

CHAPTER II

*
 * PART TIME AND FULL TIME VOCATIONAL
 * SCHOOLS IN WEST GERMANY
 *

 *
 *
 *

=====

In order to understand the vocational schools of Germany in a better way, it is necessary to note the following few points :

- A general principle, that every one has a right to education upto the age of 18, is accepted by all. People believe that the youngsters between fourteen to eighteen years of age still need education. The young persons have not only to learn useful skills but they should also be trained to be useful citizens. Some more years of education is required for this important task.
- Germany is not very rich in mineral resources. Its natural resources are only moderate. Yet it has become a prosperous and industrially developed nation. This is the result of the efforts and training of its manpower. All people here agree that a well organised system of vocational education and apprenticeship training is an important guarantee to the economic stability and progress of the country.

- In Germany an overwhelming majority of youths begin their vocational training as an apprentice. They start work only after some type of vocational training. Only a minority of them begin work as unskilled workers without any vocational training.
- The burden of vocational education and training is not placed on vocational schools alone because they can by no means solve the problem of providing craft skills adequate for the industrial needs of the present time. Hence industries themselves have assumed their share of training. Vocational education is a result of healthy and wonderful co-operation between the vocational schools, industries, trade unions and the community as a whole.

Part-Time Vocational Schools (Berufsschulen)

Vocational education in West Germany is mainly provided by three types of vocational schools. They are :

1. Part-time vocational schools (Berufsschulen),
2. Full-time non-compulsory vocational schools (Berufsfachschulen), and
3. Full-time non-compulsory post-vocational schools. (Fachschulen)

The compulsory part-time vocational schools have a very important place in the entire school system in Germany. Majority of pupils attend these schools. As it is previously mentioned, these schools have developed from the continuation schools. In fact, Germany is the first country in the world to make attendance at a vocational school compulsory for all young workers and apprentices in her Constitution of 1919. After leaving the elementary school, the pupils start receiving vocational

training as apprentice or semi-apprentice, but at the same time they attend the part-time vocational school compulsorily. They work as apprentices in firms, factories, workshops, handicraft establishments, or in business concerns according to the nature of the vocation chosen by them for four or five days of the week and for one day they are compulsorily required to attend the part-time vocational schools in a week. Here they learn for six to eight hours. Sometimes, either for the convenience of the pupils or of the school, the lessons in the part-time vocational schools are also spread over to two days in a week. Generally the pupils are not given home work for the evening in these schools. Attendance in these schools is compulsory till they reach the age of 18 or till the end of apprenticeship training. These schools are called part-time because they give instructions to pupils for only eight to twelve hours per week. They serve the following purposes :

1. They preserve and extend the fundamental learnings acquired in the elementary schools.
2. They provide general education which helps the development of the whole human personality.
3. They supplement the practical work instruction on-the-job with corresponding theoretical instruction. Thus they provide the related trade and technical knowledge which supplement apprenticeship training.

One more important point that should not escape our notice is that the boys and girls who are engaged for semi-apprentice

training (Anlernberuf) and those who are unemployed are also compulsorily made to attend this school so that they can continue their general education. Some of these part-time vocational schools have also classes for mentally retarded and physically handicapped children.

Various Kinds of Part-Time Vocational Schools

The part-time vocational schools (Berufsschulen) can be divided into six categories.¹

1. The Industrial Berufsschulen (including handicrafts)
2. The Commercial Berufsschule.
3. The Agricultural Berufsschule.
4. The Home-Economics or Domestic Science Berufsschule.
5. The Mining Berufsschule.
6. The mixed type of Berufsschule.

Each type of these schools offer the related technical or theoretical training for specific jobs or occupations. They have become specialised in various occupations but they also provide general education. The pupils attend the school which provides classes of their chosen vocation. The sixth category is meant for the helpers, the unskilled workers and the unemployed. All these schools are supposed to add to the general education of the adolescent and especially, to supplement the practical experience of the apprentice by supplying the

¹Hirlekar Yamunabai. Vocational Education in Germany, The Popular Book Depot, Bombay-7, 1962, p.59.

fundamental theoretical information, like knowledge of materials, skills like technical drawings etc., necessary in his or her trade. As a rule, it is accepted that two-thirds of the available time should be used for professional training and one-third for general education, inclusive of political education.¹

For the convenience of small and scarcely populated areas, the part-time vocational schools are established at central places where transport is easily available. The economic structure of the region decides the exact nature of the Berufsschule. One important aspect of these vocational schools is ^{that} they vary according to local requirements. It is rightly pointed out by Prof.Dr.Karl Abraham, ' All over Germany there are probably no two professional schools which are organised exactly alike.'

Again, it is important to note that the Law requires that the lessons in the part-time vocational schools should be given during the normal working hours. It is also compulsory for the employer, by law, to send the youngsters to this part-time vocational schools during this time. It is quite possible that six to eight hours per week may not be sufficient for good and enough theoretical and general knowledge including civics. So at most of the places, the time for compulsory lessons are raised to ten hours or more per week and the lessons are sometimes

¹Karl Abraham. 'The System of German Technical Schools' in the Year Book of Education, London, 1958, p.194.

spread over two days. Moreover, few part-time vocational schools also organise evening courses for the benefit of those who desire to have still more theoretical knowledge. But the law forbids to take this evening course as a substitute for the compulsory one. Evening classes are purely voluntary and are meant only for those who want to acquire more knowledge. Thus these schools, if they involve the rights of the youth to have education upto the age of eighteen, they also involve duties - duty for the youth to attend and the duty for the employer to make him free for this school time during his working hours.

No tuition fees are charged for enrolment in the elementary school (Volksschule) or the part-time vocational school (Berufsschule) throughout the period of compulsory school attendance. The text-books and other learning materials are also supplied free of charge throughout this period. Materials such as visual aids, for demonstration or display purposes and laboratory and shop equipment etc. are also provided without charges.

The Instructional Programme for the Part-Time Vocational Schools

A syllabus has been prepared for the courses in the part-time vocation schools and the teacher generally follows, it, but he is always free to use his own methods. There are no

definite or binding instructions for the methods of teaching. Only general recommendations and directions are provided so that some form of uniformity may be maintained and the teaching may not become superficial. The time table provided for an industrial vocational school will contain one hour for Religion, three hours for technical knowledge (including theory and practical instruction), two hours for technical drawing, one hour for applied mathematics, one hour for German language and one hour for Civics. Religion is not a compulsory subject and yet almost all pupils attend it. A time table for a commercial school will include one hour for religion, two hours for Economics, one hour for Correspondence, two hours for Costing and Calculations, two hours for book-keeping and Accountancy and one hour for Civics. It can be seen from above that the periods of Religion and Civics are common to both the types of part-time vocational schools. Over and above this general time-table, other voluntary activities, and games and sports are also the usual activities of these schools. On one hand, these vocational schools are kept well informed about the youngsters' experiences in their work and they arrange their instructional programme accordingly; on the other hand, the employers are kept in touch with what their apprentices are taught in these part-time vocational schools so that they can also adopt their training programme accordingly. Thus, greater co-operation between the industries and the part-time vocational

schools is not only desirable but also indispensable. The closer the co-operation between them, the greater are the advantages to the pupils. Hence in Germany, the trade or industry and the school always supplement and support each other.

Sometimes it is rightly criticised that the time available at these part-time vocational schools for education is too short. Eight or twelve hours per week may not seem enough to some. The solution is that the available time must be wisely and fruitfully used. Its allocation has to be carefully thought out. A lasting educational effect can be achieved only by vigorous concentration on essential points. It has been noticed with satisfaction that most young people love to stay in a school one day a week in a congenial intellectual atmosphere. 'A good Berufsschule should give them not only professional training but should also answer for them the manifold questions which concern adolescents.'¹

Certificate at the End of the Training and Schooling
of

At the end of the apprenticeship[^] three or three and a half years, which depends upon the trade or occupation selected by the youth, he has to appear for an examination in all subjects taught except the 'Religion'. The examination Committee consists of three persons. One is the representative of the school

¹Karl Abraham. 'The System of German Technical Schools', in the Year Book of Education, London, 1958, p.194.

supervisory board, the other is a vocational teacher of the part-time school and the third is a representative of the particular trade or profession. Over and above the theoretical examination, there is also a practical examination which is held by the local Chamber of Industry and Commerce or the Chamber of handicrafts or trade. On passing the examination the youth gets the 'Skilled Workers Certificate' (Facharbeiterzeugnis) or 'the Journeyman's Certificate' (Gesellⁿezeugnis) according as he is an industrial worker or otherwise.¹

These examinations help to maintain the required standard of apprentices. They also help to acquire an exact picture of what has been accomplished by the part-time vocational schools. The examinations are also another example which prove the active co-operation of Industry with the Schools. This coordination has contributed a lot towards attaining the present high status of the part-time vocational schools throughout Germany. In this connection it is worthwhile to mention that in several wage agreements, it is explicitly stated that young workers can claim full rates of pay only if they have passed the apprenticeship examination.

These examinations have one more significant importance. Before World War II, there was not much scope for advancement for those who did not attend the Grammar Schools. They were not allowed entrance to higher technical colleges (Ingenieur Schulen)

¹ Hirlekar, Yamunabai. 'Vocational Education in Germany', The Popular Book Depot, Bombay-7, 1962, p.62.

unless they came through the Grammar Schools. But now that position has undergone a radical change, The students who gain higher marks in the apprenticeships examinations are now allowed to enter higher technical colleges. Thus advanced vocational schools have gained the privileges of sending their best students to related advanced higher institutions.

FULL-TIME VOCATIONAL SCHOOLS (BERUFSFACHSCHULEN)

In the 'Guide for the Vocational School systems of the German Reich' (Wegweiser durch das gewerbliche Berufs- und Fachschulwesen des Deutschen Reiches) we find Berufsfach^{sch}ulen defined as 'all those full-time schools in which attendance is voluntary, and whose curricula extend for one or more years and which prepare young people for employment (pre-employment training) in trade, business or domestic occupations. Hence they are full-time vocational schools with courses of instruction varying in duration between one, two or more years - generally with 30 to 40 periods of instruction per week. These schools are pre-vocational schools. Children who have completed elementary education with good performance are generally admitted in these schools. These Berufsfachschulen provide both theoretical as well as practical instruction.

These Berufsfach^{sch}ulen satisfy the demand and needs for some special types of occupation because the part - time

vocational schools are not always suitable for all types of occupations. For example, let us consider the case of short-hand typists. They have to acquire their skill in the school and not through experience in the office. Similarly instruction in Chemistry or Physics must be given in a school before it can be used in an industry. This may apply to many other professions. Technicians in the radio, electrical and chemical industries need special physical and chemical knowledge, and it is appropriate that such instructions should be given in special schools at the very beginning of the apprenticeship.

These Berufsfachschulen are also classified according to their special technical character. They can have bias for commerce, industry, home economics, handicrafts and fine arts. Majority of these schools have a bias for commercial and home economics vocations. They are particularly important on the commercial side of industry, and the number of commercial schools is greater than that of other Berufsfachschulen. There is no uniformity among them, since each adopts itself to the local requirements. As a rule, the Berufsfachschule accepts only those pupils who are able to obtain more than average marks in their primary schools. The principal of this school has also a right to dismiss pupils whose performance is not satisfactory. The competition for a place in such a school is, therefore, very

great because most of the pupils after attending it, become indentured apprentices and usually serve two, instead of three years. Sometimes the parents feel that their boys are too young or premature at the age of fourteen to start work as apprentice. Then they would prefer to send them to the Berufsfachschulen to begin with and later they could work as apprentices with an advantage of shorter period of attendance - generally two instead of three years.

One another point of importance is that whereas the Berufsschule - part time vocational schools, - apart from the 'Werkschulen' - (Company Schools), are public institutions, most of the Berufsfachschulen (full-time vocational schools) are private. Hence there is an open competition between both these types.

Thus, these schools replace apprenticeship partially or (in some cases) entirely. The typists trained in these schools are usually accepted as full employees.

Also by attending a full-time vocational school, the students meet the requirement of obligatory school attendance.

More than twice as many girls as boys attend schools of this kind, which is largely accounted for by the fact that the training of stenographers, typists and secretaries as well as training in the domestic skills and sciences can be acquired in these schools. Berufsfachschulen are maintained by communities,

vocational organisations, and by private persons.

Instruction at the Berufsfachschule is mostly provided from 30 to 36 periods per week. A weekly time-table of a two years' Commercial Berufsfachschule will contain four hours of office work, four hours of correspondence, two hours of accountancy, four hours of book-keeping, four hours of German language, two hours of one Modern Foreign Language, one hour of Civics, one hour of Economic Geography, six hours of knowledge of material and two hours of Shorthand and typing. The time-table of a One Year Domestic Economy Berufsfachschule will include Cooking, Nutrition, House-Work, Civics, Budget Making, Needlework, Hygiene, Infant Care, Nursing, Drawing, Gardening, Music, Games, Religion and German Language.

THE ADVANCED FULL-TIME VOCATIONAL SCHOOLS (THE HÖHEREN FACHSCHULEN OR FACHSCHULEN)

Fachschulen are those full-time schools in which attendance is voluntary, the curricular extends for a period of at least one-half-year (600 hours) or more and which admit only those young people with adequate training and experience (journeymen etc.) in an occupation, but which are not 'universities'. They serve the purpose of further education and specialisation in a vocation. For every vocation there is a Fachschule.

Thus, for young people, above the age of eighteen, who are specially gifted, there are still further possibilities of acquiring higher type of professional proficiency. These Fachschulen accept students who have completed their apprenticeship. Sometimes they are expected to have already worked for several years in their trade. Hence they are usually at least 20 years of age. The Höhere Fachschulen admit only those who have been to a secondary school at least until the age of sixteen. Nevertheless, able elementary school (Volksschule) pupils may also be admitted after taking special courses. Thus they admit only adolescents who have had sufficient practical experience in a vocation, which means in practice that the applicants for admission must have successfully completed a full term of apprenticeship (three to four years) and passed a journeyman's examination.

These schools offer courses of varying duration (upto four years). They can be divided into three levels. Schools known as Technician's Schools (Technikerschulen) mostly offer one year courses and generally they are held in the evening. These courses are run in co-operation with engineering schools to enable to utilize their laboratory equipment. The Foreman's Schools (Meisterschulen) offer courses of two years' duration to the youths who have completed their apprenticeship and have long practical

experience, usually of five years or more. They can appear for master's examination after attending this school. Here it should be noted that if a young man desires to start an independent business, it is necessary for him to pass the master's examination. Then he is also allowed to train apprentices. In the industries they hold responsible positions. Engineering School is the third and the highest level of the Fachschule. The instruction in this school is generally extended to three years and here the teachers give lectures just as in universities. The study combines theoretical, technical and practical knowledge with all round general knowledge. The engineers from this school are entitled to enter the technical universities also. Graduates having received at least an over-all grade of 'good' on their diploma are admitted to university - level institutions. Thus the road to study at institutions of university level leading through the Fachschule or other special schools for older persons, who for some reason could not go through the gymnasium becomes increasingly important. It is often spoken as the 'second channel' to higher education.

There are also Höhere Fachschulen for the food, furniture and textile industries; for insurance, pharmacy, watch-making, jewellery, and similar trades. They are often supported by professional associations which, in this way, prepare the

future owners and managers for their tasks. There are also schools of this type for commercial advertising, for book-keeping, and for interpreters. But the schools of engineering continue to grow in number and importance. The reason is clear. Growing mechanism and automation increase the demand for expert skill. Even agriculture is also interested. It might also be added that there are also special technical schools giving training in social welfare work and for the health services. These Fachschulen are open to both sexes, and in some there are more girls than boys. This institution takes for granted a common vocational background and can plan curricula and instructions accordingly. Even then the six day week with seven periods is a heavy programme, requiring great energy and application on the part of the student.

However, it should be noted that in the full-time vocational schools (Berufsfachschulen, Fachschulen, Fach-Höheren^{de here}schulen) the total enrolment is small - approximately 10% of the enrolment in the part-time vocational schools. Here they receive advanced practical and theoretical training in all trade and handicraft skills. But as these schools are on full-time basis, only relatively small number can afford admission in these schools.

Professional Schools run by Private Enterprises

In Germany, we also find some special types of Professional

Schools of the large companies, banks, and departmental stores. They often have so many apprentices that they find it worthwhile to arrange special classes for them. Some concerns even establish their own schools, which are usually well-equipped as they have enough money to spend on such special arrangements. For example, the vocational school managed by 'Höchst', a giant industrial plant in Frankfurt is one of the best schools in the area. Generally if the companies advance the claim with the public school authorities, that their apprentices should be allowed to attend their own schools and not, in addition, a public one, they have to prove that their teaching programmes, their teachers' educational qualifications, and the equipment provided reach the required standards, and they have to agree that the school shall be supervised by the State School Board. This type of school is fairly common. The State Railways (Bundesbahn) and the State Post (Bundespost) possess institutes of this kind.

There is also another type of professional schools. Some companies provide supplementary classes for apprentices - in addition to the courses in the State Vocational Schools - dealing with matters of special importance to them. These institutions are state controlled and usually have well-designed and equipped laboratories, machine tools and other apparatus. Both types of schools clearly demonstrate that the modern German system of apprentices training has been founded not only by Government

decree but also through the free initiative of far-seeing business people and engineers. In several gigantic enterprises, like the 'Siemens Konzern', professional training schools have been established for several decades.

After the World War II, when the reconstruction of the modern Germany began, many industrial concerns took up the opportunity to set-up upto-date and modern Vocational Schools and Workshops for apprentices. This is again a direct proof that in this country vocational training of the future worker is the most important factor recognised even by private enterprises.

Some Statistics about Part-Time and Full-Time Vocational Schools in Germany in 1938

The first fairly reliable statistics about the development and progress of vocational schools in Germany were gathered in 1938 and were published in 1941 in the 'Guide for the Vocational School System of the German Reich.' (Wegweiser durch das gewerbliche Berufs- und Fachschulwesen des Deutschen Reichs).

According to this report of 1938, there were 4,735 Vocational Schools with total enrolment of 2,017,354 pupils in different types of vocational schools, with 26,289 full time and 20,068 part-time vocational teachers. The distribution was as follows :

TABLE 8
Number of Pupils and Teachers in Different Types of
Vocational Schools in Germany in 1938

Type of School (Vocational)	No. of Schools	Enrolment			Teachers	
		Boys	Girls	Total	Full Time	Part Time
1. Berufsschulen* (Part-time vocational schools).	3199 ^⓪	1210998	614688	1825686	18357	15804
2. Berufsfachschu- len (Full-time vocational schools).	1233	40251	97804	138055	5173	2630
3. Fachschulen (Full-time adva- nced technical schools).	303 ^⓪	49976	3637	53613	2759	1634
Total	4735	1301225	716129	2017354	26289	20068

(Source: All these statistical figures and tabulations of 1938 are taken from the Report of U.S. Specialist Mr. Emil O. Toews on 'Principles, Problems and Trends in Vocational Education in Germany.' Office of the U.S. High Commissioner for Germany, 1951).

* These schools also include Fort bildungs schulen (Continuation schools) and Werkschulen (Compulsory Schools) also in this report of 1938).

⓪ This does not include Berufsschulen For Agriculture (in Rural areas).

This table indicates that :

1. More than ninety percent of the pupils (90.5%) attended the part-time compulsory vocational schools.
2. Less than ten percent (9.5%) of the pupils attended full-time voluntary vocational schools.
3. The number of boys attending the part-time compulsory (Berufsschulen) was almost double (66%) than the number of girls (34%).

4. In the Berufsfachschulen (full-time voluntary vocational schools) more than two-thirds (70%) of the enrolments were girls, the boys were less than one-third (30%);

This also shows how great importance the girls give to these types of vocational schools;

5. In the Fachschulen (advanced full-time vocational institute) more than ninety percent (93.2%) of the boys attended, while the number of girls attending was about seven (6.8%) percent.
6. About seventy percent of all the full-time teachers taught in the part-time compulsory schools while the percentage of full-time teachers who taught in full-time vocational school was about thirty;
7. The percentage of all the part-time teachers who taught in the part-time vocational schools were less than eighty while those part-time teachers who taught in full time schools were about twenty one percent.

Establishment of Berufsschulen (Part-time Vocational Schools)
from 1820 to 1938

The following table indicates a continuous but irregular increase in the number of Berufsschulen in Germany from 1820 to 1938 :

TABLE 9

<u>Year of Establishment</u>	<u>No. of Berufsschulen Established</u>
1820 and earlier	16
1821 - 1830	34
1831 - 1840	109
1841 - 1850	67
1851 - 1860	67

(continued)

<u>Year of Establishment</u>	<u>No. of Berufsschulen Established</u>
1861 - 1870	70
1871 - 1880	349
1881 - 1890	179
1891 - 1900	301
1901 - 1910	432
1911 - 1920	311
1921 - 1930	737
1931 - 1938	302
Unknown	225

Total	3199
-------	------

Enrolment in Different Kinds of Berufsschulen (Part-time Vocational Schools)

Out of 3199 Berufsschulen - Part time compulsory schools - the following table indicates its various kinds :

<u>Kind of School</u>	<u>No. of Schools</u>
Trade and Industry	1202
Commercial	407
Home Economics	209
Agriculture and Mining	227
Mixed (in rural areas)	1157
Total	3199

In these 3199 Berufsschulen there were 70380 classes with a total of 1825031 students of which 1211031 were boys and 614699 were girls. Out of these, 1,747,638 were students who

were obliged by law to attend, while 78,048 (59,657 boys and 18,391 girls) attended these classes voluntarily. The proportion of the total in each occupational group is indicated below :

<u>Occupational Groups of Classes</u>	<u>Percentage</u>
1. Metal Trades	21.4%
2. Commercial and Business	17.9%
3. Domestic Trades	14.7%
4. Building Trades	9.4%
5. Textile Trades	8.1%
6. Food Trades	5.8%
7. Art Trades	4.7%
8. Gardening	2.2%
9. Mining	1.9%
10. Physical Care	1.4%
11. Unskilled Trades	3.5%
12. Miscel. (Unemployed)	9.0%
Total ..	100%

Financial Support

Of the 3199 Berufsschulen reported in 1938, about 87%(2783) were supported by Local Communities and other/State/agencies, and about 13% (416) were supported by private organisations. The following table shows the number of school supports :

<u>Type of Support</u>	<u>No. of Schools</u>
Local Community (Gemeinde)	1,988
Joint Communities (Verband)	632
District (Kreis)	163
Industrial and Labour Organizations	120
Industries (Werkschulen)	90
Mining Organisations	181
Foundations (Stiftungen)	16
Welfare Organisations	9
Total	3199

Enrolment in Different Types of Berufsfachschulen

In 1938, about sixty five percent of all the students in Berufsfach^{sch}ulen were enrolled in business and commercial schools (Handels - or Kaufmännische Berufsschulen), and about twenty four percent were enrolled in home economic schools. Naturally domestic occupations are pursued only by women. The following table indicates the enrolment in the major groups of these full-time vocational schools which also provide pre-employment training. TABLE 10

Type of School	No. of Schools	Enrolment		
		Boys	Girls	Total
1. Business and Commercial Schools	530	34932	55191	90123
2. Home Economics	539	-	28224	28224
3. Special Trades	99	5061	2119	7174
4. Mixed Trades	65	258	12276	12534
Total	1233	40251	97804	138055

From these statistics, it can be seen that business and office occupations such as typists, stenographers, clerks etc. are popular among women. It can also be said that full time pre-employment training in Berufsfachschulen is proportionately more common and more popular among women.

The tuition in these full-time voluntary schools ranged from 30 to 260 DM per semester and the length of training also ranged from one to two years according to the courses offered. Private schools had ordinarily sometimes shorter duration courses and therefore, more frequently attended by girls.

Comparative Enrolment in Different Types of Schools

In May, 1938 a total of 11,016,545 young people were enrolled in elementary, secondary and vocational schools. Out of these, 9,868,640 or nearly 89% were in the compulsory schools (Volkschulen and Berufsschulen) and 11% were in the voluntary schools. Of the 11% (1,097,710 students) who were enrolled in voluntary schools, 933,599 or 8.5% enrolled in "General Education" schools other than the Volkschulen. These figures indicate the importance of the Compulsory school attendance laws in Germany. The following table indicates the total enrolment in various types of schools in May, 1938.

TABLE 11
Enrolment in Various Types of Schools in
Germany in 1938.

Compulsory Schools	No. of Schools	Total Enrolment	No. of full time Teachers
Volksschulen (Elementary Schools)	51426	7570483	180323
Berufsschulen for Trades	3199	1747638	18357
Berufsschulen for Agricultural (Rural)	17345	543519	1160
Voluntary Schools :			
Mittlere Schulen (Middle Schools)	1531	271188	9336
Berufsfachschulen	1233	138055	5173
Hoehereschulen (High School)	2303	662411	43098
Industrial Fachschulen	303	26056	2759
Fachschulen for Agri.	834	57195	3233
Total	78174	11016545	263439

Of the children who were 15 years of age in 1938, the distribution in the various schools was as follows :

Berufsschulen	..	..	60%
Mittelschulen	..	..	311%
Berufsfachschulen	..	..	4.0%
Hoehere Schulen	..	..	7.5%
Total..			74.6%

(About 24.4% of the pupils are not accounted for. The large majority of these were undoubtedly in rural areas where there were no sufficient arrangements for Berufsschulen).

Some Statistics about Part-Time and Full-Time Vocational
Schools in Federal Republic of Germany after 1950

After the end of the World War II, and immediately after the formation of the Federal Republic of Germany, the attention of the nation was set first on consolidation of economic, social and political system. But at the same time education was never neglected. The discussion about the reformed educational system to suit democratic values was taken up seriously and naturally the problem of reforms in vocational education system also came to the forefront. After a series of conferences and discussions, it was generally agreed upon that the vocational education and training in Germany had proved efficient and therefore any hasty change in them was regarded doubtful. Though the experts thought over the problem with open mind, advocating necessary research and experiments in the field of vocational education, most of them warned against too frequent changes in vocational training as it affected the national economy as a whole. However, certain reforms were advocated and willingly accepted by those in charge of the training. The most outstanding change was the introduction of one more year (the 9th grade) in the elementary school, leading to vocational preparation. It was also decided that the period of related instruction in the part-time vocational schools should be extended to 8 to 10 and in certain cases even to 12 hours per week. More emphasis was laid on the development of human qualities over and above the technical qualities and greater attention was paid

to general education, especially civics. The problem of training and re-training of vocational teacher was also not neglected and it was thought advisable and desirable to establish some institutions like a Central Institute for Vocational Education, a Central Institute for Research in Vocational Education and a Central Bureau for Gathering and distributing facts, figures, information^{etc} about vocational education and training.

Most of the vocational schools in Germany are public schools but few private schools are also allowed to exist if they fulfill certain conditions laid down by the public authorities. The percentage of such private vocational schools is very low. In 1965, out of 2128 part-time vocational schools (Berufsschulen) only 140 i.e. only 6.6% were private schools.

It is also interesting to know that the number of part-time vocational schools in Germany has slowly decreased year by year from 1950 to 1965, the number of full-time vocational schools and technical vocational schools have gradually increased year by year from 1950 to 1965. Moreover, from 1959-1960, a new type of vocational schools- upgrading courses schools (Berufsaufbauschulen) have come into existence and are meant for further education and instruction. These schools have also rapidly expanded and developed in Germany since they came into existence.

Number of Schools and Pupils in Various Types of Vocational
Schools till 1968

The following table shows the number of schools and pupils in various types of vocational schools in Federal Republic of Germany from 1950 to 1965 and 1967 to 1968.

TABLE 12

Year	Part-time Vocational Schools (Berufsschulen)		Full-time Vocational Schools (Berufsfachschule)		Full-time Technical Vocational Schools (Fachschulen)	
	Schools	Pupils	Schools	Pupils	Schools	Pupils
1950	6767	1699229	875	88173	1410	112473
1951	6031	1877891	955	105441	1645	118305
1952	5819	2053775	1032	118824	1753	126501
1953	5612	2126979	1093	129510	1796	134085
1954	5050	2244293	1184	144598	1806	138198
1955	4280	2301873	1290	155694	1844	145741
1956	3782	2269275	1307	155607	1860	119862
1957	3328	2131100	1452	160286	1891	119314
1958	2938	2009017	1527	162642	1933	125825
1959	2631	1830187	1599	154281	1990	124498
1960	2463	1661911	1636	139160	2025	120051
1961	2341	1635487	1751	139560	2232	121051
1962	2263	1614035	1630	132298	2250	118843
1963	2300	1699002	1836	142286	2307	114470
1964	2167	1741889	1864	153752	2321	117112
1965	2128	1780044	2032	167546	2385	119989
1967	1807	1780203	2364	197356	2724	128879
1968	1799	1754765	2534	203815	2734	134741

(Source: German Statistical Year Book - 1967 and onwards, p.89.
Statistisches Jahrbuch für die Bundesrepublik Deutschland
1967. Herausgeber: Statistisches Bundesamt/Wiesbaden.
Verlag: Kohlhammer GMBH/Stuttgart und Mainz.)

The table indicates that -

1. The total number of part-time vocational schools have gradually decreased year by year. In 1950 the number was 6767, in 1965, it was 2128, less than one third of the number of 1950. But the number of full-time vocational schools and the technical vocational schools (also full-time) has increased considerably. In 1950, the number was 875 and 1410 of full-time vocational schools and technical schools respectively, it was 2032 and 2385 in 1965. This shows that the pupils have a greater tendency to go to more and more full-time vocational schools. This is particularly true in case of girls. This tendency continues in 1967 and 1968 also.
2. The table also shows that the number of pupils in part-time vocational schools was highest in 1955. From 1950 to 1955 the number of pupils in part-time vocational schools increased gradually. Then it decreased and continued to decrease from 1955 to 1962. But after 1962, there is again slight increase in the number of pupils.
3. The number of pupils in full-time vocational schools ^{and} increased from 1950 to 1958, then from 1959 to 1962 it decreased from 1963 it has again a tendency to increase.
4. The number of pupils in technical schools increased from 1950 to 1955 which was the peak year. Then it decreased till 1963 and has a tendency to increase from 1964.
5. The total number of pupils in all various vocational schools was 1899875 in 1950; 2603308 in 1955; 1921122 in 1960; and 2067579 in 1965. Thus 1955 was the peak year. But the number is more in 1965 than in 1960. So again there is a tendency of the number to increase.

The total number of decrease from 1956 to 1962 may be due to two main reasons: The rate of birth between 1942 and 1948 was low, the second reason is partly in the changes in primary school (Volksschule) attendance. Compulsory full-time schooling in most of the States (Länder) was increased from 8 to 9 years and also the beginning of the school year was postponed ^{to autumn from spring} ~~to spring from autumn~~.

Number of Pupils in Various Schools in different States in 1965

The following table shows the number of pupils in various vocational schools in different states (Länder) of Federal Republic of Germany in the year 1965.

The table indicates that the number of schools and also the number of pupils vary greatly among the various states. Obviously the number generally ^{varies} ~~is~~ according to population of the different states. Moreover, the effect of local environment, industrial and commercial development and natural resources and scope for production also play ^{their} ~~its~~ role in bringing some of the vocational schools into existence.

Yet, it is quite possible that some states might be offering special vocational schools even with the less number of pupils. For example, the population and number of pupils in part-time vocational schools in Nordrhein-Westfalen are almost double than Baden-Württemberg yet the number of schools in Baden Württemberg is almost double than number of schools in Nordrhein-Westfalen.

TABLE 13

Number of Pupils in Various Vocational Schools in Different States of Federal

Republic of Germany (1965)

Population of States as on 31-12-1960 in Thousands	States	Part-Time Vocational Schools(Berufsschulen)		Full-Time Vocational Schools(Berufsschulen)		Full-Time Technical Schools(Fachschulen)	
		Schools	Pupils	Schools	Pupils	Schools	Pupils
2,309.4	Schleswig- Holstein	58	68556	64	3087	105	5225
1,837.0	Hamburg	41	54335	66	7156	56	4725
6,576.1	Niedersachsen	190	194197	264	16737	303	12108
704.3	Bremen	17	25905	11	1987	21	2668
15,852.5	Nordrhein- Westfalen	357	546248	504	38656	642	30347
4,783.4	Hessen	111	134808	108	14273	206	9261
3,411.2	Rheinland- Pfalz	80	126161	137	10045	165	5715
7,726.9	Baden-Wuerttemberg	780	233244	531	39678	338	16229
9,494.9	Bayern	408	317938	264	28083	405	26172
1,060.5	Saarland	35	35179	51	3605	35	1518
2,202.2	Berlin (West)	51	43473	32	4239	109	6021
55,958.3	Federal Republic	2128	1780044	2032	167546	2385	119989

In 1965, the number of pupils receiving vocational education and training in various vocational schools in Federal Republic was 2067579. Out of this, the vast majority of them, 1780044 (about 86%) of the pupils attended the part-time vocational schools - Berufsschulen - which forms the cornerstone of vocational training in Germany. Out of the remaining, 167546 pupils (8.1%) attended full-time vocational schools while 119989 pupils (5.8%) attended full-time technical vocational schools.

Public and Private Part-Time Vocational Schools with Number of Classes etc. in Various States in 1965

The following table shows the number of public and private vocational (Part-time) schools, the number of classes, and the number of pupils in various states of Federal Republic of Germany.

The table indicates that -

- Out of 2128 part-time vocational schools (Berufsschule), 1988 i.e. 93.4% schools are public schools and only 140 i.e. 6.6% is private schools. This shows that the responsibility for vocational education which is compulsory by law till the age of 18, is borne by the public schools but the private schools, if they fulfill certain conditions, are also allowed to exist side by side. The principle of freedom of vocational education and choice is thus upheld.
- The number of pupils attending private vocational schools (part-time) is also 15917 i.e. 0.9% as against 1780044 i.e. 99.1%. In fact it is less than one percent.

TABLE 14

Number of Public and Private Schools with Number of Classes and Pupils in Different States
of Federal Republic of Germany (1965) for Part-Time Vocational Schools

(Berufsschulen)

State (Land)	Part-Time Vocational Schools		Classes			Pupils		From that attending Private schools	
	Total	From that Private	Total	From that		Males	Females		
				Special: Vocational subject: Group classes: Classes	Total				
Schleswig Holstein	58	-	3258	2948	140	38387	30169	68556	-
Hamburg	41	-	2266	1864	17	31146	23184	54335	-
Niedersachsen	190	7	9072	8397	304	107535	86662	194197	470
Bremen	17	1	1184	986	21	14910	10995	25905	32
Nordrhein-Westfalen	357	22	22935	17339	1822	305796	240452	546248	4861
Hessen	111	9	5933	4958	508	71943	62865	134808	1490
Rheinland-Pfalz	80	9	5243	3719	491	68795	57366	126161	471
Baden-Württemberg	780	18	10179	4323	2615	130030	103214	233244	1065
Bayern	408	60	12281	10777	1192	182287	135651	317938	4611
Saarland	35	1	1435	1164	60	20021	15158	35179	1796
Berlin (West)	51	6	1839	1393	70	24308	19165	43473	1121
Total in Federal Republic.	2128	140	75625	57868	7220	995158	784886	1780044	15917

- Out of total 1780044 pupils 995158 i.e. 56% were males while 784886 i.e. 44% were girls. So the girls now do not lag far behind the boys in undergoing vocational training and education.
- Again it is interesting to note that out of 75625 total classes in these vocational schools, 57868 classes i.e. 76.5% were special subject-classes (Fachklassen) and only 7220 i.e. 9.55% were the combined classes where pupils of the similar vocational subjects were grouped together for want of sufficient number of pupils or qualified staff members. (For example, the pupils of banking and insurance may be grouped for certain subjects like accounting or economics.) Thus now most of the part-time vocational schools try to provide special classes for the various subjects as far as possible and provide maximum facilities for thorough vocational knowledge and training.

Number of Pupils employed under Contracts in Different Trades and Occupation and Attending Vocational Schools in 1965

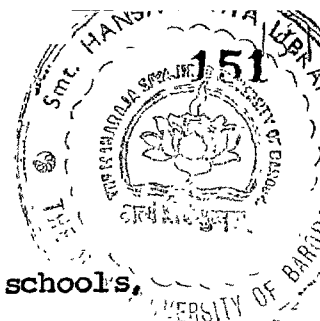
In 1965, 1468930 pupils attending part time vocational schools were under registered contracts as apprentices, semi-apprentices learnerships or as probationer trainees (Praktikanten), assistants (Mithelfende) or helpers, helpers in family trades or occupation and so on. Out of these, 570407 i.e. 38.8% were girls. The following table shows the number of pupils employed under contracts in different trades and occupations and attending the vocational schools of those trades and occupations.

TABLE 15

Number of Pupils employed under Contracts in Various Trades
and Industries for Training and Attending Vocational Schools in 1965

<u>Pupils employed under Registered Contracts</u> <u>as apprentices -semi-apprentices and</u> <u>probationers.</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
-Industrial Trades(Industries and handicraft trades).	656314	84657	740971
-Commercial Trades	176647	357793	534440
-Agricultural, Forestry and Fishery etc.	20507	763	21270
-Rural domestic trades - Farm women etc.	-	7135	7135
-Gardening trades	5391	3068	8459
-Miners' Trades	8876	27	8903
-Home economics and domestic science	-	10048	10048
-Other trades	30788	106916	137704
Total	26689	37175	63866
<u>Pupils employed as family helpers</u>			
- Agricultural trades	25993	31263	57256
- Outside of agriculture	698	5912	6610
Total	66304	162698	229002
<u>Pupils employed as Unskilled Workers</u>			
- Agricultural and gardening	2872	4417	7289
- Domestic work - Home Science	3	39404	39407
- Other (fields) types of work	33130	74738	107868
<u>Pupils who are unemployed or without</u> <u>work yet attend the vocational school</u>	3640	14606	18246
- - - - -	-	-	-

The table indicates that industrial trades (industries and handicraft trades) have listed the highest number for employment



contracts for pupils attending part-time vocational schools, then comes the commercial trades. The number of pupils helping in family trades - mostly on family farm and domestic work is also 63866. The unskilled workers number to 229002, the unemployed pupils were 18246.

Number of Pupils in Public and Private Full-Time Vocational Schools (Berufsfachschulen) in Federal Republic of Germany in 1965

The following table shows the number of pupils - both males and females in (Berufsfachschulen) public and private full time vocational schools in Federal Republic of Germany in the year 1965

TABLE 16

State (Land)	Full-time Vocational Schools (Berufsfachschule)		Classes	Number of Pupils			Private
	Total	Private		Males	Females	Total	
Schleswig-Holstein	64	10	133	1000	2087	3087	353
Hamburg	66	31	394	2518	4638	7156	1506
Niedersachsen	264	45	791	6332	10405	16737	3198
Bremen	11	4	84	769	1218	1987	477
Nordrhein-Westfalen	504	99	1584	14482	24174	38656	4991
Hessen	108	26	535	5090	9183	14273	3073
Rheinland-Pfalz	137	63	353	3821	6224	10045	3679
Baden-Württemberg	531	134	1693	14096	25582	39678	6319
Bayern	264	188	929	11235	16848	28083	16643
Saarland	51	6	132	1181	2424	3605	498
Berlin (West)	32	10	198	1061	3178	4239	1085
Total in Federal Republic	2032	616	6826	61585	105961	167546	41822

The above table indicates that -

- Out of 167546 pupils attending full-time vocational schools (Berufsaufbausehule), 105961 i.e. 63.2% were girls. This shows that these types of schools are more suitable or favourable to courses preferred by girls like training of stenographers, typists, secretaries as well as training in democratic skills etc. The same tendency was apparent in previous years also. The following tables shows it :

Year	No. of Pupils attending Berufachschulen		
	Males	Females	Total
1963	50510	91776	142286
1964	56200	97552	153752
1965	61585	105961	167546

The above table also shows that the number gradually increases year by year both among boys as well as girls to take part in these types of schools.

The following table gives a general idea about the distribution of pupils in various sectors of economic activities for training in full-time vocational schools in 1965.

TABLE 17

Courses offered for training in different occupations & Trades	No. of Schools	Number of Pupils		
		Males	Females	Total
Agriculture, industry, artisen trades and technical trades.	291	10137	4740	14877
Commercial and restaurant trades	855	50975	62329	113294
Domestic skills, child care and nursery, physical care and other womenly trades.	862	267	37948	38215
Artistic Trades	24	216	944	1160

This table clearly shows that in commercial trades, hotel and restaurant trades, domestic skills, childcare and nursery, artistic trade etc. are popular and suitable to women and hence they form an overwhelming majority in these classes.

Number of Pupils in Public and Private Fachschulen (Full Time Technical - Vocational Schools) in Federal Republic of Germany in 1965

The following table shows the number of public and private schools along with the number of pupils - both males and females in Fachschulen in 1965 in Federal Republic in various states. (Länder)

The table indicates that -

- Out of 2385 advanced full-time vocational schools (Fachschulen,) 923 i.e. 38.7% are private schools. So the role of private schools in this type of education is of sufficient importance. Again out of total 119989 pupils 40093 i.e. about 34.2% attend^{ed} the private Fachschulen.
- The number of girl students in these schools is much higher than the number of boys. There were 72205 i.e. 60.2% girls and 47784 i.e. 39.8% boys. The girls take up the full-time courses for training in insurance, commercial services, book-keeping, interpreters, social services, pharmacy, food, furniture, textile etc.

The same tendency was noticeable in the previous years also. The following table proves that fact. The table shows the number of males and females who attend^{ed} the Fachschulen from the years 1963 to 1965 in Federal Republic.

TABLE 18

Number of Pupils in Public and Private Fachschulen in Federal Republic of Germany in 1965

State	Fachschulen		Techni- cal School Classes	Students in Technical Schools (Fachschulen)						
	Total Tech- nical Schools	From that Private Schools		In		From that				
				Males	Females	Total	Private Schools	Males	Females	
										Total
Schleswig- Holstein	105	22	345	1749	3476	3225	1183	22	51	73
Hamburg	56	21	292	2100	2625	4725	596	13	55	68
Niedersachsen	303	87	463	4728	7380	12108	4269	42	28	70
Bremen	21	4	152	1328	1340	2668	353	32	13	45
Nordrhein-West- falen	642	323	2006	11971	18376	30347	10759	307	628	935
Hessen	206	67	669	3300	5961	9261	2590	70	159	229
Rheinland Pfalz	165	64	441	2663	3051	5715	1992	67	85	152
Baden-Württem- berg	338	95	935	7298	8931	16229	5090	200	311	511
Bayern	405	159	1519	9965	16207	26172	9802	553	673	1226
Saarland	35	8	79	652	866	1518	412	7	50	57
Berlin (West)	109	73	443	2030	3991	6021	3047	101	119	220
Total in Federal Repub- lic	2385	923	7362	47784	72205	119989	40093	1414	2172	3586

(Source: Deutsche ^{Statistisches} Statistical Jahrbuch, 1967. page 92.)

Year	No. of Pupils attending Fachschulen		
	Males	Females	Total
1963	47579	66891	114470
1964	47964	89148	117112
1965	47784	72205	119989

- There were 3586 i.e. about 3% foreign students also taking training in these courses. Out of 3586 foreign pupils, 2172 i.e. about 60% were girls.

The following table shows the various courses offered by the pupils in Fachschulen in 1965 in Federal Republic.

TABLE 19

Courses Offered	No. of pupils who offered the Courses			No. of Schools
	Males	Females	Total	
Household work, house keeping, health and sanitation services, social services.	5623	40282	45905	1285
Intellectual and artistic occupations.	6217	16310	22527	276
Agricultural Plant, Vegetables, nursery and animal husbandary	14983	6612	21595	541
Commercial, traffic, administration, management and legal professions.	9723	2133	11856	87
Industrial and artisan trades. (Industry and craft trades).	9157	2365	11522	123
Other technical occupations (Excluding engineering professions).	2081	4503	6584	73

Between 1957 and 1965, the following changes were observed in the distribution of pupils in Fachschulen according to economic sector :

TABLE 20

Economic Sector	1957	1963	1965
	%	%	%
Agricultural and animal Husbandary	37.9	20.4	18.2
Industry and craft trades	11.0	10.4	9.7
Other technical occupations (especially in mining sectors)	10.8	7.7	5.6
Business, communication, administration and other social services.	7.9	12.0	13.2
Health services, intellectual and artistic occupations, restaurant and personal services.	32.4	49.5	54.3

The table indicates that :

- There is a slight decrease of pupils in agricultural training and industry and craft trades.
- There has been a considerable decrease in the number of boys going in for mining and other technical occupations.
- There is slight increase in business, communication, administration and social services due to many girls coming forward for these jobs now than before.
- Girls also meet the growing demands for health and other social services.

Number of Schools and Pupils of Vocational Schools for
Upgrading Courses (Berufsaufbauschulen) in Federal Republic
of Germany in 1965

As previously mentioned, the establishment of Upgrading schools (Berufsaufbauschulen), is the recent development in German vocational training programme and these schools are also getting more and more popular among the pupils. These upgrading courses are chiefly meant for further education and instruction and provide full-time as well as part-time courses. Statistics on these courses date from 1962. Most of their pupils (about 80%) follow evening courses. Sometimes these schools are also called supplementary instruction schools because these schools give supplementary instruction to bring pupils to the standard for entry into post-secondary education. Mostly these courses are for the benefit of persons who have not gone through the normal channel of secondary education. To-day it offers an excellent opportunity to hundreds of pupils for further education and advancement according to their capacity.

The following table shows the number of schools and the number of pupils who attend^{ed} the vocational Upgrading schools - both full time and part time in various states in Federal Republic of Germany in 1965.

TABLE 21

Number of Students and Upgrading Schools in Various States of Federal Republic of Germany in 1965

State (Land)	Full Time Courses				Part Time Courses			
	No. of Schools	No. of Pupils		Total	No. of Schools	No. of Pupils		Total
		Males	Females			Males	Females	
Schleswig-Holstein	3	109	-	109	21	2150	64	2214
Hamburg	3	524	29	553	12	913	64	977
Niedersachsen	26	826	20	846	73	3820	52	3872
Bremen	3	71	23	94	5	477	26	503
Nordhein-Westfalen	93	2603	2448	5051	132	12994	658	13652
Hessen	14	589	21	610	55	4397	206	4603
Rheinland-Pfalz	7	481	11	492	23	1944	86	2030
Baden-wuerttemberg	31	2062	59	2121	64	3090	139	3229
Bayern	6	1017	198	1115	71	5835	1256	7091
Saarland	5	195	84	279	18	2046	116	2162
Berlin (West)	2	176	1	177	7	1161	58	1219
Total in Federal Republic	187	8553	2894	11447	481	38827	2725	41552 00

0 included in Part-Time Courses

00 From this number 25394 (including 1631) pupils still attended part-time vocational schools.
(Berufsschule).

The table indicates that -

- The number of schools for part-time courses is larger than the schools for full-time courses, and the number of pupils attending part-time courses is also much higher - about four times than the full time courses and the number of pupils attending part-time courses is also much higher - about four times - than the full time courses.
- Again the number of girls pupils in such courses is much less than the number of boys. It is about 25% in the case of full-time courses, which some girls prefer to offer. But it is only 6.5% so far as the part-time courses are concerned. Girls seem to be less eager for further education. They are perhaps more interested in earning as much as possible before marriage and do not bother about further supplementary courses.

In September, 1959, the Permanent Conference of Ministers of Education (Kultusministerkonferenz) issued a declaration of principles concerning vocational upgrading courses for young workers. The rapid expansion and development of these courses within the vocational school system called for a new statement to supplement the 1959 declaration.

These upgrading courses at the vocational schools provide further education and instruction at the level of the full secondary school programme. Obviously, the fast occurring technical changes along with rationalisation and automation increase the demand for people who can take over wider functions and upgrading courses help in achieving this task.

Generally, the system of upgrading courses comprises five streams; general vocational, vocational/technical, commercial, social studies and agriculture. The syllabus is partly the same for all streams. They all, for example, include instruction in general education, social studies and other subjects including mother tongue and a foreign language. Other subjects are determined according to the streams selected, e.g. drawing for the vocational and technical streams, accounting for commercial, biology for social studies and agricultural streams etc. Some common subjects like religious or so are also determined by the regulations applying in the States concerned.

Generally upgrading courses are organised as full time study - 3 semesters, or as part-time study - evening or weekend courses over six to seven semesters, or as a course which utilises both systems. On the whole, the total number of hours for a trainee (who has eight or nine years of primary education) is expected to be atleast 15-- hours. At least one quarter of this time is devoted - or is ideal to devote - to general education and social studies which help to make useful and responsible citizens. The following table shows that the evening courses (part - time) are more suitable and convenient to the youth than the day school courses (full time). It also shows that the number of girls offering these courses is relatively less. The table shows the

number of pupils of upgrading courses from 1963 to 1965
in Federal Republic.

TABLE 22
Number of Pupils attending Upgrading Courses in Federal
Republic from 1963 to 1965

Year	No. of Pupils attending Day School (Full time) Courses			No. of Pupils attending Evening school (Part- time Courses)			Total No. of Pupils attending Upgrading Courses
	Males	Females	Total	Males	Females	Total	
1963	6572	233	6805	41330	1901	43231	50036
1964	7414	2138	9552	37565	2196	39761	49313
1965	8553	2894	11447	38827	2725	41552	52999

The table shows that every year about 50000 pupils take advantage of these upgrading courses for further training and development.

For admission to upgrading courses, students should have completed primary school education and have proved apt for further studies during at least six months of apprenticeship with related instruction given at the vocational schools.

Obviously, upgrading courses are terminated by a final examination. A successful pass in the examination is a proof of competence at higher vocational examination (Fachschulereife) level. Passing this examination gives access to schools for higher technicians and to general secondary schools which prepares for the specialised university entrance (Fachgebundene

Hochschulreife). The higher trade certificate is considered an equivalent to the middle-school certificate.

It is also considered that such upgrading courses are an essential factor in the 'Second Channel' (Zweiter Bildungsweg) for entering higher education. It also helps to establish a new concept of training and education on a wider scale. In fact, it helps the educational system to meet the cultural and social requirements of present day society.

Vocational School Attendance in Each Type of School in Federal Republic of Germany

It is interesting to know that the total number of pupils in all types of vocational schools - part time as well as full time - was 2410700 in 1957. But in 1963 the same number falls to 2004550 i.e. the number of youth undergoing vocational training falls from about 2.4 million to 2 million in five years. Perhaps the decrease corresponded to the lower birth rate between 1942 and 1948. But from 1964 the situation was reversed, in 1965 the number gradually rose again to 2120578, an approximate increase of hundred thousand pupils from 1963 to 1965. The following table shows the percentage of pupils - both boys and girls - in each type of vocational school, in 1957, 1963 and 1965 in Federal Republic.

TABLE 23

Percentage of Pupils in each Type of Vocational Schools
from 1957 to 1965 in Federal Republic of Germany

School Year	Sex	Percentage of attendance in various schools			
		Part-time ¹ vocational schools	Upgrading ² courses schools	Full-time ³ vocational schools	Advanced ⁴ vocational schools (Tech.Sch.)
1957	Males	91.7	Did not exist	3.3	5.0
	Females	84.5		10.6	4.9
	Total	88.4		6.6	5.0
1963	Males	86.6	4.4	4.6	4.4
	Females	82.7	0.2	10.1	7.0
	Total	84.4	2.5	7.1	5.6
1965	Males	86.4	4.1	5.3	4.2
	Females	81.0	0.5	11.0	7.5
	Total	84.0	2.5	7.9	5.6

1. Berufsschule 2. Berufsaufbanschule
 3. Berufsfachschule 4. Fachschule.

An Analysis of One Study

An analysis¹ of the situation of the part-time vocational schools (Berufsschulen) in the 10 States (Länder) of the Federal Republic of Germany (including West Berlin) showed that their position was far from satisfactory. Although more than 10 hours per week of general and related instruction are to be considered necessary for training skilled workers under today's technological conditions, which often change so fast,

¹Ehrenberg, Dr.Herbert. 'The Situation of Vocational Schools in Federal Republic. (Die situation der Berufsschulen in der Bundesrepublik) in 'Information über das berufliche Bildungswesen, Düsseldorf, Vol.14, No.9/10, Sept.-Oct. 1963, pp. 7-8.

the laws of only three states (Länder) provide for 12 hours per week; all others prescribe 8 to 10 hours. It is surprising to find that not all the trainees receive the minimum of 8 hours of instruction. It is found that in only 7 cases more than 60 percent of all trainees receive the minimum of eight hours of instruction. The highest percentages are reached in West (Berlin) (95) and in Hamburg (91); the situation is worst in Rheinland - Pfalz (21 percent) and in the very important industrial region of Nordrhein - Westfalen (30 percent). In four States, between 20 and 50 percent of the trainees receive, at most, six hours of instruction per week; in another four, the corresponding figures fall between 10 and 20 percent, in only three states they are ^{lower} than 10 percent. This situation has attracted the attention of all the educationists in Germany and now all efforts are made by each of the State to provide for maximum hours of instruction 8 to 10 hours per week, varying according to the occupation or trade chosen.

The following chart¹ shows the dissatisfied position mentioned in the previous paragraph.

The hours of time provided (expected) and the actual practice in part-time vocational schools (Berufsschulen) in various states (Länder) in Federal Republic (in 1961).

¹Deutscher Ausschuss für das Erziehungs- und Bildungswesen 'Empfehlungen und Gutachten' (Folge 7/8). Ernst Klett Verlag, Stuttgart, p.104.

TABLE 24

Hours per Week expected and Actually provided in Part Time
Vocational Schools in Various States in Federal Republic
in 1961.

States (Länder)	Periods (Hours per week provided)	Percentage of classes which follow period(time) provided	Percentage of classes which fail to reach the hours provided
Baden-Wurtemberg	10(8) ¹	30	39.6
Bayern	8(9) ²	73.4(67) ¹	8.9(37.1) ¹
Berlin (West)	8(12) ³	95	4.1
Bremen	12	10	26.2
Hamburg	8(12) ⁴	91 ⁵	9.5
Hessen	8+1 Religion	61	38.6
Niedersachsen	8	39.2	60.8
Nordrhein-West- falen	9(11) ⁵	7.8	69.9
Rheinland-Pfalz	7+1 Religion	21	78.7
Saarland	10(Data not available)	-	30.2
Schleswig-Holstein	8	73.2	26.8 ⁶

Average Number of Pupils in Each Class (Class-Pupil Ratio)

But the situation ~~of~~ is somewhat better with regard to the size of the classes. On the average, the number of trainees per

¹Agriculture and Domestic Science

²Commercial Schools - or Schools with practical lesson

³Commercial Schools

⁴Maximum

⁵35 percent more than 8 hours

⁶Except agriculture

class varies between 20 and 26. This is relatively satisfactory if one assumes that the desirable size is 20 to 22 trainees per class. The quantity and quality of instruction can be maintained at an acceptable level under these conditions. In 1965 there were 1780044 pupils in part-time vocational schools (both public and private) and there were 75625 classes so the average class consisted of about 23 pupils which can be considered satisfactory.

In Full-time vocational schools (Berufsfachschulen) in 1965 there were 6826 classes for 167546 pupils, so the average ratio was 24 pupils per class.

In full-time Advanced Vocational schools or technical schools (Fachschulen) in 1965 there were 7362 classes for 119989 pupils. Hence the ratio per class was 16 students, a very encouraging and efficient position for advanced vocational training.

Generally for vocational schools, if there are twenty or more pupils a new class is started for that special field but if the number is too less than a 'group class' or a 'combined class' of pupils of similar occupations is formed for some instructions.

The Pupil-Teacher Ratio

Another important factor is the number of teachers. The educational authorities consider 0.4 teachers per class a desirable proportion. Assuming the average class size of 20, there should be thus one full-time teacher per ⁵⁰ trainees. In 1961, this, or a better ratio was achieved only in West Berlin,

Hamburg, Bremen and Saarland. All other States had lower teacher-trainee ratios, ranging from 1:61 in Baden-Wurttemberg to 1:81 in Rheinland-Pfalz.

In 1961 there were 1635487 pupils in part-time vocational schools while there were only 23689 full-time teachers so the ration of teacher/pupils was 1:69. But there it should be remembered that the vocational schools do employ some part-time teachers to meet the requirements.

In 1965 there were 1780044 trainees in part-time vocational schools and 24355 full-time teachers. So the ratio was 1:73 more discouraging position than in 1961. There is absolutely no doubt that the German Vocational Schools are really suffering from shortage of trained and qualified full-time teachers.

In full-time vocational schools (Berufsfachschulen) in 1961, the ratio was 1:19 as the pupils were 139560 and the full-time teachers were 7447. But in 1965, this ratio went higher to 1:22 when the students were 167546 and the full-time teachers were 7759.

In advanced full-time vocational technical schools (Fachschulen) in 1961, the ratio was 1:17 when the full time teachers were 7219 and the pupils were 121051. In 1965, the ratio was 1:17.7 a slight^{ly} higher than in 1961. The pupils were 119989 and the full-time teachers were 6764. Thus the fair ratio is maintained in full-time vocational schools which is absolutely important as they train the youth for advanced vocational training.
