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A SURVEY OF FACTORS PERTINENT TO THE REVISION
OF CERTIFICATION REQUIREMENTS FOR MONTANA
SECONDARY SCHOOL TEACHERS

by

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B.A., Montana State University, 1947

A Thesis
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requirement for the degree of
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1949

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CHAPTER I

THE PROBLEM

Since the quality of instruction which our children receive is determined largely by the caliber of the teaching personnel and the latter is, to a considerable extent, dependent upon the requirements teachers must meet for certification, the officials charged with the administration of certification have a most important responsibility. In 1933, Benjamin Frazier of the U. S. Office of Education in one of the more thorough publications on certification, defined the function of certification as follows:

The primary purpose of certification, as traditionally administered, is to protect the State against incompetent teachers. It protects the State against waste in the expenditure of public-school funds, protects pupils against ill-prepared teachers; and protects qualified teachers against the unfair competition of those not qualified. Properly administered, certification may be made a positive force for educational advancement, as well as a protective device. Within limits it may be made to advance teacher competency, as well as to prevent manifest incompetency. It may be used not only to advance the qualifications of beginning teachers, but also to improve the qualifications of teachers in service. Furthermore, it may be used to yield information on which a continuous inventory of teachers and their qualifications may be based, and thus to assist in maintaining a proper balance between teacher supply and demand. The several functions of certification are yet to be exercised in full in many States. Properly administered, certification is one of the most effective means to raise the qualifications of teachers.¹

1. Benjamin W. Frazier, "Development of State Programs for the Certification of Teachers," Bulletin 1933, No. 12 of the United States Department of the Interior Office of Education, p. 5.

CHAPTER I

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1. Benjamin W. Frazier, "Development of State Programs for the Certification of Teachers," Bulletin 1933, No. 12 of the United States Department of the Interior Office of Education, p. 5.

As recently as 1948 the State Education Commission in North Carolina stressed the principal point made by Frazier. The Commission says that, "The purpose of certification is to guarantee, as far as it is possible to do so, that each child will have the quality of teaching which he needs and deserves."²

The process of certification is not as simple as it might seem at first glance. Many different groups are involved in and concerned with the making of certification laws, rules, and regulations. Fundamentally, all rules and regulations are based on the state law. Such a law is the result of much thought on the part of interested persons--usually educators and, of course, legislators. In Montana the law itself is stated in broad general terms³ with the adoption of rules and regulations left up to the State Board of Education. The State Superintendent of Public Instruction is charged with formulating and recommending methods and policies to the Board. Educators and other interested persons have their influence on the formulation of the rules and regulations. These regulations are not static but require frequent revision and change. Constant study of the problem is necessary. Like most processes in these United States, the best possible results are obtained through the mutual cooperation of all concerned.

2. Report of the State Education Commission, Education in North Carolina, December 1948, p. 306.

3. See quotation of House Bill No. 248, Legislative Assembly of the State of Montana, 1949, p. 75.

I. THE PURPOSE OF THIS STUDY

It is the purpose of this study to bring together information pertaining to certification which would be of value to any person or persons concerned with the revision of regular, initial certification requirements for Montana secondary school teachers. The following information will be presented:

1. History of certification in the United States as a whole and Montana in particular during the twentieth century.
2. Current practices and trends in the United States in general and in Montana specifically.
3. Factors which have a bearing on the problem of teacher certification in Montana, including the following: smallness of Montana high schools, high school offerings in Montana, supply of and demand for Montana teachers, and subject combinations taught in Montana high schools.

It is not the purpose of this study to formulate or recommend a definite certification program or pattern for Montana, but rather to furnish background information which would aid in such formulation and recommendation.

II. DELIMITING THE PROBLEM

As has been previously stated, this study is concerned primarily with regular, initial certification requirements for secondary school teachers. For purposes of clarification the following terms are defined:

Regular. A regular certificate is one which is issued to an applicant upon completion of a certain pre-determined course of training as specified by law. The regular Montana secondary certificate is granted to anyone who holds a degree from any unit of the University of Montana showing that the holder has completed a four-year course of secondary school education from such institution. The regular certificate is contrasted with emergency certificates which are issued by special dispensation when regularly certified teachers cannot be secured.

Initial. An initial certificate is the first certificate issued to the inexperienced beginner who has completed the specified requirements.

Secondary school. The secondary school is that part of the public school system which includes junior high schools (grades 7 to 9), high schools (9 to 12), six-year high schools (7 to 12), and senior high schools (10 to 12).

Teacher. For purposes of this study the term teacher means classroom teacher, and does not include supervisors or administrators.

Certificate. A teacher's certificate is an instrument that gives a person legal authority to teach. It is usually granted by some governmental agency upon the basis of college credentials, teaching experience, or examination, and is valid in one or more types of public-school teaching positions.⁴

4. Frazier, op. cit., p. 5.

Certification. Certification is the process of regulating the issuance of certificates for teaching in the public schools, defining terms pertaining to certificates, enumerating the classes and kinds of certificates, and taking care of all clerical work entailed in the issuance of said certificates.

It is not within the scope of this study to discuss the certification of elementary school teachers, supervisors, or administrators. Neither is it concerned with emergency certificates, renewal of certificates, temporary certificates, or special certificates.

III. IMPORTANCE OF THE PROBLEM

Since secondary school enrollment has increased from 519,251 in 1900 to approximately 7,000,000⁵ at the present time, and there has been "gradual acceptance of the idea that basic or general education for the majority of American youth should include experience in the secondary schools,"⁶ it can be seen that our teachers play an ever increasingly important role in guiding the lives of our youth. For this reason it seems necessary that we should look at our certification laws to determine whether secondary school teachers

5. Chris A. DeYoung, Introduction to American Public Education (New York: McGraw-Hill Book Company, Inc., 1942), p. 196.

6. Antrim E. Barnes Jr., "Educational Offerings in Montana High Schools 1945-1947," (unpublished Master's thesis, Montana State University, Missoula, 1948) p. 1.

are required to have the qualifications deemed necessary for helping the students reach their goals. R. C. Woellner says that, "This subject (certification) should challenge students in education and public certificating officials to continue the attempts to improve the processes involved in providing children with the best educational leadership that our society affords."⁷

Bess Goodykoontz, former Assistant Commissioner of Education, had this to say regarding the importance of adequate certification laws:

The standards set in teacher-certification requirements, and the effectiveness of the administration of the certification, have been intimately related to the advancement of public education throughout its history.⁸

Benjamin W. Frazier very aptly emphasized the significance of the problem of certification when he said:

Every State in the Union makes provisions for the certification of its teachers. The importance of certification is also recognized in foreign countries, most of which certificate their teachers, or provide equivalent means for the legal qualification of applicants for positions in their schools.

Teacher certification is related to most aspects of public education. The largest single item in State expenditures for education is for teachers' salaries, and teacher certification constitutes one of the most effective means available to the State for avoiding waste of public funds caused by the employment of incompetent instructors. Constant reminders are given in the literature of education that qualifications of teachers constitute the key to educational efficiency, and that

7. Walter S. Monroe, editor, Encyclopedia of Educational Research (New York: The Macmillan Company, 1941), p. 1244.

8. Frazier, op. cit., p. vii.

the provision of competent teachers overtops in decisive importance all other State educational enterprises. In the wide range of personnel administrative activities involving teacher recruitment, preservice education, employment, assignment to work, and in-service education, certification has an essential place. The requirements for certification are an index to the amount of education of the teachers of a State, and are indications of the conscious concern of a State school administration for the advancement of the qualifications of its teaching staff.

In determining the qualifications of teachers, certification requirements ultimately affect the educational welfare and advancement of pupils around whom all public-school educational activities revolve. The certification of teachers is therefore so directly related to important aspects of education that even slight improvements in certification requirements may have widespread and lasting effects in the educational advancement of a state.⁹

That much thought has been given to the subject of certification and that it is considered important by the people of Montana is evidenced by House Bill No. 248 which was passed by the 1949 session of the Montana legislature. Parts of the law pertinent to secondary certification are quoted on page 75. This law makes possible many significant improvements and changes in the Montana teacher certification set up. One of the significant improvements is the Secondary School Advanced Certificate which is a step in the direction of the fifth year requirement for all secondary school teachers. A fifth year of preparation by 1955 has been recommended by the Montana Education Association.¹⁰ Another important change is the omission of provision for a Life Certificate.

9. Ibid., p. 2.

10. Montana Education Association, "Professionalization of Teaching," Montana Education, 24:17, September, 1947.

IV. PROCEDURE

In the process of collecting the historical data many sources were considered and rejected. The reports of the U. S. Office of Education were finally settled upon as the best all around source of information for the United States in general. These reports came at fairly regular intervals and followed a fairly consistent pattern throughout. This aided in the compilation of tables designed to show certification trends in the United States.

The actual certification regulations of five states¹¹ and the District of Columbia were consulted for the purpose of determining just what requirements are being made in those states where five years of college are necessary for secondary certification. Reeder states that:

Our school systems have become increasingly similar through the long-time operation of experimentation and imitation. This experimentation and imitation have worked somewhat as follows: A certain community or state has adopted a given policy, has demonstrated the merit of the policy, and before many years have elapsed other communities or states--perhaps all of them--have adopted the essential features of the same policy.¹²

An example of this imitation is the policy of requiring five years of college for initial secondary certification. California was first to effect the change. Other states have followed. California seems determined to keep one step ahead of all the other states. The requirements

11. Arizona, California, New York, Oregon, and Washington.

12. Ward G. Reeder, The Fundamentals of Public School Administration (New York: The Macmillan Company, 1941), p. 45.

have been raised (effective September 1, 1951) from 24 semester hours of graduate work to 30 semester hours of graduate work.¹³

Finally, a study was made of other investigations in Montana which would have a bearing on the problem of certification.

13. See Table XI, p. 54.

CHAPTER II

A SUMMARY OF HISTORICAL DEVELOPMENTS IN THE CERTIFICATION OF SECONDARY SCHOOL TEACHERS DURING THE TWENTIETH CENTURY

An attempt is made in this chapter to present a comprehensive picture of certification in the twentieth century by presenting a resumé of developments in the areas of certification for that period.

I. DEVELOPMENTS IN THE UNITED STATES

Most of this information has been drawn from reports of the U. S. Office of Education (or whatever name it might have been known by at the time).¹ It is assumed that changing requirements indicate the major trends in certification during the past fifty years.

Some work has been done on a regional basis toward formulating better certification procedures, and some individual states have made intensive studies of their own problems. The results of such investigations are reflected in changing requirements in the United States as a whole.

-
1. 1867 - Department of Education created.
1869 - Office of Education placed under the Department of the Interior.
1870 - Renamed the Bureau of Education, under the Department of the Interior.
1929 - Renamed the Office of Education, under the Department of the Interior.
1939 - Office of Education transferred to the Federal Security Agency.

A. Administration of Certification

The administration of certification has been, and still is to a certain extent, organized into five different systems. Updegraff classified these systems as follows:²

1. The state system.
2. The state-county system.
3. The state-county-local system.
4. The state-local system.
5. The county system.
6. A sixth system is mentioned but not considered for purposes of this report. This is the local or town system which exists in some states along with other systems in force. There has been a gradual decline of certification by town systems. They will probably eventually disappear.

Frazier in 1933 used a slightly different system of classifying administrative agencies. The results of his classification are shown in Table I, page 12.

It is implied by the United States constitution that education is a state rather than a federal function.^{2a} That the states have more and more assumed this role is shown in Table I. In 1898 only four states had assumed control of certification. By 1926 the number had reached forty, and "on the whole, it appeared that State standardization of certificates might be considered as an established policy

2. Harlan Updegraff, "Teachers' Certificates Issued Under General State Laws and Regulations," Bulletin 1911, No. 13 of the United States Bureau of Education, p. 133.

2a. Tenth Amendment to the Constitution.

TABLE I
 NUMBER OF STATES HAVING VARIOUS KINDS OF CERTIFICATING
 SYSTEMS DURING SELECTED YEARS 1898 - 1937*

Kind of System	Number of States (1)						
	1898	1911	1921	1926	1930	1937	
	1	2	3	4	5	6	7
State systems (State issues all certificates) (2)	3	15	26	36	38	41	
State-controlled systems (State prescribes rules, gives questions, and examines papers; county authorities issue some certificates)	1	2	7	4	3	3	
Semi-State systems (State makes regulations and gives questions; county authorities issue certificates and correct papers)	17	18	10	5	4	1	
State-county systems (both issue certificates; county retains full control over examination for one or more types of certificates)	18	7	3	2	2	2	
State-local systems	--	--	2	1	1	1	

(1) Temporary and emergency certificates and permits not included.

(2) Issuance of certificates by higher education institutions and by cities not here considered.

* Benjamin W. Frazier, "Development of State Programs for the Certification of Teachers," Bulletin 1938, No. 12 of the United States Department of the Interior Office of Education, p. 16.

in the United States."³ By 1936 the total had reached forty-four states.

Although the states legally have control of education within their boundaries, the state authorities do not select and employ teachers for the local districts. On the contrary, the trustees of a school district may hire any teacher who holds a state issued certificate covering the position for which he is hired.

State control technically is in the hands of the legislature but in most states certification laws are quite general. The actual formulation of the rules and regulations usually is left to the State Board of Education.

The process of certification of teachers is a complex one which involves the consideration of many factors by the certifying authority. Among these factors are such things as the recruitment and selection of prospective teachers for training, the actual training, certification after preparation, and employment. The relationships with teacher-training institutions are probably the most important.⁴ Some authorities recommend a single coordinated unit of the state department in charge of teacher certification and teacher preparation.⁵

3. Katherine M. Cook, "State Laws and Regulations Governing Teacher's Certificates," Bulletin 1927, No. 19 of the Department of the Interior Bureau of Education, p. 19.

4. Benjamin W. Frazier, "Development of State Programs for the Certification of Teachers," Bulletin 1938, No. 12 of the United States Department of the Interior Office of Education, p. 10.

5. Ibid., p. 23

If this recommendation were followed it would not mean that the state department would dictate teacher-education policies to the teacher-training institutions but rather is a suggested means for obtaining the maximum amount of cooperation and coordination between the two.

Since the responsibilities of the State Department of Public Instruction are great, the superintendent and staff should be well qualified for their jobs. The positions must be made attractive enough to bring competent, professional educators into the department.

In the last fifty years the state has assumed its legal role in the administration of certification until today nearly every state in the union exercises direct control over certification within its boundaries. As state control has increased local control has decreased. Along with this movement has been an increased delegation of the details of certification by the state legislatures to the state board or state superintendent of education.⁶

B. Status of Interstate Exchange of Certificates
and Recognition of Institutional Credits

Whenever a teacher goes into another state to teach, it becomes necessary for him either to exchange his certificate for a similar one in the new state or to qualify for another certificate. The process of interstate exchange of certificates is known as reciprocity.

6. Ibid., p. 18.

In 1910 Cubberley made the following statement with regard to reciprocity:

The great diversity of the requirements for certificates in the different states, and the general unwillingness of the states to recognize equivalents of training, are two of the most marked characteristics of our educational system. A good teacher today is unnecessarily hampered in his ability to move about, not only from one state to another, but from county to county, and often from city to city or town to town. . . . In nineteen states there was no recognition given to any kind of a credential or diploma from any other state.⁷

Cubberley did not agree with the establishment of these barriers because they served only to keep out or restrict the movement of competent teachers.

Cook in 1927 made the statement that:

There is an apparent desire on the part of states to recognize certificates issued in other states, provided they represent qualifications equivalent to those demanded in the state in which recognition is sought.⁸

In contrast to the above statement, Cook later in the same work said:

Apparently little significant progress has been made in matter of promoting reciprocal relations among states so far as exchange of certificates is concerned, except that gained through the growing tendency to issue certificates on credentials rather than on examination. Most states recognize for certification academic and professional training in state normal schools, universities, and colleges on the same basis whether received within or without the state.⁹

In his analysis of the period 1940 to 1946 Frazier noted a tendency to break down the more or less arbitrary

7. Paul Monroe, editor, A Cyclopedia of Education (New York: The Macmillan Company, 1911), I, 560.

8. Cook, op. cit., pp. 10 and 17.

9. Ibid., p. 27.

requirements made of out-of-state teachers in respect to residence, work in in-state institutions and specific courses peculiar to a given state. During this period only a few states issued certificates in exchange for certificates issued in other states.¹⁰

It thus appears true that reciprocity has not made much headway in the past fifty years, and that further advance rests on progress in standardizing courses in institutions, particularly teacher-training institutions, and on standardization of certification requirements either regionally or nationally. Probably more desirable than interstate exchange, and certainly more workable, is the recognition of institutional credits as the basis for issuance of certificates.

The hopeful side of the picture is indicated in the trend toward breaking down arbitrary requirements. If this tendency continues, and certificates are increasingly issued on the basis of credits earned in any accredited institution, then much has been accomplished.

C. Bases of Issuance of Regular Initial State
Secondary Certificates to Inexperienced Teachers

Initial certificates are issued to inexperienced teachers on the basis of educational preparation as shown

10. Benjamin W. Frazier, "Summary of Teacher Certification Requirements, 1946," Circular No. 233, May 1946, Federal Security Agency, U. S. Office of Education, p. 2.

in transcripts or other statement of college credits, or upon examination.¹¹

In 1910 a few states were beginning to issue a new class of certificate for high school work based in part upon collegiate training. California was the leader with its high school certificate based on college training only.¹² In 1911 twenty-six states (including Montana) issued certificates good in any school in the state to inexperienced college graduates who had completed the minimum professional requirements. Only two states issued certificates, on the same basis, good in secondary only.¹³ The differentiation between secondary and elementary training and certification had not yet become very pronounced. The professional requirements mentioned above ranged from "not specified" in three states to thirty semester hours in one state and two years of training beyond high school in two states.¹⁴ Twenty-five states were indicated as requiring examinations for some of the certificates which they issued in 1911.¹⁵

By 1927 the use of examinations as a method certifying teachers was declining¹⁶ while there was an increase

11. Frazier, Bulletin 1938, No. 12, op. cit., p. 46.

12. Paul Monroe, loc. cit.

13. Updegraff, op. cit., p. 166.

14. Ibid., p. 173.

15. Ibid., p. 143.

16. Cook, op. cit., p. 11.

in the "number and variety of certificates issued on the basis of credits, courses, or curricula offered in higher institutions."¹⁷

The increase in number of high or secondary school certificates is indicated by the fact that by 1927:

All of the states either issued certificates designated as high or secondary school certificates, or they specified that certain certificates were valid in junior or senior high schools and required of teachers in such schools, even though the certificates were not named high school certificates. . . . Thirty-two states issued certificates designated as high-school certificates.¹⁸

The above statement is in contrast to the fact noted previously that in 1911 only two states issued certificates designated as secondary.

By 1938 all states issued one or more kinds of certificates to inexperienced teachers on the basis of educational preparation while, in addition, twenty states issued certificates upon examination.¹⁹ This latter number had dropped to twelve by 1948.²⁰ In most of these states the examinations are state controlled.

A trend toward increasing minimum scholarship requirements for certificating inexperienced teachers is indicated in Table II.

17. Ibid., p. 30.

18. Ibid., p. 22.

19. Frazier, Bulletin 1938, No. 12, loc. cit.

20. Benjamin W. Frazier, "Summary of Teacher Certification Requirements, 1947-48," Circular No. 233, Fifth Revision, February 1948, Federal Security Agency, U. S. Office of Education, p. 2.

TABLE II
 MINIMUM TRAINING REQUIREMENTS FOR CERTIFICATING IN-
 EXPERIENCED TEACHERS FOR SELECTED YEARS 1921 TO 1948*

Level of training	Number of States				
	1921	1926	1937	1948	
	1	2	3	4	5
4 years' college	--	--	5 ⁽¹⁾	16	
3 years' college or normal school.	--	--	8	6	
2 years' college or normal school, including professional preparation	--	4	11	17	
1 year of college or normal school, including professional preparation	--	9	8	8	
High-school graduation and some profession- al preparation in addition but less than one year	4	14	2	1	
4 years' high school (may or may not include professional courses).	14 ⁽²⁾	6	6	--	
No definite scholarship requirement stipulated ⁽³⁾	30	15 ⁽⁴⁾	8 ⁽⁵⁾	1	

(1) Includes California, which certifies only a few teachers by examination, with high-school graduation as a prerequisite.

(2) 1921 classification includes also professional training secured without high-school graduation.

(3) Except in Massachusetts, certificates are issued upon the basis of examinations covering elementary or secondary school subject-matter.

(4) 1926 classification includes Massachusetts, in which relatively few teachers were employed who had not completed a standard normal school course; and Oklahoma and Kentucky, in which completion of ninth grade was a prerequisite.

(5) 1937 classification includes Massachusetts, in which the minimum scholastic requirement for teacher employment is usually 3 or 4 college years; and Oklahoma, in which completion of 2 to 4 years of high-school work is prescribed for a limited elementary certificate.

* Data for columns 2, 3, and 4 from Frazier, Bulletin 1938, No. 12, op. cit., p. 73.

Data for column 5 from Frazier, Circular No. 233, 5th Revision, op. cit., p. 4.

In summary it may be said that Frazier's recommendation in 1938 that, "Examinations as a basis for initial certification should be discontinued in favor of the recommendations of teacher-training institutions"²¹ is being carried out although Frazier's statement may not be the reason.

D. Specific Degree and Course Requirements for Secondary School Teachers in the United States for the Period 1900-1948

In 1903 the statement was made by Elmer E. Brown that:

The teaching force of our secondary schools shows but little uniformity as regards scholastic or professional preparation. On the whole our standards seem to be rising, but the goal which has often been proposed--that our high-school teachers should be college graduates, and should have had, moreover, some substantial pedagogic training is still far off if we consider the schools of the country as a whole.²²

Thirty-five years later Frazier said that, "An outstanding characteristic of requirements for certificates and of patterns of certification is their great diversity."²³

Brown's fears seem to have been realized in that there are still four states in which it is possible to receive a regular academic high-school certificate with less than four years of college preparation.²⁴

21. Frazier, Bulletin 1938, No. 12, op. cit., p. 47.

22. William T. Harris, commissioner of education, Annual Report of the Department of the Interior, 1903, Commissioner of Education, I, 579.

23. Frazier, Bulletin 1938, No. 12, op. cit., p. 48.

24. Frazier, Circular No. 233, 5th Revision, op. cit., p. 4.

It is true, however, that progress has been made and that:

Data collected for 1931 and 1941 suggest a qualitative improvement in the preparation of teachers coincidental with the greater length of time spent in preparation. Standards for certification have been increased by state agencies, by regional accrediting associations, by the selective admission of candidates to teachers colleges, and by the improved training offered there. Longer professional training is replacing the former emphasis upon previous teaching experience.²⁵

Number and types of certificates. There has always been a large number of certificates issued throughout the United States. In 1911 there was a total of 585 certificates of all different types and classes. The median number for all states was eleven. One-half of the states issued from eight to fifteen certificates each.²⁶

In 1940 there were hundreds of different kinds of certificates issued in this country, and the variation in certification requirements was correspondingly large.²⁷

Past practice has been to issue certificates which allow the holder to teach in any school. This practice is declining and although "it is still possible in most states for a college graduate with professional training to secure a certificate that will permit him to teach in subject, grades or fields of work in which he has little if any specific

25. Harry N. Rivlin, editor, Encyclopedia of Modern Education (New York: Philosophical Library, Inc., 1943), p. 817.

26. Updegraff, op. cit., p. 153.

27. Walter S. Monroe, editor, Encyclopedia of Educational Research (New York: The Macmillan Company, 1941), p. 1244

education"²⁸ there has been an increasingly large number of certificates issued for specific subjects, fields, grade levels, or special types of educational service.

A comparatively new development. . . has been the issuance of certificates specifically for teachers of non-academic subjects such as music, and of vocational subjects such as home economics. . . . Specialization has also been extended to include workers in non-teaching educational services, such as school administration.²⁹

Although there has been relatively little change in total number of certificates issued throughout the past years, there has been a steady decrease in the number of types of certificates issued by county and local school authorities, and an increase in the number of types of state certificates.³⁰ This increasing number is in keeping with the trend noted above toward centralization of control in the state authorities.

Minimum amounts of preparation required. Since this paper is concerned mainly with regular, initial certificates issued to inexperienced persons, the term "preparation" as used means academic and professional preparation and does not include experience requirements.

As was stated previously, in 1911 twenty-six states (including Montana) issued certificates, valid throughout the state, to inexperienced college graduates who had completed the minimum professional requirements.³¹ These requirements

28. Updegraff, op. cit., p. 153.

29. Frazier, Bulletin 1938, No. 12, op. cit., p. 51.

30. Ibid., p. 72

31. Updegraff, op. cit., p. 166.

varied from "not specified" in three states to thirty semester hours in one state, and two years beyond high school in two states. Five states (including Montana) required fifteen semester hours of professional preparation. The demand of one year of post graduate study was made by two states.³²

In addition to certificates issued to college graduates, in 1911 twenty-three states issued certificates to teach, either in any public school or in secondary schools only, upon the basis of a four year high school course and two year normal school course or less. Nine states issued similar certificates on the basis of four years of high school and a normal course longer than two years but less than four;³³ four states, on the basis of graduation from high school when some professional work, such as a normal training course, had been taken; three states, on the basis of graduation from high school with no professional course required.³⁴

In contrast to the situations noted above, it is somewhat gratifying to see that in 1947-48 secondary certificates to inexperienced applicants were issued in only four states on the basis of less than four years of college.³⁵ Certainly some progress has been made. Where, in 1911, there were no

32. Ibid., p. 173.

33. Ibid., p. 176.

34. Ibid., pp. 184-5.

35. Frazier, Circular No. 233, 5th Revision, op. cit., p. 4.

specified professional requirements in three states,³⁶ by 1948 the minimum was twelve semester hours of professional preparation in three states with some student teaching and observation required in all but three states.³⁷ Five states and the District of Columbia required five years of college.

It can be seen from Table IV that during the ten year period 1937-47 the number of states requiring two or three years of college for regular secondary certification remained relatively stable. The actual decrease was from three to two in each case. The number of states requiring four years remained at thirty-nine. There was an increase from four to six in the number of states (including the District of Columbia) requiring five years. These increases in minimum requirements do not seem startling but it must be remembered that World War II came during this time and most states were fortunate if they could maintain their standards without trying to raise them.

Frazier says that:

The rise in levels of preparation of teachers bears a close relationship to the rise in levels of certification. On the average, the amount of time spent in preparation by public-school teachers has increased about one year in every sixteen during the past century. . . . It is safe to predict that well within the next twenty-five years the level of four years of preparation above high school will have been reached as an average for all teachers, and a standard now advocated will have been attained for half of the teachers of America.³⁸

36. Updegraff, op. cit., p. 166.

37. Frazier, op. cit., p. 5.

38. Frazier, Bulletin 1938, No. 12, op. cit., p. 74.

TABLE III

MINIMUM REQUIREMENTS IN YEARS ABOVE HIGH SCHOOL GRADUATION, FOR LOWEST GRADE REGULAR ACADEMIC HIGH SCHOOL CERTIFICATES GRANTED TO INEXPERIENCED APPLICANTS, 1937 AND 1947*

State	College years required		State	College years required	
	1937	1947		1937	1947
Alabama	3	4	Montana	4	4
Arizona	5	5	Nebraska	2	4
Arkansas	4	4	Nevada	4	4
California	5	5	New Hampshire	4	4
Colorado	4	4	New Jersey	4	4
Connecticut	4	4	New Mexico	4	4
Delaware	4	4	New York	4	5
District of Col.	5	5	North Carolina	4	4
Florida	4	4	North Dakota	4	4
Georgia	3	3	Ohio	4	4
Idaho	4	4	Oklahoma	3	3
Illinois	4	4	Oregon	4	5
Indiana	4	4	Pennsylvania	4	4
Iowa	4	4	Rhode Island	4	4
Kansas	4	4	South Carolina	4	4
Kentucky	4	4	South Dakota	4	4
Louisiana	4	4	Tennessee	4	4
Maine	4	4	Texas	2	2
Maryland	4	4	Utah	4	4
Massachusetts	4	4	Vermont	4	4
Michigan	4	4	Virginia	4	4
Minnesota	4	4	Washington	5	5
Mississippi	2	2	West Virginia	4	4
Missouri	4	4	Wisconsin	4	4
			Wyoming	4	4

* Data from Frazier, Bulletin 1938, No. 12, op. cit., p. 55, and Frazier, Circular No. 233, 5th Revision, op. cit., p. 4.

TABLE IV

NUMBER OF STATES REQUIRING TWO, THREE, FOUR OR FIVE YEARS
OF COLLEGE FOR LOWEST GRADE ACADEMIC HIGH SCHOOL CERTIFI-
CATE GRANTED TO INEXPERIENCED BEGINNERS, 1937 AND 1947

Senior or 4-year high school certificate: College years required.	Number of States	
	1937	1947
Two years	3	2
Three years	3	2
Four years	39	39
Five years	4	6

The following is a summary of average level of preparation of public-school teachers which bears out the above statement:³⁹

<u>Year</u>	<u>Average Level of Preparation</u>
1839	Not more than eight years of schooling.
1890	Approaching high-school graduation.
1910	Slightly below high-school graduation.
1921-22	Slightly below two years above high school graduation.
1930-31	Between two and three years above high school graduation.
1965 (Prediction)	Four years above high school graduation.

Curricula, subjects, and courses required. It has been previously mentioned that in 1911 the minimum amount of professional training was "not specified" in three states although a minimum amount of professional study was required by thirty-four states for admission to one or more of the certificates based upon college graduation.⁴⁰ Two years later college graduation which included some professional work was quite commonly required as a preparation for teaching in high schools.⁴¹

A trend was noted in 1913 that:

It is only within the past decade that any considerable number of those who expected to teach in secondary

39. Loc. cit.

40. Updegraff, loc. cit.

41. Paul Monroe, op. cit., p. 515.

schools had any preparation for their work other than that gained by the pursuit of the regular academic work of the college or university. Apparently it was the firm belief of all concerned that knowledge of the subject to be taught was all that was necessary by way of preparation for teaching. At the present time in most of our colleges and universities, professional training is provided in educational psychology, in the history of education, and in the philosophy of education, together with some special training in the methodology of the particular subject or subjects which the student is preparing to teach. Along with these theoretical courses have been organized courses in observation and in practice teaching. The professional work begins commonly in the junior year, and is continued in the senior year. From one-half a year to a full year is devoted to these professional courses.⁴²

The change in professional requirements for the period 1913-30 was gradual but not great. This is indicated by the following statement:

In 1930, Bachman found that twenty-seven states made no academic requirements whatsoever for the highest grade academic high-school certificate, other than graduation from a recognized college. Sixteen states required college graduation and also required a major or minors with a specified number of hours of work in each. Only five states required college graduation, and in addition prescribed or suggested the necessary courses to be counted toward required majors or minors.⁴³

It is evident from Table VI, that there is a tendency to increase the professional preparation demanded of inexperienced teachers in addition to their academic training. During the period 1937-47, fifteen states increased their requirements in professional education. These increases ranged from one to ten semester hours. In the same period, eighteen states increased their requirements as to student teaching or demanded

42. Ibid., p. 520.

43. Frazier, Bulletin 1938, No. 12, op. cit., p. 62.

specific amounts of training where previously the requirement had been "some" practice teaching.

Although it is not indicated in Table VI, some states have increased their professional requirements since 1947 or plan to increase them soon. An example of this is California which at present demands eighteen semester hours of professional education of which four must be student teaching. Effective September 1, 1951 this requirement will be twenty-two and six semester hours respectively.⁴⁴

Some states make no stipulation regarding professional preparation other than the total number of hours and number of credits in student teaching. Other states specify not only the number of hours but definite subjects to be taken (Table V).

Marked specialization in professional course prescriptions is by no means as frequent in certification requirements, as in the requirements for graduation set by the institutions that prepare teachers.⁴⁵

Experience requirements. All states issue initial certificates without experience requirements.⁴⁶ Of course many school systems require the applicant to have experience before they will hire him. Some states issue a provisional certificate to the beginner. This certificate may be replaced by a regular certificate on proof of successful teaching experience.

44. See Table XI, page

45. Frazier, Bulletin 1938, No. 12, op. cit., p. 66.

46. Frazier, Bulletin 1938, No. 12, loc. cit.

TABLE V
 REQUIRED AND ELECTIVE COURSES SPECIFIED IN CERTIFICATION
 REGULATIONS AS MEETING REQUIREMENTS IN PROFESSIONAL EDU-
 CATION FOR TEACHERS OF ACADEMIC SUBJECTS IN HIGH SCHOOLS
 IN 45 STATES, 1937*

Course	Number of States
Educational psychology, including psychology of adolescence	43
Student teaching, including observation.	40
Principles of education, including principles of teaching	29
History of education	20
Administration and organization, including school management and supervision.	19
Methods, special; including methods in major, minor or specialized teaching fields	17
Tests and measurements, including educational measurements	16
Philosophy of education.	14
Methods, general; including technique of teaching	10
General psychology	10
Educational sociology.	10
Secondary education, including problems, aims, and practices in secondary education	9
Materials and methods, including contents.	8
Health and physical education, including school and community hygiene.	6
Introduction to teaching, including introduction to education	6
Miscellaneous, including all courses mentioned four times or less	20

* Frazier, Bulletin 1938, No. 12, op. cit., p. 65.

TABLE VI

MINIMUM REQUIREMENTS IN PROFESSIONAL EDUCATION AND
STUDENT TEACHING FOR HIGH SCHOOL CERTIFICATES ISSUED
TO INEXPERIENCED TEACHERS OF ACADEMIC HIGH SCHOOL
SUBJECTS ON A BASIS OF FOUR YEARS OF COLLEGE PREPAR-
ATION, 1937 AND 1947*

State	Number of semester hours required			
	Professional education including student teach- ing and observation		Student teaching and obser- vation	
	1937	1947	1937	1947
Alabama	21	15-24	3	0-3
Arizona	24	24	5	5
Arkansas	16	18	2	5
California	18	18	4	4
Colorado	20	20	4	4
Connecticut	8	18	--	6
Delaware	18	18	3	6
District of Columbia	24	24	4	4
Florida	18	18	--	6
Georgia	9	9-18	--	3
Idaho	15	15	--	3
Illinois	15	16	--	5
Indiana	15	19	3	3
Iowa	15	15	3	3
Kansas	15	18	3	3
Kentucky	18	18	6	6
Louisiana	12	18	4	4
Maine	18	18	--	1
Maryland	16	16	3	3
Massachusetts	12	12	--	1
Michigan	20	20	5	5
Minnesota	15	15	3	3
Mississippi	18	18	--	2
Missouri	15	18	2½-3	2½-5
Montana	15	16	--	1
Nebraska	15	18	--	3
Nevada	18	18	4	4
New Hampshire	12	12	--	1
New Jersey	18	24	X	6

TABLE VI (continued)

MINIMUM REQUIREMENTS IN PROFESSIONAL EDUCATION AND
STUDENT TEACHING FOR HIGH SCHOOL CERTIFICATES ISSUED
TO INEXPERIENCED TEACHERS OF ACADEMIC HIGH SCHOOL
SUBJECTS ON A BASIS OF FOUR YEARS OF COLLEGE PREPAR-
ATION, 1937 AND 1947*

State	Number of semester hours required			
	Professional education including student teach- ing and observation		Student teaching and obser- vation	
	1937	1947	1937	1947
New Mexico	15	15	--	4
New York	18	18	2	2
North Carolina	18	18	3	3
North Dakota	16	16	X	3
Ohio	17-19	17	3-5	3
Oklahoma	10	15	4	6
Oregon	15	27	2	4
Pennsylvania	18	18	6	6
Rhode Island	25	25	X	(1) 6
South Carolina	18	18	--	6
South Dakota	15	15	3	3
Tennessee	18	18	--	2-4
Texas	24	12, 24	X	6
Utah	18	22	X	10
Vermont	12	12	3	3
Virginia	18	18	6	6
Washington	16	16	3	3
West Virginia	20	20	3	5
Wisconsin	18	18	5	5
Wyoming	16	16	2	2

(1) 400 clock hours

* Data from Frazier, Bulletin 1938, No. 12, op. cit.,
p. 64, and Frazier, Circular No. 233, 5th Revision, op. cit.,
p. 5.

TABLE VII
COMPARISON OF MINIMUM AGE REQUIREMENTS FOR LOWEST GRADE
CERTIFICATES BY NUMBER OF STATES 1911, 1937, AND 1947*

Age	Number of states		
	1911	1937	1947
16	2	--	--
17	8	4	3
18	25	30	30
19	--	1	--
20	--	2	4
21	1	--	--
No fixed requirement	12	11	11

* Data from Frazier, Bulletin 1938, No. 12, op. cit., p. 78, and Frazier, Circular No. 233, 5th Revision, op. cit., p. 6.

Age requirements. The tendency, as indicated in Table VII, to increase the minimum age requirement for certificates seems comparatively unimportant in view of the fact that the four year college requirement of most states would ordinarily prevent anyone less than twenty years of age from qualifying for a certificate.

Health, citizenship, and oath of allegiance for issuance of certificates. Rather than demand proof of good health for issuance of certificates as indicated in Table VIII, some states issue the certificate and then demand the proof before a teacher can get a job. The first method seems preferable.

There was a slight increase in demand for citizenship from 1937 to 1947 (Table VIII). There was no corresponding increase in the number of states requiring an oath of allegiance.

Moral character and personal fitness. There has always been a general demand that applicants for certificates be of good moral character and personally fit for teaching. Frazier said that about two-thirds of the states had such a requirement in 1937.⁴⁷

Plans and patterns of certification. Many plans of certification have been proposed. Regier⁴⁸ in 1935 proposed

47. Frazier, Bulletin 1938, No. 12, op. cit., p. 69.

48. Aaron J. Regier, "A Study of the Functioning of the Teacher Certification Laws and Regulations in Kansas, 1933-34," Doctoral dissertation, University of Kansas, Lawrence, Kansas, 1935, 350 p. ms.

TABLE VIII
 MINIMUM PREREQUISITES IN RESPECT TO HEALTH, CITIZENSHIP, AND
 OATH OF ALLEGIANCE FOR ISSUANCE OF ALL CERTIFICATES BY NUMBER
 OF STATES 1937, AND 1947*

	Number of states (in- cluding the District of Columbia)	
	1937	1947
Proof of good health	25	28
Citizenship or declaration of intention	18	24
Oath of allegiance to the United States constitution or state constitution . .	20	20

* Data from Frazier, Bulletin 1938, No. 12, op. cit.,
 p. 67, and Frazier, Circular No. 233, 5th Revision, op. cit.,
 p. 6.

TABLE IX
 PATTERN FOR DEVELOPING PLANS OF STATE CERTIFICATION
 FOR PUBLIC SCHOOL SERVICE*

Class of certificate	Amount of preparation required	Length of validity	Terms of renewal	Scope of validity	
1	2	3	4	5	
A	Years 6 (or more)	Years 12	(1)	10 years' successful teaching experience, or (2) 12 semester-hours in approved courses.	Determined by nature of preparation.
B	5	10	(1)	8 years' successful teaching experience, and 6 semester-hours approved courses, or (2) 18 semester-hours in approved courses.	Do.
C	4	8	(1)	6 years' successful teaching experience and 12 semester-hours approved courses.	Do.
D	3	6		Not renewable	Do.
E	2	4		-----do-----	Do.
F	1	2		-----do-----	Do.

Notes related to the foregoing pattern:

1. This pattern can be used for developing certification plans in any state.

2. The pattern can be used in certification for any phase of school service.

TABLE IX (continued)
PATTERN FOR DEVELOPING PLANS OF STATE CERTIFICATION
FOR PUBLIC SCHOOL SERVICE*

3. The Class A certificate should be the ultimate certification goal for every member of the profession.

4. The lowest class of certificate or minimum standards for any given phase of service, should be determined by conditions in each state.

5. A year should be defined in terms of the established length of the school year in the school district or districts where the service was rendered.

6. The definition of "approved preparation" should rest with the best philosophical and scientific thought regarding teacher education in each state.

7. A year of preparation should be interpreted as approximately 30 semester-hours of approved courses.

8. One year of additional preparation would qualify holders of all certificates below Class A to the next higher form of certificate.

9. If the holder of a certificate fails to qualify for renewal or exchange to a higher form of certification, he should be entitled to the next lower form of certificate valid in the field he is qualified to teach, provided the minimum certification standards in that field are not violated.

10. Any class of certificates issued to a new entrant to the profession should be for a probationary period of two years.

11. Degree requirements are purposely omitted.

12. Emergency certificates are always necessary to meet extreme conditions and technical difficulties.

* From Frazier, Bulletin 1938, No. 12, op. cit., p. 85.

a certification plan for the state of Kansas and Dilley⁴⁹ proposed a plan for Ohio. Such plans undoubtedly have much value but the fact remains that they are designed to solve specific problems and their application is limited in other situations. It is up to the individual state to see that its problems are solved in a way which best fits its needs.

A general pattern for development of a certification program presented by Frazier in 1938⁵⁰ is shown in Table IX. This is a pattern designed for use by any state in developing its certification program.

E. Duration of Certificates: Life Certificates

The duration of certificates varies from one year to life depending upon the type of certificate and the state which issues it. In 1911 about two-thirds of all certificates issued were valid from one to five years. Only eight states did not issue life certificates, and of these eight all but two made provision for renewal of their highest certificates.⁵¹

In 1927 Cook stated that:

Life certificates are still issued by the majority of states although there is a good deal of agreement among students of the subject and among educationists in general that such certificates should be issued to

49. Frank B. Dilley, "Teacher Certification in Ohio and a Proposed Plan of Reconstruction," Doctoral dissertation, Teachers' College, Columbia University, New York, 1935, 163 p. (Contribution to Education #630).

50. Frazier, Bulletin 1938, No. 12, op. cit., p. 85.

51. Updegraff, op. cit., p. 159.

relatively few and then only after evidence of successful experience. . . . Some states issue fewer life certificates than formerly.⁵²

The typical length of validity in 1938 was from three to five years with a range from one to ten years, excluding life certificates. Thirteen states and the District of Columbia did not issue life certificates to teachers in 1937.⁵³ The trend has been away from the issuance of the life certificate. Montana followed this lead in her new certification law.

By 1948 seventeen states and the District of Columbia were not issuing life certificates.⁵⁴

The obvious reason for the trend away from issuance of life certificates is the desire to prevent teachers from resting on their laurels without doing anything in the way of professional advancement after they receive their life certificates. The newer plans provide for renewal of the regular certificate on the basis of successful teaching experience, in-service training, summer school, and travel. Such requirements are designed to keep the teacher mentally alert and active.

F. The Relationship of Teacher Training Institutions to Certification

The teacher-training institutions play an important

52. Cook, op. cit., p. 28.

53. Frazier, Bulletin 1938, No. 12, op. cit., p. 69.

54. Frazier, Circular No. 233, 5th Revision, op. cit., p. 3.

part in the certification of teachers; working cooperatively with the State Department of Public Instruction. The effectiveness of the requirements made by the state department with regard to academic or professional training is conditioned by the quality of training received by the prospective teachers.

Selection. The teacher-training institutions are in a position to recruit prospective teachers but "no uniform criteria have yet been devised for the recruitment of prospective teachers by the institutions."⁵⁵

Curricula. The state departments of education are dependent upon the institutions to prepare qualified teachers. Little, if any attempt has been made by the state to dictate what should be taught. Evidence of cooperation is shown in the fact that "graduates from teacher-education curricula in state universities are almost without exception certificated by the state departments upon recommendation of the universities."⁵⁶

In-service training. In addition to preliminary training of prospective teachers leading to certification, teacher-training institutions offer in-service training in the form of summer sessions, extension courses, and correspondence courses thereby enabling teachers to keep up with the latest developments, advance professionally, and obtain credit toward certificate renewal.

55. Frazier, Bulletin 1938, No. 12, op. cit., p. 121.

56. Frazier, Bulletin 1938, No. 12, op. cit., p. 122.

Expert advice. An item which must not be over-looked is the opportunity which the state department has to secure expert advice from educators connected with state institutions. Such advice is given with a view towards advancement of educational standards throughout the state. The advice given is usually desired by the state department when it is confronted with the problem of formulation of certification requirements.

Frazier says that:

The institutional officers also, by the continuous elevation of teacher-education standards to a place in advance of certification requirements often set a whole-some pace for the elevation of certification requirements.⁵⁷

Issuance of certificates. In 1937 there were eleven states in which institutions of higher education "issued certificates directly, or in which a degree or other diploma in itself may constitute a certificate."⁵⁸ The number of states in which this takes place has declined since 1937. Montana is one of those in which the practice has been discontinued. By 1948 there were only four states (Colorado, Kansas, Missouri, and Washington) in which college or universities issued certificates or diplomas or degrees which constituted certificates.⁵⁹

Summary. The following fundamental points regarding the relationship of certification officers and teacher-educators

57. Frazier, Bulletin 1938, No. 12, op. cit., p. 126.

58. Ibid., p. 13.

59. Frazier, Circular No. 233, 5th Revision, op. cit., p. 2.

tion institutions are summarized by Frazier:⁶⁰

Certification regulations should stand primarily on a foundation of professional education, including all types of (preparation) that are directed primarily towards the vocational preparation for school service.

State certification is accompanied by a responsibility for providing adequate educational facilities for all phases of school service recognized in the certification plan. This does not imply that state agencies should duplicate work done adequately in the state by private agencies.

All sources of teacher supply within a given state should be subject to suitable checks by the state education department with reference to efficiency in teacher education.

Certification on the basis of teacher-training work in high schools should be discontinued.

Requirements for the issuance or renewal of certificates should not permit more than fifty percent of the total number of semester-hours required, to be earned through extension, correspondence, absentia, or study center work; preferably the percentage should be considerably less.

Majority opinion indicates that years of experience should not be evaluated in terms of semester-hours of college credit. A minority of authorities who would so evaluate experience, tend to agree on six semester-hours as the equivalent of a year of experience.

The state department of education should be given authority and staff sufficient to enable it to develop and maintain a unified and effective program of teacher-education and certification. This program should provide for the continuous counsel of recognized teacher-education institutions in the prescription of the more significant scholastic and professional requirements set forth in certification regulations.

Much greater efforts should be made by teacher-education institutions to determine the qualifications essential to the success of teachers; to develop more homogeneous teacher-education programs; and to provide effective means whereby state certification officers may

60. Frazier, Bulletin 1938, No. 12, op. cit., pp. 138-9.

distinguish institutions within or without the state, that are worthy of state approval for teacher education.

G. Suspension and Revocation of Certificates

Generally speaking, any duly constituted authorities who grant certificates have the power to suspend or revoke them under certain conditions. Protection against injustice is usually given the teacher in the right of appeal to superior officers.

A teacher must have a valid certificate or his contract is void but possession of a certificate does not protect a teacher from dismissal.

The five most frequently mentioned causes for revocation of certificates are: Immorality, negligence, incompetency, violation of contract, and intemperance.⁶¹

II. HISTORY OF CERTIFICATION IN MONTANA

The following summary of the history of certification in Montana is quoted from Louise G. Kraft's unpublished thesis entitled "A History of the Certification of Montana Teachers:"⁶²

Preceding chapters disclosed the fact that standards for qualification to teach in Montana existed in the midst of confusion and disorder before the Territory of Montana had taken shape. The customs brought from great distances appeared satisfactory to the early inhabitants, and were adopted by them. When laws

61. Ibid., p. 143.

62. Louise G. Kraft, "A History of the Certification of Montana Teachers," (unpublished Master's thesis, Montana State University, Missoula, 1936) pp. 210-15.

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became necessary, the settlers naturally turned to those of other states and territories as patterns.

The first laws, enacted by the Bannack Legislature of 1864-65, therefore, embodied ideas then existing in the laws of several states and territories. They were made to fit the peculiar needs of the Territory of Montana. Schools were established under them, but progress was slow at first. In the absence of an adequate law, practices in certification sprang up which were incorporated in a new law in 1883. In that year, after great effort, professional standards for teachers were finally authorized. With a few amendments the law of 1883 was inherited by the new state, Montana.

The State Constitution, in 1889, provided for a State Board of Education, which was to have a far reaching effect upon certification laws. From 1893 until 1923 this Board was responsible for issuing state and life certificates, which were usually granted to graduates of state institutions or colleges, but which might be issued to those who passed a thorough-going examination, covering many subjects. Improvement quite generally occurred with the advent of this Board. Where the laws were weak, the Board had power to make rules and regulations. The codification of laws in 1895 resulted in improvement of them, but there was still room for improvement.

County certificates had been issued by county superintendents since earliest territorial times. These were usually valid only in the county where granted. The professional certificate, a county certificate difficult to secure, became of equal rank with the state certificate in 1897. It was possible for a high school teacher or principal to qualify, with it.

Many forces cooperated in amending the laws, among them the state superintendents, the county superintendents, district superintendents, principals, teachers, and the State Teachers' Association which had existed since 1882. All advocated the establishment of county boards of educational examiners, which was incorporated as a law in 1907. This was a movement in the direction of standardizing qualifications for teachers of the common schools. These teachers, as a rule, were poorly qualified.

After 1907, the problem of uniform qualifications of teachers continued to be prominent. A steady increase in the population of the State and the necessity for more teachers added to the difficulty of solving it. An influx of teachers from other states occurred.

County institutes had been the only means for teachers to secure training in Montana during territorial days. Higher institutions of learning, the State University at Missoula, the State College at Bozeman, and the State Normal College at Dillon were establishing themselves from 1892-1898. Teachers took advantage of the educational opportunities offered at these, gradually. Joint county institutes were authorized by law in 1907. County summer schools which were well patronized were enacted into the law in 1913. Normal training courses in high schools were also established in 1917. But the summer sessions of the State institutions came into prominence in 1917, and increasingly maintained their popularity, as teacher training centres. The purpose of all these became to supply the demand for professional training of teachers.

In 1919, the certification laws were further improved by the establishment of the state board of educational examiners, to which were delegated the duties of the county boards of educational examiners. No longer were questions for county examinations of teachers prepared by the county superintendent, the county board of educational examiners, or the state superintendent. The state board of educational examiners both prepared the questions and marked the papers. This board also issued state and life certificates after 1923. It was noticed that centralization of authority increased as the power moved from the individual to the county, and thence to the State.

After 1920 two years of high school training and twelve weeks of normal training was required of all teachers. This meagre requirement prevented Montana teachers from being certificated in neighboring states which had higher certification requirements. Montana ranked among the lowest in the United States in this respect.

In 1923 the law was made more rigid, so that by 1929 every teacher was required to have one year of training in addition to four years of high school or its equivalent. The results of this law were evident, for summer schools increased in number, attendance was large, and the number of high grade certificates increased. The number of normal and college graduates was also larger than formerly.

Factors other than laws were operating to raise standards in the State. Rules made by the state board of education for accrediting schools were more rigid than the laws. Accrediting Associations had rules which were also more rigid than the laws. The state board of educational examiners had rules for renewing certificates

or raising their grade which demanded additional credits. It is clear that almost the same results were attained without adequate laws as were attained with the more complete laws after 1931.

In the latter year, it was enacted that by 1936 minimum requirements for every teacher of common schools should be four years of high school training or its equivalent and two years of additional training. High school teachers, principals and superintendents were required to have a secondary state certificate which meant that four years training beyond high school were necessary.

These laws had the desired effect, for after their enactment the higher institutions of Montana were well patronized. Attendance at normal schools showed that teachers were conforming to the new requirements. The Eastern Montana Normal School at Billings relieved the normal school shortage of a few years ago.

This study has furnished information concerning legal provisions governing the issuance of certificates to teach in Montana. It has compared requirements in Montana with requirements among other states. It has shown that trends in Montana followed trends in other states. It is clear that qualifications to teach in Montana were raised during the period 1863-1936, so that they compared favorably with those of other states.

The Twelfth Legislative Assembly of Montana enacted a law recognizing the diploma of the University, when accompanied by its Certificate of Qualification to teach, as a legal license to teach in Montana high schools.⁶³ A resolution of the State Board of Education, passed in June 1913, extended this license to all public schools of Montana.

The University issued this Certificate of Qualification to Teach until July 1, 1943 when the authority was revoked

63. Laws of Twelfth Legislative Assembly of Montana, 1911, Chapter 42, p. 71.

by the 1943 legislature. Since that time all certificates to teach in the state of Montana have been issued by the State Department of Public Instruction. At the time of the change the requirements were "major or minor preparation in three fields usually taught in Montana high schools"⁶⁴ with a minimum of twenty-three credits in education. The next year (1944) requirements were changed to twenty-four or more quarter credits in education, a teaching major of forty-five or more quarter credits in a field taught in high school and a teaching minor of thirty or more quarter credits in a field taught in high school.⁶⁵ These are the requirements today.

64. University of Montana Bulletin, State University Series, Number 389, April, 1943, p. 66.

65. University of Montana Bulletin, State University Series, Number 395, April, 1944, p. 66.

CHAPTER III

PRESENT SECONDARY SCHOOL TEACHER CERTIFICATION PRACTICES IN THE UNITED STATES AND MONTANA

In an attempt to present a picture of current certification practices in the United States in general, existing practices in Montana, and future practice in Montana as defined by the new certification law, the material in this chapter is divided into the following sections:

1. A survey of current secondary teacher certification practices in the United States with emphasis on those states in which the general requirement is five years of college. At the risk of some repetition, the present status of Montana's certification requirements are included for comparative purposes.

2. A summary of existing practice in Montana including a comparison of major and minor requirements at Montana State University and Montana State College.

3. Information pertaining to the new Montana certification law which becomes effective July 1, 1949.

Cook has said that:

The value of a certificate is best measured by the amount of scholarship and successful experience to which it testifies. The extent of validity, duration, and other provisions are relatively minor considerations.¹

1. Katherine M. Cook, "State Laws and Regulations Governing Teacher's Certificates," Bulletin 1927, No. 19 of the Department of the Interior Bureau of Education, p. 8.

Assuming the foregoing statement to be true, emphasis in this chapter is placed on those requirements pertaining to scholarship since experience does not enter the picture of initial certification. To make comparisons more meaningful, all requirements in the following section (except in direct quotations) have been stated in terms of semester hours.

I. CURRENT PRACTICES IN THE UNITED STATES

From Table II, page 19, it is seen that minimum scholarship prerequisites for certificating inexperienced teachers varies from four years of college in sixteen states to high school graduation with some professional training in addition specified in one state. Montana has a minimum of two years training beyond high school. Minimum requirements above high school graduation for lowest grade regular academic high school certificates are noted in Table IV, page 26, to be four years of college in thirty-nine states, five years in six states (including the District of Columbia), two years in two states and three years in two states. The minimum in Montana is four years of college.

Of the three professional courses listed in Table V, page 30 as being among those counted toward a certificate in more than half of the states, none are required by the State Department of Public Instruction in Montana although student teaching is recommended. All three of the courses are required by the teacher-training institutions themselves.

The number of semester hours of professional education

required for high school certification varies from nine to twenty-seven as shown in Table VI, page 31. Thirty-seven states required sixteen or more semester-hours. The requirement in Montana is sixteen.

Minimum age requirements for high school certificates as shown in Table VII, page 33 range from seventeen years in three states to twenty-one years in eleven states. Eighteen years is the minimum in thirty states including Montana.

It is seen in Table VIII, page 35 that twenty-eight states require proof of good health, twenty-four specify citizenship or declaration of intention, and twenty require an oath of allegiance for certification. Montana is included in all three categories.

The number of semester-hours required in major and minor teaching fields for regular high school certification in each state is seen in Table X. These requirements vary greatly and are poorly defined in many cases. A more detailed tabulation of requirements of Arizona, California, Oregon, Montana, and Washington is presented in Tables XI, and XII.

Arizona major and minor requirements:²

1. (a) A major of not less than twenty-four semester hours and a minor of not less than fifteen semester hours in fields or subjects usually taught in high schools; or
 - (b) A major in a non-high school field and two minors in fields or subjects usually taught in high schools.

2. State of Arizona, Rules and Regulations for Certification of Teachers and Administrators in Arizona, Revised to July, 1948.

Note: A non-high school field is a subject not generally taught in junior and senior high schools, i.e., archaeology, psychology, education, etc.

California major and minor requirements in effect until September 1, 1951:³

One major (a major consists of not less than twenty-four semester hours of work, at least twelve of which are upper division or graduate courses) and one minor (a minor consists of not less than twelve semester hours of work, at least six of which are upper division or graduate courses) in high school subjects or a major in a field not commonly accepted for high school graduation and two minors in high school subjects.

California major and minor requirements in effect after September 1, 1951:⁴

One major and one minor in teaching fields commonly accepted for graduation from a California senior or four year high school, except as provided in section (F) below, or a major in a field not commonly accepted for such graduation and two minors in fields so accepted. The minimum requirement for a major shall consist of thirty-six semester units, except as provided in section (I) below. Twelve semester units of the work for the major shall be upper division or graduate work. The minimum requirement for a minor shall consist of twenty semester units. Majors and minors in teaching fields shall be selected from the subject fields listed below, except that additional majors and minors may from time to time be added by the Commission of Credentials.

(A) Social Studies. Thirty-six semester units of work including the field of United States History and three of the following fields: geography, political science, economics, sociology, anthropology; and additional preparation in one or more of the social sciences to complete the major.

(B) Life Sciences and General Science. Thirty-six semester units of work including the following fields: life science or biology, physics, chemistry or general

3. California State Department of Education Credentials Office Bulletin, April, 1948.

4. California State Department of Education Credentials Office Bulletin, regulations effective September 1, 1951.

TABLE X

MAJOR AND MINOR REQUIREMENTS FOR REGULAR INITIAL CERTIFICATION
OF SECONDARY SCHOOL TEACHERS IN THE UNITED STATES, 1948*

State	Number of semester hours in major(s)	Number of semester hours in minor(s)
Alabama	18-24	12-18
Arizona	24	15
Arkansas	8-20	--
California	24	12
Colorado	--	--
Connecticut	15	--
Delaware	18	6-12
District of Columbia	Examination in major and minor	
Florida	15-36	--
Georgia	15-30	--
Idaho	15 (in two fields)	--
Illinois	32	16
Indiana	40	18
Iowa	15	10 (two)
Kansas	--	--
Kentucky	24-30	18
Louisiana	6-18	--
Maine	24	16
Maryland	18-27	--
Massachusetts	--	--
Michigan	24	15 (two)
Minnesota	Adequate training	
Mississippi	15-27	--
Missouri	--	25 (three)
Montana	30	20
Nebraska	--	15 (two)
Nevada	--	--
New Hampshire	18	--
New Jersey	30	18
New Mexico	24	15
New York	15-30	--
North Carolina	15-30	--
North Dakota	15 (North Central requirements)	--
Ohio	--	15 (three)
Oklahoma	16	--
Oregon	--	--
Pennsylvania	18	--
Rhode Island	--	--
South Carolina	12-30	--

TABLE X (continued)

MAJOR AND MINOR REQUIREMENTS FOR REGULAR INITIAL CERTIFICATION
OF SECONDARY SCHOOL TEACHERS IN THE UNITED STATES, 1948*

State	Number of semester hours in major(s)	Number of semester hours in minor(s)
South Dakota	24	15
Tennessee	12-24	--
Texas	--	--
Utah	60 (composite) or	
	30	18
Vermont	--	--
Virginia	12	
Washington	20	10 (two)
West Virginia	22-50	--
Wisconsin	24 or	15 (two)
	24 (two)	--
Wyoming	15	--

* Robert C. Woellner, and M. Aurilla Wood, Requirements for Certification of Teachers, Counselors, and Administrators, Fourteenth Edition 1949-50 (Chicago: The University of Chicago Press, 1949).

TABLE XI

SECONDARY CERTIFICATION REQUIREMENTS IN THE FIVE STATES AND DISTRICT OF COLUMBIA WHICH REQUIRE FIVE YEARS OF COLLEGE, 1948. MONTANA DATA INCLUDED FOR COMPARATIVE PURPOSES*

	College years Req.	Semester-hours prof. education	Student teaching and observation	Min. age	Proof of Good health	U.S. citizenship	Oath of allegiance
Ari-zona ⁹	5 ¹⁰	24	5	18	--	yes	yes
Calif. (present)	5 ¹¹	18	4	18	yes	yes ⁴	yes
D.C.	5 ¹	24 ²	4	--	yes	yes	yes
N.Y.	5	18	2 ³	18	yes	yes ⁴	yes
Ore. ⁸	5	22	4	18	yes	yes	yes
Wash. ⁶	5 ⁷	16	3	18	(5)	yes ⁴	yes ⁵
Mont.	4	16	--	18	yes	yes	yes
Calif. (after Sept. 1 1951)	5 ¹²	22	6				

1. Plus examinations.
2. Master's degree required for senior high-school teaching.

TABLE XI (continued)

SECONDARY CERTIFICATION REQUIREMENTS IN THE FIVE STATES AND DISTRICT OF COLUMBIA WHICH REQUIRE FIVE YEARS OF COLLEGE, 1948. MONTANA DATA INCLUDED FOR COMPARATIVE PURPOSES*

- 3. Temporary substitution of two semester hours in methods accepted when applicant is unable to meet requirements.
- 4. Declaration of intention to assume citizenship, or proof of completion of first papers, etc., accepted by state.
- 5. Required for employment, but not for certificate to teach.
- 6. House Bill 67 (1949) provides for preparation of both elementary and secondary teachers at all accredited teacher-training institutions.
- 7. Five years of college work and a degree in secondary education (bachelor's or master's).
- 8. Regular certificate also requires one year of teaching experience in Oregon. Provisional certificate issued for first year.
- 9. Will issue no new emergency or substandard certificates; those now in force will not be renewed beyond July 1, 1950.
- 10. Issue a pre-secondary certificate to four year college graduates who have completed six semester hours of graduate work.
- 11. Includes one full year of graduate work of not less than twenty-four semester hours. Includes at least six semester hours of professional work in education.
- 12. Includes one full year of graduate work of not less than thirty semester hours, or a full year of post-graduate preparation which an accredited institution certifies as fulfilling institutional requirements for a full postgraduate year of work. Includes: (a) Six semester units in professional education courses; (b) Six semester units in subject matter fields commonly taught in junior and senior high schools.

* Data from latest available certification bulletins obtained from the departments of education from each state.

TABLE XII

SECONDARY CERTIFICATION MAJOR AND MINOR REQUIREMENTS, SPECIAL REQUIREMENTS, AND OTHER ACADEMIC REQUIREMENTS IN ARIZONA, CALIFORNIA, OREGON, MONTANA AND WASHINGTON, 1948*

State	Major and Minor requirements	Special requirements	Other academic requirements
Ariz.	1-24 sem.hr. major 1-15 sem.hr. minor in high school fields or 1-major not high school field 2-minors in high school fields	Course in U.S. and Arizona constitution	
Calif. (pre-sent)	1-24 sem.hr. major 1-12 sem.hr. minor in high school fields or 1-major not high school field 2-minors in high school fields		
Ore.	Adequate preparation in subject fields taught. Varies from 10-24 sem.hrs.	Two qtr. hrs. Oregon law. Two qtr. hrs. Oregon hist.	
Wash.	1-20 sem.hr. major 2-10 sem.hr. minors	15 qtr. hr.	Courses in Wash. in one or more: state manual and Econ, Soc, Pol. Wash. state hist Sci, or current and government. history.

TABLE XII (continued)

SECONDARY CERTIFICATION MAJOR AND MINOR REQUIREMENTS, SPECIAL REQUIREMENTS, AND OTHER ACADEMIC REQUIREMENTS IN ARIZONA, CALIFORNIA, OREGON, MONTANA AND WASHINGTON, 1948*

State	Major and Minor requirements	Special requirements	Other academic requirements
Mont.	1-30 sem.hr. major 1-20 sem.hr. minor in fields usually taught in high schools.		
Calif. (after Sept.1 1951)	1-36 sem.hr. major 1-20 sem.hr. minor in fields usually taught in high school or 1-major not high school field 2-minors in high school fields	A minimum of 40 sem.hr. of General Educ.	Course or exam. on U.S. consti- tution.

1. One major of twenty semester hours and two minors of ten semester hours. Major or minor in general science, or a major in social science not recognized.

2. Includes a minimum of six semester units in each of the following four areas: (a) science and mathematics; (b) the practical arts and fine arts; (c) social sciences; (d) the communicative arts.

* Data from latest available certification bulletins obtained from the departments of education from each state.

physical science; and additional preparation in one or more of the life sciences to complete the major.

(C) Physical Science and General Science. Thirty-six semester units of work including the following fields: physics, chemistry or general physical science, life science or biology; and additional preparation in one or more of the physical sciences to complete the major.

(D) English. Thirty-six semester units of work including the following fields: composition and literature, speech, dramatics or journalism; and additional preparation in English to complete the major.

(E) Speech. Thirty-six semester units of work, including the following fields: composition and literature, speech, dramatics or journalism; and additional preparation in the speech arts to complete the major.

(F) Foreign Language. Thirty-six semester units of work in Latin or a modern foreign language, including reading, and, with the exception of Latin, speaking the language; and additional preparation in the same foreign language to complete the major. A minor may be secured in Latin or a modern foreign language.

(G) Mathematics. Thirty-six semester units of work including basic or theoretical mathematics and additional preparation in either basic or theoretical mathematics, or such applied fields as engineering, mechanics, astronomy, architecture, mechanical drawing, statistics, surveying, accounting, auditing, finance, investments, and history of mathematics to complete the major. No upper division work is required for the mathematics major provided work has been completed in both differential and integral calculus.

(H) Health Education. Thirty-six semester units of work including the fields of personal health, school health, and community health, and three of the following fields: mental health, family life education, nutrition, safety education, human biology, occupational hygiene; and additional preparation in health education to complete the major.

(I) Special Fields. The major requirements for the general secondary credential in the special fields of agriculture, art, business education, physical education, homemaking, industrial arts, librarianship, music, and speech are the same as the requirements for special secondary credentials in these fields.

The holder of a valid special secondary credential

is considered as meeting the requirements for a major in that field for the general secondary credential.

Oregon major and minor requirements. Although the State of Oregon Circular of Certification of June, 1948 makes no mention of teaching fields, the State Board of Education has set certain standards of subject preparation as indicated in the following quotation from the 1948-49 catalog of Oregon State College:⁵

Under regulations adopted by the Oregon State Board of Education in January 1941, new teachers employed in approved high schools may be assigned to teach only in those subject fields in which they have completed adequate college preparation. The State Board of Education has set the following minimum standards of subject preparation:

ENGLISH: 36 term hours, including at least 9 term hours in composition and rhetoric (it is recommended that a substantial amount of work in speech be included in this training). LANGUAGES: the equivalent of 30 term hours of college preparation in each language taught (high-school credits evaluated in terms of college hours may be accepted in meeting the minimum requirements). SOCIAL STUDIES: 36 term hours, including at least 18 term hours in American and European or world history, and a total of at least 10 term hours in two or more of the following subjects-- government, economics, sociology, geography. MATHEMATICS: 15 term hours of college mathematics. COMMERCE: Shorthand, 18 term hours (may include high-school or business-college work evaluated in terms of college hours or equivalent performance standards); Typing, 6 term hours (may include high-school or business-college work); Bookkeeping, Business Training, Commercial Law, 24 term hours in accounting and business administration. NATURAL SCIENCE: Elementary Science, 24 term hours in the natural sciences, including at least 9 term hours in physical science and 9 term hours in biological science; Biology, 18 term hours; Physics, 12 term hours; Chemistry, 12 term hours. PHYSICAL EDUCATION AND HEALTH EDUCATION: 12 term hours in physical education and 12 term hours in health educa-

5. Oregon State System of Higher Education Bulletin, Oregon State College Catalog Issue 1948-49, p. 263.

tion. INDUSTRIAL ARTS: 2½ term hours. HOME ECONOMICS: 2½ term hours. AGRICULTURE: 2½ term hours.

Believing that a broad knowledge in the fields of English, social studies, mathematics, natural science, and the fine arts should be a part of the equipment of every teacher, whatever his subject field, the State Board of Education has recommended that, beginning with the school year 1943-44, the college preparation of all new teachers employed in state-approved high schools should include the following:

ENGLISH: 2½ term hours in literature, composition, speech, dramatics. SOCIAL STUDIES: 2½ term hours in history, political science, economics, sociology, geography, philosophy. (A maximum of 6 term hours in library science may be applied toward satisfying the recommendation in English or social studies.) SCIENCE AND MATHEMATICS: 17 term hours, including 9 hours in the biological science and 8 hours in physical science and mathematics or in either of these fields. ARTS AND CRAFTS: 6 term hours in music, or in plastic, graphic or industrial arts (equivalent performance standards may be accepted if approved by the teacher-training institution).

Both Oregon State College and the University of Oregon require the teacher-trainee to:

Prepare himself for the teaching of at least two subjects, and to insure better opportunities for placement, it is desirable that students intending to teach qualify for the supervision of an extracurricular activity and, if possible for teaching in a third subject field.⁶

It should be noted that the above requirement is made by the teacher-training institutions rather than by the State Board of Education.

Montana major and minor requirements. As quoted on page 64 the Montana State Department of Public Instruction makes only the following general statement regarding teaching

6. Oregon State System of Higher Education Bulletin, University of Oregon Catalog Issue 1948-49, p. 195; Oregon State College Catalog Issue 1948-49, p. 264.

majors and minors:

Major of 45 quarter-hour credits in some field usually taught in high school, as under some conditions some limited consideration may be given for work taken in high school, as advanced algebra and trigonometry could be counted towards a major in mathematics as college credit.

Minor of 30 quarter-hour credits in a field usually taught in high school.

The above requirements imply that it is up to the teacher-training institutions to define the teaching majors and minors. A comparison of the teaching majors and minors offered at Montana State University and Montana State College is made later in this chapter.

Washington major and minor requirements:⁷

One major of 30 quarter hours and two minors of 15 quarter hours each in subjects regularly offered in the secondary schools of Washington. Such courses as education, philosophy, Greek and forestry are not acceptable toward satisfying requirements for majors and minors.

A major or a minor must be composed of subjects in a specific field. The State Board of Education does not recognize a major or minor in general science, or a major in social science. Fifteen quarter hours in contemporary social problems may, however, be substituted for one minor.

A major or a minor in biological science is acceptable if it includes one basic course in zoology and one basic course in botany.

Summary. From the foregoing material it is seen that even in five fairly comparable states the certification requirements vary greatly. Of the five states, only Montana does not require the fifth year of college for secondary certification. Montana's 30 semester-hour major and 20 se-

7. State of Washington Certification Bulletin, July 1947.

mester-hour minor are the highest of any of the five states at present although California's future requirements are still higher. Professional education requirements in the five states ranges from sixteen semester-hours in Oregon. Majors and minors are defined most adequately at present by Oregon, while California's future requirements are very detailed. It is the writer's opinion that such definition is highly desirable.

II. DETAILED ANALYSIS OF EXISTING CERTIFICATION PRACTICES IN MONTANA

Throughout this chapter the phrase "existing certification practices" refers to those practices of certificating officials, teacher-training institutions, teachers, and prospective teachers as carried on under the present laws, rules, and regulations. Some of these practices will be changed by the new law which goes into effect July 1, 1949.

Montana secondary teacher certification law. The law reads as follows:⁸

Secondary state certificates. A secondary state certificate valid for six (6) years in grades six (6) to twelve (12), inclusive in the public schools of Montana may be issued by the State Board of Education to a graduate of any fully accredited four (4) year college or university within or without the state in accordance with rules and regulations prescribed and adopted by such State Board of Education. Montana State Institutions recommending for certification shall file complete transcripts of record in the office of the State Superintendent of Public Instruction in

8. 1943 Supplement to School Laws of 1941 of the state of Montana, p. 11.

such forms as may be prescribed and required by the State Board of Education. Applicants for certificates based upon academic and professional preparation outside of Montana, or in institutions within the state which are not a part of the University of Montana shall comply with the rules and regulations prescribed and adopted by the State Board of Education both as to the amount and character of training and the filing of transcripts.

Secondary life certificates. Candidates for secondary life certificates must be holders of secondary state certificates in full force and effect and must present satisfactory evidence of at least thirty-six (36) months of successful teaching experience in Montana during the life of a Montana secondary state certificate, and satisfactory evidence of having secured subsequent to the issuance of the secondary state certificate such approved and professional training as may be prescribed and required by the rules and regulations of the State Board of Education.

Montana secondary state and Montana secondary life certificates. Montana secondary state and Montana secondary life certificates shall be valid in grades six (6) to twelve (12), inclusive of the public schools of Montana, and may have their jurisdiction extended to grades one (1) to five (5), inclusive, by meeting the specialized preparation prescribed and required by the rules and regulations of the State Board of Education.

The state law requires that a candidate for a secondary certificate be a graduate of a fully accredited four year college or university in accordance with rules and regulations prescribed and adopted by the State Board of Education.

Regulations of the State Board of Education. The State Board of Education regulations pertaining to secondary teacher certification read as follows:⁹

Academic and Professional Qualifications for Secondary State Certificate:

9. State Department of Public Instruction, Circular of Information Pertaining to Montana Teachers' Certificates, July, 1947, pp. 5 and 9.

1. Bachelor of Arts or Science Degree from a fully accredited four-year college or university.

2. Major of 45 quarter-hour credits in some field usually taught in high school, as under some conditions some limited consideration may be given for work taken in high school, as advanced algebra and trigonometry could be counted towards a major in mathematics as college credit.

3. Minor of 30 quarter-hour credits in a field usually taught in high school.

4. Twenty-four quarter-hour credits in professional training. It is recommended that the professional training include supervised practice teaching in high school; however, under certain conditions supervised practice teaching may be waived.

General Prerequisites for All Certificates. . . .
Certificates may be issued only to prospective teachers who are eighteen years of age and who have not gone beyond seventy years of age, who are citizens of the United States. Applicants are required to present evidence of good moral character and physical health. . .

Teacher-training institutions compliance with laws and regulations. The Montana state institutions which train secondary teachers have set up certain patterns of study which comply with the state rules and regulations on certification. The general pattern with regard to professional education is as follows:¹⁰

The courses required for the teaching certificate should be taken both by Education majors and by non-majors in the following sequence:

Freshman or
Sophomore year: General Psychology. (May not be counted among the 24 credits required for Secondary Certificate.

Junior year: Principles of Secondary Education, Educational Psychology, and Secondary School Teaching

10. University of Montana Bulletin, Montana State University Series No. 420, July, 1948, p. 87.

Procedures. Methods course recommended as elective.

Senior year: Observation and Teaching, and electives to make a total of 24 credits.

This sequence of education courses fulfills the fourth requirement of the State Board of Education as stated on page 64.

The requirement of a teaching major of forty-five quarter-hour credits and a teaching minor of thirty quarter-hour credits is a very general one. The state regulations specify that the major and minor must be fields usually taught in high school, but make no mention of content. Montana State University and Montana State College have made specific requirements in each field or subject in which they offer teaching majors or minors. These requirements are discussed in the following pages on the basis of information obtained from a study of Table XIII and the catalogs of Montana State College and Montana State University:¹¹

1. Fields in which there are recognized teaching majors or minors at one institution only:

Offered at Montana State University only:

Classical Languages

Journalism (minor only)

Offered at Montana State College only:

Guidance--Educational and Vocational (minor only)

Industrial Arts

11. University of Montana Bulletin, Montana State University Series No. 420, July, 1948, p. 92 and following. Montana State College Bulletin, Vol. 3, No. 1, July, 1948, p. 179 and following.

Vocational Agriculture (major only)

Vocational Education Coordinator (minor only)

Work in guidance is offered at both institutions but only at Montana State College is it recognized as a teaching minor at the undergraduate level.

2. Fields in which there are comparable majors and minors recognized by both Montana State University and Montana State College, and in which there seems to be agreement as to content: (If titles differ, the first one listed is used at Montana State University and the second at Montana State College)

Fine Arts, Art

Biological Science, Biology

Business Administration, Secretarial

Economics and Sociology

History and Political Science, History

Home Economics

Mathematics

Modern Languages

Music

Of the above group, biology, economics and sociology, and history will be discussed in connection with science and social science in the following group. The others mentioned above need no explanation.

3. Fields offered at both institutions in which there is variation between Montana State University and Montana State College:

Science

Health and Physical Education

English

Social Science

There is probably more variation between the two institutions regarding the science teaching majors and minors than any other teaching field. In this field the only complete agreement is in biology. According to Table XIII, Montana State College offers, in addition to biology, teaching majors and minors in chemistry, physics, and general science. Montana State University offers, in addition to biological science, a teaching major or minor in physical science which is a combination of chemistry and physics. In view of the fact that chemistry and physics are alternated yearly in the average Montana high school¹² it would seem that the physical science major or minor is more practical than a major or minor in physics or chemistry alone. The discrepancy, however, is not as great as it might seem at first glance. If a person were to major in chemistry at Montana State College and obtain a teaching certificate with a teaching major in chemistry he would have taken at least sixteen quarter hours in general physics to satisfy requirements for graduation with a major in chemistry. This means that he would have the equivalent of a physical science major although it is not so called.

12. Antrim E. Barnes Jr., "Educational Offerings in Montana High Schools 1945-47," (unpublished Master's thesis, Montana State University, Missoula, 1948), p. 30.

The general science major and minor as offered at Montana State College raises some interesting questions. This course contains elements of biology, chemistry, and physics. The science teacher in the typical school is going to be called upon to teach not only chemistry and physics in alternate years, but biology and general science. This fact is born out in a statement by Mallinson:

It is common knowledge that the science teachers in the rural high schools, and in the smaller urban high schools, are frequently assigned to the teaching of all of the subject matter fields in the science program during a biennial period. These fields usually include Physics, Chemistry,¹³ General Biology, Earth Science and General Science.

It is possible at Montana State University to obtain a minor in physical science and a teaching major in some other field, e.g. mathematics, without taking a course in biological science. A person with this combination might expect to be called upon to teach both biology and general science in the average high school but he could not do this without endangering the accrediting of the high school.

The question which may next be asked is, "Does the general science major and minor adequately prepare a person to teach all phases of high school science?" The content of the general science major at Montana State College is as follows: Twelve quarter-hours of chemistry, six quarter-hours of general physics, three quarter-hours of general

13. George G. Mallinson, "An Investigation of the Subject-Matter Backgrounds of Student Teachers in Science," School Science and Mathematics, 49:265, April, 1949.

TABLE XIII

MAJOR AND MINOR TEACHING FIELDS OFFERED AT MONTANA
STATE UNIVERSITY AND MONTANA STATE COLLEGE*

Subject (First title used at MSU, second at MSC)	Offered as Major		Offered as Minor	
	MSU	MSC	MSU	MSC
Fine Arts				
Art	X	X	X	X
Biological Science				
Biology	X	X	X	X
Business Adm.				
Secretarial	X	X		
Stenography			X	X
Accounting			X	X
Chemistry		X		X
Classical Lang.	X		X	
Econ. and Soc.	X	X	X	X
English				
Eng, Sp, and Dr.	X		X	
Comp, Lit, and Sp.		X		
Comp, and Lit.		X		X
Comp, and Sp.				X
General Science		X		X
Health and P.E. (men)				
Physical Ed. (men)	X	X	X	X
Health and P.E. (women)				
Physical Ed. (women)	X	X	X	X
Health Education		X		X
History and Pol.Sci.				
History	X	X	X	X
Home Economics	X	X	X	X

TABLE XIII (continued)
 MAJOR AND MINOR TEACHING FIELDS OFFERED AT MONTANA
 STATE UNIVERSITY AND MONTANA STATE COLLEGE*

Subject (First title used at MSU, second at MSC)	Offered as Major		Offered as Minor	
	MSU	MSC	MSU	MSC
Industrial Arts		X		X
Journalism			X	
Mathematics	X	X	X	X
Modern Language	X	X	X	X
Music	X	X	X	X
Physics		X		X
Physical Science	X		X	
Social Science		X		X
Voc. Agr.		X		X
Guid.--Educ. and Voc.				X
Voc. Educ. Coord.				X

* Data from University of Montana Bulletin, Montana State University Series, No. 420, July, 1948, p. 92 and following. Montana State College Bulletin, Vol. 3, No. 1, July, 1948, p. 179 and following.

geology, three quarter-hours of health and physical education, and the balance of twenty-one quarter-hours in the biological sciences. The general science minor contains eight quarter-hour credits in general chemistry, six in general physics, three in health and physical education or teaching of science, and fifteen in the biological sciences. This preparation is clearly based on first level courses which would seem to be superficial training for a high school science teacher.

From Table XIII, it can be seen that in the social science field Montana State College offers majors or minors in history, and economics-sociology, and a major in social science. Montana State University offers majors or minors in history-political science, and economics-sociology. The typical Montana high school will be offering American history, world history, and economics or sociology.¹⁴ This means that the person who majored in history and has an economics-sociology minor has only three subjects to teach at a given time. By taking a social science major which, as offered at Montana State College, consists of six credits of economics, twenty-one of history, six of sociology, and twelve electives from economics or history, this same person may take a minor in an additional field and be prepared to teach in these three fields in the typical high school.

Montana State College has teaching majors and minors in health education, physical education (men), and physical

14. Barnes, op. cit., p. 82.

education (women). Montana State University offers teaching majors and minors in a field called health and physical education. Separate courses are offered for men and women. A study of the course titles in health and physical education at Montana State University, and physical education at Montana State College discloses that these courses appear comparable. The course in health education offered by Montana State College is different in content and aims from those discussed above. Of the forty-five credits required for a teaching major in health education, eight are in health and physical education, three in psychology, five in home economics, six in sociology, and the balance of twenty-three in bacteriology and zoology.

Montana State College offers English teaching majors in composition, literature and speech, and in composition and literature. Minors are offered in composition and literature, and in composition and speech. Montana State University offers a major or minor in English, speech, and drama. It is the belief of some experts that there is enough demand in Montana for instruction in speech to make it a major by itself. This may also be true of dramatics. The fact remains, however, that the English teacher in the average Montana high school is going to have to teach composition and literature primarily. Speech and drama will be sidelines for this person. Some training in these fields is certainly necessary for the typical English teacher. Although the patterns of training in English offered by Montana State College and Montana State

University vary somewhat, basically these differences are slight.

III. FUTURE CERTIFICATION PRACTICES IN MONTANA

Developments preliminary to the new law. The Montana Education Association Committee on Certification was created in March 1947, with Robert Stoner, Helena Public Schools, as chairman.¹⁵ This committee proposed a set of regulations concerning certification for the school year 1947-48. These regulations were approved by the State Superintendent of Public Instruction, Miss Elizabeth Ireland, Chancellor George Selke of the Greater University, and the State Board of Education:

1. Any person holding a permit or emergency certificate for teaching in the public schools of Montana for the school year 1946-47, must, in order to be eligible for a similar permit or emergency certificate for the school year 1947-48, attend an accredited institution of higher education and successfully complete not less than eight quarter hours of study during the calendar year of 1947.

2. No person shall be granted his or her first permit or emergency certificate for the school year of 1947-48 who has not completed successfully at least one year of study in an accredited institution of higher education, this study to include not less than eight quarter credits in professional educational courses.

3. No emergency certificates are to be issued for secondary teachers, excepting in cases involving special qualifications.¹⁶

At the Educational Problems Conference on the Montana

15. Professionalization of Teaching, Montana Education, 24:17, September, 1947.

16. Loc. cit.

State University campus during June 1947 the section which discussed Training and Certification (Dr. George A. Selke, Chairman) recommended the following with regard to secondary certification:

I. Teaching Training for Beginning Workers:

- A.
- B. Length of secondary training period:
1. Resolved that no emergency certificates will be issued during 1947-48 except in special fields.
 2. It was recommended that the following requirements be adopted:
 - a. A fifth year of preparation by 1955.
 - b. Teachers in special fields (Fine and Industrial Arts, Music) must complete their professional courses in education by 1953.
 - c. Teachers in vocational fields (Agriculture, Home Economics, etc.) must complete their college preparation by 1951.

II. Preparation of Teachers:

- A. It was recommended that teacher education on the several levels include: General education and/or a core curriculum, professional education, and majors and minors. Professional education, was defined to include: educational orientation, educational and/or child psychology, educational sociology, health education, guidance, safety education, techniques of teaching, principles of education, observation, demonstration and student teaching.

III. Supplementary Statements Added During the General Session of the Educational Problems Conference were:

A. If anyone can teach without training, then there is no need for a teaching profession.

B. It is the training of teachers which, in the final analysis, determines whether or not we will have a teaching profession.

C. Teachers must have courses and experiences which will prepare them to be outstanding persons, functioning citizens, and capable professional workers.

D. There is a common core of subject matter and experience which all teachers should have regardless of the level upon which they work. Training of teachers on the secondary, elementary, and higher educational levels differs in certain details only.

E. The single salary schedule was advocated as being the most equitable way of remuneration.

F. There is a need for a reorganized program of teacher education in Montana which will insure

integration and synthesis of courses and faculty.

G. The preparation of teachers should stress the importance of the individual learner for, although instruction may be in groups, learning is always individual.

H. Further work is needed on the clarification and organization of the internship and preparation of teachers.¹⁷

The New Certification Law. The preceding material is evidence that the certification law as passed by the 1949 legislature followed at least two years of study and definite recommendations by educators throughout the state. Additional study is necessary before rules and regulations can be made in compliance with the law.

Those parts of the new certification law¹⁸ pertinent to secondary certification are quoted in the following pages. With respect to existing certificates, the law states:

Outstanding Certificates for Teaching. No provisions of this act shall affect or impair the validity of any certificate for teaching in force on May 1, 1949, or the rights and privileges of the holders by virtue thereof, save that any certificate may be suspended or revoked for any of the causes and by the procedures specified by law.

Since the law itself is purposely stated in general terms and serves only as the framework of the certification structure, authority is given the State Board of Education to:

Prescribe and adopt rules and regulations for the issuance of all certificates for teaching in accordance with the methods and policies formulated and recommended by the state superintendent of public instruction for approval and adoption by such board.

17. Ibid., p. 19.

18. House Bill No. 248, Legislative Assembly of the State of Montana, 1949.

The formulation of the rules and regulations is a difficult problem. Some of the factors which must be taken into consideration are discussed in Chapter Four.

The certification law continues by saying:

The state superintendent of public instruction may issue the following kinds of secondary school certificates:

(a) The Secondary School Standard General Certificate. The secondary standard general certificate shall indicate the academic field or fields for which the holder has been prepared and shall qualify any holder thereof to teach in any public secondary school those academic subjects or related fields indicated on the certificate. The holder of such certificate shall also be qualified to teach in the seventh and eighth grades of any public elementary school. Such certificate shall be granted to any person who holds a degree from any unit of the University of Montana showing that the holder has completed a four-year course of secondary school education from such institution.

(b) Secondary School Standard Special Certificate. The secondary school standard special certificate shall qualify any person to teach in the special fields such as agriculture, home training, industrial arts, commercial subjects, physical education, music, fine arts, radio, television, or such other special fields as the needs of the schools may from time to time require, including service as school librarian and school nurse. The certificate shall show in which one or ones of the special fields the holder is authorized to teach and shall qualify him to teach in such special fields in any public high school or elementary school. Such certificate may also indicate other high school subjects or related fields in which the holder has had preparation equivalent to that which the holder has had preparation equivalent to that required in the academic field and qualify him to teach the same. Such certificate shall be issued to any person holding the degree of a unit of the University of Montana, granted by virtue of the completion of its approved four-year course in the special field or fields for which the application for certification is made.

(c) Secondary Advanced Certificate. Any person who has the preparation and training entitling him to receive a secondary school standard general certificate or a high school standard special certificate and who, in addition, has completed one year of graduate work at

any unit of the University of Montana of a kind and character approved by the State Board of Education, may be given a secondary school advanced certificate, either general or special, as may be appropriate to his preparation and training. Such secondary school advanced certificate shall qualify the holder thereof to teach the same subjects and in the same institutions in which the holder of a corresponding standard certificate is authorized to teach.

With regard to the duration and renewal of certificates, the new law says:

All certificates shall bear the date of the issue, and, with the exception of emergency certificates which shall be valid for one year, shall expire after the first issue to any person two years from July 1 nearest such date of issue and may be renewed for periods of not more than five years upon satisfactory evidence to the superintendent of public instruction of successful teaching experience for at least one school year during the period covered by the certificate in grades or subjects or fields for which the certificate is valid. On less than one year's teaching experience, the certificate may be renewed for a period sufficient to enable the holder to meet the requirements for a regular renewal. Any person who applies for the issuance or renewal of a teacher's certificate and who possesses the training prescribed for the certificate, but who has not at any time during the five-year period immediately preceding, been employed in the type of teaching for which the certificate is valid, may be required to furnish evidence of appropriate preparation by attendance at an accredited teacher education institution for a period of preparation not to exceed twelve weeks.

Major changes resulting from the new certification law including some with which this study is not directly concerned are:

1. Life certificates are abolished by omission.
2. Teaching fields are to be indicated on the certificate.
3. The door is opened for the establishment of the five year training requirement for high school teachers and four year requirement for elementary teachers.

4. The establishment of administrative and supervisory certificates.

With the new certification law going into effect July 1, 1949, and the State Board of Education authorized to adopt rules and regulations for the issuance of certificates, Montana is in a position to establish a certification system which will provide our children with the best possible instruction.

Evidence of continued interest in certification on the part of Montana educators is contained in the following resolutions passed at the Second Annual Conference of the Montana Education Association on Professional Problems held on the Montana State College campus on April 22, 1949:

1. That the Montana Education Association continue to intensify their program for convincing the public of the need for higher certification standards.

2. That the Department of Public Instruction follow strictly its present plan of requiring at least eight credits and six weeks attendance in an accredited teacher training institution, previous to each one-year renewal of a teaching permit. As soon as possible the permit be outlawed.

3. That elementary teacher training schools in Montana include instruction of teaching phonetic reading as a vital part of their curriculum. All teacher training institutions in Montana train music majors for teaching an elementary music program as well as high school band and chorus. And P. E. majors for teaching an elementary physical education program as well as for coaching athletics.¹⁹

Although the Montana Education Association cannot officially formulate rules and regulations for adoption,

19. Mrs. Mary Doll, "Report on Professional Problems Conference," Montana Education, 25:9, May, 1949.

it is one of the groups whose advice can be invaluable to those officials charged with the actual policy making.

CHAPTER IV

FACTORS AFFECTING CERTIFICATION IN MONTANA

In addition to a knowledge of the history, current practice, and trends in certification for the United States in general and Montana in particular there are other factors which have a bearing upon the problem of certification in Montana. These factors should be considered by any persons charged with the responsibility of setting up certification rules and regulations for the state of Montana:

1. High school offerings in Montana.
2. Supply of and demand for Montana teachers.
3. Subject combinations Montana teachers are called upon to teach.

Apparently there has been little consideration given to the above mentioned factors. In the past there has been a lack of the definite up-to-date information needed in policy making. This lack of information has been relieved in at least one instance by the thesis of Antrim E. Barnes, Jr.¹ which has been frequently referred to in this study and which is analyzed in greater detail later in this chapter.

The question of supply of, and demand, for teachers is being answered, at least in part, on the national level by

1. Antrim E. Barnes, Jr., "Educational Offerings in Montana High Schools 1945-1947," (unpublished Master's thesis, Montana State University, Missoula, 1948), 107 pp.

the National Supply and Demand Study which has been conducted for two years by Ray C. Maul, Dean of the Kansas State Teachers College.² In Montana, the State Department of Public Instruction is showing its awareness of the need for such information by conducting a survey of teacher supply and demand throughout the state. This indicates that there is realization of the need for certain information not otherwise obtainable. Some limited statistics on teacher supply and demand have been compiled by the Montana State University Teacher Placement Bureau in its reports.³ The Placement Bureau data are too limited to be of very great value in determining certification policy for the state but there are certain implications which can be drawn from it as will be shown later.

The third factor mentioned above--teaching combinations in Montana high schools--is closely related both to high school offerings and teacher supply and demand. Some work has been done toward a study of teaching combinations by a graduate student⁴ in the Montana State University School of Education. Additional data are necessary in this field.

2. Ray C. Maul, "Teacher Supply and Demand in the United States," Report of the 1949 National Teacher Supply and Demand Study, National Education Association, Washington, D.C.

3. Montana State University Placement Bureau Statistics on Teacher Placement, January 1, 1949.

4. Walter W. Ylinen, "Teaching Combinations in Montana High Schools," (unpublished data, Montana State University, Missoula, 1947).

At this point it might be worthwhile to mention a fourth factor, which although not directly one of certification certainly has an effect on certification over a period of time. The problem is the one of the smallness of Montana high schools. Indirectly, certification policy is affected by the size of the high schools in which it is expected the certificated teachers will teach. If every high school in Montana had fifty students and four teachers then a pattern of majors and minors could be worked out which would meet the needs of every school. The problem is made complex by the fact that the size ranges from six students to one thousand five hundred students (Table XV). It is difficult to see how one certification pattern can satisfy the needs of all these schools. Since it is true that 44.5 per cent of the schools have fifty or less students, there is need for study to determine how the problems of these schools can best be met. The possibilities of the following should be more fully explored: Correspondence courses from the State Correspondence School at Missoula, alternation of courses, the six-year high school (grades 7 - 12), and consolidation of the smaller schools.

I. EDUCATIONAL OFFERINGS IN MONTANA HIGH SCHOOLS

Although Barnes'⁵ thesis was not written with the problem of certification in mind, it still furnishes much data pertinent to a revision of certification regulations.

5. Barnes, loc. cit.

TABLE XIV
 NUMBER OF MONTANA HIGH SCHOOLS BY SIZE
 OF STUDENT BODY, 1947-48*

Number of Pupils	Number of Schools
1 - 5	0
6 - 10	4
11 - 15	7
16 - 20	10
21 - 25	10
26 - 30	12
31 - 40	17
41 - 50	22
51 - 60	6
61 - 70	17
71 - 80	7
81 - 90	8
91 - 100	6
101 - 150	22
151 - 200	10
201 - 250	9
251 - 300	3
301 - 350	1
351 - 400	2
401 - 450	0
451 - 500	4
over 500	<u>7</u>
TOTAL	184

* Biennial Report of the Superintendent of Public Instruction of Montana, January, 1949, p. 25.

TABLE XV
 NUMBER AND SIZE OF THE SECONDARY SCHOOLS IN MONTANA
 BY ENROLLMENT GROUPS, 1946-47*

		Enrollment group					Total
		I	II	III	IV	V	
Schools	#	13	23	42	53	52	183
per group	%	7	11	21	26	26	91
Range of enrollment		350 to 1,500	151 to 351	76 to 150	41 to 76	6 to 41	
Average enrollment		800	224	111	57	20	134
Number of students		10,395	5,161	4,670	3,029	1,270	24,525

* Data from Barnes, op. cit., p. 20.

In Table XVI there are listed the number and per cent of Montana high schools offering work in each of twelve subject fields. It should be noted that the social studies include history and economics-sociology, while the science field includes both the physical and the biological sciences. For purposes of this study, history and economics-sociology will be considered two fields as will the physical and biological sciences. Such a breakdown would increase the number of subject fields to fourteen.

On the basis of the above mentioned breakdown it is seen in Table XVII that there were twenty-one subjects in nine subject fields offered in 50 per cent or more of the 183 high schools during the period 1945-47. It must be noted that this table covers two school years, and that some alternation of subjects occurs in the typical high school. It is quite common to alternate physics and chemistry yearly. This would lower the number of subjects taught per year but would not affect the number of subject fields. The actual range in per cent of schools offering the various subjects was from 51 per cent for sociology to one hundred per cent for English I.

Since approximately 50 per cent of Montana high schools have less than four teachers,⁶ we see that there are approximately five classes for each teacher. These five classes would cover between two and three subject fields. This indicates

6. Montana Educational Directory, 1947-1948.

TABLE XVI
 THE NUMBER AND PERCENTAGE OF MONTANA HIGH SCHOOLS OFFERING
 WORK IN SPECIFIED SUBJECT FIELDS, 1945-1947*

Subject fields	Montana high schools	
	Number	Per cent
Social studies	183	100
English	183	100
Science	183	100
Mathematics	183	100
Commercial	182	99
Physical Education	148	81
Music	136	74
Home economics	119	65
Industrial arts	108	59
Foreign language	105	57
Agriculture	51	28
Art	21	11

* Barnes, op. cit., p. 23.

TABLE XVII
 SUBJECTS TAUGHT IN MORE THAN FIFTY PER CENT OF MONTANA
 PUBLIC HIGH SCHOOLS, 1945-1947*

Rank	Subject	Per cent of Schools
1	English I	100.00
2	Am. History	98.4
3	Typing I	98.3
4	Algebra I	97.2
5	English II	96.2
6	Plane Geometry	95.6
7	English III	93.4
8	Biology	90.2
9	World History	90.1
10	Typing II	86.9
11	General Science	86.3
12	English IV	85.2
13	Bookkeeping	84.1
14	Boys Physical Ed.	80.3
15	Chemistry	79.2
16	Physics	72.1
17	Shorthand I	68.8
18	Home Economics I	65.0
19	Economics	54.6
20	Girls Physical Ed.	53.0
21	Sociology	51.0

* Barnes, op. cit., p. 45.

a need for preparation in three fields for at least part of our high school teachers.⁷

Problems arising from our present major and minor set up. Is the science program of our teacher-training institutions meeting the needs of Montana high schools? Biology, general science, chemistry, and physics are taught in 45 per cent or more of the high schools.⁸ There are two broad subject fields here: Biological science and physical science. No differentiation has been made when it comes to certification, but such differentiation is made by the teacher-training institutions.

A "science" teacher must be prepared in these two broad subject fields to teach probably only three subjects (chemistry or physics, biology, and general science) since, due to alternation, all four courses may not be offered the same year. Under these conditions a physical science major with a biological science minor would have, at the most, four subjects in his fields. This means he must teach out of his field in at least one subject if he is in the typical high school. Montana State College offers a general science major which may be a partial answer to this problem (Table XIII), although consideration must be given the fact that such a major does not include intensive training in any science subject or field. The training has breadth but lacks depth.

7. Also indicated is the need for information regarding teaching combinations to aid in determining in which fields this preparation is needed.

8. Barnes, op. cit., p. 30

A case similar to the one above would be the mathematics major with a physical science minor. Barnes⁹ shows only two mathematics subjects being taught in more than 50 per cent of the schools. If this teacher has two mathematics courses and the two physical science courses he will still have another subject such as general science or biology to teach. He would be able to get by in general science, but he probably cannot do justice to the biology students.

Perhaps Montana State University should have a science major which would give preparation in both the physical and biological sciences. Such a major is offered at Montana State College as mentioned before, although the increase in the total number of credits required should be considered. A person with such a major and a mathematics minor would be prepared to teach the common mathematics and science courses in the typical Montana high school.

Is history and economics-sociology a good teaching combination? Barnes¹⁰ indicates only four subjects (American history, world history, economics, and sociology) are offered by more than 40 per cent of the schools. Of these courses economics and sociology normally are not taught at the same time but are alternated by semesters which leaves three social studies subjects being offered at one time. A person with a major of history and a minor of economics-sociology

9. Ibid., p. 32.

10. Ibid., p. 25.

has only three subjects to teach in over 40 per cent of our schools. This means he will have to teach in a third field. Perhaps the teacher-training situation is inadequate in this respect. Would it not be better for Montana State University to have a social studies major which includes preparation in history, economics, and sociology? Montana State College offers such a major (Table XIII) although, as in the case of the sciences, an increase in the total number of credits required may be indicated.

In contrast to the situations noted above, 60 per cent or more of the Montana high schools offer four English classes.¹¹ If the average teacher has five classes, then the English teacher needs to fill in with only one other subject. This additional subject may be speech or dramatics both of which are not too far afield. The picture presented above may be over-simplified since other factors may necessitate English being taught by more than one teacher. In this case neither teacher would carry the full load and each would, of course, need preparation in another field.

The examples given serve to show how complex the problem of teacher-training may become when consideration is given to the matter of majors and minors alone. One can see that Frazier was certainly correct in saying:

In most States difficulties arise because the administration of teacher certification is not sufficiently coordinated with other State teacher-personnel

11. Ibid., p. 28.

activities, including especially the education of teachers.

The cooperation of local school officials, teachers, teacher-education institutions, and other agencies and individuals concerned should be secured in the development of a program of teacher certification.¹²

The above statement is especially true in the matter of major and minor definitions. No one group can go ahead and solve all of the problems pertaining to certification. It must be a cooperative undertaking.

II. SUPPLY OF AND DEMAND FOR MONTANA TEACHERS

Another kind of information which can be of great help in solving the problems of certification is supply and demand data regarding Montana teachers. What is the relationship of supply to demand in both quantity and quality?

Generally speaking it can be said that when the supply is limited and the demand is thus emphasized certification standards do not tend to advance but either remain stationary or slide backward. In periods of adequate supply certification standards make their greatest advances. Frazier says that:

Improved standards tend to force or encourage teachers to meet such standards. Reduction in supply of teachers through heightened certification requirements in effect appears only temporary.¹³

Along with increased certification requirements there

12. Benjamin W. Frazier, "Development of State Programs for the Certification of Teachers," Bulletin 1938, No. 12 of the United States Department of the Interior Office of Education, p. 29.

13. Ibid., p. 89.

must go a program which might be called community education or conditioning. School boards must be helped to realize the need for employing teachers with the best qualifications. Frazier makes the point that, "A tendency to employ low-salaried teachers with minimum legal qualifications tends to defeat the program for continuous elevation of standards."¹⁴

Information pertaining to supply and demand should be available to teacher-training institutions for they are in the best position to guide prospective teachers. These institutions are not only in the best position but, in the opinion of one authority, it is their responsibility to guide prospective teachers toward subjects for which teachers are most in demand.¹⁵

Table XVIII indicates the number of calls which the Montana State University Placement Bureau had for teachers of each subject and the number of registrants qualified to teach each subject for the years 1947 and 1948. Approximately two-thirds of the vacancies listed were in Montana. This table is a convenient method of presenting one picture of supply and demand. The figures given are not total needs or supply for the state in any sense of the word. They simply show the number of calls compared to the number of registrants qualified to teach each subject. In 1948 there were 160 calls

14. Ibid., p. 90.

15. Ibid., p. 134.

TABLE XVIII

NUMBER OF CALLS PLACED WITH MONTANA STATE UNIVERSITY PLACEMENT BUREAU FOR TEACHERS OF SPECIFIED SUBJECTS, AND NUMBER OF REGISTRANTS, 1947 AND 1948*

Subject	Total Vac.	1948 Mont. Vac.	Number Reg.	Total Vac.	1947 Mont. Vac.	Number Reg.
History	35	29	127	45	34	96
Econ-Soc	--	--	37	2	2	30
Social Science	48	24	24	84	61	31
English	160	110	92	139	97	91
Biol. Science	34	16	10	19	23	6
Chemistry	23	13	15	19	8	31
Physics	16	10	4	17	7	3
Unspecified Sci.	72	54	41	75	53	49
General Sci.	11	5	(1)	10	6	(1)
Mathematics	106	73	41	86	64	41
Commercial	113	90	40	99	74	32
Typing	12	5	1	13	9	--
Bookkeeping	7	5	--	3	3	--
Phys. Ed. (men)	77	53	36	68	37	37
Phys. Ed. (women)	42	25	11	27	22	32
Home Ec.	102	68	22	101	54	25

(1) Number of registrants for general science is listed with the unspecified science.

* Data from Montana State University Placement Bureau Statistics on Teacher Placement, January 1, 1949.

TABLE XIX
 NUMBER OF 1948 GRADUATES OF MONTANA STATE UNIVERSITY
 PREPARED TO TEACH THE SUBJECTS LISTED IN TABLE XVIII*

Subject	Number of 1948 graduates prepared to teach		
	Major	Minor	Total
History	11	25	36
Econ-Soc.	6	11	17
English	12	14	26
Biol. Science	4	8	12
Chemistry	--	4	4
Physics	--	--	--
Physical Science	2	4	6
Mathematics	2	15	17
Commercial	6	3	9
Phys. Ed. (men)	10	1	11
Phys. Ed. (women)	4	--	4
Home Ec.	5	1	6

* Data from Montana State University School of Education Annual Report on Cadet Teaching 1947-48.

for teachers of academic English. One hundred ten of these calls were in Montana. Ninety two students were listed as qualified to teach English. Of these 92 students, twenty-six were 1943 graduates of the University (Table XIX). In 1943 there were one hundred six calls, seventy-three in Montana. There were forty-one qualified registrants. Compare the above figures with the thirty-five calls for history teachers. Twenty-nine of these calls were in Montana. There were 127 registrants.

Although it is difficult to draw conclusions from such limited data, it is apparent that many more history teachers were registered than were called. There was much greater demand for mathematics teachers than English teachers. These examples show some of the uses to which supply and demand data could be put.

Specific uses of such supply and demand data by certification authorities could include the following:

1. To determine when teaching majors or minors should be added or deleted. The demand for teachers in teaching fields or subjects hitherto undefined could be noted. Such demand would indicate the necessity for definition of teaching majors and minors in those fields or subjects. An example of growing demand might be in the field of speech. This would perhaps mean that the time had come to define a speech major and minor.
2. To determine when general certification requirements should be increased. When the supply in general begins to

catch up with the demand, authorities may feel that the time has come to introduce the five year college requirement for high school teachers. On the other hand, as long as supply is considerably behind demand there may be the feeling that requirements should not be raised too drastically because teachers qualified under the higher requirements would not be available and enforcement would be difficult.

It has been mentioned that at the present time the State Department of Public Instruction is conducting a survey of the teacher supply and demand situation in Montana. The results of such surveys over a period of years would be an aid to the administration of education in Montana in the ways previously cited.

III. TEACHING COMBINATIONS IN MONTANA HIGH SCHOOLS

Very little information is available at the present time pertaining to the subject combinations teachers are called upon to teach in Montana high schools. Barnes,¹⁶ in his thesis, discussed the subject offerings of the high schools but made no mention of specific subjects taught by individuals. At the cost of some time and effort this information could be obtained from the Montana High School Report, Form A. A partial analysis has been made by a graduate student in the Montana State University School of Education.¹⁷

16. Barnes, op. cit., 107 pp.

17. Ylinen, loc. cit.

TABLE XX

FREQUENCY WITH WHICH ENGLISH OCCURS ALONE, OR IN COMBINATION
WITH ONE, TWO, THREE, FOUR, AND FIVE SUBJECTS IN MONTANA
HIGH SCHOOLS*

Subject(s)	School Enrollment						Total
	5-25	26-50	51-100	100-250	250-500	500-up	
English alone	0	2	2	17	3	40	64
English and one subject	1	5	19	24	6	31	86
English and two subjects	6	23	18	27	5	5	84
English and three subjects	11	16	21	15	2	1	66
English and four subjects	11	5	4	2	-	1	23
English and five subjects	<u>4</u>	<u>3</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>7</u>
Total	33	54	64	85	16	78	330

* From unpublished data compiled by Walter Ylinen,
graduate student Montana State University, January, 1947.

In Table XX are shown the results of the above study with regard to English and the number of subjects taught in combination with it. Additional information of value would be a breakdown not only of the subjects taught with English but the subject fields involved. Also helpful would be information as to what subjects are included under the heading of English.

A knowledge of teaching combinations is important in that it would shed additional light on the demand, or lack of demand, for teachers with specific teaching combinations. Showing that the frequency of certain teaching combinations was more numerous than others would give implications as to training patterns which might be offered and the combinations which prospective teachers would be advised to enter.

IV. SUMMARY

Evidence available, though in many cases limited and incomplete, is indicative of the fact that such information, if complete, would prove of value to any group concerned with the problems of teacher certification.

It is imperative that such a group consider the implications of:

1. High school offerings in Montana.
2. Supply of and demand for Montana teachers.
3. Subject combinations Montana teachers are called upon to teach.
4. Problems of the many Montana high schools with

enrollments of less than fifty students.

Analysis of the above mentioned factors must be continued, increased, and augmented in the future.

CHAPTER V

SUMMARY AND CONCLUSIONS

I. PURPOSE

It was the purpose of this thesis to present information pertaining to the certification of secondary school teachers which would be of value to any person or persons concerned with the revision of regular, initial certification requirements in Montana. Specifically, the purposes were:

1. To summarize the development of certification policies in the United States in general and Montana in particular during the twentieth century.

2. To determine current practices and trends in secondary certification in the United States generally, and in Montana specifically.

3. To call attention to problems inherent in secondary education which have a particular bearing on secondary teacher certification in Montana.

II. SUMMARY

The following facts were noted with respect to the United States as a whole:

1. The certificating authority has become centralized in the state officials in at least forty-four states.

2. The process of reciprocity has gained little,

if any, favor in recent years.

3. The issuance of certificates to individuals from other states on the basis of credentials from accredited institutions of higher education has increased to the point where it is standard procedure.

4. Initial certificates are issued primarily on the basis of educational preparation rather than on examination as they have been in the past.

5. The training requirements for certification of inexperienced secondary school teachers are less than four years of college in only 4 states, four years in 39 states, and five years in 5 states and the District of Columbia. The trend is to increase this requirement to five years in other states.

6. Fifteen states raised their professional education and student teaching requirements between 1937 and 1947.

7. The trend is toward an increase in minimum age requirements, increase in number of states requiring United States citizenship, and increase in demand for proof of good health.

8. The trend is definitely away from issuance of life certificates and toward the issuance of certificates renewable on the basis of such professional advancement as summer school, extension courses, and travel.

9. There appears to be a trend toward more detailed definition by the state officials of the major and minor requirements in specific subjects and fields.

10. The importance of data on the supply of and demand for teachers has given rise to a national supply and demand study within the past two years which may be expected to have an influence on certification within the next few years.

III. CONCLUSIONS

1. Montana has followed the lead of the more progressive states in most of the significant improvements and trends listed above, and has not been the last to adopt new ideas and improvements. An exception to this last statement is in the definition of specific major and minor requirements which was noted as a possible national trend. Montana has not yet made this definition. Major and minor requirements should be more clearly defined. Such definition would avoid, to the greatest extent possible, the discrepancies previously noted between the teacher-training institutions in certain fields.

2. The Montana high school teacher in the typical Montana high school will teach five subjects in two to three subject fields in any one year and, due to alternation will in many instances teach seven or eight subjects over a two or three year period. This indicates a need for three field preparation for at least part of our high school teachers.

3. Detailed information on the supply of and demand for teachers, and data on the teaching combinations in Montana high schools coupled with knowledge of current practice

and trends will aid certificating officials in the formulation of rules and regulations to meet the specific needs of Montana high school students.

4. The smallness of the average Montana high school is a factor of major importance to be considered when making certification rules and regulations.

5. The new Montana certification law has incorporated within it many changes which open the way for considerable improvement in the quality of instruction received by our children.

IV. RECOMMENDATIONS

It is recommended that, with the material presented in this thesis as background, further study be conducted in the following areas:

1. Detailed analysis of major and minor requirements of other states to determine trends, followed by the defining of major and minor requirements for Montana secondary school teachers.

2. In arriving at new patterns of majors and minors serious consideration should be given to the establishment of broad field majors especially in social science and general science.

3. Completion of the present survey of teacher supply and demand which is being conducted by the State Department of Public Instruction, and the continuation of such studies.

4. Completion of the present study of teaching com-

binations of Montana high schools.

It is further recommended that in setting up the new rules and regulations under the 1949 certification law special attention be given to the problems of the many Montana high schools in which the total teaching load must be carried by four or fewer teachers.

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