

AN ABSTRACT OF THE THESIS OF

HERBERT WILLARD EWEN ----- for the M.S. ----- in EDUCATION -----
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SUBJECTS TAUGHT BY TEACHERS IN OREGON HIGH SCHOOLS

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Abstract Approved: -----
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This study provided information about the relationship of academic preparation for subjects taught in Oregon high schools by 1,516 teachers in 1934-1935, by 1,557 teachers in 1935-1936, and by 410 newly employed teachers for the year 1935-1936. In the analysis of these facts the schools have been classified into three divisions on the basis of size of teaching staff. The extent of preparation was measured by a college major or minor norm in the first phase of the report and by certain established standards of credit hours in the second phase.

It was found that teachers of the smallest schools are teaching more subjects outside of their field than subjects for which they are prepared. In schools slightly larger the per cent of subjects taught for which there is neither a major nor a minor varies from approximately 30% to 40%. In Groups VI and VII there is evidence of more subjects being taught for which there is adequate preparation. Of the total number of subjects taught which are included in the 1934-1935 investigation, there was 30.3% being taught with neither major nor minor preparation as compared to 27.8% in 1935-1936. A larger percentage of teachers employed to teach home economics or agriculture have majors or minors than for other subjects. Preparation for teachers of commercial subjects is less than for any other subject for which there is a comparable number of reports. Only in home economics, agriculture, music and art does the number of teachers having majors for subjects taught exceed 50%.

The situation for 1935-1936 is only slightly better than for 1934-1935.

Of the 410 new high school teachers who were employed to teach in Oregon high schools in 1935-1936, less than one half were teaching subjects for which their preparation was equal to the credit hours that will be required of teachers employed after September 1938.

Authors of related studies have reported findings which led to conclusions and recommendations to many of which this study adds confirmation. Some of these with additional generalizations are:

1. Teachers should be trained in at least three subjects. There are but few teachers who have not been called upon to teach some subject in which they were not prepared.

2. A committee be established which is part of the State Department of Education to make an annual investigation of the supply and demand of teachers for any given subject.

3. A greater amount of cooperation on the part of employing superintendents to schedule teachers for the subjects they are prepared to teach.

4. A state might issue certificates to teach only specific subjects rather than offer general certification.

5. Elimination of the smaller schools through consolidation. Studies have provided evidence that there is a financial saving to the district and it is safe to assume that students will be benefited by studying under teachers who are more likely to be teaching their major or minor subjects.

6. The Educational Departments in institutions which train teachers might further investigate the adoption of a testing program for any student desiring to enroll with the intention of becoming a teacher. This might lead to the detection of certain qualifications which the student lacks and which are deemed necessary to successful teaching.

7. Some educators believe it advisable for certification departments of the state to again use the testing program for issuing certificates to teach. Such a test should allow the teacher to demonstrate skills and knowledges secured in academic preparation, rather than for the department of certification to grant a certificate just because an applicant has a degree and can show the required credit hours of professional training.

A STUDY OF THE RELATIONSHIP OF ACADEMIC TRAINING
TO SUBJECTS TAUGHT BY TEACHERS IN
OREGON HIGH SCHOOLS

by

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Professor of Secondary Education

In Charge of Major

Redacted for Privacy

Head of Department of Education

Redacted for Privacy

Chairman of School Graduate Committee

Redacted for Privacy

Chairman of College Graduate Council

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CHAPTER I

INTRODUCTION

Many are the problems which exist in connection with the preparation of high school teachers and the assignment of subjects by the school authorities. Prior to 1880 the only subjects which were important in preparation for teaching in high schools were mathematics, science, history, foreign languages, and English. The chief objective at that time in the high school was preparation for college and the general policy of issuing a certificate to teach was by examination.

Educational leaders soon added professional requirements to the teachers' training until the academic preparation was given secondary consideration. It was realized that teachers need a broad background of general education, with an understanding and appreciation of other fields than the one in which teaching was to be done. Legislation throughout the country demanded stricter requirements to obtain a certificate and in 1911 a law was enacted in Oregon specifying that the training of high school teachers should be a function of colleges and universities. However, filling all high school positions with possessors of a degree is a slow process. An investigation made in Ohio

(13) in 1914 showed that teachers in high schools, in villages, and cities at that time had insufficient academic training, probably as high as 60% not being college graduates and as high as 19% not being high school graduates.

Certification by examination in Oregon for regular teachers was abolished December, 1936. An applicant for a high school position must now be a graduate from a standard college or university. Certain minimum requirements have been established regarding his professional and academic training. Dr. Pannell (14) says, "It is commonly assumed that a prospective high school teacher should prepare to teach one or two subjects and that when he completes the four year course and goes out to teach in high school, these will be the subjects he will teach." He states that for this reason it is required that a student prepare himself in a major and in a minor field. He also states, "There has been no unanimity of practice among teacher training institutions concerning the quantitative prescription for an academic major or minor, a minimum requirement of 24 semester hours for majors and 18 semester hours for minors has been the accepted standard in a majority of schools."

A candidate for a Bachelor of Science degree in Education in Oregon is required (17) to have thirty-six term

hours in education, twenty-seven being in the upper division. Prospective teachers receiving a degree in another field must take twenty-three term hours in education. In addition a student must have a major and minor norm, or in some instances three minors are accepted instead of the major and minor requirement. It is recommended that to be better qualified a student complete three subject matter norms (a major and two minor norms) and qualify for the supervision of an extracurricular activity.

TABLE I

The Number of Credits Required for Major and Minor Norms
Offered at Oregon State College and the
University of Oregon.

SUBJECTS	O. S. C.		O. of Ore.	
	Major	Minor	Major	Minor
Agriculture	36	24	--	24
Biological Science	36-36	24	--	24
General Science	37	31	--	33
Home Economics	40	30-33	--	26-27
Industrial Arts	39	26	--	--
Mathematics	30	24	--	23
Physical Science	36-39	27	--	24
Secretarial Science	45	24	--	--
Art	--	24	43-54	30
Business Administration	--	27	43-47	28
English and Speech	--	27	48	29
French	--	27	54	39
German	--	27	54	39
Social Studies	--	26	40-44	26
Music	--	24	51	24
Physical Education	--	24	42	24
Spanish	--	27	48	39
Latin	--	--	42	36

STATEMENT OF THE PROBLEM

The purpose of this investigation is to determine the extent to which the teachers in Oregon high schools teach the subjects for which they have had college training.

Two phases of the study are considered. The first consists of information about 1516 and 1557 teachers employed in Oregon high schools in 1934-1935 and 1935-1936 respectively and to what extent they taught their major or minor subjects. The second phase of the study concerns 410 new teachers employed to teach in Oregon high schools during 1935-1936.

In the first study those who taught high school subjects in the Junior high schools were included. Teachers of the Portland high schools were excluded, since information concerning them was not available. Likewise a few reports did not state which subjects were taught or the major and minor subjects for which some teachers had prepared. Information concerning teachers of private schools was not used. The study therefore includes only those teachers who gave information concerning their majors and minors and the subjects they teach. This accounts for the differences in the total number of teachers studied for each year. Because a different situation exists in a larger

school than in a smaller one, all information was divided into seven groups according to the following arrangement:

- Group I -- Schools employing only one teacher.
- Group II -- Schools employing only two teachers.
- Group III -- Schools employing only three teachers.
- Group IV -- Schools employing only four teachers.
- Group V -- Schools employing only five teachers.
- Group VI -- Schools employing six to ten teachers.
- Group VII -- Schools employing eleven or more teachers.

Many schools use part-time teachers. Where this occurred the full time equivalency of part time teachers was added to the number of full time teachers, and any fraction less than one-half was dropped. A fraction of one-half or greater was counted as one full time teacher.

In the study of the new teachers the number 410 represented only those for whom complete information was obtainable. However, very few cases had to be excluded for this reason. The information desired and the teachers included or excluded was the same as for the other study. In addition it was possible to learn whether or not the subjects taught met certain standards (see page 8) established at a conference of representatives from all of the institutions of higher learning in Oregon held in the office of the State Department of Education May 9, 1936.

SOURCE OF MATERIAL AND METHOD OF PROCEDURE

Data concerning all high school teachers used for 1934-1935 and 1935-1936 were obtained from the Annual Report

submitted to the State Superintendent of Public Instruction by school superintendents. Information about the 410 new teachers employed in 1935-1936 was taken from Report of High School Teacher Preparation cards sent to the State Superintendent of Public Instruction by the respective superintendents of new teachers. (See Appendix)

From the face of the Annual Report the number of full-time teachers and the full-time equivalency of part-time teachers were obtained. The sum of these numbers was used although a few more teachers names might appear on the list of the teaching staff of schools in the larger groups. These few names represent some of the part-time teachers. A principal was counted when he was teaching subjects as is the case in all but the largest schools.

No attention was given to credits listed in the "Additional Preparation" column unless it was sufficient to meet a minor norm set up in the preceding list of norms offered at the State College and University. Data was recorded on a master sheet each time that a teacher listed a subject taught, according to whether there was major, minor, or neither major nor minor preparation. Sometimes this would be listed as a subject and sometimes as a field, so that eventually data was recorded in terms of teaching fields. The fields used and the grouping of subjects listed under each are:

ENGLISH--Oral English, Dramatics, Journalism, Business
 English
 SOCIAL SCIENCE--History, Social Problems, Economics,
 Civics, Geography
 NATURAL SCIENCE--Biology, Chemistry, Physics, Elementary
 Science
 MATHEMATICS--Geometry, Algebra, Higher and Commercial
 Arithmetic
 COMMERCIAL--Commercial Geography, Commercial Law, Book-
 keeping, Business Training, Shorthand,
 Typewriting
 HOME ECONOMICS--Home Economics, Home Nursing, Related
 Arts
 INDUSTRIAL ARTS--Mechanical Drawing, Building Trades,
 Printing
 PHYSICAL EDUCATION--Coaching, Gymnasion, Health
 AGRICULTURE--Agriculture, Soils
 MUSIC--Vocal, Band, Orchestra
 GUIDANCE--Orientation, Vocations, Occupations
 ART
 LATIN
 LANGUAGE--French, Spanish, German
 PSYCHOLOGY
 LIBRARY

This same list of fields is used in grouping of sub-
 jects for 410 new teachers. From the cards used in col-
 lecting this information it was possible to learn the actual
 amount of term hours preparation in each subject as well
 as the major or minor subject. Particular emphasis was
 placed on these credit hours to see if they conform to
 standards which will be required of new teachers employed
 after September 1938. The basis for the adoption of these
 standards is taken from The Thirty-Second Biennial Report
 of the Superintendent of Public Instruction for the School
 Years Ending June, 1935 and 1936 (14) are as follows:

"In the selection and placement of high school teach-

ers the matter of preparation for the particular subjects or fields in which they are actually to teach is also receiving careful attention. Especially in small high schools teachers are often given assignments for which they have little or no specific preparation. This is obviously educationally unsound. In order to work toward a correction of this weakness one of the standards for accreditation of high schools established by the State Board of Education is based on preparation of teachers for the subjects which they teach. In an effort to determine the extent of the preparation in each teaching field that is considered adequate, a conference of representatives from all of the institutions of higher learning in Oregon in which high school teachers are being trained was held in the office of the State Department of Education May 9, 1936. In this conference it was agreed that in the training of new teachers the minimum number of term hours of preparation required in each subject field should be as indicated below. Two or more years of successful experience in teaching a subject may, on recommendation of the employing superintendent, be accepted in lieu of one-half the number of hours required for a teacher of that subject. These standards will not apply to teachers already employed in any given year after September, 1938."

The standards established for training in the various fields are as follows:

English: A minimum of 36 term hours, including at least nine term hours in composition and rhetoric. It is recommended that a substantial amount of work in speed be included in this training.

Language: The equivalent of 30 term hours of college preparation in each language to be taught. High school credits evaluated in terms of college hours may be accepted in meeting the minimum requirements.

Social Studies: A minimum of 36 term hours including at least 18 term hours in American and European or World history and five term hours each in at least two of the following subjects: government, economics, sociology or geography.

Mathematics: A minimum of 15 term hours of college mathematics.

Commerce: Shorthand--18 term hours; this may include high school or business college courses evaluated in terms of college hours or equivalent performance standard.

Typing--Six term hours including credits from high school or business college courses evaluated in terms of college hours or equivalent performance standard.

Bookkeeping, business training, and commercial law--24 term hours in accounting and business administration.

Natural Science: Elementary science--a minimum of 24 term hours in the natural sciences including at least nine term hours in physical science and nine term hours in biological science or in combined courses of botany and zoology.

Biology--A minimum of 18 term hours in biology or in combined courses in botany and zoology.

Physics--A minimum of 12 term hours.

Chemistry--A minimum of 12 term hours.

Physical Education and Health Education: A minimum of 12 term hours each in physical education and health education.

Industrial Arts: A minimum of 24 term hours.

Home Economics: A minimum of 24 term hours.

Agriculture: A minimum of 24 term hours.

LIMITATIONS OF THE PROBLEM

The above standards mention that credit will be given in certain subjects for training not received in college. On the cards, however, credit was given only college preparation, so that in such subjects as shorthand, typing, and language the teacher's preparation may be understated. This also will hold true for the part of the study taken from the annual reports. A transcript of all preparation for each teacher would give more reliable data.

In some cases a teacher lacked just a few credits in some subject to meet the standard. One teacher had thirty credits of English preparation which fact indicated a high degree of training. For the purpose of the study this teacher was listed as not meeting the standard. In other words, the difference in training between certain teachers who are meeting the standard and those who are not is often negligible.

CHAPTER II

STUDY OF SIMILAR SUBJECTS

Studies similar to the present have been made and reports have been published on the training of high school teachers in relation to the subjects which they teach. Some of these investigations were made by committees from state educational and others by candidates for advanced degrees. Information was included which concerned subject combinations, teaching loads, and the amount of professional training of teachers. These studies have close relationship but are not within the scope of this theses.

The following summaries of published reports give an idea of the situation as found elsewhere with the various view-points of the authors.

John V. Mechlin (9) expressed himself as being opposed to the practice of requiring an undergraduate to study too many professional courses such as teaching methods, history of education, and character education. He contended that this requirement deprived the student of time that he could otherwise use in becoming well-grounded in subject matter. The tendency was to make knowledge of subject matter secondary to pedagogical technique. He also pointed out that high school teachers should have knowledge of other fields than the one in which they teach.

Miller (10) made a comparative study of the college preparation for subjects taught, of degrees possessed, and of the professional preparation of teachers in the accredited public high schools of Illinois outside of Chicago. In regard to degrees possessed Miller found that of 4,230 teachers 441 (10.4%) had no degree, 3,476 (82.2%) had a bachelor's degree, 311 (7.4%) had a master's degree and 2 (.5%) had a degree of Ph.D. The study revealed that the academic preparation of teachers in the various subjects differ widely in amount and that the teachers in 1932-1933 had a greater amount of academic and professional preparation than teachers in 1931-1932. There was evidence that too many teachers had only a meager amount of academic and professional preparation in addition to the minimum requirements and that too many teachers had even less than this minimum requirement. It was also pointed out that teachers in schools with greater enrollments had greater amounts of academic preparation, but teachers had practically the same amount of professional preparation regardless of enrollments of the schools in which they teach.

Fitzpatrick and Hutson (5) point out, "Whenever an analysis of preparatory training has been made it is frequently evident that there is not adequate preparation in the subjects the teacher is teaching. This is true not only among teachers of three and more subjects but also

among those teaching two subjects or even one." It was also stated that subject matter is as important as professional courses in the training of teachers. The authors also believed that practically all teachers had at some time or other taught subjects in which they had inadequate preparation. Principals were reported as giving the following reasons for assignments of teachers considered inadequately prepared academically: practical experience, teaching experience, teachers' preferences, no teacher had special preparation, and the fact that other teachers had a maximum load so that there was no one else to take the subject. It was recommended that a student's knowledge of his particular subject should not be limited to his courses but should cover the general field of subject matter. It was also suggested that the number of small high schools be reduced and that teachers be trained in two or three subjects.

Baer (2) reported in 1928 a study of 2,049 college graduates in Ohio, of whom 1,468 were teaching in the senior high schools and 686 were teaching in the junior high schools. He found that about one-fifth of all the teachers were teaching subjects for which they were not adequately trained. In the senior high school 61.5% of the teachers were teaching only those subjects for which they had trained and 17.8% were teaching one subject for

which they had training, together with some other subject or subjects. Teaching neither their major nor their minor were 15.2% of the women and 31% of the men. Of the 954 teachers of English, 378 (44%) had an English major or minor. Only 31% of the history and civics teachers had a major or minor in history. Home economic teachers showed 54 majors and minors with 47 teaching the subject. More Latin teachers had their training in English than in Latin. Ninety-eight Latin teachers out of 330 were trained in English and only 94 in Latin. Only to a limited extent were teachers found to be teaching the subjects for which they were trained.

In a survey of Alaska high schools published in 1930, Breuer (4) pointed out that most of the high schools are small and have limited teaching staffs, and for that reason teachers are called upon to teach subjects other than those in which they have majored or minored. Nine of the fifteen high schools in Alaska were reported to be accredited and employing each from four to eight teachers. It was found that 19.44% of those teaching in accredited schools and 12.96% of all the high school teachers were teaching their major subjects, that 25.92% were teaching their major and minor fields, and that 9.26% were teaching their minors only. The author stated that statistics gathered tended to support the belief that specific teach-

combinations can be arranged and teachers secured to teach such combinations.

Earl Anderson (1) published a report based upon data obtained by Louthian of the Ohio State Department concerning 1,867 (91%) of 2,050 graduates of Ohio Colleges. The majors and per cent of those who were teaching their majors were as follows:

Home Economics	98%	Science	47%
Industrial Arts	89	History	40
Commercial Subjects	89	Public Speaking	39
Music	88	Chemistry	38
Vocational Education	83	English	37
Agriculture	82	French	28
Physical Education	75	Geography	28
Political Science	75	Biology	26
Mathematics	67	Physics	23
Art	64	Social Science	20
Latin	56	German	10
Language	50	Spanish	3

Elmer Swedine (18) made a study of the relation of subject combinations taught to the majors and minors of the University of Washington graduates teaching in the state during 1929-1930. He found the condition in Washington to be better than in most states but stated that there was no common basis to get specific data. The study showed that a greater number (33.3%) were teaching but one subject than any one combination of subjects. There were so few teaching more than a three subject-combination that training in three subjects appears to be adequate. Swedine concluded that, "There is no guaranty that teachers will teach in fields of their majors and

minors; the use of the major alone and the major in combination is the most frequent use of training; any specific subject taught in combination with other subjects is combined apparently on the basis of chance; there is no standardized practice for a specific combination of subjects; and there is no standard practice in combining extracurricular activities with subject matter." The author recommended that some effort be made to control the number and type of subject matter combinations taught and that perhaps subject combinations be limited to related fields.

In the Alabama study Pannell (14) showed that approximately one-half or 49.39% of high school teachers reporting taught a single subject, 27.75% taught two subjects, 13.44% taught three subjects and 9.42% taught four or more. Almost one-fourth of all high school teachers taught three or more subjects. Five subjects of the high school curriculum were taught either as single subjects or in combinations by four-fifths of all high school teachers of the state. These five subjects are English, mathematics, social studies, home economics, and science. Subject combinations, while showing a need of standardization, tend to be grouped about related fields. The most frequent two-subject combinations are: English and social studies, English and French or Spanish, mathematics and social stud-

ies, mathematics and science. Beyond the two-subject combination there is much less standardization. A portion of a table is presented for comparison with tables on pages 43 and 45.

Teaching Subjects of 1580 Washington High School Teachers
in Relation To Major and Minor Subjects of
Preparation in 1934-1935, 1935-1936

TEACHING SUBJECT	PER CENT OF MAJORS	PER CENT OF MINORS	PER CENT NEITHER MAJOR NOR MINOR
ENGLISH	71.1	19.4	9.5
SOCIAL STUDIES	50.7	22.2	27.1
NATURAL SCIENCE	44.3	24.6	31.1
MATHEMATICS	36.1	17.9	46.0
COMMERCIAL	14.7	11.8	73.5
HOME ECONOMICS	78.4	9.7	11.9
AGRICULTURE	74.4	18.2	7.4
LATIN	54.7	22.6	22.6
LANGUAGE	56.3	29.2	14.6
INDUSTRIAL ARTS	14.3	14.3	71.4
PHYSICAL EDUC.	23.1	7.7	69.2
GUIDANCE			100.0
MUSIC	28.6	14.3	57.1
ART	66.7		33.3
TOTAL	55.3	18.9	25.8

The Alabama study also showed which subjects a major in a given subject was most likely to be asked to teach.

The following subject-major groups seemed most common:

English--English, Social Studies, Language, Math.
 Science--Science, Math., Physical Ed., Social Studies.
 Mathematics--Math., Science, Social Studies, English.
 Agriculture--Science, Agriculture, Math., Physical Ed.
 Home Economics--Home Econ., Physical Educ., Science.
 French--French, English, Social Studies, Math.
 Latin--Latin, Math., English, Social Studies.
 Spanish--Spanish, French, Latin.
 Physical Ed.--Social Studies, Physical Ed., Math., Home
 Economics.

Pannell did not find a single subject of the high

school curriculum which was taught by a group of teachers all of whom have had a minimum of a college minor in that field. Subjects such as agriculture and home economics had a relatively low percentage of teachers without subject specialization as measured by a major or minor. The teachers of occupational studies, commercial subjects, manual arts, and physical education in the order named to have had the least subject specialization. Mathematics ranked highest among the more traditional subjects in the proportion of teachers without a major or minor or specialization. Only 55.3% of the teachers were teaching subjects for which they had a college major, 74.2% teaching subjects for which they had either a major or a minor, and 25.8% teaching subjects for which they had less subject specialization than a college minor.

In the summary of his findings the author says: "City high schools are no more specialized in their respective fields than the rural schools, indicating a failure of authorities to avail themselves fully of the inherent advantages of the city high school in assigning work to their teachers." He recommends additional research involving studies of supply and demand, stating that more careful and informed guidance of prospective high school teachers in selection of their major teaching field is needed. Other recommendations were: a plan of certification so adjusted

adjusted as to certify teachers in the fields for which they have had specialized preparation only; thorough cooperation on the part of authorities responsible for employing and assigning teachers and for accrediting high schools, to the end that all high school subjects may be taught by teachers with subject specialization; a year to year investigation of the supply and demand of teachers for various high school teaching positions made by the State Department of Education; a gradual elimination of smaller high schools through consolidation in the interests of better instruction; and a sound minimum salary schedule established by the State Department designed to reward successful teaching experience, individual merit, and training.

Koos and Woody, (8) in the Washington study, found that about two-fifths of the teachers taught one or two subjects, two-fifths taught three subjects, and over a fifth taught four subjects. History was the subject in which teachers seemed to be most poorly equipped academically. Teachers of commercial subjects seemed to have received their training in subject matter in private business schools, most of which were no higher than secondary-school grade. Home economics fared the best and botany, chemistry, and physics the poorest of all subjects in point of preparation in subject matter of those who were teaching each subject. Only four-fifths of the teachers

were teaching their major subjects. Less than three-fourths were teaching their first minors, and almost a third were teaching subjects in which they had as little training as is implied by a second minor. Almost one-half were teaching other subjects in which they had little or no college preparation. Teachers were found to be inadequately prepared in commercial subjects and in manual training. Superintendents reported a desire for teachers with much more extended special preparation for the subjects taught than the teachers actually had. In general it was found that teachers too frequently had a very meager preparation in higher institutions in the secondary-school subjects in which they were given instruction. This was attributed to the large range of subjects instructors were required to teach in the high school in conjunction with the fact that our institutions prepare teachers for teaching one or two subjects only. In conclusion the authors recommended that educational associations operating over wide areas should institute investigations, large in scope and as scientific as might be, aiming to discover what should now constitute the professional training of the high school teacher.

In an investigation in Iowa by Inman (7), reported in 1928, 1,048 high school teachers were included. It was indicated that regardless of his major subject a teacher

would undoubtedly be called upon to teach other subjects. In this connection, out of 629 teachers taking French in college, only forty-five had taught it. It was found that course requirements had only a slight effect upon the choice of specific courses. English, mathematics, and history were the predominant teaching subjects. Since most teachers were called upon to teach three or more subjects during the first year and four or more subjects during the first two years, it was suggested that beginning teachers be trained in at least four teaching subjects. Physics, manual training, and home economics were much less likely to be taught as the major subject during the first years of teaching than later. About 30% of the teachers were fairly well-prepared, about 60% were prepared to teach some of the subjects taught, and about 10% were not well-prepared for any subject taught. The authors concluded that, "Work should be organized around large blocks of related subject matter of general fields rather than along the line of narrow specialization needed by the research student and the specialist. Three of these fields are mathematics and science, social studies, and language. Prospective teachers should have a broad training in one field and perhaps special training in some particular part of the field."

F. P. Obrien (12) made a study of the preparation of

high school teachers in Kansas which was published in 1926. He compared his findings through each step with the findings in the Minnesota (11) and Washington (8) studies. He grouped the high schools into three divisions on the basis of size of teaching staff. Those which employed not more than 10 teachers comprise Group I; schools which had from 11 to 29 teachers comprise Group II; and Group III includes the schools which employed 30 or more teachers in the school. Seven per cent of 4,246 teachers were found to be teaching a single subject in Group I as compared with 33% of 508 teachers in the third group. It appears that English, homemaking, commercial work, music, and mathematics are the subjects which are taught singly much more frequently than any others. Agriculture and commercial subjects are taught by relatively unprepared teachers in the small schools. The author found that in all three groups of schools the teachers who had the least preparation in the subject taught were teaching sociology, economics, physiology, psychology and physiography. In explanation he says, "Since none of these five subjects represent more than one or two semesters of work in the high-school curriculum, it is the more easy to understand why so few teachers are well-prepared in them and why schools have not more generally demanded adequate preparation in these subjects when employing those who are to

teach them."

It was shown that with reference to the number of classes daily some teachers in the small high schools have eight classes exclusive of other responsibilities. The teaching schedule of a teacher in the small high schools usually involved such a diversity of subjects, with small classes in each, that the need of a larger administrative unit become evident. The teaching work did not seem to be assigned in such a way as to utilize very fully the academic preparation of the teachers. As high as one-third of those who majored in some subjects taught no class in the subject. Many others taught but one class in their major field. The author recommended a minimum standard of ten hours of college preparation for every subject taught.

CHAPTER III

AN ANALYSIS OF THE RELATIONSHIPS OF TEACHER PREPARATION TO THE FIELD OF TEACHING

In the present chapter the following phases of the problem under consideration are to be discussed:

1. The extent to which majors and minors are used in the teaching of high school subjects.
2. The extent of high school subjects taught for which the college training was not equivalent to either a major or a minor norm.
3. The extent to which preparation for teaching high school subjects meets a certain standard.

A STUDY OF ALL OREGON HIGH SCHOOL TEACHERS

Table II indicates the number of schools and the number of teachers whose records were usable. These were grouped according to the size of the teaching staff as given on page 5. In this study these groups of teachers will be referred to as teachers of Groups I, II, III, IV, V, VI, and VII respectively.

Throughout this section comparison can be made of the findings of the school years 1934-1935 and 1935-1936. It should be kept in mind that the number of teachers vary in

some groups for the respective years. However the greatest difference in percentage of teachers about whom data was gathered is 2% in Group VI. It is interesting to note that approximately one half of the teachers were in the largest group, about one fourth were in Groups IV and VI, and only one and one-half per cent in Group I. In the number of classes taught the percentages appear to be similar to the percentage of teachers in each group. Closer scrutiny, however, discloses Group I and II to have a much greater percentage, but the size of these groups in the aggregate is too small to have much significance. Another fact that makes these figures more relative than accurate was the apparent listing a class as being taught when its membership would include only one or two students. The situation occurs frequently in the smaller groups. It was sometimes necessary to obtain the number of classes taught from the course of study in the case of Group I and Group II schools. The percentages of the average number of classes per teacher are therefore more accurate in schools employing more than two teachers.

It is well to call attention at this time to a change of procedure during the arrangement of original data. Under the first classification, commercial subjects were divided into two groups; health was recorded as a separate subject; and individual reports gathered for oral Eng-

TABLE 2

Number and Per Cent of Schools, Teachers, Classes Taught,
and the Average Number of Classes Per Teacher in
Oregon High Schools in 1934-1935 and 1935-1936

GROUPS	SCHOOLS				TEACHERS			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
I	23	9.0	22	8.8	23	1.5	22	1.4
II	52	20.5	50	20.0	104	6.9	100	6.4
III	54	21.4	48	19.2	162	10.6	144	9.3
IV	42	16.5	48	19.2	168	11.1	192	12.3
V	23	9.0	20	8.0	115	7.6	100	6.4
VI	26	10.2	27	10.8	195	12.8	205	13.2
VII	34	13.4	35	14.0	749	49.0	794	51.0
TOTALS	254	100.0	250	100.0	1516	100.0	1557	100.0

GROUPS	CLASSES TAUGHT				CLASSES PER TEACHER	
	1934-1935		1935-1936		1934-1935	1935-1936
	No.	%	No.	%		
I	192	2.6	196	2.8	8.4	8.9
II	591	8.0	568	7.7	5.7	5.7
III	783	10.6	701	9.5	4.4	4.9
IV	786	10.7	881	11.9	4.7	4.6
V	520	7.0	446	6.1	4.5	4.5
VI	915	12.4	951	12.9	4.7	4.6
VII	3600	48.7	3616	49.1	4.8	4.6
TOTALS	7387	100.0	7359	100.0	4.9	4.7

lish and dramatics. Because of the confusion existing where some teachers were reported as teaching a field and others a subject it seemed advisable to group these related subjects. Such grouping was carried out in the manner explained on page 7. Therefore, in some instances the final figures will be slightly overstated in those fields in which the largest number of subjects are grouped. Hereafter the term "subject" will refer to the field of instruction. In 1934-1935 there were 3,194 reports for 1,516 teachers and 3,471 reports for 1,557 teachers in 1935-1936.

Table 3a shows the frequency with which teachers in the first four groups teach subjects for which they have indicated as preparation a college major. It should be read as follows: of the twenty-nine subjects being taught in the major fields of twenty-three teachers in Group I during 1934-1935, English was reported four times. Many of the teachers recorded more than one each of majors and minors. Teachers in Group I schools were found to have majored only in four academic subjects of which social science heads this group with 41.4%. This is true in both of the years being considered. There are more majors in English than in other subjects for all groups except Group V in 1935 when there were 6.4% more teachers with a major in social science. In this same year there were only 13.8% who have English majors, but otherwise in most

TABLE 3a

Number and Per Cent of Times in Groups I to IV that Oregon High School Teachers taught Subjects in 1934-1935 and 1935-1936 in their Major Field.

SUBJECTS	GROUP I				GROUP II			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	4	13.7	6	14.6	54	31.7	53	28.2
SOCIAL SCIENCE	12	41.4	17	41.5	37	21.7	35	18.6
NATURAL SCIENCE	5	17.3	11	26.9	27	15.9	25	13.3
MATHEMATICS	8	27.6	7	17.0	10	5.9	43	22.9
COMMERCIAL					38	22.4	20	10.6
HOME ECONOMICS					1	.6	1	.5
INDUSTRIAL ARTS							1	.5
PHYSICAL EDUC.					1	.6	7	3.8
AGRICULTURE								
MUSIC					1	.6	1	.5
GUIDANCE					1	.6		
LATIN							2	1.1
TOTALS	29	100.0	41	100.0	170	100.0	188	100.0

SUBJECTS	GROUP III				GROUP IV			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	33	25.0	30	24.6	32	21.9	35	20.6
SOCIAL SCIENCE	29	21.9	27	22.1	29	19.9	34	20.1
NATURAL SCIENCE	19	14.4	21	17.2	15	10.3	17	10.1
MATHEMATICS	13	9.8	12	10.0	20	13.7	14	8.3
COMMERCIAL	29	21.9	20	16.4	17	11.7	25	14.7
HOME ECONOMICS	3	2.3	2	1.6	14	9.6	16	9.5
INDUSTRIAL ARTS	1	.8			2	1.4	4	2.4
PHYSICAL EDUC.			4	3.3	5	3.4	5	2.9
AGRICULTURE			1	.8	5	3.4	6	3.6
MUSIC	1	.8	1	.8	3	2.0	6	3.6
ART					1	.7	1	.6
LATIN	3	2.3	2	1.6			2	1.2
LANGUAGE	1	.8	2	1.6	3	2.0	4	2.4
TOTALS	132	100.0	122	100.0	146	100.0	169	100.0

TABLE 3b

Number and Per Cent of Times in Groups V to VII that Oregon High School Teachers Taught Subjects in 1934-1935 and 1935-1936 in Their Major Field

SUBJECTS	GROUP V				GROUP VI			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	22	21.4	13	13.8	21	15.1	38	21.0
SOCIAL SCIENCE	21	20.4	19	20.2	21	15.1	21	11.7
NATURAL SCIENCE	9	8.7	10	10.6	17	12.2	23	12.8
MATHEMATICS	8	7.8	9	9.6	13	9.4	14	8.0
COMMERCIAL	15	14.6	15	16.0	14	10.0	25	14.0
HOME ECONOMICS	13	12.3	13	13.8	17	12.2	18	10.0
INDUSTRIAL ARTS	2	2.0	1	1.1	8	5.8	8	4.5
PHYSICAL EDUC.	2	2.0	2	2.1	3	2.2	5	2.8
AGRICULTURE	5	4.9	6	6.4	10	7.2	11	6.2
MUSIC	1	1.0	4	4.3	8	5.8	8	4.5
LATIN	3	2.9			3	2.2	4	2.3
LANGUAGE	2	2.0	2	2.1	4	2.8	3	1.7
PSYCHOLOGY							1	.5
TOTALS	103	100.0	94	100.0	139	100.0	179	100.0

SUBJECTS	GROUP VII			
	1934-1935		1935-1936	
	No.	%	No.	%
ENGLISH	112	20.8	117	18.2
SOCIAL SCIENCE	79	14.7	93	14.5
NATURAL SCIENCE	53	9.8	58	9.0
MATHEMATICS	45	8.4	44	6.8
COMMERCIAL	52	9.7	68	10.5
HOME ECONOMICS	51	9.5	57	8.9
INDUSTRIAL ARTS	28	5.2	43	6.7
PHYSICAL EDUC.	27	5.0	65	10.1
AGRICULTURE	13	2.4	18	2.8
MUSIC	30	5.6	30	4.7
GUIDANCE	2	.4	1	.2
ART	6	1.1	10	1.6
LATIN	18	3.3	13	2.0
LANGUAGE	18	3.3	20	3.1
PSYCHOLOGY	1	.2		
LIBRARY	3	.6	6	.9
TOTALS	538	100.0	643	100.0

of the groups approximately one fifth of the teachers have majors in this subject each year. It is to be expected that teachers would be employed showing more majors in the other subjects in the larger groups.

Tables 4a and 4b show the frequency and the per cent of subjects taught for which the teachers had minor preparation. These tables are in a series with Tables 3a, 3b, 5a, and 5b and are read in the same manner. Most of the minors indicated remain in the traditional subjects with English still predominating except in four cases. There is an apparent lack of minors in agriculture because so many teachers have major training in this subject. The same is true of home economics.

The frequency of subjects taught during the two years and for which there was lack of adequate preparation is shown in tables 5a and 5b. It should be noted, however, that there was indication of additional preparation in some instances, but such preparation did not meet the norms mentioned on page 3.

The most significant fact in these tables is the large number of teachers of commercial subjects who had neither a major nor a minor in that field. Often there was indication of business college training and high school credit, but for the purpose of this study credit was given only for a college major or minor. There still remains

TABLE 4a

Number and Per Cent of Times in Groups I to IV that Oregon High School Teachers Taught Subjects in 1934-1935 and 1935-1936 in Their Minor Field

SUBJECTS	GROUP I				GROUP II			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	12	32.4	19	34.5	53	25.6	51	22.6
SOCIAL SCIENCE	11	29.8	18	32.7	35	17.0	62	27.4
NATURAL SCIENCE	6	16.2	9	16.4	38	18.4	31	13.7
MATHEMATICS	8	21.6	6	10.9	26	12.6	21	9.3
COMMERCIAL			3	.5	39	18.9	44	19.6
HOME ECONOMICS					4	2.0	3	1.3
INDUSTRIAL ARTS					3	1.5	1	.4
PHYSICAL EDUC.					3	1.5	11	4.9
MUSIC					1	.5	1	.4
LATIN					1	.5		
LANGUAGE					3	1.5	1	.4
TOTALS	37	100.0	55	100.0	206	100.0	226	100.0

SUBJECTS	GROUP III				GROUP IV			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	25	17.0	25	19.1	25	20.0	29	19.5
SOCIAL SCIENCE	33	22.5	33	25.2	21	16.6	27	18.1
NATURAL SCIENCE	28	19.0	22	16.7	28	22.1	26	17.5
MATHEMATICS	21	14.3	18	13.7	11	8.7	20	13.4
COMMERCIAL	25	17.0	17	13.0	12	9.5	16	10.8
HOME ECONOMICS			3	2.3	4	3.2	5	3.3
INDUSTRIAL ARTS	1	.7	1	.8	2	1.6	2	1.3
PHYSICAL EDUC.	5	3.4	6	4.6	8	6.3	9	6.0
MUSIC			1	.8	5	4.0	4	2.7
LATIN	3	2.0	4	3.0	6	4.8	7	4.7
LANGUAGE	5	3.4	1	.8	4	3.2	4	2.7
LIBRARY	1	.7						
TOTALS	147	100.0	131	100.0	126	100.0	149	100.0

TABLE 4b

Number and Per Cent of Times in Groups V to VII that Oregon High School Teachers Taught Subjects in 1934-1935 and 1935-1936 in Their Minor Field

SUBJECTS	GROUP I				GROUP II			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	14	21.5	10	16.1	28	28.0	24	19.8
SOCIAL SCIENCE	16	24.6	9	14.5	15	15.0	23	19.0
NATURAL SCIENCE	9	13.9	9	14.5	19	19.0	19	15.7
MATHEMATICS	8	12.3	8	12.9	9	9.0	15	12.4
COMMERCIAL	9	13.9	8	12.9	12	12.0	12	9.9
HOME ECONOMICS	1	1.5	3	4.9	1	1.0	3	2.5
INDUSTRIAL ARTS			1	1.6	1	1.0	1	.8
PHYSICAL EDUC.	1	1.5	6	9.7	3	3.0	7	5.8
MUSIC	1	1.5			3	2.0	3	2.5
GUIDANCE			2	3.2				
LATIN	4	6.2	2	3.2	4	4.0	5	4.1
LANGUAGE	2	3.1			5	5.0	8	6.2
LIBRARY			4	6.5	1	1.0	1	.8
TOTALS	65	100.0	62	100.0	100	100.0	121	100.0

SUBJECTS	GROUP VII			
	1934-1935		1935-1936	
	No.	%	No.	%
ENGLISH	77	26.7	87	26.8
SOCIAL SCIENCE	46	16.0	43	13.3
NATURAL SCIENCE	38	13.3	40	12.3
MATHEMATICS	30	10.5	34	10.4
COMMERCIAL	18	6.3	22	6.8
HOME ECONOMICS	2	.7	3	.9
INDUSTRIAL ARTS	8	2.8	7	2.3
PHYSICAL EDUC.	14	4.9	24	7.4
AGRICULTURE	2	.7		
MUSIC	6	2.1	12	3.7
GUIDANCE	2	.7	3	.9
ART	5	1.7	7	2.3
LATIN	15	5.2	18	5.5
LANGUAGE	17	5.9	16	4.9
PSYCHOLOGY	1	.4		
LIBRARY	6	2.1	8	2.5
TOTALS	287	100.0	324	100.0

TABLE 5a

Number and Per Cent of Times in Groups I to IV that Oregon High School Teachers Taught Subjects in 1934-1935 and 1935-1936 with Neither Major nor Minor Preparation.

SUBJECTS	GROUP I				GROUP II			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	18	19.1	17	17.0	8	4.4	16	8.8
SOCIAL SCIENCE	18	19.1	17	17.0	35	19.5	22	12.1
NATURAL SCIENCE	8	8.5	12	12.0	11	6.1	12	6.6
MATHEMATICS	9	9.6	15	15.0	21	11.8	25	13.8
COMMERCIAL	31	33.0	38	38.0	80	44.4	87	47.8
HOME ECONOMICS					3	1.7	7	3.8
INDUSTRIAL ARTS					5	2.8	5	2.7
PHYSICAL EDUC.	9	9.6			14	7.6	5	2.7
MUSIC					1	.6		
GUIDANCE	1	1.1					1	.6
LATIN					2	1.1	2	1.1
LANGUAGE			1	1.0				
TOTALS	94	100.0	100	100.0	180	100.0	182	100.0

SUBJECTS	GROUP III				GROUP IV			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	9	6.1	7	5.3	13	9.2	15	8.6
SOCIAL SCIENCE	23	15.8	15	11.4	28	19.7	19	10.9
NATURAL SCIENCE	10	6.8	11	8.4	7	4.9	18	10.3
MATHEMATICS	22	14.9	25	19.1	20	14.1	25	14.2
COMMERCIAL	42	28.7	42	32.1	38	26.9	39	22.3
HOME ECONOMICS	11	7.6	4	3.0	5	3.5	9	5.2
INDUSTRIAL ARTS	5	3.4	6	4.6	8	5.6	21	12.0
PHYSICAL EDUC.	15	10.2	12	9.2	11	7.7	18	10.3
MUSIC	3	2.0	1	.8	2	1.4	7	4.0
GUIDANCE	1	.7			1	.7	2	1.1
ART					1	.7		
LATIN	3	2.0	7	5.3	7	4.9		
LANGUAGE	3	2.0	1	.8	1	.7	2	1.1
TOTALS	147	100.0	131	100.0	142	100.0	175	100.0

TABLE 5b

Number and Per Cent of Times in Groups V to VII that Oregon High School Teachers taught Subjects in 1934-1935 and 1935-1936 with Neither Major nor Minor Preparation.

SUBJECTS	GROUP V				GROUP VI			
	1934-1935		1935-1936		1934-1935		1935-1936	
	No.	%	No.	%	No.	%	No.	%
ENGLISH	9	10.8	7	11.1	8	8.2	13	14.5
SOCIAL SCIENCE	13	15.7	13	20.6	11	11.2	10	11.2
NATURAL SCIENCE	14	16.9	6	9.5	12	12.2	6	6.6
MATHEMATICS	12	14.5	7	11.1	15	15.3	9	10.0
COMMERCIAL	14	16.9	14	22.1	20	20.5	19	21.2
HOME ECONOMICS	4	4.8			1	1.0	4	4.4
INDUSTRIAL ARTS	3	3.6	3	4.8	3	3.1	4	4.4
PHYSICAL EDUC.	6	7.2	3	4.8	6	6.1	10	11.2
MUSIC	2	2.4	1	1.6	1	1.0	1	1.1
GUIDANCE	2	2.4	2	3.2	5	5.1	2	2.2
ART					1	1.0	2	2.2
LATIN	2	2.4	2	3.2	8	8.2	5	5.5
LANGUAGE	2	2.4	1	1.6	5	5.1	3	3.3
PSYCHOLOGY					1	1.0	1	1.1
LIBRARY			4	6.4	1	1.0	1	1.1
TOTALS	83	100.0	63	100.0	98	100.0	90	100.0

SUBJECTS	GROUP VII			
	1934-1935		1935-1936	
	No.	%	No.	%
ENGLISH	31	13.7	33	14.6
SOCIAL SCIENCE	23	10.2	28	12.4
NATURAL SCIENCE	15	6.7	12	5.3
MATHEMATICS	33	14.6	39	17.2
COMMERCE	50	22.2	51	22.6
HOME ECONOMICS	7	3.1	4	1.8
INDUSTRIAL ARTS	15	6.7	7	3.1
PHYSICAL EDUC.	18	8.1	14	6.2
MUSIC	4	1.8	7	3.1
GUIDANCE	4	1.8	5	2.2
ART	1	.4	1	.4
LATIN	11	4.9	12	5.3
LANGUAGES	6	2.7	4	1.8
PSYCHOLOGY	1	.4	2	.9
LIBRARY	6	2.7	7	3.1
TOTALS	225	100.0	226	100.0

a large number of teachers who are asked to teach social subjects and mathematics who are not prepared. About 14% of the teachers in Group II are teaching English.

In the series of Tables 6 to 13 inclusive is shown the frequency that a subject is taught according to the total number of times that subject is taught in that group. Table 6 is read: of the 34 reports that English was taught in Group I, four of these were by teachers with a college major in English. Frequencies here are the same as in Tables 3a to 5b inclusive. The percentages, however, are based on the total number of times each subject was taught. It will be observed that there is an overstatement of the facts here as explained earlier in the chapter.

There is evidence of a great need of preparation in one teacher schools. Only 41.2% were adequately prepared in 1934-1935, and 51% taught subjects the following year in which they were not sufficiently trained. Only one fifth of the teachers were teaching their major subject. Less than one half of the teachers were prepared in English and natural science. The situation is slightly better for 1935.

In Group II (Table VII) the number who were not teaching subjects for which they had prepared dropped to slightly less than one third. There was more minor preparation than major. This is probably due to the fact that

TABLE 6

Frequencies and Per Cents of Subjects Taught in Group I
According to Total Times Subject is Taught

SUBJECTS 1934-1935	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	4	11.8	12	35.3	18	52.9	34
SOCIAL SCIENCE	12	29.3	11	26.8	18	43.9	41
NATURAL SCIENCE	5	31.6	6	42.1	8	62.3	19
MATHEMATICS	8	32.0	8	32.0	9	36.0	25
COMMERCE					31	100.0	31
PHYSICAL EDUC.					9	100.0	9
GUIDANCE					1	100.0	1
TOTALS	29	18.1	37	23.1	94	58.8	160
1935-1936	No.	%	No.	%	No.	%	TOTALS
ENGLISH	6	16.0	19	45.2	17	40.5	42
SOCIAL SCIENCE	17	32.7	18	34.6	17	32.7	52
NATURAL SCIENCE	11	34.4	9	28.1	12	37.5	32
MATHEMATICS	7	25.0	6	21.4	15	53.6	28
COMMERCE			3	7.4	38	92.6	41
LANGUAGE					1	100.0	1
TOTALS	41	20.9	55	18.1	100	51.0	196

TABLE 7

Frequencies and Per Cents of Subjects Taught in Group II
According to Total Times Subject is Taught

SUBJECTS 1934-1935	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	54	47.0	53	46.1	8	6.9	115
SOCIAL SCIENCE	37	34.5	35	32.7	35	32.7	107
NATURAL SCIENCE	27	35.5	38	50.0	11	14.5	76
MATHEMATICS	10	17.6	26	45.6	21	36.8	57
COMMERCE	38	24.2	39	24.9	80	50.9	157
HOME ECONOMICS	1	12.5	4	50.0	3	37.5	8
INDUSTRIAL ARTS			3	37.5	5	62.5	8
PHYSICAL EDUC.	1	5.6	3	16.7	14	77.7	18
MUSIC	1	33.3	1	33.3	1	33.3	3
LATIN			1	33.3	2	66.7	3
LANGUAGE			3	100.0			3
GUIDANCE	1	100.0					1
TOTALS	170	30.6	206	37.0	180	32.4	556
1935-1936	No.	%	No.	%	No.	%	TOTALS
ENGLISH	53	44.5	51	42.2	16	13.3	120
SOCIAL SCIENCE	35	29.4	62	52.1	22	19.5	119
NATURAL SCIENCE	25	36.8	31	45.6	12	17.6	68
MATHEMATICS	43	48.3	21	23.6	25	28.1	89
COMMERCE	20	13.3	44	29.1	87	57.6	151
HOME ECONOMICS	1	9.1	3	27.3	7	63.6	11
INDUSTRIAL ARTS	1	14.3	1	14.3	5	71.4	7
PHYSICAL EDUC.	7	30.4	11	47.9	5	21.7	23
MUSIC	1	50.0	1	50.0			2
LATIN	2	50.0		100.0	2	50.0	4
LANGUAGE			1				1
GUIDANCE					1	100.0	1
TOTALS	188	31.5	226	37.9	182	30.6	596

TABLE 8

Frequencies and Per Cents of Subjects Taught in Group III
According to Total Times Subject is Taught

SUBJECTS 1934-1935	MAJOR No.	%	MINOR No.	%	NEITHER No.	%	TOTALS
ENGLISH	33	49.3	25	33.3	9	13.4	67
SOCIAL SCIENCE	29	34.1	33	38.7	23	27.2	85
NATURAL SCIENCE	19	33.3	28	49.1	10	17.6	57
MATHEMATICS	13	23.4	21	37.5	22	39.1	56
COMMERCE	29	30.2	25	26.0	42	43.8	96
HOME ECONOMICS	3	21.4			11	78.6	14
INDUSTRIAL ARTS	1	14.3	1	14.3	5	71.4	7
PHYSICAL EDUC.			5	25.0	15	75.0	20
MUSIC	1	25.0			3	75.0	4
GUIDANCE					1	100.0	1
LATIN	3	33.3	3	33.3	3	33.3	9
LANGUAGE	1	11.1	5	55.6	3	33.3	9
LIBRARY			1	100.0			1
TOTALS	132	31.0	147	34.5	147	34.5	426
1935-1936	No.	%	No.	%	No.	%	TOTALS
ENGLISH	30	48.3	25	40.3	7	11.4	62
SOCIAL SCIENCE	27	36.0	33	44.0	15	20.0	75
NATURAL SCIENCE	21	38.8	22	40.7	11	20.5	54
MATHEMATICS	12	21.8	18	32.7	25	45.5	55
COMMERCE	20	25.3	17	21.5	42	53.2	79
HOME ECONOMICS	2	22.2	3	33.3	4	44.5	9
INDUSTRIAL ARTS	1	14.3	1	14.3	6	85.7	7
PHYSICAL EDUC.	4	18.2	6	27.3	12	54.5	22
AGRICULTURE	1	100.0					1
MUSIC	1	33.3	1	33.3	1	33.3	3
LATIN	2	15.4	4	30.8	7	53.8	13
LANGUAGE	2	50.0	1	25.0	1	25.0	4
TOTALS	122	31.8	131	34.1	131	34.1	384

prospective teachers usually receive training in more than one minor. It can be observed that very few teachers were prepared in home economics and industrial arts.

In Group III nearly one half of the teachers had a major in English while teachers in the commercial field continue to show too little evidence of preparation. There was fairly even distribution between the total majors, the total minors, and the per cent whose preparation was lacking.

In Table 9 certain subjects begin to show a definite trend toward a higher degree of preparation by the teachers employed. In these four-teacher schools teachers who have majored in home economics and agriculture now seem to be demanded to teach these subjects rather than majors in any other subject being asked to teach in these fields. There is still need for greater preparation for commercial teachers and men trained to teach industrial arts.

In the five-teacher schools shown in Table 10 the preparation in home economics and agriculture is still higher and there is adequate preparation for 62% of the commercial subjects taught. English throughout these groups continues to show between 43% and 51% majors (except in Group VI) and between 30% and 46% minors.

In schools having six to ten teachers (Table 11) the tendency toward the use of majors is improving. There appears to be no great attempt to require trained teachers

TABLE 9

Frequencies and Per Cents of Subjects Taught in Group IV
According to Total Times Subject is Taught

SUBJECTS 1934-1935	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	32	45.7	25	35.7	13	18.6	70
SOCIAL SCIENCE	29	37.1	21	26.9	28	36.0	78
NATURAL SCIENCE	15	30.0	28	56.0	7	14.0	50
MATHEMATICS	20	39.3	11	21.4	20	39.3	51
COMMERCE	17	25.4	12	17.9	38	56.7	67
HOME ECONOMICS	14	60.9	4	17.4	5	21.7	23
INDUSTRIAL ARTS	2	16.7	2	16.7	8	66.6	12
PHYSICAL EDUC.	5	20.9	8	33.3	11	45.8	24
AGRICULTURE	5	100.0					5
MUSIC	3	30.0	5	50.0	2	20.0	10
GUIDANCE					1	100.0	1
ART	1	50.0			1	50.0	2
LATIN			6	46.2	7	53.8	13
LANGUAGE	3	37.5	4	50.0	1	12.5	8
TOTALS	146	35.2	126	30.5	142	34.3	414
1935-1936	No.	%	No.	%	No.	%	TOTALS
ENGLISH	35	44.3	29	36.7	15	19.0	79
SOCIAL SCIENCE	34	42.5	27	33.8	19	23.7	80
NATURAL SCIENCE	17	27.9	26	42.6	18	29.5	61
MATHEMATICS	14	23.6	20	33.9	25	42.5	59
COMMERCE	25	31.3	16	20.0	39	48.7	80
HOME ECONOMICS	16	53.3	5	16.7	9	30.0	30
INDUSTRIAL ARTS	4	14.9	2	7.4	21	77.7	27
PHYSICAL EDUC.	5	15.7	9	28.1	18	56.2	32
AGRICULTURE	6	100.0					6
MUSIC	6	35.3	4	23.5	7	41.2	17
GUIDANCE					2	100.0	2
ART	1	100.0					1
LATIN	2	22.2	7	77.8			9
LANGUAGE	4	40.0	4	40.0	2	20.0	10
TOTALS	169	34.3	149	30.2	175	35.5	493

TABLE 10

Frequencies and Per Cents of Subjects Taught in Group V
According to Total Times Subject is Taught

SUBJECTS 1934-1935	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	22	48.9	14	31.1	9	20.0	45
SOCIAL SCIENCE	21	42.0	16	32.0	13	26.0	50
NATURAL SCIENCE	9	28.1	9	28.1	14	43.8	32
MATHEMATICS	18	28.6	8	28.6	12	42.8	28
COMMERCE	15	39.5	9	24.2	14	36.7	38
HOME ECONOMICS	13	72.2	1	5.6	4	22.2	18
INDUSTRIAL ARTS	2	40.0			3	60.0	5
PHYSICAL EDUC.	2	22.2	1	11.1	6	66.7	9
AGRICULTURE	5	100.0					5
MUSIC	1	25.0	1	25.0	2	50.0	4
GUIDANCE					2	100.0	2
LATIN	3	33.3	4	44.5	2	22.2	9
LANGUAGE	2	33.3	2	33.3	2	33.3	6
TOTALS	103	41.0	65	25.9	83	33.1	251

1935-1936	No.	%	No.	%	No.	%	TOTALS
ENGLISH	13	43.4	10	33.3	7	23.3	30
SOCIAL SCIENCE	19	46.3	9	22.0	13	31.7	41
NATURAL SCIENCE	10	40.0	9	36.0	6	24.0	25
MATHEMATICS	9	37.5	8	33.3	7	28.2	24
COMMERCE	15	40.6	8	21.5	14	37.8	37
HOME ECONOMICS	13	81.2	3	18.8			16
INDUSTRIAL ARTS	1	20.0	1	20.0	3	60.0	5
PHYSICAL EDUC.	2	18.2	6	54.5	3	27.3	11
AGRICULTURE	6	100.0					6
MUSIC	4	80.0			1	20.0	5
GUIDANCE			2	50.0	2	50.0	4
LATIN			2	50.0	2	50.0	4
LANGUAGE	2	66.7			1	33.3	3
LIBRARY			4	50.0	4	50.0	8
TOTALS	94	43.0	62	28.3	63	28.7	219

TABLE 11

Frequencies and Per Cents of Subjects Taught in Group VI
According to Total Times Subject is Taught

SUBJECTS 1934-1935	MAJOR No.	%	MINOR No.	%	NEITHER No.	%	TOTALS
ENGLISH	21	36.8	28	49.1	8	14.1	57
SOCIAL SCIENCE	21	44.7	15	31.9	11	23.4	47
NATURAL SCIENCE	17	35.4	19	39.6	12	25.0	48
MATHEMATICS	13	35.1	9	24.3	15	40.6	37
COMMERCE	14	30.4	12	26.1	20	43.5	46
HOME ECONOMICS	17	89.4	1	5.3	1	5.3	19
INDUSTRIAL ARTS	8	66.7	1	8.3	3	25.0	12
PHYSICAL EDUC.	3	25.0	3	25.0	6	50.0	12
AGRICULTURE	10	100.0					10
MUSIC	8	66.7	3	25.0	1	8.3	12
GUIDANCE					5	100.0	55
ART					1	100.0	1
LATIN	3	20.0	4	26.7	8	53.3	15
LANGUAGE	4	28.6	5	35.7	5	35.7	14
PSYCHOLOGY					1	100.0	1
LIBRARY			1	50.0	1	50.0	2
TOTALS	139	41.2	100	29.7	98	29.1	337
1935-1936	No.	%	No.	%	No.	%	TOTALS
ENGLISH	38	50.7	24	32.0	13	17.3	75
SOCIAL SCIENCE	21	38.8	23	42.6	10	18.6	54
NATURAL SCIENCE	23	47.9	19	39.5	6	12.5	48
MATHEMATICS	14	36.3	15	39.5	9	24.2	38
COMMERCE	25	44.6	12	21.5	19	33.9	56
HOME ECONOMICS	18	72.0	3	12.0	4	16.0	26
INDUSTRIAL ARTS	8	61.5	1	7.7	4	30.8	13
PHYSICAL EDUC.	5	22.7	7	31.8	10	45.5	22
AGRICULTURE	11	100.0					11
MUSIC	8	66.7	3	25.0	1	8.3	12
GUIDANCE					2	100.0	2
ART					2	100.0	2
LATIN	4	28.6	5	35.7	5	35.7	14
LANGUAGE	3	21.4	8	57.2	3	2.4	14
PSYCHOLOGY	1	50.0			1	50.0	2
LIBRARY			1	50.0	1	50.0	2
TOTALS	179	45.9	121	31.0	90	23.1	390

TABLE 12

Frequencies and Per Cents of Subjects Taught in Group VII
According to Total Times Subject is Taught

SUBJECTS 1934-1935	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	112	50.9	77	35.0	31	14.1	220
SOCIAL SCIENCE	79	53.3	46	31.1	23	15.6	148
NATURAL SCIENCE	53	50.0	38	35.8	15	14.2	106
MATHEMATICS	45	41.6	30	27.8	33	30.6	108
COMMERCE	52	43.3	18	15.0	50	41.7	120
HOME ECONOMICS	51	85.0	2	3.3	7	11.7	60
INDUSTRIAL ARTS	28	54.9	8	15.7	15	29.4	51
PHYSICAL EDUC.	27	45.8	14	23.7	18	30.5	59
AGRICULTURE	13	87.7	2	13.3			15
MUSIC	30	75.0	6	15.0	4	10.0	40
GUIDANCE	2	25.0	2	25.0	4	50.0	8
ART	6	50.0	5	41.5	1	8.3	12
LATIN	18	40.9	15	34.1	11	25.0	44
LANGUAGE	18	43.9	17	41.5	6	14.6	41
PSYCHOLOGY	1	33.3	1	33.3	1	33.3	3
LIBRARY	3	20.0	6	40.0	6	40.0	15
TOTALS	538	51.2	287	27.3	225	21.5	1050
1935-1936	No.	%	No.	%	No.	%	TOTALS
ENGLISH	117	49.4	87	36.8	33	13.8	237
SOCIAL SCIENCE	93	56.7	43	26.2	28	17.1	164
NATURAL SCIENCE	58	52.7	40	36.4	12	10.9	110
MATHEMATICS	44	37.6	34	29.1	39	33.3	117
COMMERCE	68	48.2	22	15.6	51	36.2	141
HOME ECONOMICS	57	89.1	3	4.5	4	6.3	64
INDUSTRIAL ARTS	43	75.4	7	12.3	7	12.3	57
PHYSICAL EDUC.	65	63.2	24	23.3	14	13.5	103
AGRICULTURE	18	100.0					18
MUSIC	30	61.2	12	24.5	7	14.3	49
GUIDANCE	1	11.1	3	33.3	5	55.6	9
ART	10	55.6	7	38.9	1	5.6	18
LATIN	13	30.2	18	41.9	12	27.9	43
LANGUAGE	20	50.0	16	40.0	4	10.0	40
PSYCHOLOGY					2	100.0	2
LIBRARY	6		8	38.1	7	33.3	21
TOTALS	643	53.9	324	27.2	226	18.9	1193

of mathematics as 40.6% lacked preparation in 1934-1935. Only half of those in physical education work have either a major or a minor.

The total amount of preparedness in Table 12 is 78.5% in 1935-1936. More than one half of the teachers were teaching their major subject. Demands for trained athletic coaches, music instructors, manual training, and Smith-Hughes teachers seem evident.

Table 13 shows the amount of preparation for each subject taught in all of the schools. It should be read as follows: teachers had major preparation for 278 or 46.1% of the 603 reports of English taught. This summary shows the averages and totals of all groups. Slightly more than half of the commercial teachers are prepared. While less than half of those teaching physical education had adequate training in 1934-1935 only 29.1% showed this deficiency in 1935-1936. Of the 3,194 reports for all subjects taught in Oregon in 1934-1935 there were 969 (30.3%) cases for which the teachers were not prepared, 1,257 (39.7%) were teaching subjects for which they had major preparation and 968 (30.3%) cases of minor training.

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Attention was called in Chapter I to standards of preparation which will be required of all new teachers em-

TABLE 13

Total Frequencies and Per Cents of Subjects Taught
According to Total Times Subject is Taught

SUBJECTS 1934-1935	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	278	46.1	233	38.6	92	15.3	603
SOCIAL SCIENCE	288	41.0	177	31.8	151	27.2	556
NATURAL SCIENCE	145	37.4	166	42.8	77	19.8	388
MATHEMATICS	177	32.3	113	31.2	132	36.5	362
COMMERCE	165	29.7	115	20.8	275	49.5	555
HOME ECONOMICS	99	69.7	12	8.5	31	21.8	142
INDUSTRIAL ARTS	41	43.2	15	15.8	39	41.0	95
PHYSICAL EDUC.	38	25.2	34	22.5	79	52.3	151
AGRICULTURE	33	94.3	2	5.7			35
MUSIC	44	61.1	15	20.8	13	18.1	72
GUIDANCE	3	15.8	2	10.5	14	73.7	19
ART	7	46.7	5	33.3	3	20.0	15
LATIN	27	29.0	33	35.5	33	35.5	93
LANGUAGE	28	34.6	36	44.4	17	21.0	81
PSYCHOLOGY	1	25.0	1	25.0	2	50.0	4
LIBRARY	3	16.7	8	44.4	7	38.9	18
TOTALS	1257	39.4	968	30.3	969	30.3	3194
1935-1936	No.	%	No.	%	No.	%	TOTALS
ENGLISH	290	45.4	242	37.9	107	16.7	639
SOCIAL SCIENCE	246	42.1	215	36.8	124	21.1	585
NATURAL SCIENCE	165	41.5	156	39.2	77	19.3	398
MATHEMATICS	143	34.9	122	29.8	145	35.3	410
COMMERCE	173	29.6	122	20.8	290	49.6	585
HOME ECONOMICS	107	69.0	20	12.9	28	18.1	155
INDUSTRIAL ARTS	57	49.1	13	11.2	46	39.7	166
PHYSICAL EDUC.	88	41.3	63	29.6	62	29.1	213
AGRICULTURE	42	100.0					42
MUSIC	50	56.6	21	23.9	17	19.5	88
GUIDANCE	1	5.6	5	27.7	12	66.7	18
ART	11	52.4	7	33.3	3	14.3	21
LATIN	23	26.2	36	41.4	28	32.4	87
LANGUAGE	31	42.5	30	41.1	12	16.4	73
PSYCHOLOGY	1	25.0			3	75.0	4
LIBRARY	6	19.4	13	41.9	12	38.7	31
TOTALS	1436	41.4	1068	31.8	967	27.8	3471

ployed for Oregon high school positions after September 1938. In the preceding section of this chapter the term "adequate preparation" was used to indicate that a teacher had as a minimum amount of training the equivalent of a minor norm. In this special study the frequency of majors and minors was recorded and in addition it was possible to learn the extent to which these new teachers met the standards that will be required after September 1938. Adequate preparation will be used here to mean that teachers have met this standard. Again the schools are classified into seven groups according to the size of the teaching staff as indicated on page 5.

In the first study a teacher who had a major or minor in any subject was classified as having a major or minor in that field of instruction. Following closely to the established standard by which the second study was measured it was found that preparation for some subjects which were taught in a field of instruction would meet the standard while for others it would not. It was also found that the number of credits of preparation for a given subject in a major or minor field was less than the required amount even when it was the only subject being taught in that field. The number of times this last described incident occurred was 20 in a major field and 33 in a minor field. In recording this data the major or minor was listed with

the majors or minors not taught and the subject listed as being below standard. The number of cases in which a teacher met the requirement for at least one subject taught in a field but fell short of the number of credits in another subject of the same field was 35 in major fields and 16 in minor fields. In recording data these 51 subjects were divided, credit being given to the respective major or minor and 51 cases recorded as subjects taught for which training is not adequate.

The number of teachers included in each group is shown in Table 14. They were further classified according to the number of subjects each taught for which preparation did not meet the standard. The table should be read as follows: of the 44 who were to teach in two-teacher schools only one teacher was adequately prepared for every subject she was to teach. A more favorable showing occurs in Group VII where 53.3 per cent of 150 teachers had the required number of credit hours in every subject taught. No teacher in Group VII lacked sufficient preparation in more than two subjects while 3 of the 12 teachers employed in the first group were to teach subjects for which the preparation for six subjects did not meet the standard. The percentages are listed in the lower half of the table.

Some of the findings in Table 14 are shown in greater

TABLE 14

Frequency and Per Cent of Teachers in Each Group According to the Number of Subjects Each Taught For Which Preparation was Below Standard

No. of Subjects	Group I No. %	Group II No. %	Group III No. %	Group IV No. %
0		1 2.3	4 8.9	10 14.7
1		11 25.0	13 28.9	23 33.8
2	1 8.3	14 31.9	11 24.4	22 32.4
3	1 8.3	12 27.4	12 26.7	9 13.2
4	5 41.7	5 11.1	3 6.7	3 4.4
5	2 16.7	1 2.3	2 4.4	1 1.5
6	3 25.0			
TOTALS	12 100.0	44 100.0	45 100.0	68 100.0

No. of Subjects	Group V No. %	Group VI No. %	Group VII No. %	Totals for all Groups No. %
0	5 13.5	12 22.2	80 53.3	112 27.3
1	12 32.4	28 51.0	56 37.3	143 34.9
2	16 40.6	10 18.5	14 9.4	87 21.2
3	5 10.8	4 7.4		42 10.2
4	1 2.7			17 4.2
5				6 1.5
6				3 .7
TOTALS	37 100.0	54 100.0	150 100.0	410 100.0

detail in the next table. Whereas the first table shows only the number of subjects taught for which preparation is lacking, in addition to this the second table also discloses the number of times preparation for a subject meets the standard and the total number of subjects taught by each teacher. One teacher in Group I was teaching eight subjects and lacked preparation for six. The findings were arranged in the table according to the total number of subjects taught. Approximately one half of the teachers in Group VII taught only one subject, but 17 of these lacked enough credits of preparation to meet the standard.

Tables 16a through 22b are in a series concerning the frequencies of the subjects taught in each group. In part (a) of the tables is shown the number and per cents of majors and minors which meet the standard and the subjects taught meeting the standard outside of the major and minor field. In part (b) of the tables is shown the totals for each subject according to whether or not preparation is adequate as well as the total times the subject is taught.

The number of cases in Group I schools shown in Table 16 is relatively small. Less than a third of the cases met the standard of which exactly half were major subjects. Only two subjects were standard in the amount of

preparation.

In Table 17 is found 100 frequencies below standard as compared to 58 which meet it. This is a very slight improvement over Group I.

An inspection of the next few tables gives rise to several generalizations. There are comparatively few cases of preparation meeting the standard which is not in the major or minor field. Only in Group VII does the number of cases of standard preparation exceed the number of those which are below. There is a gradual increase in major preparation meeting the standard through the successive groups. The subjects for which the percentage remains low in the amount of preparation are commerce, music, and physical education. In Group VII, however, there were 13 majors and 3 minors in physical education for 20 cases reported. In more than three fourths of the reports, preparation for commercial subjects was indicated as below standard in this group. Home economics teachers were well prepared in schools employing more than four teachers.

A summary of this series of tables is shown in Tables 23 and 24. Table 23a should be read: of all reports of English taught in this study for which preparation meets the standard there are 81 majors and 15 minors. There were more than 90% majors in home economics, music, indus-

TABLE 15

Combinations of Subjects Taught in Each Group According to Whether Training Meets or Fails to Meet Standard

Stan- dard	Not Stan- dard	Total Sub- jects	GROUPS							Total Number Teachers
			I	II	III	IV	V	VI	VII	
2	6	8	1							1
3	4	7	2							2
1	6	7	1							1
1	5	6	1		1	1				3
2	4	6	1	1		1				3
3	3	6		1						1
4	2	6	1							1
	6	6	1							1
	5	5	1	1	1					3
1	4	5	2	3	1	2				8
2	3	5	1	1		2	1			5
3	2	5			2	1	1			4
	4	4		1	2		1			4
1	3	4		8	4	5	2	1		20
2	2	4		6	2	5	2	3		18
3	1	4			2					2
	3	3		2	8	2		3		15
1	2	3		6	5	15	12	5	8	51
2	1	3		8	7	9	4	7	13	48
3		3		1	2			2	4	9
	2	2		2	2	1	1	2	6	14
1	1	2		3	4	13	8	16	26	70
2		2			2	8	1	3	19	33
	1	1				1		5	17	23
1		1				2	4	7	57	70
TOTAL TEACHERS			12	44	45	68	37	54	150	410

TABLE 16a

Frequencies and Per Cents of Subjects Taught in Group I For
Which Preparation Meets Standard

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	2	66.7	1	33.3			3
SOCIAL SCIENCE	4	50.0	3	37.5	1	12.5	8
NATURAL SCIENCE	3	50.0	2	33.3	1	16.7	6
MATHEMATICS	1	100.0					1
COMMERCE					1	100.0	1
PHYSICAL EDUC.					1	100.0	1
TOTALS	10	50.0	6	30.0	4	20.0	20

TABLE 16b

Frequencies and Per Cents of Subjects Taught in Group I For
Which Preparation Meets or Fails to Meet Standard

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	3	25.0	9	75.0	12
SOCIAL SCIENCE	8	61.5	5	38.5	13
NATURAL SCIENCE	6	54.5	5	45.5	11
MATHEMATICS	1	11.1	8	88.9	9
COMMERCE	1	10.0	9	90.0	10
HOME ECONOMICS			1	100.0	1
PHYSICAL EDUC.	1	12.5	7	87.5	8
LANGUAGE			1	100.0	1
TOTALS	20	30.8	45	69.2	65

TABLE 17a

Frequencies and Per Cents of Subjects Taught in Group II For
Which Preparation Meets Standard

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	9	69.3	4	30.7			13
SOCIAL SCIENCE	8	72.7	3	27.3			11
NATURAL SCIENCE	4	40.0	4	40.0	2	20.0	10
MATHEMATICS	4	57.1	3	42.9			7
COMMERCE			2	100.0			2
HOME ECONOMICS	1	100.0					1
INDUSTRIAL ARTS	1	100.0					1
PHYSICAL EDUC.	4	50.0	2	25.0	2	25.0	8
MUSIC	3	100.0					3
LANGUAGE	1	50.0	1	50.0			2
TOTALS	35	60.3	19	32.8	4	6.9	58

TABLE 17b

Frequencies and Per Cents of Subjects Taught in Group II For
Which Preparation Meets or Fails to Meet Standard

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	13	40.6	19	59.4	32
SOCIAL SCIENCE	11	40.7	16	59.3	27
NATURAL SCIENCE	10	52.6	9	47.4	19
MATHEMATICS	7	40.0	7	50.0	14
COMMERCE	2	7.1	26	92.9	28
HOME ECONOMICS	1	16.7	5	83.3	6
INDUSTRIAL ARTS	1	50.0	1	50.0	2
PHYSICAL EDUC.	8	36.4	14	63.6	22
MUSIC	3	60.0	2	40.0	5
LATIN			1	100.0	1
LANGUAGE	2	100.0			2
TOTALS	58	36.7	100	63.3	158

TABLE 18a

Frequencies and Per Cents of Subjects Taught in Group III For
Which Preparation Meets Standard

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	8	72.7	3	30.7			11
SOCIAL SCIENCE	10	66.7	3	20.0	2	13.3	15
NATURAL SCIENCE	5	41.7	5	41.7	2	16.6	12
MATHEMATICS	3	42.8	2	28.6	2	28.6	7
COMMERCE	2	50.0	1	25.0	1	25.0	4
PHYSICAL EDUC.			2	50.0	2	50.0	4
AGRICULTURE			1	100.0			1
MUSIC	1	50.0	1	50.0			2
LANGUAGE	2	50.0	2	50.0			4
TOTALS	31	51.7	20	33.3	9	15.0	60

TABLE 18b

Frequencies and Per Cents of Subjects Taught in Group III For
Which Preparation Meets or Fails to Meet Standard

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	11	45.8	13	54.2	24
SOCIAL SCIENCE	15	53.6	13	46.4	28
NATURAL SCIENCE	12	63.2	7	36.8	19
MATHEMATICS	7	38.8	11	61.2	18
COMMERCE	4	20.0	16	80.0	20
HOME ECONOMICS			3	100.0	3
INDUSTRIAL ARTS			2	100.0	2
PHYSICAL EDUC.	4	26.7	11	73.3	15
MUSIC	2	28.6	5	71.4	7
ART			1	100.0	1
LATIN			3	100.0	3
LANGUAGE	4	100.0			4
TOTALS	59	41.0	85	59.0	144

TABLE 19a

Frequencies and Per Cents of Subjects Taught in Group IV For
Which Preparation Meets Standard

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	17	85.0	2	10.0	1	5.0	20
SOCIAL SCIENCE	12	85.7	2	14.3			14
NATURAL SCIENCE	3	25.0	6	50.0	3	25.0	12
MATHEMATICS	5	37.5	1	12.5	2	50.0	8
COMMERCE	2	33.3	2	33.3	2	33.3	6
HOME ECONOMICS	13	100.0					13
PHYSICAL EDUC.	2	28.6	1	14.3	4	57.1	7
AGRICULTURE	3	100.0					3
MUSIC	5	100.0					5
LANGUAGE	1	33.3	2	66.7	1		3
TOTALS	63	69.2	16	17.6	12	13.2	91

TABLE 19b

Frequencies and Per Cents of Subjects Taught in Group IV For
Which Preparation Meets or Fails to Meet Standard

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	20	71.4	8	28.6	28
SOCIAL SCIENCE	14	60.9	9	39.1	23
NATURAL SCIENCE	12	44.4	15	55.6	27
MATHEMATICS	8	42.1	11	57.9	19
COMMERCE	6	20.0	24	80.0	30
HOME ECONOMICS	13	65.0	7	35.0	20
INDUSTRIAL ARTS			4	100.0	4
PHYSICAL EDUC.	7	36.8	12	63.2	19
AGRICULTURE	3	100.0			3
MUSIC	5	45.5	6	54.5	11
LATIN			2	100.0	2
LANGUAGE	3	75.0	1	25.0	4
TOTALS	91	47.9	99	52.1	190

TABLE 20a

Frequencies and Per Cents of Subjects Taught in Group V For
Which Preparation Meets Standard

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	4	80.0	1	20.0			5
SOCIAL SCIENCE	4	100.0					4
NATURAL SCIENCE	4	50.0	3	37.5	1	12.5	8
MATHEMATICS	1	33.3	2	66.7			3
COMMERCE	3	100.0					3
HOME ECONOMICS	9	100.0					9
PHYSICAL EDUC.	2	33.3	2	33.3	2	33.3	6
AGRICULTURE	2	100.0					2
MUSIC	3	75.0	1	25.0			4
TOTALS	32	72.7	9	20.5	3	6.8	44

TABLE 20b

Frequencies and Per Cents of Subjects Taught in Group V For
Which Preparation Meets or Fails to Meet Standard

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	5	38.5	8	61.5	13
SOCIAL SCIENCE	4	50.0	4	50.0	8
NATURAL SCIENCE	8	72.7	3	27.3	11
MATHEMATICS	3	37.5	5	62.5	8
COMMERCE	3	23.1	10	76.9	13
HOME ECONOMICS	9	81.8	2	18.2	11
INDUSTRIAL ARTS			3	100.0	3
PHYSICAL EDUC.	6	42.9	8	57.1	14
AGRICULTURE	2	66.7	1	33.3	3
MUSIC	4	44.4	5	55.6	9
LATIN			1	100.0	1
LANGUAGE			1	100.0	1
TOTALS	44	46.3	51	53.7	95

TABLE 21a

Frequencies and Per Cents of Subjects Taught in Group VI For
Which Preparation Meets Standard

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	9	81.8	1	9.1	1	9.1	11
SOCIAL SCIENCE	4	57.1	2	28.6	1	14.3	7
NATURAL SCIENCE	3	37.5	5	62.5			8
MATHEMATICS	2	66.7			1	33.3	3
COMMERCE	4	100.0					4
HOME ECONOMICS	10	90.9	1	9.1			11
INDUSTRIAL ARTS	2	100.0					2
PHYSICAL EDUC.	3	75.0			1	25.0	4
AGRICULTURE	4	100.0					4
MUSIC	1	100.0					1
LANGUAGE	1	20.0	4	80.0			5
TOTALS	43	71.7	13	21.6	4	6.7	60

TABLE 21b

Frequencies and Per Cents of Subjects Taught in Group VI For
Which Preparation Meets or Fails to Meet Standard

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	11	50.0	11	50.0	22
SOCIAL SCIENCE	7	53.8	6	46.2	13
NATURAL SCIENCE	8	57.1	6	42.9	14
MATHEMATICS	3	30.0	7	70.0	10
COMMERCE	4	22.2	14	77.8	18
HOME ECONOMICS	11	100.0			11
INDUSTRIAL ARTS	2	66.7	1	33.3	3
PHYSICAL EDUC.	4	26.7	11	73.3	15
AGRICULTURE	4	100.0			4
MUSIC	1	14.3	6	85.7	7
ART			1	100.0	1
LATIN			2	100.0	2
LANGUAGE	5	100.0			5
TOTALS	60	48.0	65	52.0	125

TABLE 22a

Frequencies and Per Cents of Subjects Taught in Group VII For
Which Preparation Meets Standard

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	32	88.8	3	8.3	1	2.9	36
SOCIAL SCIENCE	19	82.6	3	13.0	1	4.4	23
NATURAL SCIENCE	11	42.3	12	46.2	3	1.5	26
MATHEMATICS	4	44.5	2	22.2	3	33.3	9
COMMERCE	7	87.5	1	12.5			8
HOME ECONOMICS	16	100.0					16
INDUSTRIAL ARTS	5	100.0					5
PHYSICAL EDUC.	13	76.5	3	17.7	1	5.8	17
AGRICULTURE	5	100.0					5
MUSIC	9	100.0					9
ART	2	100.0					2
LATIN	1	100.0					1
LANGUAGE	1	33.3	2	6.7			3
TOTALS	125	78.1	26	16.4	9	5.6	160

TABLE 22b

Frequencies and Per Cents of Subjects Taught in Group VII For
Which Preparation Meets or Fails to Meet Standard

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	36	73.5	13	26.5	49
SOCIAL SCIENCE	23	54.8	19	45.2	42
NATURAL SCIENCE	26	83.9	5	16.1	31
MATHEMATICS	9	50.0	9	50.0	18
COMMERCE	8	23.5	26	76.5	34
HOME ECONOMICS	16	100.0			16
INDUSTRIAL ARTS	5	62.5	3	12.5	8
PHYSICAL EDUC.	17	85.0	3	15.0	20
AGRICULTURE	5	100.0			5
MUSIC	9	64.3	5	35.7	14
ART	2	66.7	1	33.3	3
LATIN	1	20.0	4	80.0	5
LANGUAGE	3	100.0			3
PSYCHOLOGY			1	100.0	1
TOTALS	160	64.3	89	35.7	249

TABLE 23a

Frequencies and Per Cents That Training For Subjects Taught Meets the Standard According to Total Subjects in Each Field

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	81	81.8	15	15.2	3	3.0	99
SOCIAL SCIENCE	51	70.8	16	22.2	5	7.0	72
NATURAL SCIENCE	33	40.2	37	45.1	12	14.6	82
MATHEMATICS	20	52.6	10	26.3	8	21.1	38
COMMERCE	18	64.3	6	21.4	4	14.3	28
HOME ECONOMICS	59	98.3	1	1.7			60
INDUSTRIAL ARTS	8	100.0					8
PHYSICAL EDUC.	24	51.1	10		13	27.7	47
AGRICULTURE	14	93.4	1				15
MUSIC	22	91.7	2				24
ART	2	100.0					2
LATIN	1	100.0					1
LANGUAGE	6	64.7	11	35.3			17
TOTALS	339	68.8	109	22.1	45	9.1	493

TABLE 23b

Frequencies and Per Cents That Training For Subjects Taught Meets or Fails to Meet the Standard According to Total Subjects in Each Field

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	99	55.0	81	45.0	180
SOCIAL SCIENCE	72	50.0	72	50.0	144
NATURAL SCIENCE	82	62.1	50	37.9	132
MATHEMATICS	38	37.9	58	62.1	96
COMMERCE	28	18.3	125	81.7	153
HOME ECONOMICS	60	76.9	18	23.1	78
INDUSTRIAL ARTS	8	36.4	14	63.6	22
PHYSICAL EDUC.	47	41.6	66	58.4	113
AGRICULTURE	15	93.8	1	6.2	16
MUSIC	24	45.3	29	54.7	53
ART	2	40.0	3	60.0	5
LATIN	1	7.1	13	92.9	14
LANGUAGE	17	85.0	3	15.0	20
PSYCHOLOGY			1	100.0	1
TOTALS	493	48.0	534	52.0	1027

trial arts, and agriculture. Commercial subjects show favorably according to major preparation, but in the comparison (Table 23b) of preparation which meets or fails to meet the standard it is below by 81.7%. This table is one of the most significant for giving a general picture of this study. It is indicated that although more cases meet the standard than fall below in Group VII, there are 41 more reports falling below the standard than there are above in the grand total for all subjects.

In Table 24 is found the same frequencies but with percentages according to the totals of each column. It should read: the 81 reports of English taught represent 23.9% of the 339 times this subject is shown to have major preparation. Table 24b reveals that nearly one fourth of the reports of subjects for which preparation was listed as below standard was concerned with commercial subjects.

Interesting facts can be gathered from Table 25. Part (a) indicates all majors listed as taught and those which are not taught and the percentages according to the total majors in the subject. Part (b) shows the same for minors. About the same percentage of total majors are taught as there are total minors listed which are not taught. This is really a favorable circumstance as there are usually more minors listed than majors. There can be

TABLE 24a

Frequency and Per Cent of Subjects Taught For Which Training
Meets Standard According to Majors and Minors

SUBJECTS	MAJOR		MINOR		NEITHER		TOTALS
	No.	%	No.	%	No.	%	
ENGLISH	81	23.9	15	13.8	3	6.7	99
SOCIAL SCIENCE	51	15.0	16	14.7	5	11.1	72
NATURAL SCIENCE	33	9.7	37	33.9	12	26.7	82
MATHEMATICS	20	5.9	10	9.2	8	17.8	38
COMMERCE	18	5.3	6	5.6	4	8.9	28
HOME ECONOMICS	59	17.4	1	.9			60
INDUSTRIAL ARTS	8	2.4					8
PHYSICAL EDUC.	24	7.1	10	9.2	13	28.8	47
AGRICULTURE	14	4.1	1	.9			15
MUSIC	22	6.5	2	1.8			24
ART	2	.6					2
LATIN	1	.3					1
LANGUAGE	6	1.8	11	10.0			17

TABLE 24b

Comparison of All Subjects Taught For Which
Training Meets or Fails to Meet Standard

SUBJECTS	STANDARD		BELOW		TOTALS
	No.	%	No.	%	
ENGLISH	99	20.1	81	15.2	180
SOCIAL SCIENCE	72	14.6	72	13.5	144
NATURAL SCIENCE	82	16.6	50	9.4	132
MATHEMATICS	38	7.8	58	10.8	96
COMMERCE	28	5.7	125	23.3	153
HOME ECONOMICS	60	12.3	18	3.4	78
INDUSTRIAL ARTS	8	1.6	14	2.6	22
PHYSICAL EDUC.	47	9.5	66	12.4	113
AGRICULTURE	15	3.1	1	.2	16
MUSIC	24	4.7	29	5.4	53
ART	2	.4	3	.6	5
LATIN	1	.2	13	2.4	14
LANGUAGE	17	3.4	3	.6	20
PSYCHOLOGY			1	.2	1
TOTALS	493	100.0	534	100.0	1027

TABLE 25a

Frequencies and Per Cents of All Majors Reported

SUBJECTS	MAJORS TAUGHT		MAJORS NOT TAUGHT		TOTAL MAJORS
	No.	%	No.	%	
ENGLISH	81	80.2	20	19.8	101
SOCIAL SCIENCE	51	50.0	51	50.0	102
NATURAL SCIENCE	33	78.6	9	21.4	42
MATHEMATICS	20	76.9	6	23.1	26
COMMERCE	18	69.2	8	30.8	26
HOME ECONOMICS	59	100.0			59
INDUSTRIAL ARTS	8	80.0	2	20.0	10
PHYSICAL EDUC.	24	72.7	9	27.3	33
AGRICULTURE	14	87.5	2	12.5	16
MUSIC	22	84.6	4	15.4	26
ART	2	100.0			2
LATIN	1	16.7	5	83.3	6
LANGUAGE	6	18.7	27	81.8	33
PSYCHOLOGY			3	100.0	3
EDUCATION			5	100.0	5
TOTALS	339	69.2	151	30.8	490

TABLE 25b

Frequencies and Per Cents of All Minors Reported

SUBJECTS	MINORS TAUGHT		MINORS NOT TAUGHT		TOTALS
	No.	%	No.	%	
ENGLISH	15	19.0	64	81.0	79
SOCIAL SCIENCE	16	23.5	52	76.5	68
NATURAL SCIENCE	37	34.9	69	65.1	106
MATHEMATICS	10	71.4	4	28.6	14
COMMERCE	6	46.2	7	53.8	13
HOME ECONOMICS	1	33.3	2	66.7	3
INDUSTRIAL ARTS			2		2
PHYSICAL EDUC.	10	55.6	8	44.4	18
AGRICULTURE	1	100.0			1
MUSIC	2	50.0	2	50.0	4
ART					
LATIN			5	100.0	5
LANGUAGE	11	12.8	75	87.2	86
PSYCHOLOGY					
EDUCATION			12	100.0	12
TOTALS	109	26.5	302	73.5	411

no great significance placed upon this table, however, as many teachers who are teaching in their major field of preparation list one or more minors. This would seem to indicate less teaching in the field in which one had trained than is actually true. It can be noted that there is a large number who do have training in these various subjects whether called upon to teach them or not.

Parts (a) and (b) of Table 25 were combined to make Table 26. Interpretation shows that of all English majors and minors listed by 410 teachers, 46.7% was indicated by teachers who were teaching other subjects than English, or else were teaching in this subject but the amount of training did not meet the standard.

TABLE 26

Comparison of Total Majors and Minors Taught to Total
Majors and Minors Not Taught

SUBJECTS	MAJORS AND MINORS TAUGHT		MAJORS AND MINORS NOT TAUGHT		TOTAL MAJORS AND MINORS
	No.	%	No.	%	No.
ENGLISH	96	53.3	84	46.7	180
SOCIAL SCIENCE	67	39.4	103	60.6	170
NATURAL SCIENCE	70	47.3	78	52.7	148
MATHEMATICS	30	75.0	10	25.0	40
COMMERCE	24	61.5	15	38.4	39
HOME ECONOMICS	60	96.8	2	3.2	62
INDUSTRIAL ARTS	8	66.7	4	33.3	12
PHYSICAL EDUC.	34	66.7	17	33.3	51
AGRICULTURE	15	88.2	2	11.8	17
MUSIC	24	80.0	6	20.0	30
ART	2	100.0			2
LATIN	1	9.1	10	90.9	11
LANGUAGE	17	14.3	102	85.7	119
PSYCHOLOGY			3	100.0	3
EDUCATION			17	100.0	17
TOTALS	448	49.7	453	50.3	901

CHAPTER IV

CONCLUSIONS AND SUMMARY OF THE REPORT

This study provided information about the relationship of academic preparation for subjects taught in Oregon high schools by 1,516 teachers in 1934-1935, by 1,557 teachers in 1935-1936, and by 410 newly employed teachers for the year 1935-1936. In the analysis of these facts the schools have been classified into three divisions on the basis of size of teaching staff. The extent of preparation was measured by a college major or minor norm in the first phase of the report and by certain established standards of credit hours in the second phase.

It was found that teachers of the smallest schools are teaching more subjects outside of their field than subjects for which they are prepared. In schools slightly larger the per cent of subjects taught for which there is neither a major nor a minor varies from approximately 30% to 40%. In Groups VI and VII there is evidence of more subjects being taught for which there is adequate preparation. Of the total number of subjects taught which are included in the 1934-1935 investigation, there was 30.3% being taught with neither major nor minor preparation as compared to 27.8% in 1935-1936. A larger percentage of teachers employed to teach home econ-

omics or agriculture have majors or minors than for other subjects. Preparation for teachers of commercial subjects is less than for any other subject for which there is a comparable number of reports. Only in home economics, agriculture, music and art does the number of teachers having majors for subjects taught exceed 50%.

The situation for 1935-1936 is only slightly better than for 1934-1935.

Of the 410 new high school teachers who were employed to teach in Oregon high schools in 1935-1936, less than one half were teaching subjects for which their preparation was equal to the credit hours that will be required of teachers employed after September 1938.

In some instances teachers would be teaching subjects in their major or minor field for which the number of credit hours of preparation less than the standard. A comparison made of the number (over two thirds) who were teaching their majors and minors in the first study and the less than half who failed to meet the standard in the second gives rise to the following question: How reliable a criteria is a major or a minor for measuring preparation?

A different comparison exists when an analysis of the standard shows the required number of term hours for each subject to be the approximate equivalent of a college major. The 48% of subjects taught for which preparation meets the

standard is then more comparable to the approximate 40% of teachers who are teaching their major subject for Oregon high schools in general.

More than two thirds of the total majors listed by 410 teachers were being taught while the percentage of minors which were not taught was slightly higher. When combined it is discovered that half of the majors and minors were being taught and half were not.

Authors of related studies have reported findings which led to conclusions and recommendations to many of which this study adds confirmation. Some of these with additional generalizations are:

1. That teachers should be trained in at least three subjects. There are but few teachers who have not been called upon to teach some subject in which they were not prepared.
2. That a committee be established which is part of the State Department of Education to make an annual investigation of the supply and demand of teachers for any given subject.
3. That there should be a greater amount of cooperation on the part of employing superintendents to schedule teachers for the subjects they are prepared to teach.
4. That a state should issue certificates to teach only specific subjects rather than offer general certification.
5. That there should be elimination of the smaller schools through consolidation. Studies have provided evidence

that there is a financial saving to the district and it is safe to assume that students will be benefited by studying under teachers who are more likely to be teaching their major or minor subjects.

6. That the educational departments in institutions which train teachers further investigate the adoption of a testing program for any student desiring to enroll with the intention of becoming a teacher. This might lead to the detection of certain qualifications which the student lacks and which are deemed necessary to successful teaching.

7. That the certification departments of the state again use the testing program for issuing certificates to teach. Such a test should allow the teacher to demonstrate skills and knowledges secured in academic preparation, rather than for the department of certification to grant a certificate just because an applicant has a degree and can show the required credit hours of professional training.

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APPENDIX

ANNUAL REPORT OF A STANDARD HIGH SCHOOL
STATE OF OREGON

NOTICE: This report will be made out by the principal or superintendent and the district clerk conjointly. It will be submitted to the county school superintendent at the end of the current school year.

CERTIFICATE OF TRANSMITTAL

SCHOOL
DISTRICT NUMBER
COUNTY
PRINCIPAL

To the State Superintendent of Public Instruction:

I, hereby certify that I am the Principal of High School
and that the accompanying report is a true, complete, and correct statement of the facts and figures requested, as I verily believe.

GENERAL STATISTICS

- 1. Number of teachers employed exclusively for High School purposes: Men Women
2. Number of teachers employed part time for High School purposes: Men Women
3. Full-time equivalency of part-time teachers: Men Women
4. Number of tuition pupils attending your high school from your county during the year
5. Number of tuition pupils attending your high school from other counties during the year
6. Number of pupils who graduated this year
7. Total enrollment: Boys Girls Total
8. High school graduates of the preceding year who entered institutions of higher education: Location Col. or Univ. Nor. Sch. Bus. Col. Tech. Sch.
9. Total days' attendance in High School
10. Actual number of days taught
11. Average daily attendance in High School
12. Average daily attendance of tuition pupils from your county
13. Average daily attendance of tuition pupils from other counties
14. If a Union High School, what are the numbers of the elementary districts comprising the unionization?

ADMINISTRATION

- 1. Does your school maintain the type of permanent record system approved by the State Department of Education? What is its name?
2. How many units are required for graduation?
3. Length of class periods
4. Number of class periods per day
5. Are graduation credits ever given in any subject for less than half a unit? What subjects?
6. Number of pupils enrolled in outside music for credit
7. Number of pupils carrying the following subjects: HIGH SCHOOL CLASSES
8. Number of high school pupils residing within the district transported at district expense
9. Number of high school pupils transported to your school at expense of non-high school district
10. Is provision made for regular instruction in physical education? How many minutes per week are required?

* Total part-time periods divided by average number daily periods taught by full-time teachers equals full-time equivalency. In determining this figure principals, vice-principals, study hall teachers, vocational advisers, librarians and supervisory teachers shall be included for such time as they give to high school work and management; and the time of full-time secretaries and clerks shall also be counted as teachers on the basis of one teacher for two full-time clerks.

CURRENT COST OF HIGH SCHOOL EDUCATION

- I. General Control
Items under this heading shall be prorated to the expense of maintaining the high school in the proportion that the average daily attendance in the four high school grades bears to the total average daily attendance for all grades in the district, except in the case of union high school districts and county high school districts and high schools maintained in a school district in which all the elementary schools are under the direct management and jurisdiction of a state normal school, in which cases the full amount shall be used. One-third of the salary for that part of the superintendent's time devoted to administration shall be chargeable to the high school grades. Total, \$
II. Instruction—Supervision
The items under this heading shall include the proportionate share of the expenditures directly chargeable to the expense of the supervision of the high school grades. One-third of the salary for that part of the superintendent's time devoted to supervision shall be chargeable to the high school grades. Total, \$
III. Instruction—Teaching
The items under this heading shall include the proportionate share of the expenditures directly chargeable to the expense of the teaching in the high school grades. If the superintendent teaches classes in high school, that part of his salary allocated for such teaching shall be chargeable to the high school grades. Total, \$
IV. Operation of Plant
The items under this heading shall include the proportionate share of the expenditures directly chargeable to the high school grades. Total, \$
V. Maintenance and Repair
The items under this heading shall include the proportionate share of the expenditures directly chargeable to the high school grades, but shall not include any amount for the purchase of new furniture or new equipment or for making alterations and building of additions. Total, \$
VI. Auxiliary Agencies
The items under this heading shall include the proportionate share of the expenditures directly chargeable to the high school grades, but shall not include any amount for the transportation of pupils. Total, \$
VII. Fixed Charges
1. Insurance—The items under this heading shall include the proportionate share of the expenditures directly chargeable to the high school grades. Total, \$
2. Rent or Depreciation of Buildings
(1) Rent—This item shall be used only in case the high school district is renting equipment, rooms, buildings or ground for the high school grades and the amount charged shall be the amount of the rent paid by the board of the high school district. Total, \$
(2) Depreciation of Buildings Owned by the High School District—This item shall be computed annually for the different types of buildings used for the high school grades according to the following rates for the specified building classifications and such charge shall cease at the expiration of the estimated life of the building on which each of such depreciation rates is based:
(a) One and one-half per cent of the original cost of any completely fireproof construction building with fully reinforced floors, walls and roof. Total, \$
(b) Two per cent of the original cost of any stone, concrete or brick building. Total, \$
(c) Three per cent of the original cost of any stone, concrete or brick veneer building. Total, \$
(d) Four per cent of the original cost of any wood-frame building. Total, \$
3. Depreciation of Furniture and Equipment—This item shall be 6 per cent of the appraised value of furniture and equipment used for high school purposes, which value shall be the amount used as the basis on which insurance is calculated. Total, \$

Total Current Cost of High School Education
Per Pupil Cost of High School Education
Total Cost of Transportation
Per Pupil Cost of Transportation

COURSE OF STUDY

* COURSE	† Total annual enrollment in course	No. pupils passed	‡ No. pupils failed	No. weeks in course	¶ No. periods per week	* COURSE	† Total annual enrollment in course	No. pupils passed	‡ No. pupils failed	No. weeks in course	¶ No. periods per week
English—						Science—					
English, first year						Health					
English, second year						Elementary Science					
English, third year						Botany					
English, fourth year						Biology					
						Chemistry					
						Physics					
Mathematics—											
General Mathematics						Commercial—					
Higher Arithmetic						Commercial Geography					
Algebra, first year						Commercial Arithmetic					
Algebra, advanced						Bookkeeping, first year					
Plane Geometry						Bookkeeping, advanced					
Solid Geometry						Shorthand, first year					
Trigonometry						Shorthand, second year					
						Typewriting, first year					
Ancient Languages—						Typewriting, second year					
Latin, first year						Commercial Law					
Latin, second year						Elem. Business Training					
Latin, third year											
Modern Languages—						Drawing—					
French, first year						Mechanical Drawing, first year					
French, second year						Mechanical Drawing, second year					
Spanish, first year											
Spanish, second year						Mechanic and Applied Arts—					
						Industrial Arts, first year					
Social Studies—						Industrial Arts, second year					
American History						Home Economics, first year					
World History						Home economics, second year					
Geography						Related Art					
Civics						Related Science					
Elementary Economics						Agriculture					
Social Problems						First year					
						Second year					
						Third year					

NOTES: * The names of the courses are those followed in the Course of Study for the high schools of Oregon. In case of variation in the courses offered use the blank space or interline.
† Schools with midyear promotions please use enrollment figures for second semester, except for courses offered in first semester only.
‡ Include those dropping out because of difficulty of course.
¶ Count a laboratory period as one period.

PLANT AND EQUIPMENT

1. Is the high school housed separately from the grades?
2. Has the school a separate auditorium? What is its seating capacity?
A separate gymnasium?
3. Is the library suitably catalogued? Housed in a separate room?
Who is responsible for its care? How many volumes, exclusive of fiction?
4. Are cabinets provided for scientific apparatus? 8. Estimated value of equipment:
5. Are the lavatories inside or outside the building? Library . . . \$.....
Are they clean and in a sanitary condition? Scientific . . . \$.....
6. Of what material is the building constructed? Dom. Sci., Art . . \$.....
7. When was it constructed? Man. Arts . . . \$.....
What was its cost? \$..... Furniture . . . \$.....

HIGH SCHOOL STAFF

[illegible]

NOTES: * Please list the teaching staff alphabetically, naming the Principal first.
† Indicate basis or kind of certificate and duration, such as: Col. grad.—1 yr.; Norm. grad.—5 yr.; Exam.—life; Special—1 yr.; Vocational—5 yr.
‡ If other subjects not included in majors or minors are taught, name subjects and term hours of college preparation in each, such as: English, 10; Man. Arts, 12.

Record of High School Teacher Preparation

..... Location
 (Name of graduate) (Date)

....., 19.....
 (Name and address of institution) (Date of graduation)

Column 1. Indicate hours of college work in Specific Subjects (including allied courses) listed below.

Column 2. Indicate hours of college work in General Fields (English, Languages, Social Studies, etc.) listed below.

Column 3. Check (✓) general fields and specific subjects this graduate is prepared to teach.

	1	2	3		1	2	3
English	Commerce . . . . .	.....	.....	.....
Languages	Bookkeeping . . . . .	.....	.....	.....
French	Business Training . . . . .	.....	.....	.....
German	Commercial Law . . . . .	.....	.....	.....
Spanish	Shorthand . . . . .	.....	.....	.....
Latin	Typewriting . . . . .	.....	.....	.....
Social Studies	Natural Science . . . . .	.....	.....	.....
History	Health Education . . . . .	.....	.....	.....
Civics	Biology . . . . .	.....	.....	.....
Social Problems	Physics . . . . .	.....	.....	.....
Elem. Economics	Chemistry . . . . .	.....	.....	.....
Geography	Physical Education . . . . .	.....	.....	.....
Mathematics	Industrial Arts . . . . .	.....	.....	.....
Algebra	Home Economics . . . . .	.....	.....	.....
Geometry	Agriculture . . . . .	.....	.....	.....
Trigonometry				

The college hours indicated on this form are hours.
 (OVER) (Semester or term)

Majors:

Minors:

Is this graduate qualified to act as the administrative head of a hi
school?

(Yes or No)

List courses in education taken by this graduate:

Total number of hours earned in education:

.....
(Date filled in)

.....
(Signature of official reporting)

Return to Superintendent of Public Instruction

Salem, Oregon