stations, Radio Engineering, the Chemical Industry, and the Construction Industry." Soviet planners maintain that for the correct and most effective utilization of manpower the ratio of professional to semiprofessional personnel in the USSR should be 1 to 2, 3, and in some fields 4. During the past 25 years the reported prevailing ratio has been about 1 to 1.8.

The fifth 5-year plan (1951–55), proposed a 35 percent increase in number of semiprofessional graduates to help change the ratio, particularly in engineering and agricultural fields where the shortage appeared to be most acute. Though reported graduations from technicums exceeded the goal of the fifth 5-year plan by 1953–54, so did graduations from higher educational institutions, with a 1951–55 ratio of 1 professional graduate to 1.4 semiprofessional graduates. This was the lowest reported ratio since the first 5-year plan was inaugurated in 1929.

Table 19 p. 169 outlines the reported number graduating from Soviet semiprofessional schools between 1929 and 1955 as compared with the number graduating from higher educational institutions.

There appears to be nothing in the Soviet Union resembling the general liberal arts program available in American junior colleges. One difference between higher level Soviet semiprofessional programs and certain terminal junior college programs in the US is the Soviet system of training for competence in one limited occupational field with little or no allowance for possible change.

In 1955, semiprofessional manpower probably represented approximately a million in the USSR and a million in the US. The Soviet Union was reported to be graduating engineering-type technicians at the rate of 92,000 a year in 1955, while the US turned out 13,000.

Table 19.—Graduation rate of specialists from semiprofessional schools and from higher educational institutions: 1929–55[1]

Period	A Numbers graduating from semiprofessional schools				B	C Numbers graduating from higher educational institutions			
	Average yearly rate	Adult and correspondence courses	Full-time	Total	Ratio of semiprofessional to professionals	Total	Full-time	Adult and correspondence courses	Average yearly rate
1	2	3	4	5	6	7	8	9	10
	(000)	(000)	(000)	(000)		(000)	(000)	(000)	(000)
1914–15	4.9	-----	-----	4.9	0.5 to 1	10.7	-----	-----	10.7
1st 5-yr. plan 1929–32	72.8	-----	291	291	1.7 to 1	170	170	-----	42.5
2d 5-yr. plan 1933–37	124.6	-----	623	623	1.7 to 1	370	370	-----	74.0
3 years of 3d 5-yr. plan 1938–40	226.0	29	649	678	2.1 to 1	328	304	24	109.4
World War II years 1940–45	108.0	33	507	540	1.8 to 1	302	286	16	60.4
4th 5-yr. plan 1946–50	255.7	122	1,156	1,278	1.9 to 1	652	561	91	130.4
5th 5-yr. plan 1951–55	311.9	124	1,436	1,560	1.4 to 1	1,121	874	247	224.2

[1] For A and C: Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR; Statisticheskii Sbornik*, (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 229. B computed on basis of A and C.

Textbook problems for Soviet semiprofessional schools seem to be chronic. Among Soviet press criticisms are such comments as the following: (1) Technicum textbooks are too wide in scope, (2) are too detailed, (3) do not correspond to the particular syllabus of a course, and (4) as often as not have been prepared and published not for technicums but for higher educational institutions. Where approved textbooks have been compiled, they are not always published and distributed promptly. For some courses textbooks have not been written.

Noted the Ministry of Higher Education's Director of Semiprofessional Training in 1954: "Frequently students are sent to leaf through various technical materials [in related subjects] on the assumption that they will find useful information in them on their own." This assumption is ill-founded and the results are far from satisfactory.[15] One of the difficulties is the extremely narrow specialization characteristic of Soviet semiprofessional training. The specialties change constantly requiring revision of hundreds of textbooks, and the supply is never adequate to the demand.

Many complaints about inordinately overloaded curriculum requirements particularly in technical and engineering fields are found in the Soviet press. Too often the curriculum for a given specialty is modeled on that in the higher education institute although technicums and higher educational institutions do not have the same functions, Soviet critics point out. Nor have the majority of technicum students had preparation equal to that required of students enrolled in higher schools. Consequently, they argue, it is no wonder that many students fail and that some who have had exceptionally good records in the 7-year school have a difficult time mastering the syllabuses.

[15] *Izvestia*, May 19, 1954.

Chapter IX

Higher Education

A SOVIET higher educational institution is popularly referred to as a *VUZ*, a term derived from the initials of the Russian words *vysshee uchebnoe zavedenie*, which means higher educational institution. The term "higher education" (vysshee obrazovanie) in the USSR refers to programs of 4 to 6 years beyond secondary school which prepare for a career in a given field. Two-year courses such as those for training kindergarten and primary school teachers are classified as semiprofessional training. Higher education as it is understood in the US does not have an exact parallel in the USSR.

The principal functions of Soviet higher educational institutions, as outlined by a Soviet educator, are: (1) To prepare qualified specialists who have a communist point of view for all branches of the national economy and culture; (2) to carry out research work which will be of both immediate and long-range benefit to the USSR; (3) to popularize scientific, technical, and scholarly knowledge and the most recent findings of research among "the masses of the population."[1]

In law and practice the Soviet regime has made it evident that higher education in the USSR is not designed for all students desiring the opportunity. Admission is admittedly circumscribed by possession of a satisfactory political record, opportunity to acquire secondary education, academic competence and particular aptitudes, and adequacy of resources to withstand the loss of potential income. This policy appears to result from Soviet planning requirements for manpower and from experience gained by trial and error in the first decade and a half of the Soviet regime.

[1] See E. N. Medynskii, *Prosveshchenie v SSSR*, p. 149.

Development

In the 1920's and early 1930's higher educational opportunity was based on a policy of loyalty to the regime, and worker or peasant social origin rather than academic ability. During these years a generation of politically indoctrinated leaders, who owed their education and advancement solely to the Party and the State, emerged from Soviet schools and higher institutions. In the haste of the new regime to produce "politically conscious," (politically reliable) supporters to man key posts, academic standards had been greatly relaxed. When this early policy proved incapable of producing the number and quality of engineers, scientists, and other specialists upon whose endeavors development of Soviet economy and national power depended, higher education was reorganized. In 1932 a series of reforms was initiated. Courses were gradually lengthened; admission began to be based on scholastic competition and comprehensive secondary school preparation; traditional teaching methods were reintroduced; discipline was tightened; and the disrupting role of the Communist Party youth organization—the *Komsomol*—was curtailed.

Higher educational institutions continue to be concentrated in a few areas. Soviet announcements in 1956 state that higher education is available in 271 cities. Of these cities 250 either have one or at most three pedagogical institutes which, according to Soviet opinion, represent the first step—teacher training—to higher education among many of the national minorities. It is believed that once native teachers are trained and the secondary education of the local region is broadened, additional schools will spring up, usually in agriculture, then in medicine, and finally in engineering specialties appropriate to the region.

Six cities account for more than one-fourth of the total number of higher institutions with Moscow and its immediate environs containing some 90 schools of university level and about one-fifth of the total number of students. In 1951, as many new students were reportedly admitted to higher schools in Moscow as were admitted to all the schools of the Ukraine. Moscow facilities, together with those in Leningrad, appear to serve at least 80 percent of those studying for the doctor of sciences degree and probably 60 percent of those for the candidate of sciences.

Table 20, p. 173, presents a statistical summary of Soviet higher education—number of schools, number enrolled, and number admitted for selected years. The number graduating is totaled in table 21, p. 174, by 5-year plan periods, giving the average graduation rate during the period noted.

Curtailment of higher education during World War II is evident. Less apparent is the relative stability of regular full-time student enrollment during the early 1950's with an indication that the number of new full-time students admitted in September 1955 was less than that in September 1954 despite greater demand for admission than ever before in Soviet history.

In the US about 25 percent of all college-age students are enrolled in college: in the USSR it is estimated that between 8 and 12 percent are enrolled, including full-time and part-time students. In the US women constitute about 37 percent of the student body; in the USSR, about 50 percent, except during World War II when women students outnumbered men. The preponderance of women students in schools training teachers and physicians (about 80 and 60 percent respectively is compensated by lower percentages in the engineering schools, estimated at between 30 and 40 percent, depending on the type of institute.

Table 20.—Higher education: Schools, enrollment, admissions, 1927–28—1955–56[1]

School year	Number of institutions	Total Enrollment	Enrollment (full-time)	Courses: Adult and correspondence (part-time)	Total Admissions	Admissions (full-time)	Courses: Adult and correspondence (part-time)
1	2	3	4	5	6	7	8
		(000)	(000)	(000)	(000)	(000)	(000)
1927–28	148	169. 0	169. 0	.....	42. 8	42. 8	.....
1932–33	832	504. 0	504. 0	.....	245. 8	245. 8	.....
1937–38	.....	[c] 494. 5	[c] 494. 5	.....	158. 3	158. 3	.....
1940–41	817	812. 0	585. 0	[c] 227. 0	263. 4	161. 5	[c] 101. 9
1950–51	880	1, 247. 0	845. 0	[c] 402. 0	349. 1	237. 5	111. 6
1954–55	798	1, 730. 0	1, 146. 0	[c] 584. 0	[b] 450. 0	[b] 287. 0	[b] 163. 0
1955–56	765	1, 867. 0	1, 228. 0	[c] 639. 0	461. 4	285. 6	[c] 175. 8

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozaistvo SSSR; Statisticheskii Sbornik*, (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956). p. 227–229.

[a] Nicholas DeWitt, *Soviet Professional Manpower: Its Education, Training, and Supply*. (Washington: National Science Foundation, U. S. Government Printing Office, 1955). p. 298.

[b] Ibid., p. 299.

[c] Computed.

Table 21.—Graduations from Higher Educational Institutions[1]

5-year Plan	Period	GRADUATIONS			AVERAGE GRADUATIONS PER YEAR		
		Total	Full time	Adult and Correspondence Courses	Total	Full time	Adult and Correspondence Courses
		(000)	(000)	(000)	(000)	(000)	(000)
First	1929–32	170. 0	170. 0	-------	42. 5	42. 5	-------
Second	1933–37	370. 0	370. 0	-------	74. 0	74. 0	-------
Third (start)	1938–40	328. 0	304. 0	24. 0	109. 4	101. 4	8. 0
World War II Years	1941–45	302. 0	286. 0	16. 0	60. 4	57. 2	3. 2
Fourth	1946–50	652. 0	561. 0	91. 0	130. 4	112. 2	18. 2
Fifth	1951–55	1, 121. 0	874. 0	247. 0	224. 2	174. 8	49. 4

[1] Tsentral'noe Statisticheskoe Upravlenie pri Sovete Ministrov SSSR, *Narodnoe Khozyaistvo SSSR; Statisticheskii Sbornik*, (Moskva: Gosudarstvennoe Statisticheskoe Izdatel'stvo, 1956), p. 229.

Organization

Soviet higher educational institutions are headed by a director and have faculties composed of specialized departments. The responsibilities and functions of each component have been set forth by the State in the form of standard regulations for higher educational institutions. With minor modifications which have been officially approved the same general organizational structure is used for all Soviet higher educational institutions.[2] See chart IV, p. 176.

The heads of universities and academies have the title of rector; the heads of other Soviet higher educational institutions, the title of director. The rector or director is held responsible for administration and supervision of the institution and for what is done in its name. He is responsible both to the Directorate for Educational Institutions of the ministry having financial jurisdiction over his school and to the USSR Ministry of Higher Education for organization of the teaching program, caliber of graduates, and the scientific research undertaken. Although he is nominated for his position by the controlling ministry's educational directorate, he is appointed and may be dismissed by the

[2] For further details see M. I. Movshovich, *Vysshaya Shkola*, p. 42–61. Resolution of the USSR Council of People's Commissars, No. 972, Sept. 5, 1938, "Tipovoi Ustav Vysshego Uchebnogo Zavedeniya."

Ministry of Higher Education. Usually he is a member of the Communist Party—the Rector of Moscow University is often cited as an exception—and frequently is a scholar with administrative ability.

The position of deputy director for academic and scientific affairs (zamestitel' direktora po uchebno-nauchnoi rabote)—called prorector in universities and academies—is expected to be held by a person recruited from the best qualified professors in one of the school's basic disciplines. Western visitors usually state that they have been impressed with the caliber of men holding this office. According to reports the deputy director is not, as a rule, a Party member. He is responsible to the director for the training program and for research. His appointment and dismissal are subject to the recommendation of the controlling ministry's Directorate for Educational Institutions and action by the USSR Ministry of Higher Education.

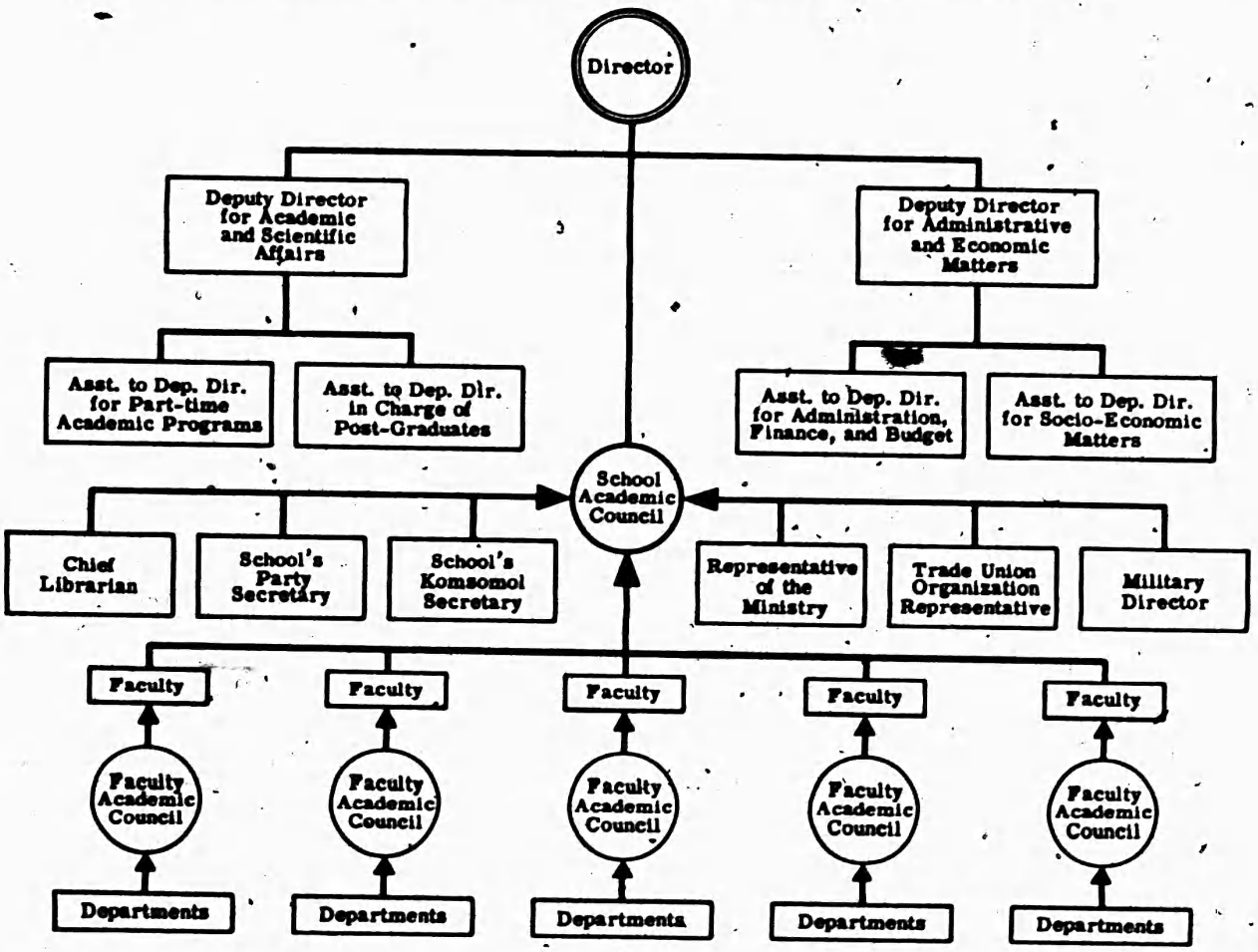
The deputy director's primary duties include: (1) Organizing instructional activities and supervising research and publishing activities; (2) supervising make-up and operation of time tables, schedules, examinations; (3) supervising student practice-training programs; (4) supervising post-graduate training and advanced degree research carried out by students and staff members; (5) checking on quality of lectures and academic standards; and (6) substituting for the director in his absence. In large institutions the deputy director for academic and scientific affairs may have assistants to whom he delegates certain responsibilities such as the supervision of part-time training programs and postgraduate training and research.

The deputy responsible for administrative and financial affairs (zamestitel' direktora po administrativno-khozyaistvennoi chasti) is appointed by the director. His primary responsibilities include: (1) Supervising the school's facilities, including any dormitories, and enforcing regulations on sanitation and hygiene; (2) supervising construction work and repairs; (3) procuring furniture, apparatus, and equipment; (4) supervising food supplies for cafeterias; (5) formulating financial agreements; and (6) in general, acting for the director in financial matters. The number and type of duties assigned to assistants depend for the most part on size of the institution. If a major construction project like a dormitory is undertaken, an assistant may be brought in temporarily to handle problems involved.

Academic Council

The executive organ of the Soviet higher educational institution is the Academic Council (uchenyi sovet). It is chaired by the director and composed of deputy directors, deans of faculties, heads of depart-

CHART IV.—ORGANIZATION OF A SOVIET HIGHER EDUCATIONAL INSTITUTION



ments, several ranking professors, the chief librarian, secretaries of the institution's Party organizations, a representative from each trade union and social organization functioning within the school, and possibly a representative of the responsible ministry. Scheduled to meet at least once a month, this group deals with general problems, adapts plans and programs to Party policy decisions, formulates plans for teaching and research, and incorporates recommendations submitted by each department into an integrated plan for the whole institution. The academic council appoints staff members to positions as assistants, submits nominations for the posts of professor and docent, and judges the dissertation defenses for degrees of candidate of sciences and doctor of sciences.

In large schools, each faculty has its academic council with the faculty dean as chairman. The faculty academic council carries out the same general functions as the council for the institution, including the judging of dissertation defenses when it is empowered to do so by the Ministry of Higher Education.

Faculties

The major teaching and administrative unit of a Soviet higher educational institution is the faculty (fakul'tet) composed of several departments in the same major field or discipline. In universities, the usual faculties are physics-mathematics, chemistry, biology, history, and philology. In economics institutes faculties include industrial economics, agricultural economics, trade economics, finance and credit, accounting, and statistics. The average Soviet conservatory of music has major divisions for piano, orchestration, voice, theory of composition, choral conducting, and opera-symphony conducting. Most medical institutes have a single faculty of general medicine, pharmacology, or dental medicine; if there are other divisions, they are usually in addition to general medicine. The 16 Soviet institutes devoted to physical culture list one faculty each. The usual institution has from 3 to 6 faculties.

At the head of every faculty is the dean (dekan), chosen by the director and the academic council from among the professors of the faculty. The dean is charged with administration and general supervision of teaching and research work in his field, planning future programs, and checking on current progress. He is particularly responsible for organizing entrance examinations for undergraduate and graduate applicants and for obtaining the best possible students to fulfill his faculty's enrollment quota.

In addition to the normal daily 6 hours of teaching and research

work, the professor, docent, or instructor fulfilling the functions of faculty dean or deputy dean is expected to spend a minimum of 3 hours daily in the dean's office for which he is scheduled to be paid extra—the equivalent of 50 percent of his base salary.

Departments

A faculty is composed of specialized departments (kafedry) or chairs, each devoted to a particular aspect of the given discipline. The *1949 Moscow University Handbook*, for example, lists 14 departments in the university's faculty of geography: General physical geography, physical geography of the USSR, physical geography of foreign countries, economic geography of the USSR, economic geography of foreign countries, geomorphology, geodesy and cartography, hydrology, climatology, botanical geography, geography of soils, paleogeography, geography of the Arctic, and history of geography.[8]

A department is headed by a chairman (zaveduyushchii kafedroi)—sometimes a full professor, sometimes another member of the departmental staff; not necessarily the person considered to be the strongest specialist in the department. He is elected by his associates on the Academic Council, subject to approval by the Ministry of Higher Education. He is responsible for general supervision of teaching and scientific research and for laboratories, library facilities, and museum or scientific collections. He has the right to recommend new staff members. Appointments of ranking staff members are subject to confirmation by the Ministry of Higher Education; other appointments are confirmed by the institute Director. In addition to his duties as departmental chairman, for which he is scheduled to receive extra pay, he is expected to carry a full teaching load and devote an average of 3 hours a day to research.

The departmental staff may include in addition to the chairman, 4 or 5 professors (professory), docents (dotsenty), instructors (prepodavateli), and assistants (assistenty) a few postgraduate students (aspiranty and doktoranty) and several specialists with research duties only (sotrudniki). The departmental research staff may include some senior research workers; it is largely made up of junior personnel such as laboratory technicians (laboranty) and "preparers" (preparatory).

[8] Izdatel'stvo Moskovskogo Universiteta, *Spravochnik dlya Postupayushchikh v Moskovskii Universitet v 1949* (Moskva: MGU Izdatel'stvo Moskovskogo Universiteta, 1949), p. 40–41.

A department carries out a program approved by the head of the institution in conformity with national interests. The annual plan includes research in addition to teaching, preparation of publications, supervision of extracurricular activities, and training of graduate students. The chairman is responsible for seeing that staff members take refresher courses on basic tenets of communism, keep informed on latest political ramifications of their specialties, work to improve their professional qualifications and complete substantial research.

Although Soviet professorial staff members are not granted sabbatical leave, the State and Party strongly back a "creative research" leave policy. By "creative research" is meant research which promises to make a distinct contribution to the Soviet economy. The request, containing an outline of the proposed project, is submitted to the Academic Council for approval.

At monthly or bimonthly departmental meetings, the staff reviews and discusses manuscripts for textbooks, articles for professional journals, teaching aids, new course material, outlines of theses, progress reports of graduate students, and problems related to the research program. Now and then specialists from industrial plants present papers on problems of special interest to the department. This association of industry with academic institutions, developed particularly since World War II, is highly favored by the State.

Staff Appointments

Appointments to the academic ranks of "assistant" and "instructor" are awarded by the institution's Academic Council. Persons with a higher education who show aptitude for teaching and research work receive the award of "assistant", and assistants who have demonstrated unusual promise as members of the teaching staff are given the rank of "instructor." Appointments to the ranks of "professor" and "docent" require confirmation by the Supreme Certification Commission of the USSR Ministry of Higher Education. Usually a "professor" holds the academic degree of "doctor of sciences" (doktor nauk) and a "docent" that of "candidate of sciences" (kandidat nauk).

Vacancies are filled on a competitive basis after being advertised in the press. Selections for posts of professor or docent are made by the Academic Council of the institution voting by secret ballot on applications submitted. Teaching staff positions are subject to renewal every 5 years—incumbents competing with others who have submitted applications. As a rule, there is little shifting among professors and docents. Dismissal or transfer is said to be unusual; the 5-year reappointment is intended to keep staff members on their toes.

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Admission Policy and Procedure

Citizens under 35 years of age who have completed a 10-year secondary education and passed State examinations for the "certificate of maturity" (attestat zrelosti) are eligible to apply for admission to a higher educational institution. (Those over 35 may apply for admission to a part-time program at night or in a correspondence course in a field related to their occupation.) Students from among the top 5 percent of the graduates of specialized secondary schools (technicums) and students from industry, agriculture, or other business also may apply. Applicants in these latter two categories may apply only to institutions or faculties offering professional training along the same lines as their specialized secondary schooling or their job experience. It is estimated that they constitute from 4 to 10 percent of the students annually admitted.

Admission procedures are uniform for higher educational institutions; admission requirements vary. Some institutes offer a 2-month examination preparatory course.

Between June 20 and July 31 the student submits a standard application to the faculty or institution he prefers to attend. The required application consists of: (1) His autobiography; (2) original graduation certificate; (3) internal passport—to be submitted in person; (4) three photographs taken without hat; and (5) evidence of military draft status.

The admissions board, under the personal supervision of the director, includes the deputy director for academic and scientific affairs, the deans of each of the faculties, and two other professors. It is responsible for screening applications, meeting applicants, verifying documents submitted, and notifying prospective students of the entrance examination schedule.

Entrance Examinations

With the exception of gold medal honor students, who are admitted automatically, students are selected on the basis of competitive entrance examinations. Applicants with silver medals and honor students from specialized secondary schools are expected to take an entrance examination in the subject of major importance in their field.

Type of entrance examination depends on the faculty or field. For example, students applying for admission to an engineering institute or to a science faculty are required to pass comprehensive examinations in mathematics, physics, chemistry, Russian language and literature, and one foreign language (English, German, or French). Applicants

to faculties of law, geography, history, philosophy, or philology are examined in Russian literature and language, a foreign language (English, French, or German), history of the USSR, and geography. Applicants in such fields as the arts, architecture, music, and physical culture must demonstrate aptitude and ability in their specialty. In a few institutions in the non-Russian republics—primarily pedagogical institutes—where instruction is given in the native language, applicants also are required to take an entrance examination in the native literature and language.

Entrance examinations are scheduled between August 1 and 20 except in fields such as agriculture where seasonal work results in holding examinations from January 1 to 20. Only those who pass the examinations in Russian language and literature are permitted to take the others. Examinations in Russian language and literature, in native language and literature, and in mathematics consist of two parts: written (2 hours) and oral (15 to 20 minutes). The rest are of the 15-to-20-minute oral type.

The applicant is given an examination booklet with his photograph on it. Marks he receives on each examination—conducted by committees of staff members especially appointed by the director—are recorded in the booklet. The grading scale of "1" to "5" is used as in the primary-secondary schools. It is possible to have a perfect record of "25" for the battery of examinations. To be admitted students usually need a total of 24; demobilized soldiers and young people with a year or two of work experience in a factory or on a farm may be admitted with a total of 21. In general, entrance examinations are based on work in the senior secondary school. An outline of material to be covered is available to applicants in handbooks published annually by the Ministry of Higher Education.[4]

While the general outline of examination material is uniform, examinations are not. Each faculty prepares its own. From Soviet press reports commenting on variation in standards, difficulty of questions apparently depends on number of applicants per vacancy and stringency of academic demands of a particular field. It appears to be common knowledge among Soviet students that entrance examinations in aviation engineering institutes are more difficult than those in agricultural machinery engineering institutes, for example, and that competition in universities is greater than in pedagogical institutes. Reportedly there was an average of 3 applicants per vacancy in the

[4] For a summary of requirements in 1950 for various fields, see Boris I. Gorokhoff, *Materials for the Study of Soviet Specialized Education* (Washington, D. C.: National Research Council, Office of Scientific Personnel, 1952), p. 77–92.

philology faculty of the University of Leningrad, and 11 applicants for 300 vacancies in the Kharkov Institute for Librarians.

Examination records and results of the medical examination given every applicant by the school's medical board are submitted to the admissions boards of each faculty.

In the final selection of students, great weight usually is accorded to results of the entrance examinations. The medical report is a major factor at some institutes—military academies and mining institutes, for example. What the applicant says in his autobiography about himself and his reasons for wishing to specialize are carefully considered. The "character reference" (kharakteristika) from the director of his secondary school or his employer is also reviewed for information about the student's background, his scholastic record, extent of his extracurricular activities, his general behavior, and how active and "politically conscious" he has been.

More attention is accorded to political participation, spotless political records, and family connections in institutes training students for the diplomatic service, for example, than in some others. An aviation engineering institute is known to have disqualified an exceptionally bright and otherwise eligible boy (subsequently admitted to a university) because his father, an Orthodox priest, had served a term of exile to Siberia. Applicants to a higher Party school must give evidence of being exceptionally active politically. In schools where academic programs are considered to be unusually difficult, effort is made to eliminate any person whose scholastic achievement is the result of intense study rather than marked ability since, in the opinion of Soviet educators, such a student would not be able to keep up under the pressure and competition of the program.

On the other hand, admission is facilitated for some applicants. For example, the son or daughter of a school teacher is usually given priority over others of equal ability in admission to a pedagogical institute. A certain percentage of the quota in the Moscow and Leningrad conservatories of music is reserved for applicants from the national minorities. It is reported that, despite official disclaimers, children of high-ranking Party and State figures are sometimes admitted although their academic achievement does not warrant admission.

Factors Determining Choice of School

Students are not told to which institution they must apply. Their choice is restricted by a number of factors. Foremost is the fact that Soviet higher schools can absorb only 30 percent of 10-year school

graduates annually. Thus most young people with a sufficient background to continue their studies are doomed to relinquish any thought of doing so. While old well-known centers of learning like Moscow, Leningrad and Kiev, tend to be popular, the cost of living in the larger cities and intense academic competition discourage many students from other parts of the country. On the other hand uniqueness of specialization may limit the student to study in a large center.

Most applicants must seek admission to institutions near home. The number and type of accessible establishments may be extremely limited, and admission quotas for all are fixed. In addition, academic requirements, job-assignment policy, size of stipends, availability of housing for those away from home, and the prestige value of certain types of training all affect the applicant's choice of a higher institution.

Especially where competition for admission is keen, notably in schools of engineering and applied and experimental sciences—in terms of salary and status, these fields are considered most "desirable"—it behooves the applicant to make a careful first choice. If he is rejected, he may apply elsewhere, but he runs certain risks. He may gain admission to a second establishment on the basis of entrance examinations already taken; may be required to pass additional tests; or he may have to wait a year and apply anew.

To channel students into fields where trained manpower is most needed, the Soviet regime has developed inducements and devices. One inducement is the size of the stipend. Thus choice of specialty by a student intending to enter an engineering field, for example, might be influenced by the stipend available in mechanical engineering as opposed to electrical or chemical engineering. As choice of a particular aspect of a field is influenced, so is selection of one field as opposed to another. The fixed enrollment quota also is a channeling device. As needs of the State change, so do enrollment quotas and the size of stipends in given fields.

Students making normal progress are granted stipends. The amount is based not only on the field but on the year of study and the quality of the student's work. Those who make excellent marks are granted a 25 percent increase the subsequent semester for as long as they continue to do outstanding work. An exceptional student may receive three or four times as much as an average student. It is estimated that from 10 to 20 percent fail to maintain a consistently satisfactory grade average, and have to forfeit their stipends until they bring their grades up to par.

Stipends are said to be sufficient to cover bare necessities; it is reported that many students receive supplemental help from home. One month's stipend is required to be subscribed to what is known as the "State loan," and 2 percent of another month's stipend is ear-marked

for the school trade union. Membership in the trade union (on a "voluntary-compulsory" basis) entitles a student to reduced rates for plays, concerts, and movies. He may also receive a substantially subsidized vacation at a student health resort. Another student privilege pointed out in Soviet reports is that of borrowing library books without charge.[5]

Still another device for channeling students into areas of importance to the State is to lower admission requirements. It is common knowledge that the need for trained agriculturalists and teachers in recent years has resulted in lowering admission standards for schools in these fields.

Soviet students are also influenced in selecting a field, and a school, through "open houses" staged in the spring by Soviet higher educational institutions. Pupils in the last year of the 10-year school are invited to visit faculties, talk with students, meet professors and inspect facilities. They may be shown movies of what study and a career in certain fields involve.

An American student visiting the University of Kiev during such an "open house" reported seeing a movie on geology. It showed scenes of geological field trips, shots of students working in laboratories and so on. According to him, it was a stimulating film and made him feel like enrolling. The effect on other young people may have been similar.

If a young man is not admitted to a higher institution before he is 18, he will be forced to register for the draft. Once he is so registered Soviet higher educational and semiprofessional institutions are not permitted to accept him; if he is enrolled in school, Soviet draft provisions accord him deferment.

Types

There are five major branches of training in Soviet higher educational institutions: Engineering-industrial, agricultural, socio-eco-

[5] The trade union in the USSR is not a craft or a trade union in the usual Western sense. It is essentially an industrial or professional union in which all workers in a single branch of the economy hold membership. While, according to the statutes, union membership is voluntary, and an individual must make application and go through the formality of being accepted, wage earners of every kind who are not engaged in cooperative or collective enterprises necessarily belong to one of these unions. The basic idea of drawing all the workers of any branch of the economy together was theoretically to make no distinction between various functions performed or the persons performing them. Within each union or branch, however, there are sections which deal with specific phases of the work, so that only on matters of very general interest and concern is the whole body of the union brought together.

nomic, and the educational and health fields.[6] In 1955–56 professional training was reported as being provided by 765 schools, of which 33 were universities (universitety) and 732 were specialized higher educational institutions (spetsial'nye vysshie uchebnye zavedeniya), variously known as institutes (instituty), academies (akademii), higher schools (vysshie uchilishcha), and conservatories (konservatorii). There also were an undetermined number of military, security police, and Party schools. Approximately 867,000 students were reported enrolled in these schools in 1955–56; about one-third were part-time students in evening or correspondence courses.

Universities

Universities are centers of general theoretical study. Of the 33 universities in the USSR, 12 are in the REFSR, 7 in the Ukrainian SSR, 2 in the Uzbek SSR, and 1 each in the other 12 Soviet republics. They offer a 5-year course of studies in one of the basic disciplines and are organized into faculties.

Institutes

An institute (institut) is a higher institution sponsored by a particular branch of the economy such as industry, culture, transport, trade, or agriculture. These schools were originally established by a specific ministry to train its personnel, and in the late 1920's were attended by executive staffs of the ministry's plants and factories. For example, directors, assistant directors, shop superintendents, and leading workers with practical experience enrolled in the 3- and 4-year courses for theoretical training in their fields.

These single-faculty schools evolved into the institutes of today, which have from 3 to 5 faculties offering courses of 4 to 6 years in length depending upon the field. In pedagogical institutes and institutes of law, economics, and agriculture the period of study is 4 years; in engineering and technical institutes, such as electrical engineering, and railroad transport institutes, 5½ years; in medical institutes, 6 years.

Soviet institutes continue to give training in applied branches of science. As a rule institutes are devoted to supplying professionally trained personnel for one particular branch of the national economy,

[6] For more detailed information on what these branches include, see Nicholas DeWitt, *Soviet Professional Manpower: Its Education, Training and Supply* (Washington: National Science Foundation, U. S. Government Printing Office, 1955.) p. 91–92.

and they continue to be financed and maintained by the ministry most concerned. Their student bodies are no longer composed of factory employees. Technicums and regular secondary school students go to institutes for higher educational training just as to a university. Institutes which offer engineering training are sometimes referred to as *VTUZy*, from the initials of the words *Vysshie tekhnicheskie uchebyne zavedeniya*, or higher technical educational institutions. The ministry-sponsored institutes constitute the majority in the VTUZ category. There also are technical universities known as VTUZy—the 24 polytechnical and industrial institutes are included under this type.

The polytechnical and industrial institutes (politechnicheskie i industrial'nye instituty) are multi-faculty establishments (frequently 6 to 8) which prepare about one-fourth of the engineers. They offer 5½-year courses in applied science: Mechanics, metallurgy, petroleum, engineering, mining engineering, electrical engineering, chemical engineering, machine-construction, power engineering, naval-construction engineering, and so on. While they provide the same types of training as some of the specialized ministry-sponsored institutes, these 24 technical universities are not subordinate to a particular ministry. Like the regular universities they are under the direct administration of the USSR Ministry of Higher Education and train for the nation as a whole. The VTUZy generally have sizeable student enrollments and, as a rule, are located in principal industrial and administrative centers of the USSR.

Academies, Higher Schools, and Conservatories (Akademii, Vysshie Uchilishcha, i Konservatorii)

Sometimes a higher educational institution is called an academy,[1] as for example, the Timiryazev Agricultural Academy, the Latvian and Lithuanian Agricultural Academies, the Leningrad Timber Technology Academy. Sometimes a higher educational institution is known as a higher school, as for example, the Bauman Higher Technical School in Moscow, or the Sea and River Transport Higher School. A VUZ specializing in music is called a conservatory. These differences in designation represent the continuation of historical names.

[1] Not to be confused with scientific research institutes such as academies of sciences.

Organization of Training

Instruction in higher educational institutions is based on curriculums approved by the USSR Minstry of Higher Education. These curriculums cover general lecture courses, seminars, laboratory work, special classes, and practical work. Students are required to participate in all parts of the program scheduled in the approved curriculum for their field. In the first 2½ to 3 years, students in the same faculty follow an identical curriculum. In subsequent years provision is made for specialization in one of the departmental branches of a faculty discipline. In the last year, in addition to required courses, students may take some optional courses.

The academic year is divided into 2 semesters (semestry), the first lasting from the beginning of September to the latter part of January and the second from early February to the end of June or first of July. Vacation periods last 2 weeks in the winter and 2 months in the summer.

By law, no more than 6 hours of instruction in 3 different subjects may be given in a single day. Instruction is planned for a 6-hour day, 6 days a week. An academic hour is about 45 minutes. Although the academic year lasts 10 months, the number of weeks of formal instruction seldom exceeds 32. The number of instruction hours, including those for political indoctrination, ranges from 1,000 to 1,300—or more than twice the usual amount in US colleges and universities. Over a period of 5 years, the average Soviet university student receives from 5,000 to 5,400 hours of instruction; engineering students and those in programs lasting more than 5 years receive from 5,000 to 6,000 hours.

Methods

Lectures constitute the principal form of instruction. The usual ratio is 1 hour of lecture to 1 hour of laboratory or other work. In the first year, lectures predominate. They deal with a particular field of knowledge and describe main trends in its development and history. The lecturer—in most instances a professor or docent—is required to show students the "struggle" waged by outstanding scientists and scholars in support of new ideas, illustrate the connection between theory and its application, and explain the importance of the course for the future work of the students.

At the beginning of every course students are handed a program (programma) stating main problems to be dealt with and listing

required and supplementary reading. These course outlines are prepared by specialists considered outstanding in the field; they are published and distributed by the USSR Ministry of Higher Education. Some of the programs, especially for basic general courses, are 3 or 4 pages in length; others contain barely a paragraph outlining the central theme to be covered. The professor or docent may organize the material in his own way. He is expected to call his students' attention to new information. He may emphasize one aspect of the course and minimize another. His main responsibility is to cover information his students are expected to know when they take their final State diploma examinations.

Lectures are given to large groups of students and monitors check attendance. Lecture material and required reading form the basis for small sections which discuss problems and do exercises under the direction of an instructor. During the first 5 or 6 semesters section instruction—literally, "drills" (uprazhneniya)—is common. Homework assignments are an integral part of section instruction. In scientific and engineering fields much time is devoted during these supervised study periods to exercises and computational problems. In the humanities, and in socio-economic and political subjects, the work is often more like a seminar. In this case, it may be led by a professor or docent.

A lecture at Moscow State University.

Seminar topics are broad and general during the first years to give the student an idea of the main problems in the field. Topics covering a more restricted area and dealing with specific problems are treated during the fourth and fifth years.

Seminars dealing with political philosophy, according to reports of Soviet refugees, tend to become formal question and answer periods, with the teacher giving the "approved" point of view on any given topic. All too often, according to the Soviet press, students in political seminars have no opportunity to gain an understanding of a specific problem through discussion; the teacher relies on the prescribed text for the approved answer without being able to tell his students why such an answer is given. Apathy among students toward basic political subjects reportedly is chronic and of no little concern to the Party. The students study, memorize, and repeat prescribed answers because they must pass their courses in order to graduate. Soviet authorities appear to believe that effective results are achieved through permeation of all instruction with the communist point of view.

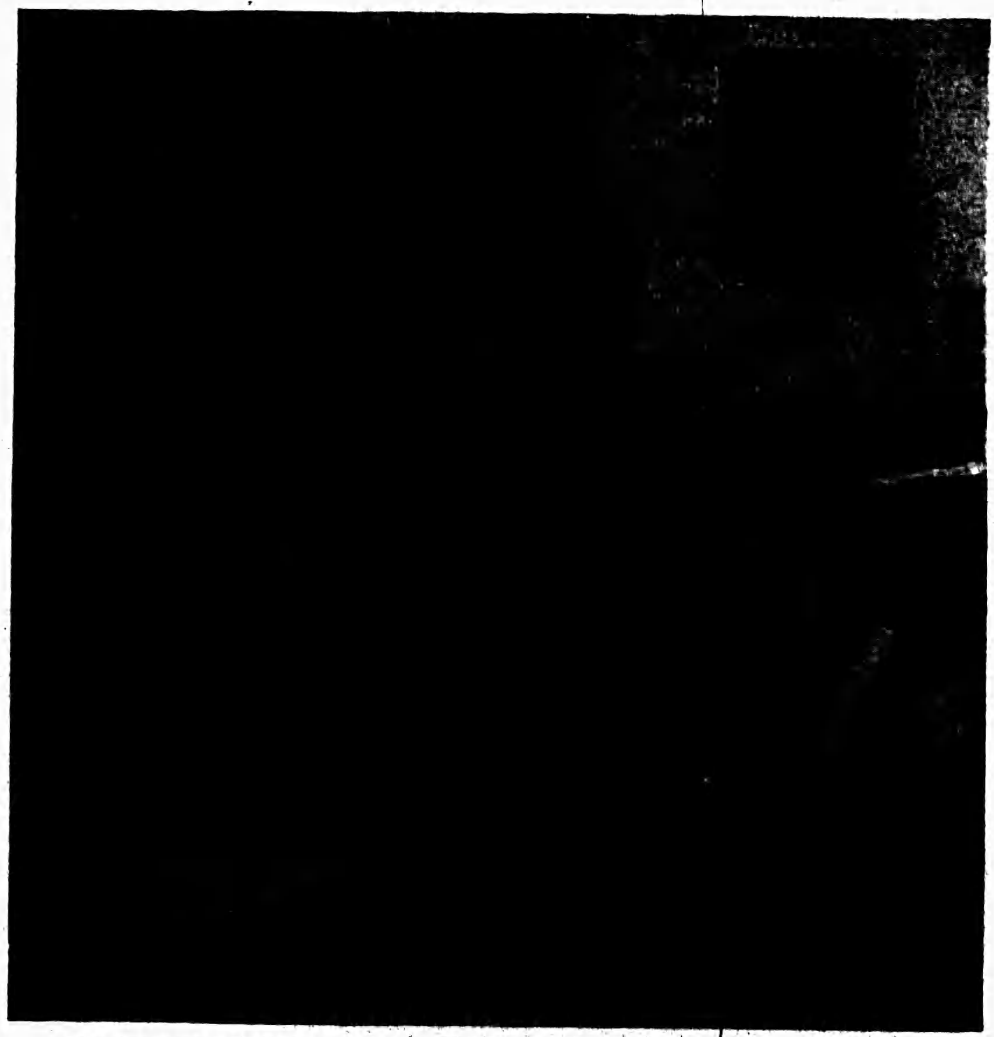
Just as seminars have an important place in the curriculums approved for majors in the humanities, social sciences, law faculties, and socioeconomic programs, so laboratory work has an important place in training science students. It occupies almost three-fourths of the time the major devotes to courses in chemistry.[8] In fact, laboratory and applied instruction in general is emphasized by Soviet educators to counteract inclinations toward "bookish" research.

Reports indicate that laboratory equipment, audiovisual aids, models, and shop equipment have been increased considerably since World War II. The Soviet press, however, continues to talk about shortages of laboratory equipment, precision instruments, special types of machinery, and lack of adequate space to house existing equipment. In the spring of 1955, Americans who surveyed Soviet training methods and facilities in engineering and physics reported that in the higher educational institutions they visited the equipment was more than sufficient in amount and quality to carry out sound instruction.

During the final 2 years of study some courses are based on independent assignments. In the humanities, term papers are prepared; in the science and engineering fields, drafting or computational or laboratory problems may be assigned. The professor supervises through individual consultations.

Field work or production practice occupies an important place in training students to apply theoretical knowledge. During their prac-

[8] Nicholas DeWitt, *Soviet Professional Manpower: Its Education, Training, and Supply* (Washington: National Science Foundation, U. S. Government Printing Office, 1955), p. 91–92.



Students at Uzhgorod University performing an experiment at a Radio-Technical Circle lesson.

tice periods students of engineering institutes, for example, must work in factories as foremen, technicians, and engineers and must spend part of the practice period on a job at a machine. During the summer following the second academic year, the student is assigned to a factory or plant for a 4-week period. He becomes acquainted with the layout and is assigned as a worker to several different jobs. At the end of the third academic year, the student is given an 11-week summer assignment to observe an industrial process and become familiar with the machinery norms, and general engineering principles involved. The third practice assignment, also of about 11 weeks' duration, is scheduled during the summer after his fourth academic year or in the spring of his fifth year. During this assignment he is given a small administrative post where he will make production or managerial decisions.

Students in agricultural institutes have practice training on State farms; students in pedagogical institutes, in schools; students in medical institutes, in clinics and hospitals; and students of science, in the laboratory and on field trips. The time allotted to this practical work varies according to field. In engineering institutes it ranges from 16 to 38 weeks; in agricultural institutes, from 40 to 52 weeks; in pedagogical institutes, about 17 weeks; in medical faculties, about 16 weeks; and in universities, from 6 to 16 weeks.

Curriculums[9]

It is Soviet practice to approve a single standard curriculum for each basic field and specialty, permitting variations only in the most advanced courses. Hence, the required subjects and number of hours are identical for all higher schools in which the same majors are offered. The fact that the curriculum for a given school is published with the name of the institution on the cover should not be construed as indicating a curriculum different from that offered by other institutions in the same field.

While the general engineering courses in Soviet and US institutions engineering courses" are not included in most engineering schools in are similar, Soviet fourth and fifth year subjects termed "specialized the US. As a rule the American engineer acquires such specialization through on-the-job training programs in American industry.

Science

There seems to be no great difference in the range of subjects offered in a given field of science in the US and in the USSR. The instruction schedule and the additional year of schooling required of Soviet science students indicate that a chemistry major, for example, spends one-third more time on chemistry subjects than does a US student.

Examinations

Examinations are given at the end of each semester. Homework laboratory and practical work, assigned papers, and periodic tests

[9] Analyses and discussions of Soviet curriculums and training programs have been made by American and other Western specialists and by former Soviet students and teachers. DeWitt in his *Soviet Professional Manpower* probably has outlined the largest variety of Soviet training programs.

(zachety) must be completed and graded as satisfactory before students are permitted to take final examinations. This preliminary verification of the students' knowledge is the responsibility of the teaching assistants and instructors.

Final course examinations may be written, in which case 2 hours is allotted for answering the two or three questions asked. More often the examinations are oral. When written examinations are held they frequently are accompanied by oral ones. The oral examinations are administered by a panel of professors in the subject field from the same and/or a neighboring institution. An oral examination generally lasts about 25 minutes.

Four grades are used in Soviet higher educational institutions: Excellent (otlichno), good (khorosho), passing (posredstvenno), and unsatisfactory or failing (plokho). The first two are honor grades and carry the right to a monthly stipend. A student with 3 nonpassing grades is put on probation until the first month of the next semester, by which time he is expected to have passed at least one of the subjects. A student is not allowed to take the next year's courses until he has passed required tests and examinations. Students receiving more than three nonpassing grades in a semester are expelled automatically.

A student may repeat an examination or a test several times. If by the end of the subsequent term he has not made up his deficiency, he is dismissed. Only in exceptional cases may a student be permitted to repeat a year. Because the student has the right to repeat examinations and because his stipend is at stake, Soviet professors reportedly tend to flunk a student and let him take a repeat exam—with the possibility that he will get a good or excellent grade—rather than give a low passing grade the first time.

Some former Soviet students seem to feel this examination method serves its purpose. A former Soviet professor has commented that the examination panel must be careful in handling particularly active Party members. Although professors can make a grade "stick", Party inquiry or some other embarrassing result may follow unfavorable grading.

Characteristics of Professional Education

Soviet professional education concentrates on the major field, and whatever courses are taken from another discipline are completely subordinated to the major field. For example, a student specializing in science may be required to study a foreign language in order to read foreign literature pertaining to his major. This language study,

geared specifically to the needs of his field, may be listed under the heading "General Science Courses." As much as 90 percent of a Soviet student's time may be spent in what is termed "professional training."

An engineering student in the US may elect to take a course in physics which is not included among required courses for his major. If he takes the course, it may be at the expense of one in his major subject. A Soviet engineering student is likely to take a similar physics course as part of his required program. Soviet engineers may graduate with training in physics approximating that of an undergraduate minor in the US.

Soviet students, regardless of major, must complete requirements in communist philosophy which is oriented toward the professional field. Subjects include foundations of Marxism-Leninism (based on the history of the Communist Party) and political economy, and in university faculties, a course in dialectical and historical materialism. Officials hope that through these courses students will acquire understanding of the philosophical implications for their professional fields, a conviction of the "rightness" of communism in their country, and the spread of communism throughout the world. Unscheduled political indoctrination permeates every course given in Soviet institutions.

In the humanities and social sciences there is heavy emphasis on political aspects of the material studied, and a concentration of focus on the political context or communist interpretation of subjects and events. Soviet refugee accounts of the less effective penetration of political instruction in the sciences and in engineering are confirmed by recurring comments in the Soviet press on the "unsatisfactory state of political instruction" in these fields.

Diploma Work

Diploma work—the last stage in professional training—is expected to reflect the Soviet student's knowledge of his specialty and to demonstrate his ability to cope with a research assignment. As a rule, it is required of a student graduating from a training program lasting 5 or more years, although some 4-year programs require it. In nonengineering fields this research is known as a diploma thesis relating to a student's independent research. In science fields it is based on experimental work in laboratory or on field investigation. In Soviet engineering institutes this requirement is known as a diploma project.

Soviet diploma work appears to approximate thesis requirements for the American first professional degree. In science fields diploma theses may contain findings of immediate value to Soviet scientific

endeavors. In engineering fields the projects tend to display meticulous technical detail rather than originality, since part of the purpose is to test ability to perform calculations, execute charts and technical drawings, and apply existing norms and specifications to a new problem.

A student defends his diploma work before a board made up of professors, representatives from the ministry for which he is being trained, and other interested persons. The board reviews the merits of the work, evaluates its quality and practical value, and accepts or rejects it. For the engineering student, defense of the diploma project also involves an oral examination of his general and specialized engineering knowledge. If he passes, he is awarded a diploma, with or without distinction depending on his past grades, quality of his diploma project, and his answers to questions. It certifies that he is an engineer within a particular field and specialty.

Some diploma work attracts considerable interest and is published; some research results are put into immediate use. For example, two students at the University of Moscow were given author's certificates one year for the new methods of synthesizing certain organic compounds which they had developed. A student at the Moscow Motor Transport and Highway Institute designed a machine for facing slopes of ship canals with filtration materials. The machine was tested in construction of the Volga-Don Canal and was then recommended for mass production. At the Azerbaidzhan Industrial Institute in Baku an automatic instrument to measure the length of drill pipes, designed by an engineering student, considerably speeded up the drilling of oil wells.

University Graduation Procedure

University education terminates in State examinations (gosudarstvennye ekzameny) conducted orally, in public, before committees of professors appointed by the USSR Ministry of Higher Education. Upon passing the examinations, the student is awarded a diploma (diplom) certifying his training such as "physicist" or "physicist—secondary school teacher," "chemist" or "chemist—secondary school teacher." Difference in notation marks difference in class academic standing. Students considered most promising may elect careers in scientific research. Students who graduate with honors (2 or 3 percent), are awarded diplomas with distinction and are invited to enroll in a postgraduate training program or are given first preference in available job assignments.

The student's diploma is mailed to his future employer. It lists

subjects completed, grades received, and State examination results. The graduate may pick up his diploma when he arrives at his new job. No degrees are awarded Soviet graduates or higher educational institutions. Many wear the emblem of their schools.

Job Assignments

Graduates of Soviet higher educational institutions are assigned jobs at which they are to remain for 3 years. The Board of Cadres of the Ministry of Higher Education works with the chief directorates of ministries financially responsible for particular higher schools and with representatives from other ministries in need of professional reinforcements. Together they draw up instructions for assigning personnel. Ministries, in turn, inform their subordinate establishments of the numbers of graduates available, their major fields, and of the factories, enterprises, and concerns that will have priority.

Requests for specialists start arriving at the higher educational institutions around the first of the year. To examine the requests, a committee on the assignment of specialists is set up at the higher school under the chairmanship of the school director. This committee includes representatives of student organizations and faculty staff and representatives of ministries and enterprises which have sent in requests for personnel.

Students are informed of job openings in their line, conditions of work, salaries, and living facilities at different posts. A few months before graduation, effort is made to give them an opportunity to acquaint themselves with the open posts. A student is appointed after the committee has interviewed him. Academic standing is the primary determining factor, although an outstanding diploma thesis or project also carries weight in the allocation of assignment. In some cases representatives from several different ministries request the same student on the basis of his diploma work.

The student concludes a contract with the designated enterprise upon graduation. His expenses in moving are to be paid by his new employer. Failure of a highly qualified specialist to report for work at his new assignment may not result in the court action prescribed by law. However, he forfeits his graduation diploma certifying to his newly acquired status. Soviet students are conditioned to look upon their career assignments as inevitable compensation for State-supported education. They are taught to find security in the knowledge that a job awaits them when they leave school. The fact that needs and priorities of the Party and State have been the basic determinants of his training is not mentioned.

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The State realizes that job assigning has limitations. A *Pravda* editorial on December 10, 1952 noted that students must be placed where they will be useful and find the work stimulating and challenging so that they will not "become hopeless time-servers who fulfill the tasks entrusted to them blindly and automatically and fail to link their work with the interest of the Party and the State."

Integration of Education and Teaching With Research

By law, the teaching staff of Soviet higher educational institutions is required to spend an average of 3 hours a day on research. This policy is based on assumptions that: (1) Such utilization of personnel will result in developing basic and applied research with the utmost speed; (2) research is essential to industry, agriculture, medicine, and the national welfare as a whole; and (3) only through constant research can the professorial staff keep from getting stagnant and out of date. Importance is attached to organizing Soviet higher education and research as an integrated unit. And the Party and State constantly encourage close cooperation between school and society at large.

Teachers serve as consultants and take on contract work connected with their specialty. Professorial staff may be consultants to or full members of an industrial plant's scientific and technical council. Problems raised in such a council may be discussed in the departments in which these people teach; solution of these problems may be undertaken at the plant's research laboratories, the educational institution's research laboratories, or cooperatively and simultaneously at both places.

Students considered to be most promising are invited to work on special problems connected with the research activities of an institution. Student diploma theses and projects usually are based on problems of concern to the departments.

University students are required to carry out some research activity each semester, to write it up, and submit reports of results as part of their training in techniques of conducting research. At many schools students from the first year on are required to develop themes and topics based on observations made during their summer practice period. Senior students are expected to participate in seminars and conferences arranged by the departments. At these, papers may be read, including some prepared by students.

Student Scientific Societies

Extracurricular student scientific societies (studencheskie nauchnye obshchestva) are sponsored in the higher schools by the *Komsomol* and Party units. By 1950–51, some 20 percent of the students in Soviet higher educational institutions were estimated to be participants. With growth of these societies, the nature of their research activity has changed. From preparation of summaries and ordinary descriptive papers, members have advanced to participation in departmental research programs, and membership has generally come to be limited to the more interested and gifted students.

Part-Time Programs

The number of students obtaining a higher education in the USSR on a part-time basis appears to have increased rapidly during the 1950's and by 1955–56 reportedly approximated one-third of the enrollment. Under scrutiny by Soviet authorities, many aspects of the training have been found wanting. Specially designed textbooks, reference materials, and teaching aids are being prepared, and methods of checking written work are changing. The requirement that students be employed in the line of work they are studying appears to be more rigidly enforced than formerly.

Part-time training through correspondence and in evening courses was formerly used primarily as a means for raising qualifications of secondary school teachers. Its role in training agricultural specialists and engineers, negligible before, is now increasing. Plans have been made to triple provisions for both types of training by 1960. Night school programs are also offering theoretical training for technicians, mechanics, and foremen. They aim to narrow the gap between theory and practice.

Correspondence Study

Correspondence courses (zaochnoe obuchenie), which have been offered by some higher educational institutions since the 1920's, were not reported to have large enrollments until the end of the 30's. Growth continued during and particularly after World War II. The reported number of graduates from such courses was small until around 1950 when extensive changes were made in the organization of correspondence training (during the fifth 5-year plan, 1951–55).

By June 1954 almost 25 percent of the graduates of higher educational institutions were said to have completed their training in part-time programs, principally by correspondence.

Correspondence study in the USSR is carried on through a reported 530 correspondence departments (zaochnye otdeleniya) at higher educational establishments, and 23 correspondence institutes (zaochnye instituty). The latter are not attached to a VUZ or a VTUZ and have some 200 consultation centers and numerous branches. The All-Union Correspondence Juridical Institute with headquarters in Moscow, for example, reported 33 branches in 1954 each with about 500 students. Of the students admitted to correspondence study programs during 1950–51, 25,400 were said to be admitted to independent correspondence institutes, with more than 3 times that many—89,400—admitted to correspondence departments of regular schools. During the subsequent 5 years, enrollment in correspondence institutes is reported to have almost tripled.

The rules of admission to correspondence institutions and departments are similar to those for ordinary higher educational institutions except that there is no age limit. Those admitted must have completed a 10-year secondary education or its recognized equivalent, and have passed the competitive entrance examinations for their major field. In addition to the standard application required by Soviet universities and institutes, a part-time student must submit information from his place of employment on the type of position he holds and on his specialty.

To take entrance examinations, the applicant must present himself at the institution which will supervise his progress. Following the examination, the admitted student is given a 10-day enrollment course during which the staff explains the curriculum, specific features of correspondence study, and methods to be followed in independent use of textbooks and reference materials. The student also attends introductory survey lectures and visits the laboratories.

Correspondence students cover the same curriculum as that approved for regular students. Programs are drawn up in a different way, because students have to complete so much of the work unsupervised. A correspondence student enrolled in a university or pedagogical institute spends 2 periods a year—30 days in the summer and 10 in the winter—at the institution. In the other programs a student spends 1 period a year at the center, either in summer or winter, depending on his work. At an agricultural school, for example, the residence period is in the winter. During this time, the student does his laboratory work, takes examinations, attends review lectures, attends introductory lectures on subjects he will study in the subsequent

term, and takes part in seminars. He has an opportunity to consult his professors, and must pass required tests and examinations. Through this period he is given leave with pay.

Between examination periods, the student is permitted to obtain assistance from the school in which he is enrolled or, through special arrangements, if he lives some distance away from the nearest appropriate higher educational institution. Contracts may be made with local teachers and specialists to assist correspondence students in their areas. The correspondence institutes maintain special consultation centers (uchebno-konsul'tativnye tsentry) in places where there are 30 or more correspondence students. The All-Union Correspondence Engineering Institute in Moscow, for example, has a consultation center at the Urals Engineering Works for approximately 300 workers and technicians reported to be studying there. At the center students may obtain help, attend lectures and classes, and carry out laboratory experiments.

Written work, for which provision is made in the curriculum and which must be submitted at regular intervals, is the principal means of checking student progress. It is intended to enable the staff to see how much a student has accomplished, where he is having difficulty, and what needs to be emphasized in review lectures and corrected in textbook revisions. Written assignments are required to be completed and marked before the student is permitted to take the course examination.

After required class and laboratory work are completed, students must prepare and submit diploma projects in engineering or diploma theses in other fields and pass State examinations. Graduates of correspondence courses are said to be accorded the same professional status as graduates of regular programs. Correspondence students generally are expected to take a minimum of one extra year to complete a higher education curriculum. The Soviet press frequently comments that many students are not able to finish the required course in twice the regular time. Testimony of former Soviet citizens indicates that graduates from regular courses are better trained and enjoy a professional advantage over those prepared by correspondence.

The fields and courses open to study by correspondence are necessarily limited. For example, of the total correspondence enrollment in 1950, 70 percent were reported to be teachers taking pedagogical courses, 11 percent industrial workers taking engineering courses, 5.8 percent majoring in economics, 5.7 percent in law, 3.8 percent in agriculture,[10] and 3.7 percent in other fields.

[10] *Bol'shaya Sovetskaya Entsiklopediya*, 2d. Vol. 16, p 422.

Evening Courses

Evening courses (vechernee obuchenie)—popular during the first 5-year plan when they enrolled an estimated 8 to 10 percent of higher education students—revived in popularity following World War II and appear to be playing an increasingly important role.

In 1950, 3 evening institutes (verchernie instituty) and 91 evening departments (verchernie otdeleniya) reportedly were maintained at ordinary higher educational institutions for students who were regularly employed and wished to major in a field closely related to their work. Like the correspondence-extension training programs, evening courses appear to be particularly popular with teachers who wish to raise their professional qualifications and with industrial workers who are specializing in engineering fields. In 1949–50, for example, over a thousand students were reported to be taking courses at the Moscow Evening Institute of Machine Construction in such subjects as welding, casting, and thermal treatment of metals.[11]

Length of study is 1 semester longer than in a full-time program even though night school students, like correspondence students, are exempt from practical training prescribed for regular students and from physical and military training. Students spend 16 hours a week in lectures and additional time in laboratory and shop work, which they frequently are able to carry out on the job. Evening students in other respects must complete the identical program required of day students. They use the same books, cover the same syllabuses, listen to the same professors, and take the same examinations.

Evening students are allowed 10 days' leave with pay to study for and take examinations. In their last semester they are scheduled for leave from their jobs for 4 months to prepare and defend their diploma projects or theses and study for State examinations. During this time they are entitled to dormitory accommodations if required, and given a stipend.

[11] *Moskovskii Bol'shevik*, Nov. 24, 1949.

Chapter X

Teacher Training and the Teaching Profession

THE RUSSIAN PEOPLE traditionally held the teacher and the scholar in esteem. In the early years of the Soviet regime teachers—representing the bourgeoisie—were not held in esteem. Their lot was unenviable. They were suspected, distrusted, spied upon by students and superiors, and their authority in the school was nonexistent. Incoming contingents of new teachers were ill-trained; the profession as a whole was underpaid, overworked at school, and required to take part in many communist agitation and propaganda campaigns. Then the Soviet regime realized the interests of the State demanded educationally qualified teachers.

With the passing years, teachers as individuals and the profession as a whole have come to enjoy increasing respect, greater responsibility and authority, increased prestige, and social status. "The many changes which have occurred in our Motherland under the Soviet regime are in no small degree due to the selfless labor of the Soviet teacher," editoralized *Pravda* on December 10, 1954.

There apparently is no significant teacher shortage in the USSR today. The overall Soviet student-teacher ratio of 17.3 to 1 reported in 1955–56 contrasts with 26.9 to 1 for the same year in the public schools of the US.[1] By American standards Soviet teachers are overworked; by Soviet standards their lot compares favorably with that of

[1] U. S. Department of Health, Education, and Welfare, *Fall 1955 Statistics on Enrollment, Teachers, and Schoolhousing*, Circular No. 467, revised, (Washington: Government Printing Office, 1956), p. 2. (There is no available figure for student teacher ratio in private and parochial schools which enroll an estimated 12 percent of the total number of American school children.)

persons in other key professions. This chapter outlines types of training programs preparing teachers for the Soviet primary-secondary school system and describes some of the characteristics of the Soviet teaching profession as a whole.

Development

The need to train politically dependable teachers long has been considered important by Soviet authorities. Difficulty in supplying demand for teachers in an expanding school system has been compounded by a curriculum organization which requires teachers to be trained in one of the following fields: Physics, mathematics, chemistry, natural science, history, Russian language and literature, native languages and literature, foreign languages (English, French, or German), music, art, physical education, primary school teaching, and kindergarten teaching.

Soviet teachers are trained in one of these areas in three kinds of schools: (1) Semiprofessional educational establishments known as pedagogical schools (pedagogicheskie uchilishcha); (2) universities (universitety); and (3) higher educational institutions devoted to teacher training called pedagogical institutes (pedagogicheskie instituty). By and large, kindergarten and primary school teachers are trained in pedagogical schools, and teachers for grades V–X in pedagogical institutes and universities.

The system and types of training programs, academic requirements, admission policy, certification standards—in fact, most aspects of teacher training—have undergone many changes over the years. Particularly important were changes introduced in the middle 1950's.

Primary and Kindergarten Work

Following the Revolution in 1917, teachers seminaries (uchitel'skie seminarii) were reorganized into a reported 200 3-year pedagogical courses for students who had a general secondary education. From 1921 until 1954 Soviet schools training teachers for work with younger children were open to graduates of the 7-year school (boys and girls 14 or 15 years of age). At first these secondary pedagogical educational establishments (srednie pedagogicheskie uchebnye zavedeniya) or pedagogical technicums as they were known, offered a 3-year course of studies. Eventually they were renamed pedagogical schools, and in 1946 the courses were lengthened to 4 years. With the extension of 10-year education and, beginning in September 1954, these training

programs began to be reorganized into 2-year courses at the junior college level for graduates of the 10-year school. By September 1956 the majority of the pedagogical schools reportedly had been so reorganized; by 1960 all are expected to be.

Grades V-VII

After a period of experimentation, 2-year teachers' institutes (*uchitel'skie instituty*) were organized in 1935 to fill a need for teachers of grades V–VII at the time compulsory education provisions were being revised from a minimum of 4 years to a minimum of 7 years. Students from the 10-year school were admitted to the institutes and given supplementary training in two closely related fields (physics and mathematics, the Russian or native language and literature, natural science and chemistry, or history and geography) supplemented with courses in pedagogy, history of pedagogy, educational psychology, methods of teaching a given specialty, and practice teaching in grades V–VII. Thus, the curriculum in the institute corresponded approximately to the first 2 years of the course in the regular pedagogical institute to which the institute frequently was attached. Graduates were encouraged to complete the second 2 years in a night school or through a correspondence program.

At the peak of their existence, in 1951–52, 232 institutes were reported with an enrollment of 80,000. Beginning with 1952–53, these programs were being abolished. Some were absorbed by the pedagogical institute to which they were attached; some became full-fledged pedagogical institutes and some were revamped into courses for kindergarten and primary teachers. As of the 1955–56 school year, these institutes are said to have gone out of existence.

Grades VIII-X

Teachers of the senior secondary grades traditionally have been trained in institutions of higher learning. By 1921 the Soviets reported they had organized 49 education institutes (instituty narodnogo obrazovaniya) though from 1922 to 1930 the pedagogical faculties at the universities played the major role. In 1930 the pedagogical faculties were split from the universities and organized into individual pedagogical institutes. Although the 4-year pedagogical institutes supplied the majority of teachers, some graduates of the universities were assigned to upper grades of the secondary school.

During the immediate postwar years of 1946–50, the number of teachers trained reportedly increased rapidly as new pedagogical

schools were opened—particularly in the Baltic Republics where facilities for training teachers by Soviet methods were considered necessary. In the Lithuanian SSR the number of teachers trained was to increase 2.3 times; in the Latvian SSR by 90 percent; and in the Estonian SSR by 60 percent.

The increase in number of 10-year schools and in size of the student body in grades VIII–X during the early 1950's made it necessary to open more pedagogical institutes, to revise curriculums (which had remained fairly stable since 1943) and to introduce more up-to-date textbooks in mathematics, physics, chemistry, and biology in particular.

Heretofore the practice had been to train students to teach either of two related subjects—physics and mathematics, or history and geography, for example—to pupils in the upper grades only. In an educational situation in which the majority of children were enrolled in schools with all 10 grades, Soviet educators found it more desirable to introduce curriculums designed to train prospective teachers in a single subject field and then to prepare them to teach that subject at any grade level above the primary school. In the new curriculums more time was also allotted to practice teaching and independent study.

In addition to expanding enrollment quotas in the pedagogical institutes to meet demand for subject matter teachers in the secondary grades, it was found necessary to utilize more students graduating from the universities. In recent years about 50 percent of the university graduates in the humanities and 20 percent of the graduates in the sciences reportedly are assigned to teach in the secondary schools.

Administration

The republic ministries of education finance and maintain their own teacher-training establishments while general supervision of academic standards rests with the USSR Ministry of Higher Education. Over universities, the Ministry of Higher Education exercises full responsibility. In coordinating curriculum requirements, approving new staff appointments, setting admission quotas, and so on, ministries of education work primarily with the Ministry of Higher Education's Chief Directorate of Semiprofessional Training and its Directorate of Pedagogical Institutions.

The semiprofessional educational establishments which usually train teachers for Soviet kindergartens and grades I–IV, and senior Pioneer leaders and instructors in orphanages for children up to the age of 7,

are of 2 types: (1) Those with a 4-year course of study for graduates of the 7-year school; and (2) those with a 2-year course for graduates of the 10-year school. Teachers for younger children also may be trained in pedagogical institutes in faculties of kindergarten and primary school education. Table 22, below, is an example of the curriculum specified for 2-year pedagogical schools at the junior college level for students majoring in kindergarten teaching. Table 23, p. 206, presents the curriculum required in 4-year pedagogical schools in the RSFSR.

Table 22.—Program of Studies for a 2-year Course for Kindergarten Teachers in RSFSR Pedagogical Schools: 1955–56

Subject	Number of hours per week, by year		Total	Hours per subject
	I	II		
1	2	3	4	5
History of the Communist Party	2	2	138	138
Anatomy and physiology of preschool child and preschool hygiene	4/3	-------	127	70/57
Child psychology	4/–	-------	76	76
Preschool education	3	2	174	174
History of pedagogy	-------	2	66	66
Children's literature	-------	3	99	99
Methods of teaching the Russian language in kindergarten with practicums in reading aloud and narration	2	2/1	124	66/58
Methods of acquainting children with nature and practicums in natural science	2	2	138	66/72
Drawing, modeling, and methods of teaching children drawing and modeling	4	3	243	180/63
Practical training in school handicrafts	2	2	138	138
Singing, music, and methods of musical instruction in kindergartens	4	3	243	180/63
Physical education and methods of teaching physical education in kindergartens	2/4	4/2	210	138/72
Methods of teaching children numbers	-------	1/–	19	19
Practice teaching in kindergartens (observation, assisting, teaching)	2/6	6/6	338	338
Total hours*	-------	-------	**2,133**	**2,133**

[1] E. N. Medynskii, *Prosveshchenie v SSSR* (Moskva: Ministerstvo Prosveshcheniya RSFSR, Uchpedgiz, 1955), p. 181. (Medynskii also mentions 70 hours each of choral and individual singing—both optional.)

*Totals not in original table.

Table 23.—Program of Studies for a 4-year Course in RSFSR Pedagogical Schools: 1955–56

[2 hours in a column indicate hours in first and second semester]

Subject	Number of hours per week by year				Total	Hours per individual subject
	I	II	III	IV		
1	2	3	4	5	6	7
Russian language and methods of teaching					440	
Russian language	3	2/3	2/3	2		350
Teaching methods			2	1/–		90
Literature					495	
General literature	3	3/2	3	3/4		417
Children's literature				2/3		78
Mathematics and methods of teaching					647	
Arithmetic	2	2	2	1		248
Algebra	2	2				144
Geometry	2	2	2/–			182
Teaching methods			2/1	1/–		73
Physics	3	3	2/–		254	254
Chemistry and mineralogy	4/2				110	110
Natural science and methods of teaching					295	
Anatomy and physiology of man	–/4					68
Botany		2				72
Zoology			2/1			55
Fundamentals of Darwinism				2		64
Teaching methods			1/1			36
Geography and methods of teaching					270	
General physical geography	3/2					91
Geography of foreign countries		2				72
Geography of the USSR			2			72
Teaching methods			–/1	1/–		35
History and methods of teaching					398	
History of the USSR	4/2	2	2			254
Modern history		2	2/–			110
Teaching methods			–/2			34
History of the Communist Party				4	128	128
Psychology		3/–			57	57
Pedagogy		–/4	2	2/1	190	190
History of pedagogy				2	64	64
Logic				3/–	54	54
School hygiene				2/–	36	36
Penmanship and methods of teaching	1	1	1		108	108

Table 23.—Program of Studies for a 4-year Course in RSFSR Pedagogical Schools: 1955–56—Continued

Subject	Number of hours per week by year				Total	Hours per individual subject
	I	II	III	IV		
1	2	3	4	5	6	7
Drawing and methods of teaching	2	2	2	1	248	248
Singing and methods of teaching	2	2/1	1/2	1	212	212
Physical education and methods of teaching	2	2	2	2	280	280
Practical work in shop and agriculture	-/2	2	2	1/2	224	224
Observation and practice teaching	.....	-/2	2/4	4/-	212	212
Optional Subjects	.....	.....	.....	.....	.....	.....
Foreign language (English, French, or German)	.....	.....	.....	.....	280	280
Choral or individual singing	.....	.....	.....	.....	280	280
Total hours	**33/34**	**34/36**	**36/35**	**35/28**	[1] 5, 282	[1] 5, 282

[1] E. N. Medynskii. *Prosveshchenie v SSSR* (Moskva: Ministerstvo Prosveshcheniya RSFSR Uchpedgiz, 1955), p. 179–80.
[2] Sic.
[3] Not in original table.

Organization

The school year runs from the first of September to about June 20. It is divided into 2 semesters of 2 quarters each, with a winter vacation of ten days beginning on January 1 and a spring vacation of 1 week at the end of March. Lessons are scheduled 6 days a week, 6 hours a day where Russian is the language of instruction; in others, 7 hours a day. Homework assignments and laboratory work are graded. There are daily tests, course examinations, and finally State examinations prior to graduation from the training program.

In the 4-year course for graduates of the 7-year school students take general courses such as physics, chemistry, algebra and geometry, which graduates of the 10-year school in the 2-year course already have had. The professional subjects are the same in both courses.

Admission policy, entrance examinations, and graduation procedures follow the pattern described in the chapter on semiprofessional training. Monthly stipends are provided which are to cover room and board and a minimum for clothes and entertainment.

Graduates are certified with the title "primary school teacher" (uchitelya nachal'noi shkoly) or "kindergarten teacher" (vospitatelya detskogo sada). The top 5 percent of the class graduating from the 4-year course—the honor students—have the right to enter a pedagogical institute. Others first must complete an obligatory 3-year teaching assignment at a school designated by the authorities. Additional training in night school is available in some localities and in correspondence courses.

Teachers for grades V–X are trained mainly in 2 types of higher educational institutions: In one of the 187 pedagogical institutes in a 4-year course of studies or in one of the 33 universities in a 5-year course.[2] Some teachers of art, music, and physical education are graduates of one of the higher educational institutions or semiprofessional schools devoted solely to instruction in one of these subjects.

Admission is based on standard requirements and uniform procedures outlined in the chapter on higher education: Completion of the 10-year school and the passing of competitive entrance examinations, with sons or daughters of teachers given preference.

The universities are divided into faculties offering training in a single basic discipline such as chemistry, biology, or history. The pedagogical institutes, being smaller schools with smaller student enrollments, are organized into faculties which combine two or more related disciplines such as physics-mathematics, natural science-chemistry, history-geography, or Russian language and literature. One pedagogical institute may have a faculty of defectology where teachers are trained to work with handicapped children, another may have a special faculty of psychology, but this is not usual. Many pedagogical institutes in non-Russian-speaking republics have a faculty devoted to the native language and literature for training teachers in these subjects for local schools.

Curriculum

Differences between pedagogical institutes and universities, make it difficult to speak of the exact training program for Soviet secondary school teachers. Whether at a university or a pedagogical institute, the future teacher majors in the subject he is to be certified to teach in the secondary school and completes standard courses in the basic tenets of communism, a foreign language, physical education, and specified courses in pedagogy and methods of teaching his specialty.

[2] According to the RSFSR Deputy Minister of education, it is planned to extend the pedagogical institute training to 5 years.

A university graduate who goes into teaching has had an extra year of schooling, less instruction in basic education courses, more work in his subject field, and has completed a diploma thesis attesting to his familiarity with independent research techniques. The director of the Rostov Pedagogical Institute reportedly told some American visitors that physics majors in a pedagogical institute had had about the equivalent of 3 years of physics at a university.

In a pedagogical institute the physics major takes general physics courses the first 2 years and, after he has acquired a more thorough mathematical foundation, he takes theoretical physics courses the last 2 years. During the first year the student takes mechanics and heat courses and in the second courses in electricity, optics, and atomic physics. Theoretical physics courses include: thermodynamics and the kinetic theory of matter, electromagnetic fields and the electronic theory of matter, theory of relativity and atomic theory, and in the last semester, an advanced course on atomic theory. Accompanying these courses are such subjects as mechanics, acoustics, and molecular physics. Lecture courses in physics may have 75 students or more; for laboratory work students are organized into groups of about 12. During the final year at the pedagogical institute students may elect special faculty courses and seminars, which vary from institute to institute, depending on specialties and interests of staff members.

A future geography teacher being trained in the history-geography faculty of a pedagogical institute as of 1954–55 was required, during a 4-year course, to pass 58 tests and examinations, plus State graduation examinations in: (1) The foundations of Marxism-Leninism; (2) methods of teaching geography; (3) physical and economic geography of the USSR; and (4) physical, economic, and political geography of foreign countries. The required course load of geography majors is relatively light, but is compensated for by a reported heavy load of noncredit field practice.

The teacher of a foreign language (usually English, French or German) may complete a 4-years course in a regular pedagogical institute or a 5-year course in one of the institutes of foreign languages. Throughout his training the student through the use of tape recorders, movies, translation and conversational practice, concentrates on learning the language as it is spoken and written by persons to whom it is the native tongue. He is required to pass 55 examinations and tests during the 4-year period plus the State graduation examinations in: (1) The foundations of Marxism-Leninism; (2) methods of teaching the foreign language; and (3) the theory and practice of the foreign language.

Practice teaching is a basic requirement. Some of it is scheduled in the pedagogical curriculums; some is done during the summer

vacation. During this work students are expected to become familiar with school organization, classroom teaching techniques, and other educational programs functioning in the country.

Before beginning their practice teaching, students attend conferences in which each student conducts a lesson which the instructor analyzes. Then students observe classroom situations in the secondary school attached to the institute or in neighboring 10-year schools. Eventually they take over regular secondary school class lectures and laboratory sessions. In addition, they acquire experience by teaching in the evening classes for adults and working and rural youth, and by acting as leaders of extracurricular work activities and clubs. Students in pedagogical institutes also spend 3 weeks of one of their 8-week summer vacations doing practice teaching in the Pioneer camps. Thus, future Soviet teachers have 3 or 4 different types of teaching duties during which they are alternately supervised and left to their own initiative.

As the preceding examples reveal, the pedagogical institute curriculum divides into three categories: (1) Professional subjects concerned with teaching; (2) required and elected courses in the subject field; and (3) courses common to all students in the institute. The examples do not reveal: (1) The lecture and examination schedule; (2) amount of practice teaching and other field practice required; and (3) penetration of communist educational principles.

The average lecture load of students majoring in one of the seven basic subject matter specialties—chemistry, physics, mathematics, history, geography, natural science, Russian language and literature—is 3,640 hours during a 4-year course. The average number of course examinations required is 70, plus the final State examinations. Future teachers also complete an average of 866 hours of practice teaching plus an unspecified amount of other field practice during the 4-year course. As a rule a 4-year pedagogical course calls for some 5,000 hours of supervised training.

Observations on Training

Such a schedule, Soviet educators point out, results in far too great a reliance upon mechanical learning and a tendency to emphasize details, without adequate training in independent research work.

Some of the faculties in pedagogical institutes have particularly overloaded schedules. The number of hours required of students in the 4-year biology course was increased in 1955 from 4,825 to 5,175 hours—160 hours more than is required of biology majors in a 5-year university course. Part of this load is accounted for by the fact that,

in 3 years of training, a student spends a total of 10 weeks of summer vacation—he has 8 weeks each year—in field practice. It is reported that a major weakness in Soviet teacher training is poor arrangement of field practice assignments. Soviet educators also have been critical of the continued use of obsolete equipment in pedagogical institutes.

The courses on teaching methods have impressed some American observers as useful for future Soviet teachers. Physics majors, for example, are instructed in making effective use of the simple laboratory and shop equipment found in many Soviet secondary schools; how to conduct demonstrations with laboratory apparatus in the fields of mechanics, heat, vacuum pumps, projection, electrostatics, current electricity, radio, alternating currents, motors and dynamos, acoustics, advanced optics, photography, molecular physics, liquids, and gases; in how to make simple repairs on equipment; and in how to improvise with what is at hand.

Teacher Training on a Part-Time Basis

Soviet authorities have found teacher training on a part-time basis an expedient for helping teachers raise their professional qualifications while retaining their full-time teaching services. A third of the students in higher educational institutions are studying on a part-time basis—teachers appear to constitute about 70 percent.

Evening departments (vechernie otdeleniya) are organized principally in pedagogical institutes located in the larger cities. Night school students complete academic requirements identical with those of regular full-time students but have no practice teaching.

Correspondence departments (zaochnye otdelenie) maintained at various pedagogical institutes serve teachers in the surrounding area. There are three pedagogical institutes located at Moscow, Baku, and Erevan which function solely as correspondence institutes for teachers, chiefly for those in rural areas.

Graduate Training and Pedagogical Research

Future teachers who graduate from a higher educational institution with honors—the top 2 to 3 percent of their class—may apply for postgraduate study leading to the degree of candidate of pedagogical sciences (kandidat pedagogicheskikh nauk), and possibly the degree of doctor of pedagogical sciences (doktor pedagogicheskikh nauk).

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Advanced degree work in education is available in the few faculties of pedagogical institutes whose laboratory and library facilities are regarded by the USSR Ministry of Higher Education as outstanding in a given aspect of pedagogy and whose teaching staffs are considered qualified to supervise advanced training in particular pedagogical specialties.

RSFSR Academy of Pedagogical Sciences

The RSFSR Academy of Pedagogical Sciences (Akademia Pedagogicheskikh Nauk RSFSR) in Moscow is the chief educational research center for the USSR. A large proportion of advanced degree training in education is carried out there.

The Academy was founded in 1943 to aid in the development of education and to disseminate information about education among the people; to carry out research on problems of general education, specialized education, kindergarten education, history of education, school hygiene, methods of teaching basic primary and secondary school subjects, and on problems of educational psychology; to aid in the planning and development of other research work in education; to train postgraduate students and educators for staff positions in pedagogical institutes and establishments concerned with pedagogical sciences.[8]

Members are elected to the academy by their fellows. Election brings prestige and monthly monetary remuneration. Between 1951 and 1954 there reportedly were 34 full members (deistvitel 'nye chleny) and 59 corresponding or associate members (chleny-korrespondenty). Both categories hold the title of "academician." Members may be regularly employed on the staffs of pedagogical institutes or research establishments and retain the right to use the academy's library and research facilities, maintain offices in the academy, and carry out the bulk of their research there.

The academy is composed of various research establishments each dealing with specific types of educational problems; namely, the:

1. Research Institute for the Theory and History of Pedagogy with a number of sections (sektory) each devoted to a particular type of educational research such as: Kindergarten education, didactics, polytechnical education, school studies, and the history of pedagogy.

2. Research Institute for Teaching Methods with several departments

[8] Cf. E. N. Medynskii, *Prosveshchenie v SSSR*, (Moskva: Ministerstvo Prosveshcheniya RSFSR, Uchpedgiz, 1955) p. 198. Citation of paragraph 2 of the charter of the RSFSR Academy of Pedagogical Sciences.

(otdely) devoted to methods of teaching primary grades, historical-philological disciplines, physical-mathematical disciplines; methods of using school laboratory and shop equipment; and so on. Each department has a number of sections with laboratories, special equipment and other research facilities.

3. Research Institute of Psychology.
4. Research Institute of Defectology with departments of defectology and specialized psychology, and in educational practices for different types of handicapped children.
5. Research Institute of Physical Education and School Hygiene.
6. Research Institute for Education in the Non-Russian Schools.
7. Research Institute for Education in the Arts.
8. The Leningrad Research Institute of Pedagogy.
9. The Natural Science Institute in Leningrad with research in methods of teaching natural science, the morphology of man, physiological chemistry, and the physiology of plants and animals.

The academy also maintains: (1) The State Library for Education, which reportedly has a collection of about 700,000 volumes, including some 90,000 foreign books on education; (2) the National Education Museum in Leningrad, which collects and displays materials on education and activities in educational and cultural institutions; (3) the Research Archives in which are deposited personal papers of Russian and Soviet educators, materials on the development of education in the USSR, library collections of research establishments which no longer exist, and other materials and documents; and (4) the Museum in Zagorsk.

A half dozen full members compose the presidium or governing body of the academy which carries on day-to-day administrative responsibilties between plenary sessions of the membership. Functioning directly under the presidium are: (1) The Bureau for the Study of Foreign Educational Experience and Information; (2) the Commission for the Publication of the *Children's Encyclopedia;* (3) the Editorial-Publishing Council; and (4) the Academy of Pedagogical Sciences Publishing House.

The academy sponsors the preparation of new textbooks, new academic schedules, and programs for schools. Under its function of disseminating educational information among the population, the academy publishes popular books and pamphlets and is said to sponsor annually some 2,000 lectures by academy personnel on educational topics. It organizes pedagogical readings (pedagogicheskie chteniya) a contest to which teachers, pre-school workers, school inspectors, and others in the field of education are invited to submit reports, studies, and monographs on pedagogical problems with recommended solutions. A jury of the academy chooses the prize-winning submissions. Those considered best are subsequently discussed and published.

The Teaching Profession

In 1955–56, 1,733,000 teachers were reported as employed in Soviet primary and secondary schools—1,655,000 as teachers in the regular schools and in institutions for sick and handicapped children, and 78,000 as teachers in the evening and part-time schools for employed youth and adults.[4]

Of the total in the teaching profession, an estimated 80 percent are women; the percentage varies by grade level. More men teach in the senior secondary grades; more women in the primary grades.[5]

Certification

The type of diploma awarded a trained teacher in the USSR depends on the kind of program followed. Each diploma carries with it a corresponding certificate. Graduates of pedagogical schools or other schools of equivalent status receive the diploma of kindergarten school teacher or primary school teacher, depending on training received. Graduates of pedagogical institutes or universities receive a diploma of secondary school teacher of a specific subject in grades V to X. Graduates of teacher institutes (uchitel'skie instituty) have the right to teach in grades V to VII only. The honorary title of "Teacher of Merit" is awarded to teachers by the Presidium of the USSR Supreme Soviet in recognition of their work in education.

Appointment

Following his graduation from one of the teacher training institutions, a student is assigned for a period of 3 years to a school requesting a teacher with his type of training. At the end of his obligatory teaching assignment, the teacher may be transferred to another school through choice or consent or may leave the profession. Some teachers apply for postgraduate study in education at this time. Appointments and transfers are handled through the director of the regional or territorial department of education or by the minister of education in an autonomous republic.

The function of teacher training programs is not only to graduate future teachers but to prepare them to be leading forces in their communities. If a student is assigned elsewhere than to his native region,

[4] *Narodnoe Khozyaistvo SSSR*, p. 222–23.

[5] Conversation with the RSFSR Deputy Minister of Education, March 31, 1956.

he is given some orientation information about the area. If it is an agricultural community, he is supposed to be informed on its agricultural problems and the equipment used. He should also know what the people are like and principal community activities, interests, and traditions. Soviet teachers are expected to be active participants in community projects and to help solve various problems that arise. In villages the teacher usually is a link between the Party-State and the local inhabitants.

Dismissal

In theory, Soviet teachers receive their appointment for life or until eligible for retirement and pension after 25 years of service. In practice the Soviet teacher has no job security should the local department of education or Party committee file a complaint for "incompetence."

In practice, according to the RSFSR Deputy Minister of Education, most teachers in the Soviet Union earn about double their base salary because they work twice the number of hours specified. Teachers in the cities frequently teach a double shift. In rural areas, where there is ordinarily only one shift, teachers instruct young people and adults in evening schools and in part-time programs.

Besides extra remuneration for additional hours of teaching, they may receive extra pay for hours spent in such duties as: Checking written exercises and examinations; setting up and checking laboratory work in physics and chemistry classes; supervising experimental work in connection with natural science classes; acting as the school librarian if one is not on the staff; acting as class counselor; and directing extra-curricular clubs or activities. Teaching up to 2 hours a day which is done by a school principal is paid at the hourly rate.

Soviet teachers are paid by the State under a graduated scale for various categories of teachers. These categories depend upon: (1) Length of teaching service, (2) education, (3) grade level and subject taught, and (4) particular place in which they are teaching. Reportedly a teacher who has graduated from a 4-year pedagogical higher educational institution and teaches one of the basic subjects in grade VI earns more than a teacher of art or music who graduated from a 5-year higher educational institute of the arts or from a conservatory. A teacher in the city school earns more than one in a country school, while a teacher in a country school receives housing including fuel and light, and if he has dependents, he is supposed to receive an allotment of land and grazing rights for such livestock as he is allowed to own.

Certain isolated areas of the USSR, such as the Yakutsk Autonomous

Republic or the more remote districts in the Irkutsk Province, are expected to have 20-percent wage differentials. Teachers working in schools beyond the Arctic Circle in such places as Murmansk, Archangel, or in the far northeast in Kamchatka or Sakhalin are supposed to receive a 50-percent automatic increase in their base salary as are teachers of certain tribes of northern peoples and certain other ethnic minority groups. Teachers in kindergartens and the grades in these isolated areas are supposed to have periodic leave to vacation in metropolitan or resort areas. As noted earlier, teachers in schools for children with mental and physical handicaps, by law are supposed to receive a 25-percent increase in their base salary to compensate for difficulty of their work. The honorary title of "Teacher of Merit" entitles the holder to an additional 100 rubles a month, as does the possession of an advanced academic degree.[6]

Other Benefits

After 25 years of service, a teacher is supposed to receive a pension equal to 40-percent of his most recent base salary, whether he retires or continues to teach. He is supposed to retain his salary during illness, receive medical attention, and have a 2-month summer holiday.

Trade Unions

Covering the Soviet teaching profession are three trade unions: The Union of Preschool Workers, the Union of Workers in the Primary and Secondary Schools, and the Union of Workers in Higher Educational Institutions.[7] Membership in one of the three is open to those associated with education, whether directly as a teacher, or indirectly, as, for example, school doctor, nurse, librarian, bursar, cafeteria worker, or janitor.

Membership fees are listed as 2 percent of base salary. Although

[6] N. A. Pomanskiĭ, *Finansirovanie Prosveshcheniya*, p. 30–31 and 74. Resolution of the USSR Council of Peoples' Commissars and the Central Committee of the Communist Party, No. 875, Aug. 11, 1943, "O Povyshenii Zarabotnoi Platy Uchitelyam i Drugim Rabotnikam Nachal'nykh i Srednikh Shkol," Introduction of the USSR People's Commissariat of Finance and the VTsSPS, Nos. 581 and 1847–n, Oct. 3, 1945, "O Povyshenii Zarabotnoi Platy Rabotnikam Detskikh Sadov."

[7] For additional information in English, see I. I. Grivkov, "Professional Organizations," *The Year Book of Education* (London: Evans Brothers Ltd., 1953), p. 413–17.

membership is said to be voluntary, information available indicates that the eligible group belongs. Within each union there exist professional associations devoted to a particular field or level, such as an association of literature teachers, of chemistry teachers, or of primary school teachers.

The three teachers' trade unions are considered to represent the body of workers in Soviet educational establishments and are charged with responsibility for coping with needs of their members. Teachers' trade unions have a dual function which differs from that of trade unions in the US. They represent the will of the Communist Party and Soviet State and a force to compel the teaching profession to carry out the directives of the Party and State. They are expected to exercise an active role in drafting legislation relating to the profession; once legislation is enacted they are required to support it actively whether or not the legislation is favorable to the profession.

Organizational Components

Component parts of teachers' trade unions—whether local school branches or district or regional organizations—have commissions concerned with teaching techniques, workload and pay of teachers and others in the educational system, cultural activities, housing and welfare, labor protection, and social insurance. Members of these commissions consist of paid full-time workers and of teachers who are said to volunteer their services.

The Labor Protection Commission maintains labor-protection inspectors in the individual school administrations.

Members of the Commission on Teaching engage in activities relating to standards of the profession throughout the country. They work on: (1) Dissemination of information on teaching techniques of educators considered to be outstanding; (2) making available experienced teachers to assist new teachers; and (3) planning for conferences to be conducted on teaching methods. This commission sees that teachers enroll in available night or extension programs.

Members of the Cultural Commission are charged with attending to the cultural needs of teachers and their families. A sizeable part of the money allocated in the State budget for cultural measures is channeled into these commissions of the trade unions. A major item in such funds is provided for the construction, maintenance, and operation of some 200 "Palaces" or "Houses" of Culture for teachers located in the larger cities and regional centers.

Approximately once a month a "Rural Teachers' Day" is supposed to be held by these club houses. Teachers from the outlying areas

come to attend lectures on science, literature, and art, and visit the theater or cinema, or attend performances by teachers' amateur groups.[8]

The cultural commissions also maintain a reported 245 libraries and some 5,000 mobile libraries which make the rounds of some of the rural districts. They maintain some 20 odd vacation hotels, 9 health sanitariums (in the Crimea, the Caucasus, on the Volga, and elsewhere) plus some 200 summer camps for children of members. About 15 percent of the members are reported to belong to some 3,000 sports clubs sponsored by cultural commissions. Educational-cultural work organized among the local population by the cultural commissions is said to use the services of about 50 percent of the Nation's teachers as lecturers and as leaders of circles and projects.

The Social Insurance Commission is supposed to help union members obtain medical treatment and is charged with responsibility for information programs on the prevention of sickness. During illness, a union member is authorized to receive from the social insurance fund an amount equal to his average monthly pay. The money for this fund is reported to come from an assessment which is then allocated by the State to the director of each school in the amount of 6 percent of the monthly payroll. A member who bears a child is supposed to receive money to cover the cost of a layette and her salary for 3 months of authorized maternity leave. The justification of claims and the amount to be paid as compensation to teachers injured or disabled are determined by the social insurance commissions. From trade union funds come such pensions as are paid to teachers with 25 years of service and the money to maintain some 40 homes for retired teachers.

Other functions of the teachers' trade unions include the organization and operation of credit unions from which members are supposed to be able to obtain money outright in cases of misfortune or borrow money on a long-term basis to buy furniture, clothes, and so on.

Professional Journals

Soviet teachers have professional journals devoted to various fields and levels. For example, teachers in the secondary schools have access to such journals as *Mathematics in the School*, *Physics in the School*, *Nature Study in the School*, *Geography in the School*, *Chemistry in the School*, *the Teaching of History in the School*, *Foreign Language Training in the School*, *The Russian Language in the School*, and *Literature in the School*. Published from 6 to 12 times

[8] Ibid., p. 417.

a year in editions sufficiently large for school libraries to keep them on hand, these journals are intended to provide a means for exchanging ideas on techniques, reporting on research, and presenting Party and State communications.

The same services are rendered by the journals devoted to a particular educational level, such as: *Herald of the Higher School*, *The Primary School*, *Preschool Education*, and a journal devoted to parent-teacher problems—*The Family and the School*.

The professional triweekly newspaper *Teachers' Gazette*, the joint organ of the republic ministries of education and the Primary and Secondary Teachers' Trade Union, publishes articles, notices, pictures, and items of interest to teachers.

Setting the political tone for the Soviet educational world, is the monthly journal *Soviet Pedagogy*, the organ of the RSFSR Academy of Pedagogical Sciences. Its pages contain the major articles of the Nation's most respected educators and other pedagogical authorities. Sections are devoted to general educational theories and practices, history and development of pedagogical ideas, book reviews, articles on teacher training and the practice teaching of education majors, and reviews of research in Soviet pedagogical higher educational institutions and the Pedagogical Academy's research institutes.

In addition, the educational publishing houses of the various republic ministries of education and the RSFSR Academy of Pedagogical Sciences issue books and pamphlets on teaching, manuals on methods, and collected works by teachers describing experiences in handling particular problems.

Regional conferences in January and August are scheduled for all teachers, heads of schools, members of local departments of education, members of education ministries, and representatives of Party organizations concerned with schools. There, results of the previous semester's work are summarized and recognition is given for achievements considered outstanding. Party-State policies which will affect the teaching program in the next term are presented and discussed. Sample textbooks or pilot projects are scheduled for trial by teachers in designated schools.

The Teachers' Cooperation Service (Metodicheskie Kabinety) in district centers caters to teachers in the district by organizing associations of teachers of grades V–X according to subject taught. Veteran teachers direct these associations. Their purpose is to make available knowledge gained through experience, draw up typical lessons for young teachers, prepare model lesson schedules and plans for the coming term, arrange exhibits of work done by district school children, display new books and visual aids, and maintain a library.

Conclusion

MILLIONS of school age children, variety in racial strains and cultural traditions, diversity in climate and topography, concentrated centers of population, and sparsely populated remote areas are some of the factors affecting educational policy in the USSR and in the USA.

The principle of free and universal education has been adopted as a national policy and is in process of implementation in the USSR today. The same principle is traditional with the people of the USA who have had it in practice for generations.

Diametrically opposed are the philosophical bases from which educational theory, programs, and procedures have evolved in the two countries. Authoritarianism characterizes the Soviet philosophical base; the goal of education is to meet the needs of the State. Constitutional representative democracy characterizes the philosophical base on which the people of the USA govern themselves. In theory and in practice, the individual is of surpassing worth and the goal of education is the development of each person as an individual with freedom and with opportunity to choose his life's work in his best interests.

The Soviet Union is an accretion of separate entities on which there is an overlay of Russian language and Communist Party control. As a matter of educational policy, the USSR one-Party-State capitalizes on the linguistic and cultural heritage of minority groups which resist assimilation. The USA is an amalgamation of heterogeneous nationalities electing to establish their homes in the United States, and of native-born population. The democratic educational systems in the USA are crucibles in which many nationalities fuse in language and in culture.

Neither country has a national ministry to control education. In the USSR the Communist Party, consisting of about 3 percent of the total population, is the minority group which directly and indirectly controls education through a mechanism which centralizes power at the top. In the USA control of education is vested in the people in each of the States at the local and State levels. The US Office of Education provides leadership—not control. It encourages understanding of and responsibility for policy development, management, and operation of local and State educational systems by the people themselves. It promotes agreement on common goals, administers grants in specific fields, and conducts educational research. On the basis of research findings, it provides authoritative information to the profession, the States, and the general public.

Soviet educational-cultural planned budgets embrace a range of activities which include on the one hand schools and institutions of higher learning, and on the other, clubs, radio, press television, movies, theaters, and the like. Educational expenditures reported in the USA relate exclusively to schools and institutions of higher learning.

Education as it is understood in the USSR has no exact parallel in the USA. Preschool programs—nurseries and kindergartens—are an integral part of the national economy of the USSR. Nurseries are health centers for the care of children and the release of the time of mothers for work and other activities in the interests of the Soviet State. Kindergartens are educational centers providing similar child care and similar release of the mothers' time for productive activity deemed appropriate by the Soviet State. In the USA child care establishments are social welfare centers including in their programs child care assistance to those mothers who are breadwinners as well as homemakers. Nursery schools provide programs to serve the health, social and educational needs of 4- and 5-year olds. They are partly or entirely independent of the public school system though an increasing number cooperate with the public school system and receive assistance in staff training, counseling, and other services. Kindergartens are an integral part of the educational systems in the USA.

General primary-secondary education in the USSR consists of a prescribed 10-year, 6 day a week program of studies subordinated to the interests of the regime in the formation of a communist society. In the USA the prescribed elementary curriculums and the secondary curriculums of prescribed and elective courses extend over a 12-year period, 5 days a week, in the interests of the development of educated citizens able to contribute as individuals and in groups to their own welfare and to that of society as a whole.

In the USSR pupils are expected to participate in extracurricular *work*-activities sometimes known as "voluntary-compulsory" programs. These work-activities are centrally controlled and integrated with the primary-secondary curriculum for the benefit of the State. In the USA extracurricular activities are school activities which usually develop in keeping with the interests of the children. In general, they originate spontaneously and result in educational dividends for the children. On their own initiative, youngsters who have reached the minimum age for work—generally 16 years for non-hazardous occupations—may engage in paid part-time work after school hours and in paid summer employment.

The USSR Party-State aims to determine, through its national planning mechanism, the skills which are needed and the proportion of the student population to be trained in each skill. The more brilliant student in the USSR has some individual freedom of choice; the State retains control over curriculum content and methods of instruction and distribution of students among academic fields, adjusting all to suit prevailing political doctrine and current manpower requirements of the Soviet economy. Political indoctrination normally is included in course content throughout the curriculum—in the natural and social sciences, in language and literature, in the arts, and in the other disciplines. In addition, specific courses in the fundamentals of the prevailing political doctrine are required of students regularly enrolled in institutions of higher learning. Students are expected to interpret their studies from the point of view enunciated by the State. Natural sciences and mathematics receive major emphasis.

Students in the USA are free to explore the various vocational and professional fields. According to their capacities, they are free to elect any field of employment in which they can meet the technical requirements; they may change their individual jobs or positions and shift from one field to another in keeping with their own interests and desires. Under the guarantees provided by the Bill of Rights in the Constitution of the USA, they are free to make their own political interpretations whether or not these interpretations are consonant with those of the political party in power.

Vocational education in the USSR usually is terminal training for a specific job or type of work needed by the State. Vocational education is provided in schools administered by the Chief Directorate of Labor Reserves under the USSR Council of Ministers and in schools organized by the ministries and agencies for their own employees and for workers for whom they are operationally responsible. Vocational *education* in the USA is an integral part of public school offerings at the secondary and technical levels. Vocational *training* in the USA

is on- and off-the-job training provided by organizations and agencies concerned with the specialized training of their employees or by institutions assisting individuals in their efforts to advance themselves.

Semiprofessional schools and *technicums* in the USSR are responsible for preparing students to render a single specific "support" service to persons considered qualified in a professional field. Advancement from semiprofessional to professional status is unlikely in the USSR. Semiprofessional training in the USA is sufficiently broad to help individuals acquire professional knowledge and techniques essential for employment in their chosen field and is prerequisite to study leading to full professional status. Advancement from semiprofessional training to professional training and status is common in the USA.

Higher education in the USSR aims to prepare qualified specialists—with the accepted political point of view—to serve the needs of the State. Diploma work for which no degree is awarded, roughly approximates the level of the thesis requirement for the first professional degree in the USA. For researchers and teachers a degree may be awarded at each of two successive levels after advanced or postgraduate study. The first or candidate of sciences degree may be awarded after a 3-year course roughly approximating the level of the doctoral programs in the USA. Those recognized in the Soviet scientific and academic world may be permitted to enroll in the advanced postgraduate program leading to the second or doctor of sciences degree.

In summary, service to the Soviet State is exacted from students in the USSR in return for State-provided educational programs. As a surcharge on their economy, the people of the USA provide educational programs for their own advancement and welfare and, in turn, for the welfare of society as a whole.

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