# Supply and Demand of Secondary School Teachers in utah 

George W. Sperry

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## SUPPLY AND DEMAND OF SECONDARY

## SCHOOL TEACHERS IN UTAH

by
George W. Sperry

A thesis submitted in partial fulfillment of the requirements for the degree
of
MASTER OT SCIENCE

in
Education Administration
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UTAH STATE AGRICULIURAL COLIFGE
Logan, Utah

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This thesis is one of two completed at the Utah State Agricultural College in 1948-49, which deals with the problem of teacher supply and demand in Utah. Originally, one student proposed to make such a study covering all the teachers of the state. When the study was set up in a preliminary form, it was suggested by the committee that the area be divided so that two studies would result, one dealing with elementary teachers and the other with secondary teachers.

Though the studies covered different phases of teacher supply and demand, the problem, the need for the studies, the delimitations and the procedure seemed the seme. Index sheets providing information on both elementary and secondary teachers were formulated and sent to the school districts to facilitate obtaining the data needed for the studies. This procedure required close cooperation between the writers of the two studies and consequently, with committee approval, the first section of each study is similar.

This study could not have been possible without the help and assistance of many persons. Sincere thanks are extended to the Utah superintendents who supplied information necessary for this study. Dr. John C. Carlisle gave valuable assistance and guidance throughout the study. The writer wishes to acknowledge all constructive criticism from the members of his committee: Dean Ethelyn 0. Greaves, Dean Carlton Culmsee, Dean E. A. Jacobsen, Dr. L. G. Noble, Dr. R. W. Roskelley,

Professor Dee A. Broadbent, and N. Blaine winters. Appreciation is expressed to Professor Bliss Crandall for his help in tabulating results. The writer is indebted to his wife, Lucile Sperry, for her clerical assistance and constant encouragement which made this study possible.

## CHAPTER I

NATURE AND SCOPE OF THE STUDY

During the years of World War II the faculties of the public schools in Utah as well as in the rest of the nation were depleted to a serious extent, and enrollment in teacher training institutions throughout the country decreased. Because of this condition the State Department of Education in Utah as well as in other stetes was forced to issue letters of authorization to teachers who could not meet standard certification requirements in order to staff the schools. Many of these teachers are still teaching in the schools today.

A study of the history of education in the United States and in the state of Utah shows repeated periods of "shortage" and "surplus" in the supply of teachers available for work in the public schools. During prosperous years such as were experienced during and since World War II there seems to have been a shortage in properly trained teachers. Teachers who joined the armed services combined with those who left their positions to take jobs where the salaries were better account for this initial shortage. At the present time when economic conditions appear to be "leveling off", the supply of teachers seems more nearly to meet the demand or in some cases to exceed it. In times of depression the supply has appeared consistently to exceed the demand.

Ralph McDonald, Executive Secretary of the National Commission on Teacher Education and Professional Standards, stated that "One of the most vexing problems of American education is that of relating the supply of teacher to the demand. The schools of the nation have experienced alternate periods of great over-supply and crucial shortage of certified teachers. At practicelly no time in recent history has there existed even momentarily a balanced relationship between the number of positions and the number of available teachers." He further stated that "both the imbalance itself and the apathy with respect to it have arisen largely because of the absence of authentic data regarding either supply or demand." It is, therefore, pertinent that this problem should be continuously studied in every state in the Union.

[^0]
## THE PROBLEM

The purpose of this study is to obtain information regarding the supply and demand for secondary teachers in the state of Utah for the ten year period 1946-1956. An attempt will be made to answer the following questions: Was progress made during the three year period (1946-1949) assuming that the number of teaching positions remained the same? If advances were made, how long will it take to equalize supply and demand by 1956, how much of an increase in the supply of secondary teachers will be needed by $1956 ?$ Due to the large demand for such types of secondary certified teachers as: home economics, womens physical education, and english, how long will it take for these special fields to equalize supply and demand. From available evidenc on changing demand from increased population and possible decrease in class size, how much of an increase in the supply of teachers will be needed by 1956 ?

Only the supply and demand for secondary teachers will be dealt with in this study. The supply and demand of elementary teachers is treated in another study that is being done in conjunction with this one. ${ }^{2}$

2- Jackson, Arthur D. Supply and Demand of Elementary School Teachers in Utah. Master's Thesis. (unpublished) 1949.

## DEFINITION OF TERMS

For a clear understanding of the discussion a knowledge of the following terms is essential.

1. The term "supply" is used to designate the number of teachers who had completed the requirements for a certificate in the state of $U t a h$, and who were for the periods indicated in the study either: (1) employed by one of the 40 districts in the state of Utah, or (2) having completed certification requirements, were assumed to be available for employment.
2. The term "demand" is used to designate any existing vacancy that made it necessary to hire a teacher who the preceding year did not teach in the district.
3. The term "teacher" indicates any classroom teacher or principal employed in the districts of Utah.
4. The term "turn over" is used only for changes involving those persons teaching in a district who were not in that district the previous year. A teacher who has transferred within the district is not included in the turnover. It does include, however, those teachers who were just out of college with no previous experience and also tho se who came from another state.
5. An "authorized teacher" is any teacher who has not completed the requirements for a standard certificate but had been granted permission to teach. There are two types of authorizations included in this term. First, the individual letter of authorization given the person who has 150 quarter.
hours or over of professional training. Secondly, the temporary letter of authorization which grants the districts the right to employ a person until a better qualified teacher is available.
6. The term "life certificate" is used to designate those persons who until 1934 were issued high school diplomas or grammar grade school diplomas which by provision of law gave the holder thereof a license for life to teach in the public schools of the state of Utah, unless such license be revoked for cause. In order to keep this diploma in force, the holder cannot let any five consecutive years elapse without his being employed in the public schools. Once revoked this life certificate cannot be renewed. He can however, obtain a regular certificate when qualified.
7. The term "secondary teacher" refers to any teacher employed in the public schools of the state of Utah teaching grades seven through twelve where the $6-3-3$ or $6-6$ plan is adopted, and to any teacher tesching grades nine through twelve where the $8-4$ plan is used.
8. The term "secondary certificate" refers to the certificate issued by the state to teachers filling state requirements for teaching in grades six through twelve.

NEED FOR THS STUDY
In the state of Utah during the school year 1947-48, there were 4,957 teachers employed in the public schools. Of this number 1,390 were teaching without a state certificate. ${ }^{3}$ During the school year 1948-49, 5,234 were employed and of this number 1,586 did not meet the requirements for state certification. ${ }^{4}$ Those teachers who were teaching without a state certificate were either authorized or held a life diploma. In 1947-48, 983 held life diplomas and in 1948-49 there were 939 holders of life certificates.

The State Department of Public Instruction, representing the people of the state, is vitally concerned with decreasing the number of individuals teaching without a certificate. It must always be concerned with the availability of professionally qualified teachers. The Utah Education Association is also greatly concerned with these matters, both from the point of view of the personal and professional welfare of the teachers now in the profession, and from the point of view of the educational welfare of the people of the state.

The six teacher-training institutions in the state should have timely information regarding the demand for teachers

3- N. Blaine Finters. Preliminary Report on Status of Utah Teaching personnel, State of Utah Department of Public Instruction, Teacher Personnel Division, January, 1948.

4- N. Blaine Winters. Preliminery Report on Stetus of Utah Teaching Personnel. State of Utah Department of Public Instruction, Teacher Personnel Division. March, 1949.
which they are training, and the grade levels and subject matter at which this demand exists. Without this information they cannot intelligently advise their students of the opportunities and demands existing in the field to which they are devoting their efforts. It is wasteful, both to the prospective teacher and to the state, if institutions train students for positions which do not exist. The failure to train the type and kind of teachers needed by the state is equally serious, since this forces the district superintendents to go outside of the state to secure teachers for these positions. If this is not done these administrators are compelled to employ inadequately trained teachers, or in the case of some high schools, to abandon departments of instruction where teachers are not available.
(1) $X$ Improvement in educational standards depends to a great extent upon the supply and demand of propessionally trained teachers. $X$ In order for the state department of public instruction and teacher training institutions of the state of Utah to carry out intelligent action programs, it is necessary that they have current information and long range estimates of teacher supply and demand.

## DELIMITATIONS

1. This study deals with the supply and demand of secondary teachers only. As previously stated the supply of and demand for elementary teachers is treated in another study being made in conjunction with this one.
2. The study begins with the school year 1946-47 and deals directly with school years 1947-48 and 1948-49. The estimate for future needs ends with the year 1956.
3. The superintendent of the San Juan district misplaced the index sheets sent him. Since these were individual analysis sheets for every trensfer in the district it was impossible to check the record and make up new ones in time to be included in this study. Therefore, all the data presented in the study is based on 39 of the 40 school districts in Utah. The school enrollment in San Juan district represents only $.54 \%$ of the total enrollment in the state.
4. The certification qualifications for those teachers leaving positions in 1946-47 is not given in this study. This information was not obtainable from the State Department of Public Instruction. It is given, however, for the other years that are considered herein.

## PROCEDURE

The first phase of this study was to make an analysis of the annual vacancies occurring within the public schools of the state and to survey the qualifications of teachers selected to fill the positions. The following procedure was used: The 1947-48 Utah Public School Directory was checked against the 1946-47 directory to determine changes in teacher personnel in public schools. The names of teachers entering or leaving the district were then entered on a master sheet in alphabetical order according to district so that teachers transferring from school to school within the district could be eliminated from the study. These teachers were still employed within the district and therefore would not affect supply or demand. A questionnaire or index sheet was prepared for all teachers leaving the field and for those entering the profession for the school year 1947-48. Then the 1948-49 directory was checked ageinst the 1947-48 directory to ascertain teacher turnover for the school year 1947-48. The same procedure was followed to determine teachers entering the profession for the school year 1948-49. The degree of certification of each teacher was checked through the State Department of Public Instruction in Salt Lake City.

An index sheet was made for each teacher entering or leaving the profession during the three year period. Information included on the index sheet at this time included: 1. the teacher's name, 2. sex, 3. teaching field, i. e., kindergarten, elementery, or secondary, 4. certification,
5. secondary subject matter taught, 6. school district, and 7. year teacher left or entered the district. These sheets with the above information were assembled according to school district and sent or taken to the superintendent of schools for each district.

Index sheets were taken personelly to the following districts: Alpine, Beaver, Box Elãer, Cache, Carbon, Davis, Garfield, Granite, Iron, Jordan, Juab, Millard, Morgan, Nebo, North Sanpete, Sevier, South Sanpete, Tooele, Yeber, Salt Lake City, Ogden, Provo, Logan, and Murray. To those remote areas with smaller teacher turnover the index sheets were mailed. A letter of instruction was sent with all the sheets. A copy of this letter is included in the appendix along with a copy of the index sheet and all correspondence concerning the study.

The questions asked on the index sheet of the superintendents were objective. The questionnaires were arranged so as to require a minimum amount of subjective judgment and writing. Several possible answers to each question were listed and the administrator was usually asked to indicate the correct response by means of a single mark. A blank was provided for notes on exceptional cases.

Information asked of the district superintendent about his teachers included:
A. Reason for leaving the position such as: 1. transferred to another school district, 2. no contract
offered, 3. married and quit, 4. illness, 5. retired, 6. entered other occupation, 7. deceased, 8. leave of absence, and 9. other reasons.
B. Source of new teacher. For instance, 1. other district, 2. out of state, 3. teacher re-employed, 4. letter of authorization, and 5. direct from college.
C. From what college or university did the teacher graduate or attend?
D. What degree does the teacher hold, if any?

Information on the completed index sheets was then transferred to tabulation machine cards. The information was then tabulated on an I.B.M. machine. All the charts and data in this study are based on the results of this tabulation, and from the information from the original master sheets showing teacher turnover in each district.

In order to obtain information concerning the future policies of teacher training institutions, letters were sent to the following universities and colleges in Utah training certified teachers, Utan State Agricultural College, University of Utah, Brigham Young University, Branch Agricultural College, Westminister College, and Saint Mary's-of-the-Wasatch. A check list was included describing methods which might be used for enrolling students in the teaching profession. These suggested policies varied from one extreme to the other: 1. Will actively seek to enroll as many students as possible in the school of education, 2. Will encourage any students
who seek our advice to enroll in the school of education, 3. Will enroll only those who have, on their own choice, elected to enter the school of education, 4. Will operate on a selective system of admission to the teacher training curricula and will admit all those who meet the criteria set up, regardless of whether this increases or decreases the numbers over previous years, 5. Will seek to reduce the number of persons enrolling in the school, 6. We are in favor of beginning now to set up a "quota system" for the deterraination of the number of teachers each of the higher institutions in the state is to prepare for certification, 7. Other, (comment).

It was essential to secure information concerning the retirement rate and the total number of teachers who will retire from the profession in the ten year period 1946-56, to obtain a more accurate picture of the future need for teachers. Statistics concerning teacher retirement were secured from Ray Lillywhite, Chairman of the Utah Teachers Retirement Board.

In order to predict the future need for teachers, an estimated trend of school enrollment up to and including the year 1956 was procured from the State Department of Public Instruction.

## CHAPTER II

PREVIOUS STUDIES IN TEAGHER SUPPLY AND DEMAND
(Q) $\times$ The first attempt at a scientific study of teacher supply and demand was made in 1926 by R. B. Buckingham in Ohio. ${ }^{5} X_{\text {His work }}$ is particularly important because of the techniques he employed in obtaining facts concerning supply and demand. He showed the need for careful studies of teacher supply and demand throughout the country as pell as in the state of Ohio. He indicated that it is noit sufficient to state that there is an over-supply or under-sumy teachers, since there might be an over-supply in nampers. but a decided deficiency in a certain field.

Innumerable similar studies have been made since the Buckingham study was published. It should be understood that the supply and demand for teachers varies so greatly among the different stetes that a general comparison of states is almost impossible. Therefore, only those studies that seem to have had significant bearing upon teacher supply and demand in the state of Utah were reviewed and the pertinent findings from two of these are considered below.

A study of teacher supply and demand in the United States, sponsored by the National Comission on Teacher

5- Buckingham, R. B. Supply and Demand in Teacher Training, Bureau of Educational Research Monographs, No. 4, Page l.

Education and Professional Standards, and directed by Dr. Ray G. Maul, Dean of the State Teachers College, Roporia, Kansas, was made in 1948.6 Dr. Maul requested that the chief certification officer in each state department of education submit a standard inquiry form to each college in the state offering programs of study through which students could qualify for standard certificates according to the requirements of the state. The number of students who had met requirements in 1941, 1945, 1947, and those who were expected to meet requirements in 1948 were reported by the colleges. The year 1941 was chosen for comparison with post-war years because it represented a typical pre-war year. These reports were then compiled in each state office and a state report concerning "supply of teachers" was submitted to Dr. Maul.

This state report contained such information as was available concerning 1. emergency teachers, 2. total teachers in service, 3. number of persons leaving positions within a state, 4. prospects for over-supply of teachers and 5 . salaries.

A summary of his findings on the secondary level are as follows:

1. Although a majority of the state department of education authorities forsee the necessity of

6- Maul, Ray G. Teacher Supply and Demand in the United States. Nat'l. Commission on Teacher Education and Professional standards. Report for 1948.
issuing emergency high school certificates for 1948-49, it is evident that the disappearance of the emergency high school teacher is very near. Most state authorities believe the licensing of sub-standard high school teachers will be necessary next year in only a few of the teaching fields.
2. Increased postwar college enrollments closely parallel the increase in number of college students in preparation for high school teaching. The total number of 1948 college graduates who can qualify for standard high school certificates will exceed the number so qualifying in 1941.
3. Although greatly increased numbers of college students are entering preparation for high school teaching, there is a notable lack of balance in the distribution of these college students among the various high school teaching fields. Postwar college students are following the familiar prewar pattern in which a very large percentage of intending teachers concentrated in a few fields. This points to an early over-supply in these fields while shortages continue to exist in other fields.
4. It is evident thet supply has already achieved balance with demand in certain high school teaching fields.
5. Present trends show clearly that the colleges will very shortly produce an over-supply of graduates
qualifying for standard high school certificates who will seek teaching employment in certain fields.
6. It is inevitable that an unneasured over-supply of candidates for a certain type of teaching position will induce keen competition with resulting decreases in salaries. It seems fair to assume that the whole salary structure of the teaching profession may be endangered through production of candidates meeting standard degree requirements in certain teaching fields.
7. There is almost complete lack of information concerning the actual "demand" for high school teachers as measured by the number of persons who enter teaching service at the beginning of a school year and who were not the preceding year in teaching service anywhere.
8. It is evident that soundly conceived guidance programs are not in operation in a vast majority of the colleges in which students qualify for standard high school teaching certificates. Perhaps the effective development of such guidance programs depends upon (a) the assembling of more accurate information concerning "demand" for high school teachers than is now available, and (b) courageous and farsighted leadership on the part of college authorities in developing effective prograns of selective admission and selective retention in
teacher-education curriculums.
9. Despite evidence of a rapidly increasing supply of high school teachers, little progress has been made in relieving overcrowded conditions, improving tenure, relating salary schedules to qualifications, and establishing retirement provisions, all of which are considered to be necessary factors in stabilizing the teaching profession.

Since the above summary shows that the Maul study is in many ways a thorough one, the question naturally arises as to why any further study was undertaken. Actually items " 7 " and " $8 a$ " in the above, which together with other considerations previously indicated, made it obvious that individual state studies were needed to fill the gap.
N. Elaine Winters, Director of the Teacher Personnel Division of the State of Utah Department of Public Instruction, compiled a preliminary report on the status of Utah teaching personnel to March 17, 1949. The following findings were made in respect to secondary teachers. Of the 2,366 secondary school teachers in Utah .72 percent had from 0 to 45 quarter hours of college training, 1.06 percent had 45 to 90 querter hours, . 68 percent had 90 to 135 quarter hours, 3.42 percent had 135 to 180 quarter hours, and 94.12 percent had 180 quarter hours or over of training. There were 407 teachers employed in 1947-48 who did not teach the previous year. In 1948-49 as reported by this study there were 302 new teachers employed.

The reasons teachers left their positions in Utah schools for the years 1941-42, 1943-44 and 1947-48 were given. However, a distinction was not mede between elementary and secondary teachers.

High school certificates were issued to 33 out of state residents in 1943-44, 44 in 1945-46 and 64 in 1947-48. There were 140 certificates issued in 1948-49 to secondary teachers who served on letters of authorization during 194748. The following comparison was made of secondary teachers teaching on letters of authorizetion for the years 1947-48 and 1948-49, as of March 17, 1949. In the year 1947-48 there was a total of 2,252 secondary teachers, of this number 345 were authorized. In 1948-49 there are 2,325 teachers and of this number 294 are authorized. This is an indication of the progress being made with respect to having all teachers certified in the state of Utah.

Presented in statistical and tabular form, the Winters report is indeed a commendable state publication. Nevertheless it was felt that because of the lack of differentiation between secondary and elementary teachers, because the report is not based on a study of each individual teacher, and because it covers one year only no attempt being made to predict future needs, therefore, a further study was justified.

## CHAPTER III

## INFORMATION REGARDING TEACHERS LEAVING POSITIONS

In order to obtain an over-all picture of the supply and demand for secondary school teachers in the state of Utah, the turnover in thirty-nine of the forty districts was determined. The index sheets for San Juan County were lost by the school district and therefore are not included in the study.

The results shown in table I present the total turnover of secondary school teachers in Utah for the years 1946 to 1949 classified by district and according to sex. The following findings seem to be pertinent to this study.

In 1946-47 there was a total of 2,179 secondary school teachers in the state of Utah. That year a total of 321 secondary teschers left their positions or 15 percent of the total number of secondary teachers employed within the state. The turnover in county districts was greater than in the city districts. Of the 1,489 teachers employed in the county districts during 1946-47, 245, or 16 percent left their positions. In the city districts a total of 681 were employed and of this number 76 teachers, or 11 percent, left their teaching positions.

There is no general understanding among school authorities of the state of Uteh as to what constitutes an ideal teacher turnover in the state or individual school district.

TABLE I
TURNOVER OF SECONDARY SCHOOL TEACHERS IN UTAH FOR THE YEARS 1946 TO 1949 CLASSIFIED INTO DISTRICT AND SEX

| District | Total No. Employed 1946 | Left 1946 |  | Entered$1947-48$ |  | Left1947-48 |  | Entered 1949 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M | F | M | F | M | F | M | F |
| Alpine | 91 | 3 | 4 | 6 | 5 | 6 | 6 | 10 | 9 |
| Beaver | 29 | 6 | 4 | 5 | 5 | 4 | 4 | 5 | 2 |
| Box Elder | 72 | 3 | 6 | 10 | 8 | 9 | 5 | 7 | 6 |
| Cache | 76 | 4 | 8 | 6 | 8 | 5 | 4 | 6 | 4 |
| Carbon | 96 | 10 | 12 | 14 | 11 | 10 | 5 | 13 | 3 |
| Daggett | 1 | 1 |  | 1 | 1 |  | 1 | 1 | 1 |
| Davis | 86 | 3 | 5 | 10 | 5 | 9 | 5 | 10 | 6 |
| Duchesne | 23 | 9 | 10 | 12 | 8 |  | 10 | 11 | 12 |
| Emery | 18 |  | 3 | 3 | 3 | 3 | 2 | 6 | 2 |
| Garfield | 17 | 2 | 1 | 7 | 1 | 1 | 3 | 8 | 2 |
| Grand | 10 | 2 | 1 | 3 | 2 | 1 | 2 | 3 | 2 |
| Granite | 185 | 7 | 12 | 11 | 13 | 14 | 8 | 18 | 10 |
| Iron | 40 | 4 | 5 | 4 | 6 | 2 | 7 | 3 | 9 |
| Jordan | 120 | 3 | 10 | 6 | 11 | 1 | 4 | 7 | 2 |
| Juab | 17 |  | 1 | 3 | 2 | 1 | 4 | 2 | 3 |
| Kane | 16 |  | 5 | 3 | 2 | 1 | 2 | 1 | 4 |
| Millard | 34 | 4 |  | 9 | 9 | 2 | 3 | 2 | 3 |
| Morgan | 15 |  | 3 |  | 3 |  | 1 | 1 |  |
| Nebo | 93 | 6 | 8 | 9 | 10 | 7 | 8 | 10 | 8 |
| North Sanpete | 40 | 9 | 3 | 8 | 6 | 1 | 3 | 3 | 2 |
| North Summit | 14 | 1 |  | 3 | 1 | 2 | 1 | 1 | 1 |
| Park City | 8 | 1 |  | 2 | 1 | 2 | 1 | 2 | 2 |
| Piute | 8 | 1 | 1 | 3 |  | 1 | 1 | 2 | 1 |
| Rich | 8 | 2 |  | 2 | 3 | 1 | 2 | 2 | 2 |
| San Juan | 17 |  | t re | porte |  |  |  |  |  |
| Sevier | 59 | 3 |  | 3 | 5 | 3 | 6 | 6 | 4 |
| South Sanpete | 39 | 4 |  | 5 | 8 | 2 | 5 | 1 | 4 |
| South Summit | 13 |  | 1 |  | 1 |  | 2 |  | 2 |
| Tintic | 10 |  | 2 | 1 | 2 | 2 |  | 2 |  |
| Tooele | 41 | 2 | 5 | 9 | 3 | 5 | 8 | 11 | 7 |
| Uintah | 34 | 3 | 6 | 3 | 6 | 4 | 4 | 9 | 5 |
| Wasatch | 21 |  | 3 | 5 | 4 | 1 | 2 | 1 | 2 |
| Washington | 59 | 2 | 8 | 3 | 12 | 4 | 9 | 7 | 7 |
| Wayne | 11 | 1 | 1 | 2 |  |  |  | 2 |  |
| Weber | 77 | 2 | 6 | 10 | 7 | 8 | 9 | 13 | 4 |
| Co. Dists. Total | 1498 | 98 | 147 | 181 | 172 | 117 | 137 | 186 | 131 |
| Ogden | 149 | 4 | 10 | 8 | 8 | 3 | 8 | 5 | 10 |
| Provo | 71 | 7 | 4 | 5 | 8 | 2 | 11 | 6 | 10 |
| Logan | 54 | 6 | 5 | 7 | 5 | 2 | 5 | 1 | 3 |
| Murray | 25 | 3 | 2 | 4 | 3 | 5 | 6 | 7 | 5 |
| Salt Lake | 382 | 13 | 22 | 18 | 32 | 11 | 25 | 14 | 18 |
| City Dists. Total | 681 | 33 | 43 | 42 | 56 | 23 | 55 | 33 | 46 |
| Grand Total | 2179 | 131 | 190 | 223 | 228 | 140 | 192 | 219 | 177 |

No one knows what the percent of teacher turnover should be, but it is generally assumed that it should be kept as low as possible.

Regardless of the above analysis the problem of the districts within the state was to obtain replacements for these teachers. Columns 5 and 6 show how this worked out in 1947-48. It is evident that an increase of teachers was needed, because new additions of men totaled 223, whereas the number leaving the year previous was 131. New additions of women teachers totaled 228 as against 190 who had left. On a percentage basis there was an increase of 70 percent male teachers entering 1947-48 over those leaving in 1946-47. For the same time the increase in females was 20 percent.

The source of these teachers, their educational training, and their certification status is shown in later tables.

The next two columns, 6 and 7, show the number of teachers who left their positions in 1947-48. Again it will be noted that most of these were women.

Replacements for 1948-49 called for still more teachers, in fact the percentage of increase was again greater than that of the previous year. There was an increased percentage of male secondary teachers of 56 percent over those leaving in 1947-48. Whereas there was a decrease of 27 percent female teachers. This indicates that male teachers are increasing at faster rate by percentage than are female teachers in the secondary grades.

Before turning to an analysis of the problem of replacements
for teachers, a consideration of why teachers left their positions seems pertinent. Table II shows the reasons given for the withdrawals of the 321 teachers in 1946-47. Table III shows similar information for those 332 teachers who left in 1947-48, together with information concerning their certification status. It will be recalled that the information concerning reasons for leaving was obtained from each district superintendent. The information concerning certification status was obtained by checking the records of each individual teacher in the files of the state Department of public Instruction.

It will be noted in table II that of the nine reasons listed for teachers leaving their positions in 1946-47, 77 teachers, or 40 percent, are listed under "married and quit." Of this group of teachers, 76 are women and 1 man. "Married and quit" comprises the largest single reason for women leaving the profession.

The main causes for male teachers leaving teaching positions were "transferred to other district" and "entered other occupation." Of the total 131 male teachers leaving during this period, 78 , or 60 percent, left because of these two reasons.

It should be noted that for the following year, 1947-48 (see table III), the main causes for both male and female teachers leaving positions coincided with figures for 1946-47. Of the female teachers, 21 percent left due to marriage and 53 percent of the men left due to "transferred to other

TABLE II
REASONS TEAGHERS LEFT THEIR POSITIONS IN 1946-47 IN UTAH SEGREGATED INTO MALE AND FEMALE

| Reason | Male | Female | Total <br> Leaving Percent |  |
| :--- | ---: | ---: | ---: | ---: |
| Married and quit | 1 | 77 | 78 | 24.30 |
| Transferred to other district | 46 | 29 | 75 | 23.36 |
| Entered other occupation | 32 | 19 | 51 | 15.89 |
| Other | 23 | 27 | 50 | 15.58 |
| No contract offered | 14 | 16 | 30 | 9.34 |
| Retired | 9 | 6 | 15 | 4.67 |
| Illness | 1 | 9 | 10 | 3.12 |
| Leave of absence | 3 | 7 | 10 | 3.12 |
| Deceased | 2 |  | 2 | .63 |
| Total Leaving | 131 | 190 |  |  |
| Grand total |  |  | 321 |  |

TABLE III
REASONS TEACHERS LEFT POSITIONS IN 1947-48 SEGREGATED BY SEX AND CERTIFICATION QUALIFICATIONS

| Reason | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | cert. | Auth. | $\begin{aligned} & \text { Life } \\ & \text { Cert. } \end{aligned}$ | Cert. | Auth. | $\begin{aligned} & \text { Life } \\ & \text { Cert. } \end{aligned}$ | $\begin{aligned} & \text { Tot- } \\ & \text { als } \end{aligned}$ | - \% |
| Transferred to other district | 29 | 5 | 2 | 21 | 7 | 1 | 65 | 19.58 |
| No contract offered | 4 | 8 |  | 4 | 7 |  | 23 | 6.92 |
| Married and quit | 2 |  |  | 43 | 25 | 1 | 71 | 21.39 |
| Illness | 3 | 1 | 1 | 6 |  |  |  | 3.31 |
| Retired | 2 |  | 5 | 2 | 3 | 5 | 17 | 5.12 |
| Entered other occupation | 22 | 13 | 3 | 10 | 10 | 1 | 59 | 17.77 |
| Deceased | 4 |  | 2 | 2 |  |  | 8 | 2.41 |
| Leave of absence | 8 | 2 |  | 6 | 2 |  | 18 | 5.42 |
| Other | 16 | 7 | 1 | 21 | 13 | 2 | 60 | 18.07 |
| Total Leaving | 90 | 36 | 14 | 115 | 67 | 10 |  |  |
| Grand Total |  |  | 140 |  |  | 192 |  |  |

district" and "entered other occupation."
Female teachers are responsible for "other" and "illness" ranking as high as they do. Actually, many superintendents checked these two reasons when a teacher quit because of pregnancy. It was reported that this was a major reason for women leaving positions. In future studies of this nature it might be advisable to list pregnancy as a major reason.

Another main cause for teachers leaving their positions in 1946-47 was "no contract offered." Thirty teachers, or about 10 percent, left for this reason. Durine the year 1947-48, 23 teachers, or 7 percent, of the total left for this cause.

This reason is broken down into 11 of the most frequent dismissal causes in table IV. This information was compiled by Sidney $s$. Wyatt (quoted by his permission), who is now working on his Master's study. It shows that between the years 1943 to 1947 the major cause for dismissal among Utah teachers was "inefficiency." Other major factors which contributed to dismissal were: "emotional instability", "lacking in professional conduct","immorality", "insubordination", and "professional relationship." With a more extensive guiance program in the universities ano colleges training teachers, these causes for dismissel among Utah teachers should be greatly reduced.

The turnover among the districts of the state was found by tracing each individual tescher reported by the superintendent

TABLE IV
FREQUENCY OF DISEISSAL CAUSES 1943-47

| Causes | 1943 | 1944 | 1945 | 1946 | 1947 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Inefficiency | 11 | 10 | 13 | 17 | 22 | 73 |
| Insubordination | 0 | 0 | 1 | 4 | 1 | 6 |
| Immorality | 4 | 4 | 0 | 0 | 0 | 8 |
| Personal Habits | 2 | 0 | 0 | 1 | 0 | 3 |
| Professional Relationships | 0 | 1 | 0 | 1 | 3 | 5 |
| Lack of Dependability | 0 | 2 | 0 | 1 | 1 | 4 |
| Enotional Instability | 2 | 4 | 1 | 2 | 2 | 11 |
| Lacking in professional conduct | 1 | 1 | 2 | 3 | 3 | 10 |
| Failure to observe terms of contract | 0 | 0 | 0 | 4 | 0 | 4 |
| Reprisals | 0 | 0 | 1 | 0 | 0 | 1 |
| Other | 3 | 0 | 0 | 0 | 4 | 7 |
| Total | 23 | 22 | 18 | 33 | 36 | 132 |

* Table prepared by Sydney S. Wyatt
as transferring to another district in 1946-47 and in 194748. This is shown in tables $V$ and VI where the turnover is classified into district transferred from and district entered.

Many of the teachers reported as transferring to another district or entering from another district could not be traced. Apparently they did not teach the following year they were reported as transferring to another district or did not teach the year prior to being reported as entering from another district. These teachers may have transferred to school districts outside the state.

Previous charts have shown teacher turnover by districts. Tebles VII and VIII show the number of teachers leaving positions in each field for the years 1946-47 and 1947-48. Classification of teacher turnover according to subject matter division seems to be the next logical step. Teachers trained in one specialized field, such as music, biology, or physics, cannot easily change from one subject to another when positions become filled in their teaching subject. The supply must be made to meet the demand in specialized fields.

Reports obtained from superintendents show in this study that many teachers in the county schools teach a combination of subjects. Some teachers teach as many as four or five different subjects. To tabulate the information it was necessary in some cases to arbitrarily give a teacher a major field. For instance, foreign language teachers who also teach English are listed as English teachers. There is a

TABLE $V$
SEC ONDARY TEACHERS TRANSFERRING FROM ONE UTAH DISTRICT TO ANOTHER DURING 1946-47-1947-48


Numbers on vertical column correspond with horizontal numbers.

TABLE VI
SECONDARY TEACHERS TRANSFERRING FROM ONE UTAH DISTRICT TO ANOTHER DURING 1947-48-1948-49


* Numbers on vertical column correspond with horizontal numbers
column on tables VII and VIII for speech. Many English teachers also teach speech and are listed under English. Only those teachers teaching the subject exclusively are listed under speech. The pattern used for classifying teachers as to subject taught was taken from the Ray C. Maul study.

In 1946-47, the teaching field showing the highest rate of turnover was home economics with 55 teachers leaving jobs. This was 18 percent of the total number of teachers leaving for the year. The next highest subjects were English and social science, with 15 percent and 11 percent of teacher turnover respectively.

According to table VII the number of physical education teachers appears to be higher than for any other subject. However, this includes both women's physical education and men's physical education. Information as to sex of teachers was not available for $1946-47$ but was obtained for the following years. Other charts in this series have therefore two physical education fields.

Several subjects had few teachers leave positions in 1946-47. These were biology, art, speech, chemistry, and physics. Combined total in percentage for these five fields was 5 percent.

For the following year, 1947-48, the highest teacher loss was in English, followed by home economics and men's physical education. English had an increase of from 48 to 72 teacher loss, or a loss of 22 percent of total teachers leaving. The lowest turnover occured in biology, chemistry,

TABLE VII
UTAH SECONDARY SCHOOL TEACHERS LEAVING DISTRICTS DURING 194647, LISTED BY MAJCR TEACHING FIELD


TABLE VIII
UTAH SECONDARY TEAGHERS LEAVING DISTRICTS DURING 1947-48 LISTED BY MAJOR TEACHING FIELD

| $\begin{aligned} & \text { 足 } \\ & \text { H } \\ & +0 \\ & 0 \\ & \ddot{A} \end{aligned}$ | exnq โnotc.x. |  |  | $\begin{aligned} & 4 \\ & 4 \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & \text { © } \\ & 0 \\ & \text { H } \\ & 0 \\ & \text { H } \\ & 0 \end{aligned}$ |  | $\begin{gathered} \text {-i } \\ 0 \\ 0 \\ \dot{\Phi} \\ \dot{\Phi} \\ \dot{0} \end{gathered}$ |  |  |  |  | -1 0 0 0 0 0 0 | $\begin{aligned} & \text { f } \\ & 0 \\ & 0 \\ & 0 \\ & \text { O } \\ & \text { on } \end{aligned}$ | $\begin{aligned} & \dot{\&} \\ & 0 \\ & \stackrel{1}{1} \\ & 0 \end{aligned}$ | + |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 2 |  |  |  |  |  | 1 | 2 |  | 1 |  | 2 | 2 |  |  | 12 |
|  | 1 | 1 |  | 1 |  |  |  | 2 |  |  |  | 1 | 1 | 1 |  |  | 8 |
| 3 | 3 | 2 |  |  |  |  | 2 | 4 |  |  | 1 | 1 |  | 1 |  |  | 14 |
| 4 |  | 1 |  |  |  |  | 2 |  |  | 1 | 3 |  | 1 | 1 |  |  | 9 |
| 5 |  | 1 |  | 1 |  |  | 1 | 1 | 1 | 2 | 2 | 2 |  | 3 | 1 |  | 15 |
| 6 |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  | 1 |
| 7 | 3 | 1 |  |  |  |  | 1 | 6 |  |  | 1 |  |  | 1 | 1 |  | 14 |
| 8 | 1 | 3 |  |  |  |  |  | 1 |  |  | 14 |  | 2 | 1 |  |  | 15 |
| 9 | 1 |  |  |  |  |  |  | 1 |  | 1 |  | 1 |  |  |  |  | 5 |
| 10 |  | 1 |  |  |  |  |  |  |  |  | 1 |  | 1 | 1 |  |  | 4 |
| 11 |  | 1 | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |  | 3 |
| 12 |  | 2 |  | 2 | 1 |  | 1 | 6 |  |  | 32 | 3 |  | 1 |  | 1 | 22 |
| 13 |  | 1. | 1 |  |  |  | 2 | 3 |  |  | 1 |  | 1 |  |  |  | 9 |
| 14 |  |  | 1 |  |  |  | 1 | 1 |  |  |  |  | 1 |  | 1 |  | 5 |
| 15 |  | 1 |  |  |  |  | 1 | 2 |  |  |  |  | 1 |  |  |  | 5 |
| 16 | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |
| 17 |  | 1 |  |  |  |  | 1 |  | 1 |  | 1 |  | 1 |  |  |  | 5 |
| 18 |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |
| 19 |  | 2 | 2 | 1 |  | 1 |  | 2 |  |  | 21 | 1 |  |  | 1 |  | 15 |
| 20 |  |  |  |  |  |  | 1 |  |  |  | 1 |  | 1 |  |  |  |  |
| 21 | 1 |  |  |  |  |  |  | 1 |  |  |  | 1 |  |  |  |  | 3 |
| 22 |  |  | 1 |  |  |  |  |  | 1 |  |  |  | 1 |  |  |  | 3 |
| 23 |  |  |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  |  | 2 |
| 24 |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  | 1 |  | 3 |
| 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 26 |  |  |  |  |  |  | 1 | 2 |  | 1 |  | 2 | 2 |  |  | 1 | 9 |
| 27 |  | 2 | 1 |  |  |  |  |  |  |  | 1 |  | 2 |  |  | 1 |  |
| 28 |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  | 2 |
| 29 |  |  |  |  |  |  |  |  |  |  | 1 | 1 |  |  |  |  | 2 |
| 30 |  | 1 |  | 1 |  |  | 1 | 3 |  |  | 21 | 1 | 2 |  |  | 1 | 13 |
| 31 |  |  |  |  |  |  |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 8 |
| 32 |  | 1 |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  | 3 |
| 33 | 1 | 5 |  |  |  |  | 1 |  |  |  | 3 | 1 | 2 |  |  |  | 13 |
| 34 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 35 | 1 | 2 | 3 |  |  |  | 1 | 2 | 3 |  | 1 | 1 | 1 | 1 |  | 1 | 17 |
| 36 |  | 2 |  |  |  |  |  | 6 |  |  |  |  | 1 |  | 1 | 1 |  |
| 37 |  | 3 |  | 1 |  |  |  | 4 |  | 1 |  |  |  |  |  | 1 | 10 |
| 38 |  | 2 |  |  |  |  | 1 | 3 |  | 1 | 1 |  |  |  |  |  | 8 |
| 39 |  | 1 | 1 | 1 |  |  | 2 | 3 |  |  | 1 | 1 | 1 |  |  |  | 11 |
| 40 |  | 2 | 3 | 5 |  | 1 |  | 12 | 1 | 22 | 2 | 2 | 1 | 3 |  | 2 | 36 |
| Tot | 14 | 43 | 14 | 13 | 2 | 2 | 26 | 72 | 10 | 913 | 1326 | 21 | 32 | 17 | 8 | 10 | 332 |

and physics. The teachers filling these positions are shown in table XII.

The total number of teachers leaving positions in 194647 was 321 compared to 332 who left in 1947-48. The pattern for both years seems similar though there are slight changes in some fields.

From the offices of the State Teachers Retirement Board information was accumulated on the total number of teachers retiring each year from 1937-38 to 1945-46. From 1945-46 to 1947-48 information was also available but included in the retirement list were bus drivers, janitors, lunch supervisors and other school employees. Since this study is only interested in those who are actually engaged in the teaching profession, the retirement information from 1945-46 on could not be used.

It should be noted that table IX does not make any distinction between secondary and elementary school teachers, but gives the state-wide picture on all Utah teachers. However, table II shows that in 1946-47 the superintendents of the 39 school districts reported 15 secondary teachers retired, segregated into 9 male and 6 female teachers.

For the following year 1947-48, table III shows that 7 male secondary teachers and 10 female teachers retired, or a total of 17 secondary teachers. If table IX could be segregated into secondary and elementary teachers a similar picture would probably be shown.

Since only 15 teachers, or less than 1 percent, of the

TABLE IX
NUMBER OF TEACHERS RETIRIMG DURING THE YEARS 1937-38 TO 1944-45

| Year | Male | Female | Total |
| :---: | :---: | :---: | :---: |
| $1937-38$ | 6 | 8 | 14 |
| $1938-39$ | 11 | 24 | 35 |
| $1939-40$ | 16 | 21 | 37 |
| $1940-41$ | 11 | 16 | 27 |
| $1941-42$ | 15 | 22 | 37 |
| $1942-43$ | 10 | 24 | 34 |
| $1943-44$ | 13 | 21 | 34 |
| $1944-45$ | 18 | 24 | 42 |
| Mean | 12.50 | 20 | 32.50 |

2,179 secondary teachers employed in $1946-47$ retired, retirement would seem to have little effect on teacher supply and demand in the state of Utah.

## CHAPTER IV

INFORMATION REGARDING TEACHERS ENTERING POSITIONS

Previous tables and discussions have been mainly concerned with secondary teachers leaving school districts in 1946-47 and 1947-48. The following material will consider secondary teachers entering school districts and the sources, college preparation, teaching subjects and certification of these new teachers.

Table $X$ shows the number and sources of secondary teachers entering the school systems of Utah during 1947-48. Nearly 50 percent of the male teachers accepting positions in 1947-48 came directly from college. The same was true of female teachers. Of the total 451 teachers entering districts in this year, 113 women, or 25 percent, and 110 men, or 24 percent, came directly from college preparation. The second highest source of teachers for this year was those obtained from other districts within the state. Forty-three men, or 19 percent, and 34 women, or 15 percent, transferred from one district to another.

The number of teachers reemployed after absence from the teaching profession is surprisingly high. Fifteen percent of the men and 15 percent of the women were reemployed. Possible explanations for these percentages are: the severe shortage of secondary teachers prompted rehiring retired teachers, the return of a few teachers from war industries

TABLE X
SOURCES OF SECONDARY TEACHERS ENTERING SCHOOL SYSTEM OF UTAH DURING 1947-48 AND 1948-49

| Source | $1947-48$ |  |  |  | $1948-49$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | M | F | Total <br> $\%$ | M | F | Total <br> $\%$ |  |
| Other District | 43 | 34 | 17.00 | 51 | 47 | 25.00 |  |
| Out of State | 18 | 31 | 11.00 | 18 | 13 | 8.00 |  |
| Teacher Re-employed | 33 | 34 | 15.00 | 15 | 21 | 9.00 |  |
| Letter of Authorization | 19 | 16 | 8.00 | 12 | 13 | 6.00 |  |
| Direct from college | 110 | 113 | 50.00 | 123 | 83 | 52.00 |  |
| Total | 223 | 228 | 100.00 | 219 | 177 | 100.00 |  |
| Grand Total |  | 451 |  |  | 396 |  |  |

and armed services, employing married women with families who would have normally been out of the teaching profession, and substantial salary increases.

Teachers obtaining letters of authorization and teachers from out of state comprised the smallest groups. They were 8 percent and 11 percent respectively of the total teachers entering districts in 1947-48. During the following year, 1948-49, these same two sources were also low with percentages of 8 percent for teachers from out of state and 6 percent for teachers with letters of authorization.

Other sources for teachers in 1948-49 showed trends similar to those reported for the preceding year. The highest number of teachers came directly from colleges. The percent of male teachers direct from college increased to 52 percent of the men teachers entering districts and the number of women employed directly from school remained approximately the same. The total number of secondary teachers entering the school systems in 1947-48 was 451 of which 223 were men and 228 were women. For the following year, 396 teachers were employed of which 219 were men and 177 were women. Fewer teachers entered teaching fields in Utah during 1948-49 than in 1947-48 and fewer female teachers were employed. In 1947-48, 49 percent of the total teachers entering school systems were men and 50.5 percent were women. Fifty-five percent were men and 45 percent were women of those teachers entering in 1948-49.

Of the 451 teachers entering districts in Utah during

TABLE XI
COLLEGE PREPARATION OF SECONDARY TEACHERS ENTERING UTAH IN 1947-48 AND 1948-49

|  | $1947-48$ |  |  |  | $1948-49$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Preparation | Male | Female | Total <br> $\%$ | Male | Female | Total <br> $\%$ |  |
| No Degree | 20 | 36 | 12.40 | 14 | 25 | 9.80 |  |
| Bachelor | 181 | 184 | 81.00 | 184 | 145 | 83.00 |  |
| Masters | 22 | 8 | 6.60 | 21 | 7 | 7.20 |  |
| Total | 223 | 228 | 100.00 | 219 | 177 | 100.00 |  |
| Grand Total |  | 451 |  |  | 396 |  |  |

1947-48, table XI shows 365, or 81 percent, held Bachelor's degrees. Of this group 181, or 49.5 percent, were men and 184, or 50.5 percent were women. In 1948-49, 329 of the total 396 teachers entering districts, or 83 percent held Bachelor's Degrees. Of this number 184, or 56 percent, were men and 145 , or 44 percent were women.

Fifty-six, or 12 percent, of the teachers entering districts in 1947-48 held no degree. Of this group 20, or 36 percent, were men and 36 , or 64 percent, were women. A year later, 39 , or 10 percent, held no degree, 14 , or 36 percent, were men and 25 , or 64 percent, were women in this group of teachers.

The smallest group of teachers entering school districts in both 1947-48 and 1948-49 were those holding. Master's Degrees. In $1947-48,30$, or 7 percent, held this degree of which 22 , or 73 percent, were men and 8 , or 27 percent, were women. The total number of Master's degrees in this group were almost identical for 1948-49. Twenty-eight, or 7 percent, held Master's Degrees, of which 21 , or 75 percent, were men and 7 , or 25 percent were women.

There was an obvious decrease in the number of teachers holding no degree who entered districts durine the year 194849. There was a slight increase in men holding Eachelor's Degrees.

Table XII shows the teschers entering school districts in 1947-48 according to subject matter division. A total of 451 teachers entered districts during this period. Fields

TABLE XII
UTAH SECONDARY SCHOOL TEACHERS ENPERING DISTRICTS DURING 1947-48, LISTED BY MAJOR TEACHER FIEID

showing the largest number of new teachers in order were: English with 72, or 16 percent; home economics with 58, or 13 percent; social science with 44 , or 10 percent; men's physical education with 38 , or 8 percent; women's physical education with 35 , or 7.7 percent; and music with 32 , or 7 percent.

Subjects having the smallest number of entering teachers were: biology with 3 , or .66 percent; chemistry and physics with 3 , or .66 percent; library with 5 , or 1.1 percent; and speech with 9, or 2.9 percent.

Changes in teachers entering districts in 1948-49 were similar to those shown for 1947-48. Though the total number of teachers decreased from 451 to 396 , the number of Enelish teachers entering districts increased to 80 , or 20 percent, as shown in table XIII. Subjects that also showed high numbers of new teachers were: home economics with 43 , or 11 percent; women's physical education with 39, or 10 percent; men's physical education with 35 , or 9 percent; and music with 35 , or 8.5 percent.

Not only were fields with highest numbers of teachers about the same for both years, but those with lowest numbers of new teachers were similar. Chemistry and physics were lowest with 2 teachers, or .5 percent, followed by biology with 3 , or .7 percent, and speech with 4, or .9 percent, of the total teachers.

Table XIV shows certification of the 451 teachers entering Utan school districts in 1947-48. The largest

TABIE XIII
UTAH SECONDARY SCHCOL TEACHERS ENTERING DISTRICTS DURING 1948-49, LISTED BY MAJOR TEACHER FIETD


CERTIFICATION OF TEACHERS ENTERING UTAH SCHOOL DISTRICTS IN 1947-48 CLASSIFIED AS TO SEX

| District | Certified |  | Authorized |  | Life |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female | Male | Fellale |
| 1 | 6 | 3 |  | 1 |  | 1 |
| 2 | 5 | 5 |  |  |  |  |
| 3 | 9 | 5 | 1 | 3 |  |  |
| 4 | 5 | 6 | 1 | 2 |  |  |
| 5 | 4 | 5 | 10 | 6 |  |  |
| 6 | 1 |  |  | 1 |  |  |
| 7 | 8 | 4 | 2 | 1 |  |  |
| 8 - | 9 | 2 | 3 | 6 |  |  |
| 9 | 2 | 1 | 1 | 2 |  |  |
| 10 | 6 | 1 | 1 |  |  |  |
| 11 | 1 | 1 | 2 | 1 |  |  |
| 12 | 8 | 9 | 3 | 4 |  |  |
| 13 | 3 | 4 | 1 | 2 |  |  |
| 14 | 3 | 9 | 3 | 2 |  |  |
| 15 | 2 | 1 |  | 1 | 1 |  |
| 16 | 1 |  | 2 | 2 |  |  |
| 17 | 4 | 5 | 5 | 3 |  | 1 |
| 18 |  | 3 |  |  |  |  |
| 19 | 3 | 6 | 6 | 3 |  | 1 |
| 20 | 4 | 4 | 4 | 2 |  |  |
| 21 | 1 | 1 | 1 |  | 1 |  |
| 22 | 2 |  |  | 1 |  |  |
| 23 | 2 |  | 1 |  |  |  |
| 24 | 2 | 2 |  | 1 |  |  |
| 25 | not r | orted |  |  |  |  |
| 26 | 3 | 4 |  | 1 |  |  |
| 27 | 4 | 3 | 1 | 5 |  |  |
| 28 |  |  |  | 1 |  |  |
| 29 |  | 2 | 1 |  |  |  |
| 30 | 6 | 3 | 3 |  |  |  |
| 31 | 2 | 2 | 1 | 4 |  |  |
| 32 | 5 | 2 |  | 1 |  | 1 |
| 33 | 2 | 2 | 1 | 10 |  |  |
| 34 | 1 |  | 1 |  |  |  |
| 35 | 8 | 4 | 2 | 3 |  |  |
| 36 | 5 | 3 | 2 | 5 | 1 |  |
| 37 | 5 | 8 |  |  |  |  |
| 38 | 6 | 4 | 1 |  |  | 1 |
| 39 | 4 | 2 |  |  |  | 1 |
| 40 | 14 | 20 | 3 | 11 | 1 | 1 |
| Total | 156 | 136 | 63 | 85 | 4 | 7 |
| Grand Total |  |  |  |  |  | 451 |

proportion of these teachers were certified. A total of 292 , or 65 percent, of the teachers were certified. Of these 156, or 54 percent, were men and 136 , or 46 percent were wornen. The 138 authorized teachers were 32 percent of the total secondary teachers entering for 1947-48. Sixty-three, or 14 percent, of this group were men and 85 , or 18 percent were women. The smallest group of teachers entering were those holding life certificates. Of the 11 , or 2.4 percent who were in this group, 4, or . 88 percent, were men and 7 , or 1.5 percent, were female.

Figures for the following year 1948-49 shown in table XV show an increase in the number of male certified teachers. Of the 396 teachers who entered districts in this year, 272, or 69 percent, were certified teachers. Of this number 166 , or 42 percent, were men and 106 , or 27 percent, were women. There were 119 authorized teachers, or 30 percent, of which 51 , or 13 percent, were men and 68 , or 17 percent, were women. This was a slight decrease over figures for the preceding year. Only 5 teachers entering new districts during 1948-49 held life certificates. This was 1.2 percent of the total. Two, or .5 percent, were men and 3 , or .7 were women. Life certificates have not been issued since 1934 and the number of teachers holding them will of course continue to diminish.

Table XVI shows secondary teachers entering Utah districts during 1947-48 and 1948-49 classified according to authorization and teaching field. These figures show the

TABLE XV
CERTIFICATION OF TEACHERS ENTERING UTAH SCHOOL DISTRICTS IN 1948-49 CLASSIFTED AS TO SHX

| District | Certified |  | Authorized |  | Life |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female | Male | Female |
| 1 | 10 | 9 |  |  |  |  |
| 2 | 2 | 2 | 3 |  |  |  |
| 3 | 4 | 5 | 2 | 1 | 1 |  |
| 4 | 5 | 3 | 1 | 1 |  |  |
| 5 | 9 | 2 | 4 | 1 |  |  |
| 6 |  |  | 1 | 1 |  |  |
| 7 | 9 | 5 | 1 | 1 |  |  |
| 8 | 6 | 3 | 5 | 9 |  |  |
| 9 | 4 |  | 2 | 2 |  |  |
| 10 | 5 |  | 3 | 2 |  |  |
| 11 | 2 |  | 1 | 2 |  |  |
| -12 | 13 | 6 | 4 | 4 | 1 |  |
| 13 | 3 | 3 |  | 6 |  |  |
| 14 | 6 | 2 | 1 |  |  |  |
| 15 | 2 | 2 |  | 1 |  |  |
| 16 | 1 | 2 |  | 2 |  |  |
| 17 | 2 | 2 |  | 1 |  |  |
| 18 | 1 |  |  |  |  |  |
| 19 | 9 | 6 | 1 | 2 |  |  |
| 20 | 1 |  | 2 | 2 |  |  |
| 21 | 1 | 1 |  |  |  |  |
| 22 | 2 | 2 |  |  |  |  |
| 23 | 2 |  |  | 1 |  |  |
| 24 | 1 | 2 | 1 |  |  |  |
| 25 | ot rep | rted |  |  |  |  |
| 26 | 3 | 1 | 3 | 3 |  |  |
| 27 | 1 | 4 |  |  |  |  |
| 28 |  | 2 |  |  |  |  |
| 29 | 2 |  |  |  |  |  |
| 30 | 7 | 4 | 4 | 1 |  | 2 |
| 31 | 7 | 1 | 2 | 4 |  |  |
| 32 | 1 | 2 |  |  |  |  |
| 33 | 6 | 4 | 1 | 3 |  |  |
| 34 | 2 |  |  |  |  |  |
| 35 | 10 | 3 | 3 | 1 |  |  |
| 36 | 4 | 3 | 1 | 7 |  |  |
| 37 | 6 | 8 |  | 1 |  | 1 |
| 38 |  | 3 | 1 |  |  |  |
| 39 | 7 | 2 |  | 3 |  |  |
| 40 | 10 | 12 | 4 | 6 |  |  |
| Total | 166 | 106 | 51 | 68 | 2 | 3 |
| Grand Total |  |  |  |  |  | 396 |

TABLE XVI
SECONDARY TEACHERS ENTERING UTAH DISTRICTS DURING 1947-48 AND 1948-49, CIASSIFIED AS TO AUTHORIZATION AND TEACHING FIEID

| 1947-48 |  |  | 1948-49 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Teaching Fields | New <br> Teachers | Authorized | $\%$ <br> Auth- <br> orized | No. of new Teachers | Authorized | Authorized |
| Agriculture | 28 | 10 | 36.00 | 19 | 2 | 11.00 |
| Home Econ. | 58 | 22 | 38.00 | 43 | 21 | 49.00 |
| Ind. Arts | 24 | 10 | 42.00 | 15 | 7 | 47.00 |
| Art | 12 | 3 | 25.00 | 10 | 3 | 30.00 |
| Biology | 3 | 1 | 33.00 | 3 | 2 | 66.00 |
| Chem. \& Phy. | 3 | 1 | 33.00 | 2 | 1 | 50.00 |
| Commerce | 26 | 11 | 42.00 | 25 | 10 | 40.00 |
| English | 72 | 15 | 21.00 | 80 | 22 | 27.00 |
| Gen. Sci. | 27 | 8 | 30.00 | 11 | 3 | 27.00 |
| Library | 5 | 1 | 20.00 | 12 | 1 | 8.00 |
| Math | 22 | 6 | 27.00 | 25 | 3 | 12.00 |
| Music | 32 | 15 | 47.00 | 35 | 15 | 43.00 |
| Men's P.E. | 38 | 8 | 21.00 | 35 | 6 | 17.00 |
| Women's P.E. | 35 | 15 | 43.00 | 39 | 11 | 28.00 |
| Soc. Sci. | 44 | 14 | 32.00 | 34 | 7 | 21.00 |
| Speech | 9 | 1 | 11.00 | 4 | 2 | 50.00 |
| Other | 12 | 4 | 33.00 | 4 | 1 | 25.00 |
| Total | 451 | 159 |  | 396 | 117 |  |

number and percent of teachers who leck teaching certificates and whose position probably should be filled by a teacher with more adequate training. In not one field were there sufficient certified teachers in 1947-48 or 1948-49. This is an integral part of teacher demand in Utah.

It is difficult to judge all subject matter fields according to the percentage of authorized teachers entering districts in any year. Some subjects with only a few new teachers entering showed 50 percent of the total were authorized. On the surface this appears a more important figure than it is. In 1948-49 for instance, 3 biology teachers entered districts, 2 of whom were authorized, making 66 percent of the biology teachers authorized. Of the 2 chemistry and physics teachers hired 1 , or 50 percent was authorized. These statistics are similar for $1947-48$ when equally small numbers of teachers were newly employed in this field.

On the other hand a few figures seem significant. In 1947-48 home economics had a total of 58 teachers entering districts of which 22 , or 38 percent, were authorized. The following yer of the 43 new teachers 21 were authorized, or 49 percent. This is an increase of 11 percent in authorized teachers in this field. It appears the supply of certified teachers is not meeting the demand in home economics.

Some other subjects show significantly high numbers of authorized teachers. In 1947-48 music showed 32 new teachers of whom 15, or 47 percent, were authorized and in 1948-49 of the 35 teachers entering districts 15 , or 43 percent were
authorized. Of the 26 teachers entering commercial subjects in 1947-48, 11 were authorized, or 42 percent. A year later 25 entered of which 10 were authorized, or 40 percent.

A few fields which showed high percents of authorized teachers during 1947-48 showed a decrease in the number of authorized teachers in 1948-49. The percent of authorized teachers in agriculture dropped from 36 percent to 11 percent in the 2 year period. At the same time mathematics showed a decrease from 27 percent to 12 percent and women's physical education decreased from 43 percent to 28 percent. Social science also showed a smaller proportion of authorized teachers. In 1947-48, there were 32 percent of the new teachers authorized and in 1948-49, 21 percent were authorized.

Though all subjects do not show such marked reduction in the numbers of authorized teachers, the majority show a large enough decrease from 1947-48 to 1948-49 to indicate a downward trend in the number of authorized teachers being employed.

Table XVII classifies the 451 teachers entering Utah school districts during 1947-48 according to the institution in which they obtained their degree or training. Utah State Agricultural College trained 142, or 32 percent, of this number 82 , or 58 percent, were men and 60 , or 42 percent, were women. Brigham Young University ranked second with 118 , or 26 percent, of which 59 , or 50 percent, were men and 59 , or 50 percent were women. The University of Utah followed closely with

TABLE XVII
DIST ICTS ENTERED BY NEW TEACHERS IN 7947-48 CLASSIFIED AS TO SCHOOL AND SEX


114, or 25 percent. There were 48 men, or 42 percent, and 66 women, or 58 percent. Other schools were represented by 77 teachers, or 17 percent. Thirty-four of this number, or 44 percent were men and 43 , or 56 percent were women. "Other" schools included the six junior colleges in Utah as well as other universities and colleges in the United States.

The 396 entering districts in 1948-49 are shown in table XVIII classified according to the school from which they obtained their training. They follow the same order as the preceding year. Utah State Agricultural College first with 130 teachers, or 33 percent. Of this total 81, or 62 percent, were men and 49 , or 38 percent were women. The number of men showed an increase of 4 percent over the y ear 1947-48.

Brigham Young University trained 116 teachers, or 29 percent of which 60 , or 52 percent, were men and 56 , or 48 percent were women. The University of Utah was third with a total of 107 teachers, or 27 percent. Fifty-nine of this group, or 55 percent, were male and 48 , or 45 percent, were women.

Other schools were responsible for 42 teachers, or 11 percent. This number was divided equally among men and women. There was a noticeable decrease in the number of teachers from out of state and with only junior college training. This is an indication that the universities and colleges in the state of Utah are meeting the demand of secondary teachers more adequately.

TABLE XVIII
DISTRICT ENTERED BY NEW TEACHERS IN 1948-49 CIASSIFIED AS TO SCHOOL AND SEX

| Districts | Schools |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S.A.C. |  | U . of U . |  | B. Y. U. |  | Other* |  |
|  | M. | F. | M. | $F$. | M. | F. | M. | F. |
| Alpine | 3 | 1 |  | 1 | 7 | 7 |  |  |
| Beaver | 2 |  | 1 |  | 1 | 1 | 1 | 1 |
| Box Elder | 4 | 1 | 1 | 1 |  | 3 | 2 | 1 |
| Cache | 6 | 4 |  |  |  |  |  |  |
| Carbon | 6 |  | 2 | 3 | 5 |  |  |  |
| Daggett |  |  |  |  |  |  | 1 | 1 |
| Davis | 6 | 2 | 4 | 4 |  |  |  |  |
| Duchesne | 4 | 2 | 4 | 2 | 3 | 4 |  | 4 |
| Emery | 2 | 1 |  |  | 3 | 1 | 1 |  |
| Garfield | 3 | 1 |  |  | 3 | 1 | 2 |  |
| Grand | 1 |  |  | 1 | 1 |  | 1 | 1 |
| Granite | 3 | 3 | 9 | 5 | 4 | 1 | 2 | 1 |
| Iron | 2 | 2 |  | 1 | 1 | 6 |  |  |
| Jordan |  | 1 | 3 | 1 | 2 |  | 2 |  |
| Juab | 1 | 1 | 1 | 1 |  | 1 |  |  |
| Kane |  |  | 1 | 1 |  | 3 |  |  |
| Millard |  |  | 1 |  |  | 1 | 1 | 2 |
| Morgan |  |  |  |  | 1 |  |  |  |
| Nebo | 2 | 4 | 1 |  | 6 | 4 | 1 |  |
| North Sanpete | 1 |  | 2 |  |  |  |  | 2 |
| North Summit |  |  |  |  | 1 |  | 1 |  |
| Park city | 1 |  | 1 | 1 |  |  | 1 |  |
| Piute | 1 | 1 |  |  | 1 |  |  |  |
| Rich | 2 | 1 |  | 1 |  |  |  |  |
| San Juan | not | por |  |  |  |  |  |  |
| Sevier | 3 | 2 |  |  | 3 | 2 |  |  |
| South Sanpete |  | 2 |  |  | 1 | 2 |  |  |
| South Summit |  |  |  |  |  | 1 |  | 1 |
| Tintic |  |  | 1 |  | 1 |  |  |  |
| Tooele | 6 | 5 | 2 |  | 3 | 2 |  |  |
| Uintah | 7 | 1 | 2 | 1 |  | 1 |  | 2 |
| Wasatch |  |  |  |  | 1 | 2 |  |  |
| Washington |  | 3 | 2 |  | 4 | 3 | 1 | 1 |
| Wayne | 2 |  |  |  |  |  |  |  |
| Weber | 7 | 1 | 3 | 3 | 3 |  |  |  |
| 0gden | 1 | 3 | 2 | 4 | 1 | 1 | 7 | 2 |
| Provo |  | 1 | 2 | 1 | 4 | 8 |  |  |
| Logan |  | 3 |  |  |  |  | 1 |  |
| Murray | 3 |  | 4 | 4 |  |  |  |  |
| Salt Lake City | 2 | 3 | 10 | 12 |  | 1 | 2 | 2 |
| Total | 81 | 49 | 59 | 48 | 60 | 56 | 21 | 21 |

* The six Junior Colleges in the state of Utah and other üniversities and colleges.

The figures show that school districts tend to draw the majority of their teachers from the school nearest them. Table XVIII shows that for the year 1948-49 Salt Lake City School District obtained 22 teachers, or 69 percent, from the University of Utah. Jordan obtained 4 teachers, or 45 percent, Granite obtained 14 teachers, or 50 percent, and Davis obtained 8 teachers, or 50 percent, of their total teachers from the same school. A similar picture exists in Logan, Cache and Box Elder districts where they hire the majority of their teachers from the Utah State Agricultural College.

Dr. Ray G. Maul's study of Teacher Supoly and Demand in the United States for $1948-49^{7}$ sumnarizes the need for secondary teachers in Utah according to subject matter field. His estimates are based on information obtained from the State Department of Public Instruction. He shows that in all fields in 1948-49 there was a demand for 263 secondary teachers but that Utah schools trained during that period 484 secondary teachers. It is evident that the Maul figures are approximately correct because detailed analysis as indicated in table $I$ and subsequent tables in this study show that the demand for secondary teachers for this year was actually 298. Their appears to be an over-supply of teachers in most general fields, but the surplus is larger in a few subjects. Social science, men's physical education, and

[^1]biology show the largest over-supply of teachers. This same study also shows that in home economics there was a demand as uniformly in most fields as is indicated by the yaul study. The significant percentages of authorized teachers still being hired would seem to indicate that there are not sufficient numbers of certified teachers available in some fields.

Table XIX gives statistics from the State Department of Public Instruction showing the number of students completing preparation in specific secondary fields in 1947-48 and 1948-49. These figures indicate that fields already apparently over-supplied with teachers will have the largest increase in the number of students completing preparation in 1948-49. The best example of this is probably social science in which 94 students trained in 1947-48. Figures for 1948-49 show that there will be 102 social science teachers available in a field already over-supplied. Similar trends are apparent in men's physical education and biology. There seems to be no significant decrease of teachers trained in any specific field.

TABLE XIX
STATE DEPARTMENT OF EDUCATION COMPOSITE REPORT FOR ALL SECONDARY TEACHERS TRAINED IN THE STATE OF UTAH

| Type of Preparation completed by student | Number of Students completing preparation in the calendar year of: |  |
| :---: | :---: | :---: |
|  | 1948-49 | 1947-48 |
| Agriculture | 13 | 19 |
| Art | 17 | 16 |
| Commerce | 32 | 42 |
| English | 40 | 38 |
| Foreign Language | 8 | 15 |
| Home Economics | 43 | 38 |
| Industrial Arts | 29 | 16 |
| Journalism | 3 | 3 |
| Library Science | 0 | 6 |
| Mathematics | 30 | 20 |
| Music | 26 | 23 |
| Physical Ed. (Men) | 89 | 59 |
| Physical Ed. (Women) | 35 | 28 |
| General Science | 2 | 0 |
| Biology | 32 | 20 |
| Chemistry \& Physics | 10 | 9 |
| Social Sciences | 102 | 94 |
| Speech | 27 | 26 |
| Total | 554 | 505 |

## CHAPTER V

GROWTH OF SCHOOL POPULATION IN RELATIONSHIP TO TEACHER DEMAND

It will be recalled that one of the objectives of this study was to estimate how much of an increase in supply of teachers would be needed by 1956. An estimate on the probable needs of teachers to date has been made by Drayton B. Nuttall, Assistant Research Division Director, State Department of Public Instruction. ${ }^{8}$ Nuttall estimated Utah secondary school enrollment for the following years:

| $1947-48$ | 60,170 |
| :--- | :--- |
| $1951-52$ | 67,830 |
| $1956-57$ | 75,958 |

Figures for the 1947-48 school year are based on school census. The number of students predicted for 1951-52 was calculated by starting with the census from 1947 subtracting the number of 17 year olds and adding the number of 5 year olds for each succeeding year until 1953. After 1953 it became necessary to estimete the number of new 6 year olds. This was done by determining the average amual increase or decrease in total school population from 1947 to 1953 and assuming that the rate would continue. Ratio of average enroliment for years 1935-1947 to average population was determined and this ratio was used for estimating school

8- Nuttall, Drayton B. An Estimate of School Housing Needs in Utah School Districts, Research Circular No. 5. July 1948.
enrollment in 1951-52 and 1956-57, thus making adjustment for the normal number of school age children not enrolled. Figures were divided into grades 1 through 6 , or 6 to 11 years inclusive, and grades 7 through 12 , or 12 to 17 years inclusive.

According to the Nuttall estimates of secondary school enrollment in Utah for 1951-52, there will be 7,660 more students in secondary schools than in 1947-48. If a ratio of 25 students for every teacher is assumed this would indicate a demand for 306 additional teachers. By 1956-57 secondary school population would have increased another 8,128 making a demand for 325 new teachers. This would show a total increase of 631 teachers by the school year 1956-57. The increase is for the entire state of Utah but the demand will probably be greater in some districts then others.

The recently released 1946-48 Utah School Report gives 62,314 secondary school students. Nuttalls estimate was 60,170. This shows his estimate was 2,144 students too low or 3.4 percent. If this error is constant his figures should be increased 2,306 students for the year 1951-52 and 2,582 for the year 1956-57. This would be an increase of 195 new teachers over Nuttalls estimate of 631 new secondary teachers, or a total of 826 new secondary teachers would be needed by 1956.

The supply and demand of teachers in Utah elementary schools is discussed in another study by Arthur Jackson and will not be considered in this discussion except as the
increase in the number of elementary pupils will affect secondary schools. Statistics reported in Mr. Jackson's study show a large increase in birth rate beginning in 1942 and incressing up until 1948. These students will enter secondary schools about 1956. The larger increase in the enrollment of the elementary grades serves as a prediction of still further increase on the secondary level in the years following 1956-57.

PRESENT PLANS AND FUTURE POLICIES OF THE SIX TEAOHER TRAINING INSTITUTIONS IN THE STATE OF UTAH

The teacher supply and demand problem in any state is directly concerned with the plans and policies of the institutions training teachers in that state. To determine the future policies of the six teacher training institutions in the state of Utah, letters were sent to the deans of education or to the presidents of the institutions requesting them to check one or more of six statements that most nearly expressed their attitudes and plans for the training of prospective teachers. These statements and a summary of the replies are shown in table $X X$.

In addition to checking the specific responses, each institution was asked to list any explanatory comments. The following were found to be significant!
H. Wayne Driggs, Director, School of Education, at the Branch Agricultural College, stated that "southern Uteh has never had an adequate quota of trained elementary teachers in the past 50 years."

A committee has been appointed by Dean John T. Wahlquist of the University of Utah to investigate the "quota system."

Dean Reuben D. Law, of the Brigham Young University, is quoted as stating that they "will seek to reduce the number of persons enrolling in the field of secondary teacher preparation and to increase the number of capable persons enrolling in the field of elementary teacher preparation." He further stated that they "will continue to recruit selectively from among the more superior in scholarship, personality,

TABLE XX
PLANS OF TEACHER TRAINING INSTITUTIONS IN UTAH CONCERNING TEACHER RECRUITMENT AND TRAINING

## Policy

Number
Approving

1. Will actively seek to enroll as many students as possible in the school of $2 *$ education.
2. Will encourage ony student who seeks our advice to enroll in the school of education.
3. Will enroll only those who have, on their own choice, elected to enter the school of education.
4. Will operate on a selective system of admission to the teacher training curricula and will admit all those who meet the criteria set up, regardless of whether this increases or decreases the numbers over previous years.
5. Will seek to reduce the number of persons enrolling in the school.

O*
6. We are in favor of beginning now to set up a "quota system" for the determination of the number of teachers each of the higher

2* institutions in the state is to prepare for certification.

* All schools checked more than one policy.
character, and all-round desirability as prospective teachers."

Policy 6 was checked by Dean Law with the following comment. "We serve a much larger area than the state of Utah. Limitations on numbers of teachers for other states would have to reach us from those other states."

President Robert D. Steele of Westminister College, commented that "the quota system implies a promise of employment and equality of those trained which is contrary to my feelings about the situation. However, as the need for teachers diminishes there should be a curtailment of normal or education scholarships on a quota plan. "

Dr. E. A. Jacobsen, Dean of Education at Utah State Agriculture College, commented that "we are strongly opposed to the quota system. However, we are in favor of and will operate on a selective system of admission based on an effective system of guidance into fields where the need appears to be the greatest, and we will continually increase selective admission standards."

As indicated in table XX, with one exception, the policy of selective admission seems to more nearly express the policy of the teacher training institutions in Utah. Most schools will attempt to improve standards of admission to the school of education by means of guidance to insure high quality teachers.

Conceming the potential supply of available teachers from teacher training institutions it is evident that no
accurate figures are available. If the emphasis on guidance proves to be effective, it would seem that it might be possible to bring supply and demand reasonably close together in the various fields. To do this, however, will of necessity call for close cooperation among the several universities and colleges.

## CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS
It is evident that the critical shortage of high school teachers is past. However, there continues to exist a demand for teachers in a few fields such as home economics and English. In the majority of subjects there are more teachers than will be needed in the 1949-50 school year. Fields showing the largest over-supply of teachers are social science and men's physical education.

The number of certified teachers has increased in secondary schools while the number of authorized teachers has decreased in the last three years. There never has been a time when there have been no authorized teachers because some certified teachers will not go into outlying districts to teach and other persons must be hired. It is possible that authorized teachers may never be entirely eliminated. If current educational policies are continued the total number of secondary teachers now being trained in universities and colleges in the state of Utah will continue to be more than adequate to meet the demand for teachers in most fields. There will continue to be an over-supply in some fields and an under-supply in others until the schools training teachers make the necessary adjustment in their guidance programs. It has been seen from the responses received from the
educational administrators of the six institutions training secondary teachers that there is no one policy common to all. However, several schools agreed that they would operate on a selective system of admission to the teacher training curricula and admit all those who met the criteria set up, regardless of whether this increased or decreased the numbers over previous years. Policies ranged from those planning to enroll as many students as possible regardless of teacher supply and demand to those who would like to set up a quota system for the determination of the number of teachers each institution would plan to train. From these indications there seems to be little hope of equalizing the supply and demand of teachers in the various subjects or in the elementary grades. Nevertheless, through proper information it is not hopeless.

## RECOMENDATIONS

1. In making this study a substantial number of errors were noted in the state teacher directories. Teachers who were not listed in the directory as teaching in the district were in many cases still teaching and had been teachine for many consecutive years. Since this is the official directory of teachers in the state much more care should be taiken by the superintendents when they prepare the roster of teachers employed in their district.
2. Further studies of this nature should be made each year by the State Department of Public Instruction. It is evident that a soundly conceived teacher education and guidance program depends upon the assembling of information concerning "demand" for teachers.
3. The "over-supply" of secondary teachers in some fields and the "under-supply" of elementary teachers suggests that more effective guidance progrems should be set up in the colleges. It is, therefore, recommended that such programs be analyzed carefully in each of the teacher training institutions in Utah. After they are developed they will of necessity depend on studies of this nature to guide their programs.

## LITERATURE CITED

1. Buckingham, R. B. Supply and Demand in Teacher Training. Bureau of Educational Research, Monograph No. 4, Page 1.
2. Cowles, Harper. Teacher Supply and Demand in Utah. Master's, 1936. Utah.
3. Maul, Ray C. Teacher Supply and Demand in the United States. Nat'l. Comission on Teacher Education and Professional Standards. Report for 1948.
4. $\qquad$ - Teacher Supply and Demand in the United States. Nat'l. Commission on Teacher Education and Professional Standards. Report for 1949.
5. Nuttall, Drayton B. An Estimate of School Housing Needs in Utah School Districts. Research Circular No. 5. July 1948.
6. Teas, George W. Supply of and Demand for Elementary Teachers in Wyoming. Master's, 1937, Wyoming.
7. Winters, N. Blaine. Preliminary Report on Status of Utah Teaching personnel. State of Utah Department of Public Instruction, Teacher Personnel Division, January, 1948.
8. Winters, N. Blaine. Preliminary Reoort on Status of Utah Teaching Personnel. State of Utah Department of Public Instruction, Teacher Personnel Division, January, 1949.

APPENDIX

## INDIVIDUAL TEACHER INDEX SHEET

I. Name
 III. TEACHING FIELD
A. Secondary ................................................... ( )
B. Elementory ................................................... ( )

1. Kindergorten ........................................ ( )
IV. IF SECONDARY CHECR TYPE OF CERTIFICATE HELD
A. Home Economics ....................................... ( )
B. Industrial Arts ............................................. ( )
C. Agriculture ................................................... ( )
D. General ........................................................... ( )
2. Art ........................................................... ( )
3. Commerce .............................................. ()
4. English .................................................... ( )
5. Foreign Language ............................... ( )
6. Mathematics ......................................... ( )
7. Music ....................................................... ( )
8. Physical Education .............................. ( )
9. General Science ................................... ( )
10. Biology ................................................... ( )
11. Chemistry ............................................... (
12. Physics ................................................... ( )
13. Socigi Science ....................................... ( )
14. Speech .................................................... ( )
15. Other ...................................................... ( )
थ. PROFESSIONAL QUALIFICATIONS
A. Life Certificaie ............................................. (
B Cerified .. ......... .................................... ( )
C Authorized ............................................. ( )
5) Von Tatmorized …...................................... ()
VI. A. ..................................................................... 1946 District-First Year Recorded
B.
B. .......................................................................... 194

District--Translered to
C.

District Transfered to
1948
$\stackrel{1}{6}$
VII. REASON FOR LEAVING POSITION
A. Transfered to Another District ..................... ( ;
B. No Contract Otfered ..................................... ( )
C. Married and Quit ........................................ ( )
D. Hiness .................................................................... (
E. Retired .............................................................. ( )
F. Entered Other Occupation ......................... ( )
G. Dececrsed ..................................................... ( )
H. Leave of Absence ...................................... ( )
I. Other Recison ................................................ ()

1. ..............................................................................
VII. SOURCE OF TEACHER
A. Other District ................................................. ()
B. Out of State .................................................... ( )
C. Teacher Re-employed ................................ ( ;
D. Letter of Authorization ................................ ()
E. Direct from College ....... ............................... ( )
IX. SCHOOL FROM WHICH TEACHER CAME
A. U. of U. ............................................................ ( )
B. U. S. A. C. ..................................................... ( )
C. B. Y. U. ............................................................ ( )
D. Other ............................................................... ( )
X. COLLEGE PREPARATION
A. Number of Quarter Hours of College
Credit Completed
B. Degtee Held If Any

March 29, 1949

To City and County Superintendents:
You have undoubtedly received letters from Dr. John C. Carlisle of Utah State Agricultural College and $N$. Blaine Winters of the State Department of Education regarding the study of Teacher Supply and Demand in the state of Utah that we are making.

Enclosed are index sheets on all teachers who have left or entered your district during the school years 1946 to 1949. Will you please check the sheets in the following manner:

For teachers leaving the district, check item seven giving the reason the teacher left.

For teachers entering the district check items eight, nine and ten $B$.

In order to complete the study this year it is important we receive these forms within the next ten days if possible. Your cooperation will be greatly appreciated. It is necessary that we have $100 \%$ return from the superintendents. Without your help this study would be impossible.

Very truly yours,
G. W. Sperry
A. D. Jackson

GWS/I
Enclosures

March 23, 1949

To City and County Superintendents:
No doubt you are keeping in touch with the national surveys of teacher supply and demand which are centralized in the office of Dr. Ray G. Maul, who is taking the lead in carrying on such surveys for the National Education Association. In line with this movement, two graduate students at the Utah State Agricultural College, Arthur D. Jackson and George W. Sperry, are making a detailed anelysis of the teacher supply and demand situation in Utah. Up to now, they have made a complete analysis of the State Teacher Directory for the three years, 1946 to 1949, and as a result have an individual account of every teacher who has been added to any district in the State during this period and every teacher who has withdrawn.

As part of the study it will be necessary that they find out as accurately as possible the reasons given for teachers leaving their positions, and also the source of each teacher replacement.

The proposal now is that one or the other of these men bring or mail to you a statement concerning each teacher who has left a position in your district or has been added during this three year period, in which case you would supply the information called for. The statements will contain the names of teachers for whom information is wanted. It will be greatly appreciated if you could cooperate with this request, because it looks as though the study will supply much needed information for the state. Of course, such information will be worthwhile only if it is completely accurate. As you may suspect, the plan for the study has been cleared with Mr . Winters' office at the State Capitol and he is giving us the full cooperation of his department.

If we do not hear from you to the contrary, either Mr. Jackson or Mr. Sperry will get in touch with you during the next few weeks.

Very sincerely yours,

John C. Carlisle
Prof. of Rducation

April 8, 1949

Dean John T. Wehlquist University of Utah Salt Lake City, Utah

Dear Dean Wahlquist:
As part of the program for the Masters' degree in Educetion here at Utah State Agricultural College, Mr. George Sperry and I are now engaged in a study of teacher supply and demand in the state of Utah. The study in general follows the pattern set up by Dr. R. G. Maul for the nation. In order to predict the probable supply of teachers for Utah schools in the next few years we realize that we must know the policies and future plans of the teacher training institutions of the state.

Will you kindly check the statements below thet most nearly express your attitude and plans for the training of prospective teachers.

1. Will actively seek to enroll as many students as possible in the school of education.
2. Will encourage any student who seeks our advice to enroll in the school of education.
3. Will enroll only those who have, on their own choice, elected to enter the school of education.
4. Will operate on a selective system of admission to the teacher training curricula and will admit all those who meet the criteria set up, regardless of whether this increases or decreases the numbers over previous years.
5. Will seek to reduce the number of persons enroling in school.
6. We are in favor of beginning now to set up a "quote system" for the determination of the number of teachers each of the higher institutions in the state is to prepare for certification.
7. Other. (Comment)

Dean John T. Wahlquist - 2

Thank you for your cooperation. Do we have your permission to identify your response or to quote you in the final report.

## Sincerely yours,

Arthur D. Jackson
cc/ Reuben D. Law Robert D. Steele Sister Mary Benidictus
H. Wayne Driegs
E. A. Jacobsen


[^0]:    1- Maul, Ray G. Teacher Supply and Demand in the United States. Nat'l. Commission on Teacher Education and Professional standards. Report for 1948.

[^1]:    7- Ray G. Vaul. Teacher Supply and Demand in the United States. 1949 Report.

