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Scope of Study: This report deals with the status of Industrial Arts in Nebraska with respect to professional preparation, experience, tenure, salary, and special duties of the teacher. Also, the enrollment, subject content, and use of textbooks and field trips of the industrial arts classes; the type, size, and location of the shop; the money allotted for and the name of the department; and the enrollment of the school are included. The information is presented in table form with explanations of each. Included, also, are the conclusions of the study and recommendations for improvement.

Findings and Conclusions: Very little summer employment is made available by the schools to the industrial arts teachers. Few teachers hold degrees in industrial arts; and the majority of Nebraska senior high schools have small enrollments, thus making it easier to administer individual instruction. Generally, girls are not encouraged to enroll in industrial arts classes and in many cases are not permitted to enroll. Woodworking and drawing are the most frequently offered industrial arts subjects, and there is a definite lack of variety in subject matter. Some departments are still referred to as "shop" or "manual training." Definite requirements for the certification of industrial arts teachers should be established, thus eliminating the problem of teachers teaching industrial arts without any preparation in the field.

Adviser's Approval C. R. Hill

THE STATUS OF INDUSTRIAL ARTS
IN NEBRASKA SENIOR HIGH SCHOOLS
1954-1955

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By

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CHAPTER I

THE BASIS FOR AND ORGANIZATION OF THE STUDY

In colonial America the youth learned to use their hands in the home. The boy learned his father's trade while the girl learned to cook and sew from her mother. Adjustment to the modern machine age requires some of the same knowledge and skill that was learned through the use of the pioneers' hands, but that knowledge can no longer be gained in the home. It has become essential that the educational program in the schools of today fulfill this requirement for complete preparation for living. Today, in all sections of the nation, schools are attempting to meet the need for a well-rounded education by including industrial arts as one of the important subjects at all grade levels for both boys and girls. In order to determine what the schools in one particular state are offering in the field of industrial arts questionnaires should be sent to each industrial arts teacher within that state. This would serve, then, as a basis for the summarization of the status of industrial arts in the state.

Origin of the Study. After seeing several studies written about other states, the idea for this study was brought to the mind of the writer. The writer, being a native Nebraskan, having completed all formal education through the Bachelor's degree there, and planning to return to teach industrial arts, recognized the opportunity of discovering the status of and providing for improving industrial arts in that state. With this in mind the study was begun during the fall of 1954.

Needs for the Study. After checking with Mr. LeRoy Ortgiesen, Supervisor of Elementary and Secondary Education, Nebraska Department of Public Instruction, it was found that a study of industrial arts had never been made in the state. Information about as many different individual situations as possible is necessary to improve upon any state-wide program. This survey serves as a means of determining what industrial arts is and how it is taught in the state.

Methods of Investigation. The normative-survey research method was used for the nucleus of the study. Questionnaires, which were sent to 337 industrial arts teachers in 281 Nebraska public senior high schools, were used as a technique to collect data of conditions as they exist at the present. Documentary information from the State Department of Public Instruction, Lincoln, furnished data not covered by the questionnaire.

Definitions of Terms. To assist the reader in understanding the material contained in the study, a glossary of terms follows.

> Manual Training. That phase of industrial training originated to emphasize the importance of making "good workmen" as well as "educated intellects." (3, page 361)
>
> Manual Arts. A change in view following the demand that the "art" and other phases of manual training be developed through having the individual pupils choose and design their own projects. (16, page 4)
>
> Industrial Arts. A phase of general education that concerns itself with the materials, processes and products of manufacture, and with the contribution of those engaged in industry. The learnings come through the pupil's experiences with tools and materials and through his study of resultant conditions of life. (10, page 15)
>
> Industrial Education. A generic term including all educational activities concerned with modern industry and crafts, their raw materials, products, machines, personnel, and problems. It therefore includes both industrial arts and vocational education. (8, page 7)
>
> Vocational Education. A generic term whose scope embraces all kinds of vocationally purposeful education such as industrial, homemaking,

agricultural, commercial, mining, and so on. (8, page 7)

Vocational Industrial Education. The training of workers for the skilled and semiskilled occupations which are a part of the modern industrial world. It is given as the student nears the time of employment, and emphasizes the specific skills, information, and work habits which will give success on the job. (10, page 15)

Adult Education. A means for continuing growth in manipulative skill, intellectually, emotionally, morally, and spiritually, long after evident physical growth has ceased. (17, page 490)

Unit Shop. A unit shop may be defined as one which deals primarily with the tools, processes, materials, and information of a single occupational area (or a limited number of areas which are very closely related). Examples would be a machine shop, a sheet metal shop, a cabinet making shop, and a shoe repair shop. (19, pages 101-102)

General Shop. A general shop is distinguished from a unit shop by the fact that activities in two or more industrial areas are carried on simultaneously. (19, page 108)

The foregoing definitions were quoted from books by leaders in the field. Although some disagree in detail, actually all agree generally upon the definitions of each of the terms.

Reviews of Other Works of this Nature. John L. Trease, in 1951, completed a similar survey on the status of industrial arts in Kansas during the school year 1950-1951. The study included 441 Kansas high schools, representing the total number offering industrial arts courses. Professional preparation, teaching load, extra-curricular activities, teaching methods, and salaries of the teachers were considered. In addition, information about the physical plant and the curriculum were included.

Darrell D. Simmons, in 1949, completed a study of the same type on the status of industrial arts in South Dakota during the school year of 1948-1949. The study was divided into two sections: one for schools having membership in the North Central Association and two, schools accredited only by the state. Comparisons were made of the two sections on

curriculum, shop equipment, salaries, enrollment, and the use of textbooks and audio-visual aids.

Predicted Views of the Results. It is hoped that the results of this study may be but a beginning of the improvement of industrial arts in Nebraska. Industrial arts teachers may compare their shops and practices with those of the other instructors of the state. Current procedures used in the teaching of industrial arts and the subjects offered will be presented in such manner as to enable the reader to determine what is most dominant. This study is not intended to solve the problems of industrial arts in Nebraska but to uncover some of them and to give in table form the status of industrial arts, so that they might be solved in that state.

Plan for Presenting Material. The current philosophy of industrial arts on a nation-wide basis as well as the philosophy as proposed by the state is included in Chapter II. Definitions and objectives of industrial arts are also considered.

A discussion of the methods used in research and the presentation of the data concerning the teachers, curricula, and physical facilities of the schools will compose Chapter III.

A summary of the findings, conclusions indicated by the survey, and recommendations concerning problems for further study will form Chapter IV.

This study is confined to 337 industrial arts teachers in senior high schools in Nebraska as listed by the State Department of Public Instruction, the City Supervisor of Omaha, and the 1953-1954 Nebraska Educational Directory. In order that the results of the study might be

better understood a philosophy of industrial arts and related material will be presented.

CHAPTER II

PHILOSOPHY OF INDUSTRIAL ARTS

Industrial arts is more and more being accepted as a part of general education. This is not because it has an indefinite general nature and not because it pursues objectives which are similar to those of long-accepted general education subjects. Rather, it derives its content from industry -- a basic element of our culture -- and because it has as its social purpose the greater understanding and better control of the phenomena of industry.

Part A

Current Philosophy of Industrial Arts

The assumption is made that industrial arts is not a special subject but a part of general education. Aims of general education then, must be established before industrial arts can be fully explained.

Purposes of General Education. The basic purposes of general education are summarized by Wilber (19, page 3) as follows: "(1) to transmit a way of life, (2) to improve and reconstruct that way of life, and (3) to meet the needs of the individuals."

From the very dawn of civilization, man has been concerned with transmitting or passing on to the rising generation a particular way of life. If mankind should fail in achieving this purpose for a period of two or three generations, the entire culture would revert to savagery. The present civilization is characterized by the fact that it is democratic;

therefore, it is important that youth should be acquainted with the democratic way of life.

If society did nothing but transmit its culture, there would be no progress or improvement. Therefore, education must have the objective of providing for the extension and improvement of the way of life. It should be the responsibility of all teachers in all subjects to stimulate critical thinking.

The Committee on the Function of Science in General Education (5, pages 27 ff) condenses the needs of students into four definite classes as follows:

(1) Personal living
(2) Immediate personal-social relationships
(3) Social-civic relationships
(4) Economic relationships

Under personal living are the needs for development of a sound basis for both physical and mental health, as well as a satisfying philosophy of life. The student is involved in a variety of social-civic relationships and needs to feel that he is accepted as a maturing participant in home and family life as well as in activities with various age groups with which he associates. From the economic standpoint the individual needs to know that there is a place for him in the economic organization and to be guided toward the understanding of today's complex technology and toward a selection of a life's work.

Objectives of Industrial Arts. Industrial arts being a part of general education does not have a set of objectives which it alone supports but rather, makes unique contributions to objectives which are common to the entire educational system. The Advisory Committee for the bulletin, Industrial Arts for Nebraska Schools, (6, page 5) states that it is in

complete agreement with the objectives of industrial arts as stated by the American Vocational Association. Those objectives are listed as follows: (1, page 18)

1. Interest in Industry. To develop in each pupil an active interest in industrial life and in the methods and problems of production and exchange.

2. Appreciation and Use. To develop in each pupil the appreciation of good design and workmanship and the ability to select, care for, and use industrial products wisely.

3. Self-realization and Initiative. To develop in each pupil the habits of self-reliance and resourcefulness in meeting practical situations.

4. Cooperative Attitudes. To develop in each pupil a readiness to assist others and to join happily in group undertakings.

5. Health and Safety. To develop in each pupil desirable attitudes and practices with respect to health and safety.

6. Interest in Achievement. To develop in each pupil a feeling of pride in his ability to do useful things and to develop worthy leisure-time interests.

7. Orderly Performance. To develop in each pupil the habit of an orderly, complete, and efficient performance of any task.

8. Drawing and Design. To develop in each pupil an understanding of drawings and the ability to express ideas by means of drawing.

9. Shop Skills and Knowledge. To develop in each pupil a measure of skill in the use of common tools and machines and an understanding of the problems involved in common types of construction and repair.

The following, as a means of comparison, are the objectives of industrial arts as set forth in the bulletin, Industrial Arts in Oklahoma. (13, page 3)

(1) Industrial Arts is complementary to other school subjects and provides opportunity to apply knowledge learned in other school subjects.

(2) Develops an appreciation of applied knowledge and skills.

(3) Provides a knowledge of industrial drawing, the language of industry, and methods of expressing ideas by means of drawings.

(4) Contributes to later vocational efficiency.

(5) Stimulates students' knowledge and appreciation of good design.

(6) Instills a satisfaction in personal creative achievement.

(7) Develops the ability to analyze a job into its processes and organize them into correct procedure.

(8) Contributes to consumer knowledge and induces an appreciation of the value of industrial materials and the need for their conservation.

(9) Trains in industrial and home safety (including fire prevention).

(10) Acquaints students with industrial information and induces a recognition of the standards of industrial attainment.

(11) Develops avocation interests.

(12) Trains individuals to be more resourceful in dealing with the material problems of life.

(13) Stimulates correct attitudes toward an orderly shop and home and their environment.

(14) Aids in making vocational choices.

(15) Develops qualities of leadership.

(16) Develops cooperative attitudes in work habits.

(17) Develops an appreciation of the dignity and importance of the occupation of one's neighbor.

These objectives should serve merely as suggestions; because each industrial arts teacher should develop his own objectives according to his philosophy, the needs of his students, and the available facilities.

Recommendations Concerning the Application of Current Philosophies.

Since industrial arts is broad in nature and varies from state to state, this study is listing the recommendations for the state of Nebraska. The bulletin, Industrial Arts for Nebraska Schools, contains the following recommendations: (6, pages 18-19)

A thoroughly comprehensive program in industrial arts for a school would doubtless entail some activities and experiences at each grade level in grades 1 to 6, as well as course offerings in junior and senior high schools. All schools, of course, will not find it possible to offer such an extensive program. It would seem wholly within the realm of possibility, however, for all Nebraska high schools to offer at least a two-year industrial arts program.

Class periods should consist of one hour or two 40 minute periods. While the units of study in this bulletin are planned in terms of semesters with classes meeting five times a week, it should be understood that industrial arts classes may meet fewer times per week. In some situations this may be very desirable. When this practice is followed there obviously will be an adjustment of time allotted to units as well as an adjustment in amount of credit.

The time allotted for related experiences should not exceed 20 percent.

All students should complete the three week unit in drawing and planning prior to doing any other shop work.

The industrial arts program may be taught either on a general basis in which the class is divided into groups, each working in a different area at the same time, such as bench metal, leather, and hand woodwork; or it may be taught on a unit basis in which all students are working in the same area, such as welding.

No attempt has been made to list all of the different philosophies of industrial arts. The philosophies of the teachers of industrial arts vary from extreme liberalism to the firm methods used by the manual training teachers some time ago.

Part B

Personal Philosophy of Industrial Arts

The study of the principles of industrial arts and their application, both past and present, forms the basis for the personal philosophy of industrial arts of this writer.

Accepted Definitions. Industrial arts as a subject in the public schools has passed through a series of evolutionary changes since its first introduction into the United States. The subject was justified on the basis of its training of hand and eye upon its introduction. Today, however, industrial arts as it appears to the writer can best be described by several definitions as set forth by some of the leaders in the field.

> The term industrial arts, which designates a curriculum area from grade one through college, emphasizes construction with tools and machines, understanding of industry, drawing and design, consumer education, handy-man abilities, objectification of learning, crafts for leisure, and social understanding, with adaptations to meet the needs and interests of the different grade levels. (12, page v)

> . . . those phases of general education which deal with industry -- its organization, materials, occupations, processes, and products -- and with the problems resulting from the industrial and technological nature of society. (19, page 2)

> . . . a study of the changes made by man in the forms of materials to increase their values, and of the problems of life related to these changes. (4, page 5)

Characteristics of industrial arts are listed by Ericson (7, pages 248-249) as follows:

> 1. A definite phase of general education based on values derived principally from manipulative activity and study of materials.
>
> 2. Emphasis placed upon exploration and participation rather than upon skill and efficiency.
>
> 3. Open and valuable for all students whether talented or not.
>
> 4. Pupils of all ages eligible.
>
> 5. Aims best served through a variety of experience with tools and materials representing many industries and crafts.
>
> 6. Equipment need not match industrial conditions.
>
> 7. Classes held for single class periods except in special cases.
>
> 8. Not reimbursed through special federal funds.
>
> 9. Teachers primarily prepared in teacher-training institution. (May have trade experience.)

10. Course content, length of time, etc., determined by school representatives.

11. Projects are chosen with reference to student interest.

12. Standards of accomplishment based upon pupil growth rather than upon skilled work.

The foregoing definitions, though different in their emphasis, have essentially the same meaning. Industrial arts instruction is for all boys and girls with this exception: those who have special physical or mental handicaps will need more individual attention. The use of tools and materials adds interest and motivates learning for all children and frequently becomes indispensable for those who are not verbal-minded.

Accepted Objectives. The following eight objectives best summarize the aims of industrial arts as seen by the writer.

1. Develop the ability to plan and complete projects, using a variety of tools and construction materials in a workmanlike manner.

2. Give experiences that will increase understanding of modern industry and that will lay the foundation for and help determine vocational interests.

3. Develop the ability to read and make working drawings, charts, and graphs.

4. Develop the ability to recognize quality and design in the products of industry.

5. Develop the ability to maintain and service in a safe and efficient manner the common products of industry.

6. Provide an objective medium for expression in mathematics, science, language, arts, and social science.

7. Develop an interest in crafts as a valuable medium for creative expression in leisure time.

8. Give experiences that will develop social understanding and the ability to work effectively with others either as a leader or as a member of the group. (12, page 7 ff)

Only in industrial arts is it possible to provide such broad educational content in an interesting manner. In the shop the student comes

in contact with concrete information rather than abstract visions.

The philosophy of industrial arts should be flexible enough; so that it can be stretched to meet the needs of all grade levels, class sizes, and subject matter. It also must be adaptable to the ever changing industrial world and must continue to progress and improve.

CHAPTER III

PRESENT STATUS OF INDUSTRIAL ARTS IN NEBRASKA

Finding the real facts with regard to the existing condition of industrial arts in Nebraska was the problem of this study. Since it was not only impractical but also impossible to see personally each of the teachers of industrial arts, a questionnaire was used to secure the needed information. The answers given to the questions will be presented in this chapter.

Part A

Research Methods Employed

Man has yet to devise the perfect method of research; however, many accepted methods have been devised and are in use at the present time. From these the writer chose the normative-survey method. How it applies to and is used in this study will be presented in this part.

The Inquiry Form. The questionnaire was prepared with the intention of gathering information from the teachers in the field. So that a minimum amount of time would be required to complete the questionnaire, the form was made as brief as possible.

Questions concerning the professional preparation, experience, tenure, salary, and special duties of the teacher; the enrollment, subject content, and use of textbooks and field trips of the industrial arts classes; the type, size, and location of the shop; the money allotted for and the name of the department; and the enrollment of the school were in-

cluded. The questionnaires, accompanied by a letter of explanation and a self-addressed stamped envelope, were sent to the industrial arts teachers of Nebraska.

Methods of Study. For the majority of the information of this study the questionnaire type of the normative-survey technic of research was used. The results will be presented with the following in mind:

> . . . The results should throw light on emergent practices and upon novel or unique situations. If such possibilities are to be realized, the returns must be analyzed carefully. The student must examine individual situations as such, seeking for elements of interest and significance in each. If he depends upon a mechanical (clerical) tabulation of questionnaire results concerning practices and conditions, he will miss many of the opportunities for real insight into conditions. He will probably desire to secure the statistical aspects of his returns, but he will also bear in mind that figures tell but a small part of every story, and he will be alert for discovering other valuable aspects of data. (9, pages 334-335)

Additional information was obtained from the Nebraska Department of Public Instruction and its bulletins.

The information was analyzed and organized to conform with an outline especially prepared for this type of study.

Validity of Results. It is not feasible to expect 100 per cent of the questionnaires returned. But in order to prove that this study revealed what it is supposed to reveal, some statistics concerning the returns will be presented.

There are ninety-three counties in the state of Nebraska. Of these, eighty-four were listed as offering industrial arts in at least one public high school. Questionnaires were sent to the industrial arts teachers of the schools in the eighty-four counties, and the returns received represented 75 or 89.3 per cent of these counties.

Of the 337 questionnaires mailed, 203 or 60.2 per cent usable returns were received.

Part B

Industrial Arts Teachers

The teacher of today is an important person. Upon his shoulders rests the success or failure of the world's greatest experiment -- democracy and free enterprise. Since this is an industrial democracy, the industrial arts teacher has a big share of the load.

Professional Preparation. Teachers indicating that their degrees were in industrial arts were far in the minority. Although not a special question, many mentioned that their degrees were in education with industrial arts as a major or minor. Those having a Master's degree numbered 70 or 35 per cent of the total of 200 teachers reporting. The number and types of degrees are listed in Table I.

TABLE I
TYPES OF DEGREES HELD

Degree	Frequency
A.B.	84
B.S.	46
M.A.	55
M.S.	5
M.E.	10
Total	200

Of the 130 teachers holding a Bachelor's degree, 66 or 50 per cent were working toward a Master's degree. It should be mentioned that the greater number of these indicated that the advanced degree was in administration. There were seventy teachers who had a Master's degree and 14 or 20 per cent of them were working toward a Doctor's degree.

Wayne State Teachers' College ranked first among the schools preparing the industrial arts teachers with Bachelor's degrees. Colorado State College of Education ranked highest among those conferring industrial arts

TABLE II
SOURCE OF DEGREES

School	Frequency Bachelor's	Frequency Master's	Total
Wayne S.T.C.	43	0	43
Nebr. Uni.	41	21	62
Kearney S.T.C.	37	0	37
Peru S.T.C.	28	0	28
Nebr. Wesleyan Uni.	7	0	7
Chadron S.T.C.	5	0	5
Omaha Uni.	4	5	9
Midland College	3	0	3
NW Missouri State	3	0	3
Kans. S.T.C. Pittsburg	2	1	3
Colo. St. College of Ed.	2	23	25
Morningside College	2	0	2
Colo. A. & M.	0	3	3
Minn. Uni.	0	2	2
Missouri Uni.	0	2	2
Stout Institute	1	2	3
Wyoming Uni.	1	2	3
Other Nebr. Schools	2	0	2
Not Listed	13	5	18
*Others	9	4	13
Total	203	70	273

*Schools Listed Once Were from These States: Oklahoma, Missouri, Tennessee, Kansas, South Dakota, Illinois, Colorado, Minnesota, Washington, New York.

teachers with Master's degrees. Colleges and universities from fourteen states were represented.

The number of semester hours in industrial arts is listed; some of those who listed over fifty hours had received credit hours on the quarter basis. Hours of preparation ranged from zero to over fifty. The majority, 130 or 65 per cent, had from sixteen to fifty hours in the field while 12 or 5.9 per cent had no hours in industrial arts.

TABLE III
HOURS OF PREPARATION IN INDUSTRIAL ARTS

Number of Hours	Frequency
0	12
1-15	30
16-30	55
31-50	68
Over 50	31
No answer	7
Total	203

Teaching experience and tenure of the teachers may be found in Table IV. Of the 203 teachers, 21 or 10.3 per cent were teaching industrial arts for the first time. The majority, 130 or 64 per cent,

TABLE IV
TEACHING EXPERIENCE AND TENURE

Years of Experience	Frequency Present	Frequency Total
First	57	21
1-5	97	109
6-10	30	36
11-15	13	18
16-25	5	11
Over 25	1	8
Total	203	203

have had five or less years' experience. Those having more than fifteen years' experience numbered 19 or 9.3 per cent of the total. Fifty-seven or 28 per cent of the teachers are in a new position this year while 154 or 75.3 per cent have been in their present position five years or less. Only 6 or 2.4 per cent have been in their present position for more than fifteen years.

Special Duties. Since industrial arts is of a practical nature, the teacher and the shop are called upon many times to do maintenance, repair, and construction work.

Teachers required to do maintenance work numbered 68 or 33.5 per

TABLE V
MAINTENANCE WORK

Required	Frequency
Yes	30
Some	31
Not required, but do	13
Only in Shop	3
If so, Paid	3
Only small repair jobs	1
Optional	1
Total	82

cent of the total. However, some of these gave qualified answers; so for a complete list see Table V.

Of importance to the teacher is the possibility of summer employment. Forty-three or 20.6 per cent of the 203 teachers reporting have been employed by the school during the summer, and five reported that they were employed "sometimes." Maintenance, construction, and related work seem to be the jobs most teachers received. A complete listing of these jobs may be found in Table VI.

TABLE VI
SUMMER EMPLOYMENT

Job	Frequency
Maintenance and Construction	11
Administration	7
Part-time Carpentry	4
Vo. Ag. Program	4
Painter	3
Part-time Maintenance	3
Carpenter	3
Recreation	2
Building Trades	1
Driver Training	1
Repairing Books	1
Cabinet Making	1
Summer Band	1
Varies	1
Not Specified	5
Total	48

Positions and Salaries. Because of higher paying positions such as superintendent or coach, the salaries of the teachers reporting are not a true picture of what an industrial arts teacher would receive. However, since in most of the schools the teachers taught in more than one field, it is very difficult to prevent an overlapping. Teachers reporting held a variety of twenty-five different positions in addition to industrial arts. The combination of industrial arts and science headed the list followed closely by industrial arts and coaching. The complete list of positions

is presented in Table VII.

TABLE VII
OTHER POSITIONS HELD

Position	Frequency
Science teacher	48
Coach	41
Superintendent	35
Physical Education and Athletics teacher	35
Mathematics teacher	29
History teacher	25
Junior High Industrial Arts teacher	24
Principal	24
Geography teacher	21
Driver Training teacher	14
Commercial teacher	10
Civics teacher	7
Trade instructor	7
College professor	6
Vocational Agriculture teacher	6
Music teacher	6
Counselor or Guidance teacher	6
Health Education teacher	5
English teacher	4
Social Studies teacher	3
Speech teacher	2
Modern Problems teacher	2
Dramatics teacher	1
First Aid teacher	1
Traffic Safety teacher	1
Total	363

Since the question concerning salary was optional, a total of 155 replied. The majority, 77 or 52 per cent of those reporting, received from $3,501 to $4,000 per year while 45 or 30.4 per cent received from $4,001 to $6,000 per year. Several of the teachers mentioned that in

TABLE VIII
SALARIES OF TEACHERS

Annual Salary	Frequency
$3,001-3,500	33
$3,501-4,000	77
$4,001-4,500	30
$4,501-5,000	7
$5,001-5,500	5
$5,501-6,000	3
Total	155

addition to their salary they received free housing. Also, some of the teachers mentioned that in addition to their salary an extra amount was received for teaching night classes.

Part C

Industrial Arts Class Data

It is doubtful that any two teachers will use the same methods, have the same size classes, or even teach exactly the same subjects. But a survey can show what the teachers of a state are doing by placing the information in table form. The enrollment, subject content, use of textbooks and field trips of the industrial arts classes will be included in the following pages.

Enrollment. The size of industrial arts classes varies greatly; because it is affected by the size of the shop, the enrollment of the school, and whether or not girls are permitted to enroll. Enrollment of the schools offering industrial arts as reported by the teachers is presented in Table IX.

TABLE IX
ENROLLMENT OF HIGH SCHOOL

Number of Students	Frequency of Teachers
Under 50	49
51-100	61
101-150	23
151-200	9
201-300	9
301-400	11
401-500	8
501-1000	5
Over 1000	25
No answer	3
Total	203

The size of the schools offering industrial arts varies from fifteen to 2,500 students. Teachers in schools with an enrollment of 150

and under numbered 133 or 65.5 per cent of the total while those teaching in schools of 500 and more numbered 30 or 14.2 per cent of the total.

The majority, 139 or 71.2 per cent of the teachers reporting, had an average class size of fifteen or under. Those having an average class

TABLE X
AVERAGE CLASS SIZE

Number of Students	Frequency of Teachers
1-10	97
11-15	42
16-20	26
21-25	19
26-30	8
Over 30	3
No answer	8
Total	203

size of twenty-six or more numbered 11 or 5.6 per cent of the total. The size of the classes ranged from one to thirty-six with one teacher having a total of 169 students per day in five drawing courses. One teacher reported having only three students in the entire department.

Perhaps the most interesting answers received were those to the question, "Are girls permitted to enroll in Industrial Arts?" There seem to be mixed feelings toward this question as emphasized by the following comments:

"If interested."
"Unheard of."
"Handicrafts only."
"Crafts and drawing."
"Never took part."
"In five years, one in drafting."
"Yes, but do not have facilities to handle anymore students."
"Separate class for girls."
"They would like to."
"Some years."
"Not being done."

Only 71 or 34.9 per cent gave a "Yes" answer to the question of girl enrollments. Of these, plus the four teachers reporting that girls were

allowed to enroll in drawing only, 21 or 28 per cent had girls enrolled during the present semester. This is but 10.3 per cent of the total num-

TABLE XI
ARE GIRLS PERMITTED TO ENROLL?

Answer	Frequency of Teachers
Yes	71
Not at Present	10
Classes exchange with Home Economics classes	4
Just Mechanical Drawing	4
No Rule Against It	2
No answer	4
Total	95

ber of teachers reporting. Four teachers mentioned that their shop classes exchanged with the home economics classes for a period of approximately two weeks.

Subject Content. The basic considerations underlying the introduction and retention of course offerings in industrial arts according to Ericson (7, page 267 ff) are as follows:

1. Does the type of work proposed represent a broad, typical industrial activity?
2. Is it rich in educational content?
3. Does the subject lend itself to school procedure?
4. Does the subject suit the ages and maturity of the students?
5. Is the cost of installation reasonable?
6. Are materials too expensive?
7. Is there local representation of the activity?
8. Are teachers available?
9. Is there time in the schedule?
10. Are students interested?
11. Is local sentiment in favor?
12. Is the superintendent or principal enthusiastic?

13. Is it the teacher's pet scheme?

After looking at the questions above, one can see why industrial arts subjects could be and are of a great variety. The list of subjects taught by the industrial arts teachers reporting is presented in Table XII.

TABLE XII
INDUSTRIAL ARTS SUBJECTS

Subject	Frequency of Teachers
Hand Woodworking	132
Machine Woodworking	119
All types of Drawing	61
Listed as Shop or Industrial Arts	29
Beginning General Shop	20
Metal Work	15
Electricity	13
Leather	12
Advanced General Shop	10
Welding	8
Plastics	7
Sheet Metal	7
Auto Mechanics	6
Crafts	6
Home Mechanics	6
Art Metal	3
Bench Metal	3
Farm Mechanics	3
Printing	3
Wood Turning	3
Upholstery	3
Carpentry	2
Forging	2
Metal Tooling	2
*Others	12

*Other Subjects Listed Once: Manual Arts, Finishing, Machine Shop, Blacksmithing, Bookbinding, Jewelry, Lapidary, Metal Etching, Care and Management, Stage Craft, Concrete Work, and Rope Splicing.

Hand or beginning woodworking headed the list of the subjects taught by the teachers reporting, followed by machine woodworking. Drawing of all types was third on the list.

Very few, 19 or 9.3 per cent, of the 203 teachers reporting were teaching night classes for adults. Some of the comments made about adult

education classes follow:

"In leathercraft."
"In driver training."
"Plan to."
"Not in this school but in a different locality."
"In agriculture."

Several teachers taught their night classes in connection with the agricultural program and in driver training.

Textbooks and Field Trips. The textbook can be the chief source of information for the teaching of a class. In some cases, however, the lack of money or a preference for the use of lectures and instruction sheets was the reason for not using textbooks. Some of the comments made concerning the use of textbooks follow:

"Sure, who doesn't."
"Not yet."
"If Possible."

TABLE XIII
DO YOU USE TEXTBOOKS?

Answer	Frequency of Teachers
No	18
As references	7
Some	5
Total	30

Only 18 or 8.8 per cent of the teachers reporting did not use textbooks. Seven or 3.4 per cent used textbooks for reference only.

Wilber (19, page 128) states the following about field trips:

> The industrial arts trip, properly planned and carried through, represents the ultimate in effectiveness for exploration and orientation. Its value will depend, however, on how well the class is prepared and the extent to which experiences and impressions are discussed and checked after the trip is completed.

Teachers taking their classes on field trips numbered 88 or 43.4 per cent of the total reporting. Those not taking any field trips numbered 95 or 46.8 per cent of the total. Several teachers reported "no industry in

TABLE XIV
DO YOU TAKE YOUR CLASS ON FIELD TRIPS?

Answer	Frequency of Teachers
No	95
Yes	76
Some	12
Not as Yet	9
Seldom	6
If Possible	1
No answer	4
Total	203

vicinity" as a reason for not taking field trips. Others mentioned lack of time as a factor.

Part D

Industrial Arts Facilities

Since industrial arts is a laboratory course, it requires more facilities than those which are classroom courses. This is one of the reasons for it being a difficult task to begin an industrial arts department.

Department. The names of the departments reported by the teachers were varied. There were seventeen different names used in referring to the department; for a complete listing see Table XV.

TABLE XV
NAME OF DEPARTMENT

Name	Frequency of Teachers
Industrial Arts	127
Shop	36
Manual Training	12
Industrial Arts or Shop	5
General Shop	4
Industrial Arts and Vocational Education	2
Industrial Education	2
Manual Training or Shop	2
*Others	10
No answer	3
Total	203

*Others Listed Once Were: Manual Arts, General Farm Shop, Shopwork, Shopwork in Woodworking, Farm Mechanic Shop, Agriculture Shop, Industrial Arts Shop, Industrial Arts Woodwork Shop, Vocational Agriculture Department, and Industrial Arts and Manual Training.

Many times the teacher is not responsible for the name of the department; or he finds it hard to promote a change, as emphasized by the following comments:

"Industrial Arts, through much persuasion."
"Local trend to call it shop."
"Changing after four years of effort to industrial arts."

The majority, 127 or 62.5 per cent of the teachers reporting, taught in a department which is called industrial arts. Those who taught where the department was called shop numbered 36 or 17.7 per cent of the total.

This year 14 or 6.8 per cent of the teachers reporting taught in newly-organized industrial arts departments. The majority, 84 or 41.3 per cent of the teachers reporting, taught in departments which had their beginning within the last fifteen years.

TABLE XVI
ESTABLISHMENT OF DEPARTMENT

Years of Existence	Frequency of Teachers
Begun this year	14
1-5	48
6-10	14
11-15	8
16-30	34
Over 30	27
Unknown	39
No answer	19
Total	203

Only 12 or 5.9 per cent of the teachers reporting taught where the students are required to pay a fee other than for materials. The fees as listed by the teachers follow:

"$1.00 per semester."
"10% on each project."

"$.50 on drawing instruments."
"$1.00 shop dues to cover sand paper, etc."
"$.10"
"$2.00."
"$3.00 for Shop I; $5.00 for Shop II."
"$.30"
"Breakage deposit of $1.50."
"Deposit required at beginning of year."
"$.10 per nine weeks."

At the other extreme one teacher reported that all materials were furnished.

Some of the comments in answer to the question, "Are you allowed a certain amount per year to buy new tools and repair old ones?" follow:

"Included in budget."
"No limit."
"$500 per year."
"Complete freedom."
"$250 per year."

Of the 203 teachers reporting, 130 or 64 per cent received a certain amount to buy new tools and repair old ones. Several teachers, however, stated that they were in need of good equipment and that this was their major problem.

TABLE XVII
ARE YOU ALLOWED A CERTAIN AMOUNT TO BUY NEW TOOLS AND REPAIR OLD ONES?

Answer	Frequency of Teachers
Yes	130
No	56
Within reason	6
No specified amount	4
Policy undecided	2
Sometimes	1
If needed	1
No answer	3
Total	203

Physical Plant. Due to the possible misunderstanding of the term "general shop," the listing of the types of shops may not be a true picture. The teachers who listed only one subject area in their daily schedule and

under type of shop listed "general shop" numbered 27 or 13.3 per cent of the total. Of the 203 teachers reporting, 95 or 46.7 per cent taught a unit type of shop while 33 or 16.3 per cent taught a general type of shop. In several of the larger schools the separate shops were of the unit type, but rotation every nine weeks provided the general shop program.

TABLE XVIII
SHOP ORGANIZATION

Type of Shop	Frequency of Teachers
Unit	95
Both	48
General	33
Listed general but taught only one area	27
Total	203

The size of the shop is very important in that it limits the type and

TABLE XIX
SIZE OF SHOP

Number of Square Feet of Space	Frequency of Teachers
Under 500	21
501-1000	62
1001-1500	38
1501-2000	31
2001-2500	16
2501-3000	5
3001-3500	8
3501-4000	5
Over 4000	8
Moving to new shop next year	4
No answer	6
Total	203

number of machines, the number of different areas, and the number of students. The smallest shop listed was sixteen feet by twenty feet while the larger ones had more than one room or space allowed for storage, office, finishing, and classroom. One teacher reported that the shop was divided so that agricultural shop could be taught on one side and industrial arts on the other.

Of the 203 teachers reporting, 83 or 42.1 per cent taught in shops having 1000 square feet or less of space. Four of the teachers will be moving into new shops by the next school year.

Some of the variations in the location of the shop were:

"Under stage of the gym."
"First floor of Main Building."
"Separate building five blocks away."

Of the 203 teachers reporting, 134 or 66 per cent had their shops located in some part of the main building.

TABLE XX
LOCATION OF SHOP

Location	Frequency of Teachers
Main Building (other than basement)	80
Separate Building	55
Main Building Basement	54
Part of another Building	12
No answer	2
Total	203

The facts concerning industrial arts in Nebraska senior high schools have now been presented. Whether they lie idle or help to improve situations depends upon the teachers who receive copies of these facts. The final conclusions and recommendations concerning industrial arts in the senior high schools of Nebraska will be presented in Chapter IV of this study.

CHAPTER IV

SUMMARY AND RECOMMENDATIONS

To present the factual information contained in the preceding chapter in summary form, to establish conclusions drawn from the data by the writer, and to provide recommendations for the further development and improvement of industrial arts in Nebraska are the aims of this chapter.

Summary of Findings. Eighty-four of the ninety-three counties of Nebraska offered industrial arts in at least one public senior high school in 1954-1955. Seventy-five or 89.3 per cent of these counties were represented in this study. Since the normative-survey method of study was employed, 337 questionnaires were sent to industrial arts teachers in the state; and 203 or 60.2 per cent brought usable returns.

Because of the great importance of the instructor in any class, much emphasis was placed upon the professional preparation, special duties, positions, and salaries of the teacher.

Thirty-five per cent of the 200 teachers reporting held a Master's degree; fifty per cent of those having a Bachelor's degree were working toward a Master's degree, and twenty per cent holding a Master's degree were working toward a Doctor's degree. The reporting teachers had attended colleges and universities from fourteen different states. Forty-three Bachelor's degrees were received from Wayne State Teachers' College which was more than from any other school represented. More Master's degrees, twenty-three, were received from Colorado State College of Education than

any other schools represented. Sixty-five per cent, the majority of the teachers reporting, had between sixteen and fifty hours of industrial arts; at the other extreme, 5.9 per cent had no hours whatsoever in the field. Of the reporting teachers, 10.3 per cent were teaching industrial arts for the first time. The majority, sixty-four per cent, had five years or less of teaching experience. One hundred fifty-four or 75.3 per cent of the teachers reporting had been in their present position five years or less.

Many times it becomes necessary for the teacher and the shop to do maintenance and construction work. Sixty-eight or 33.5 per cent of the teachers reporting were required to do this type of work. Of the 203 teachers reporting, forty-eight stated they had at some time been employed by the school during the summer months. Among the jobs listed were maintenance and construction, administration, and carpentry.

It is to be noted that the teachers in most schools taught in more than one field. Twenty-five positions, other than industrial arts instructor, were represented including science teacher, coach, and superintendent.

Fifty-two per cent of the 155 teachers reporting (the question was optional) were receiving salaries of between $3,501 and $4,000 per year. Forty-five or 30.4 per cent earned from $4,001 to $6,000 annually.

Another phase of industrial arts, the class, was studied in this survey. The enrollment, subject content, and use of textbooks and field trips were analyzed.

Schools offering industrial arts varied in size from fifteen to 2,500 pupils. The majority of teachers, 65.5 per cent, taught in schools having an enrollment of 150 and under. Class sizes ranged from one to thirty-six students. Of the teachers reporting, 71.2 per cent had fifteen or

under as an average class size. Seventy-one teachers stated that girls were allowed to enroll in industrial arts classes; this is but 34.9 per cent of the total, and only twenty-one of these had girls enrolled presently.

The term industrial arts is of very broad scope. Subjects taught by the industrial arts teachers reporting ranged from woodworking to bookbinding. Thirty-six subjects were listed, headed by hand woodworking, machine woodworking, and drawing of all types. Classes in adult education were taught by only 9.3 per cent of the total teachers reporting.

Frequently textbooks were used as the basic source of information. Not using texts was explained by the fact that there was either a lack of funds or a preference for the use of instruction sheets; however, only 8.8 per cent of the teachers reporting did not use textbooks, and 3.4 per cent used them for reference only. The use of field trips was limited to 43.4 per cent of the total teachers reporting while 46.8 per cent did not take field trips. Several indicated they would like to, but there was no industry in the vicinity.

"Industrial Arts" was but one of seventeen names given to the department. It was, however, the name used by the majority or 62.5 per cent. Some seventeen per cent taught where the department was called "shop." Newly-organized departments were reported by 6.8 per cent of the total. The majority, however, taught in departments begun within the last fifteen years. Generally, it was reported, the students were not required to pay a fee other than for materials. Approximately five per cent reported a fee was paid. Sixty-four per cent of the teachers reporting received a specified sum to repair old tools and buy new ones.

The majority of teachers, 46.7 per cent, reported teaching a unit

shop while 16.3 per cent taught a general shop. Eighty-three or 42.1 per cent of the teachers taught in shops of 1000 square feet of space or less. One shop was located in a separate building five blocks from the main building; however, the majority, sixty-six per cent, had shops located somewhere in the main building.

Conclusions Indicated by the Study. It was indicated that generally the teachers feel that a Master's degree is desirable. Few teachers, however, had degrees in industrial arts. Since no college or university in the state of Nebraska offers a Master's degree in industrial arts, it seems only logical that thirty-nine of the seventy Master's degrees were received in other states.

To the teacher who gets paid on a nine month basis summer employment is very important. Little, if any, summer employment is made available by the schools to the industrial arts teachers of Nebraska.

The majority of the Nebraska high schools have rather small enrollments. This tends to lead toward smaller industrial arts classes which makes it easier to administer individual instruction.

Girls have not been encouraged to enroll in industrial arts classes. In many places they are not permitted to enroll; and in others, they are permitted only in specified subjects.

There was a lack of variety of subjects in many cases. Few taught a general type of shop while woodworking and drawing were the most frequently offered industrial arts subjects. Apparently the term "general shop" was misunderstood as emphasized by teachers actually teaching only one subject area reporting general shop organization.

A clear concept of industrial arts seemed to be lacking in the minds of people in general. This was emphasized by the fact some departments

are still called "shop" or "manual training."

It was indicated by the teachers reporting that the shops were too small and ill equipped for growth and improvement.

Recommendations. A similar study conducted after a period of several years would be of value in determining the progress of industrial arts in Nebraska.

The greatest asset that industrial arts in Nebraska needs is a college or university with an industrial arts department that could confer Master's degrees in industrial arts. This would bring about more research in the field and a source of information for the teachers. This, too, would increase the opportunities for industrial arts teachers to do graduate work in their major field.

A stronger and ever-active industrial arts association with more emphasis upon student association affiliations, association newsletters, clinics, and teacher directories could be of great professional value.

The enthusiastic encouragement of girls to enroll in industrial arts classes would be desirable. Much could be done to prepare the girls to be better homemakers through safety, home mechanics, and crafts.

The establishment of definite requirements for the certification of industrial arts teachers would be desirable. This would do away with the problem of teachers teaching industrial arts without any preparation in the field.

Greater use of the general shop plan, at least in the smaller schools, would increase the scope of industrial arts courses in the high schools. To introduce the students, both boys and girls, to a variety of basic processes involved in different materials of industry, the general shop would seem to be the logical solution.

Although the problems of industrial arts in Nebraska have not been solved, it is hoped by the writer that a light might be cast upon them through this study. A comparison of the status of industrial arts in other states was not attempted in this study but could be beneficial.

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OKLAHOMA INSTITUTE OF TECHNOLOGY
of the
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
School of Industrial Arts Education
and Engineering Shopwork
Stillwater, Oklahoma

Dear Sir:

This letter is addressed to you to solicit your aid in compiling information which will be helpful and interesting to all Industrial Arts teachers in the State of Nebraska when completed.

This project has been approved by the Nebraska Department of Public Instruction. The list of Industrial Arts instructors in the state has been made available to me through that department, and statistics derived from this report will be sent to them. The information received from the enclosed questionnaire will be used in my report entitled, "The Status of Industrial Arts in Nebraska High Schools, 1954-1955," on which I am working at Oklahoma Agricultural and Mechanical College as partial fulfillment of requirements for a Master's Degree.

Your cooperation and prompt response will be greatly appreciated. A self-addressed envelope is enclosed for your convenience. Should you desire a summary of this information when compiled, please indicate on the returned questionnaire.

Yours sincerely,

Jerald A. Griess
Graduate Student

Approved:

C. L. Hill, Associate Professor
School of Industrial Arts Education
and Engineering Shopwork, Oklahoma
Agricultural and Mechanical College

OKLAHOMA INSTITUTE OF TECHNOLOGY
of the
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
School of Industrial Arts Education
and Engineering Shopwork
Stillwater, Oklahoma

PLEASE PRINT

Directions: Please fill in the blanks below as they apply to your school.

1. Reported by_____ Position_____

   Name of School_____ City_____, Nebraska

   Elementary_____ Junior High_____ Senior High_____ Junior College_____

2. School Enrollment (exclusive of elementary grades)_____

3. Please fill in the blanks to indicate your daily teaching schedule (include all classes). Be specific, i.e. woodworking, bench metal, etc.

Period	Subjects Taught	Number of Pupils		Grade
		Boys	Girls	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

4. How many college hours do you have in Industrial Arts?_____

5. What college degrees do you have and where did you earn them?_____

6. Are you working toward a degree at the present time?_____
   Type of degree?_____

7. How many years have you been teaching Industrial Arts?_____

8. How many years have you been in your present position?_____

9. Are you required to do maintenance work for the school?_____

10. When was Industrial Arts started in your school?_____

11. Do you teach Adult Education classes?_____

12. Are you employed by the school during the summer?_____Type of employment?_____

13. How does your school refer to your department? (Industrial Arts, Manual Training, etc.)_____

14. Are girls permitted to enroll in Industrial Arts?_____

15. Do you use textbooks in your classes?_____

16. What is your annual salary? (Optional)_____

17. Is Industrial Arts in your school organized as a unit shop, general shop, or both?_____

18. Do you take your classes on field trips?_____

19. Are you allowed a certain amount per year to buy new tools and repair old ones?_____

20. Do your students have to pay a fee other than for the cost of materials? If so, how much?_____

21. Where is your shop located? Main building?_____Separate building?_____Basement?_____

22. What is the size of your shop? Length?_____Width_____

COMMENTS:

TABLE XXI
A LIST OF THE ACCREDITED AND APPROVED
SENIOR HIGH SCHOOLS TO WHICH
QUESTIONNAIRES WERE SENT
(*INDUSTRIAL ARTS NO LONGER OFFERED)

City	School	Number of Teachers Reporting
Adams	Adams High School	0
Ainsworth	Ainsworth High School	1
Albion	Albion High School	1
Alliance	Alliance High School	1
*Alma	Alma High School	1
Amherst	Amherst High School	0
Anselmo	Anselmo High School	0
Arapahoe	Arapahoe High School	0
Arlington	Arlington Public School	1
Arnold	Arnold High School	1
Atkinson	Atkinson High School	1
Auburn	Auburn High School	0
Aurora	Aurora High School	0
Avoca	Avoca High School	0
Axtell	Axtell High School	0
Bancroft	Bancroft High School	1
Bartlett	Bartlett High School	0
Bartley	Bartley Public School	1
Battle Creek	Battle Creek High School	0
Bayard	Bayard High School	1
Beatrice	Senior High School	1
Beemer	Beemer Public School	1
Belgrade	Belgrade High School	1
Bellevue	Bellevue High School	1
Bellwood	Bellwood High School	0
*Bennet	Bennet High School	1
Bennington	Bennington High School	1
Bladen	Bladen High School	1
Blair	Blair City Schools	1
Bloomfield	Bloomfield High School	0
Blue Hill	Blue Hill Public High School	1
Blue Springs	Blue Springs High School	1
Bradshaw	Bradshaw High School	1
Brady	Brady High School	1
Brainard	Brainard High School	1
Bridgeport	Bridgeport High School	1
Brock	Brock High School	1
Broken Bow	Broken Bow High School	1
Brunswick	Brunswick High School	1
Bushnell	Bushnell High School	0
Butte	Butte High School	0
Cairo	Cairo High School	1
Cambridge	Cambridge Public School	1
Carleton	Carleton Public School	1
Carroll	Carroll High School	1
Cedar Bluffs	Cedar Bluffs High School	1
Cedar Rapids	Cedar Rapids High School	1

Table XXI (Continued)

City	School	Number of Teachers Reporting
Center	Center Public School	1
Central City	Public School	1
Ceresco	Ceresco High School	1
Chadron	Chadron High School	1
Chadron	Campus Lab School	1
Chambers	Chambers High School	1
Chester	Chester High School	0
Clarks	Clarks High School	1
Clay Center	Clay Center High School	1
Clearwater	Clearwater High School	1
Coleridge	Coleridge High School	0
Columbus	Kramer High School	2
Comstock	Comstock High School	0
Concord	Concord Public School	1
Cook	Cook High School	0
Cortland	Cortland High School	0
Cozad	Cozad High School	1
Craig	Craig High School	0
Creston	Creston High School	1
Crete	Crete High School	1
Culbertson	Culbertson High School	1
Curtis	Nebraska School of Agriculture	1
Dakota City	Dakota City Public School	1
*Dalton	Dalton High School	1
Danbury	Danbury High School	0
Davenport	Davenport High School	0
David City	David City High School	0
Dawson	Dawson High School	0
Deshler	Deshler High School	1
Diller	Diller Public School	1
Dix	Dix Rural High School	1
Dixon	Dixon Public School	1
Dodge	High School	1
*Dorchester	Dorchester High School	1
Duncan	Duncan High School	1
Dunning	Dunning Public School	1
Eddyville	Eddyville High School	0
Edgar	Edgar High School	1
Elba	Elba Consolidated School	1
Elk Creek	Elk Creek High School	1
Elm Creek	Elm Creek High School	1
Elsie	Elsie High School	0
Elwood	Elwood Public Schools	1
Eustis	Eustis Public School	1
Ewing	Ewing High School	1
Exeter	Exeter High School	0
Fairbury	Fairbury High School & Jr. Col.	1
Fairfield	Fairfield High School	1
Fairmont	Fairmont High School	0
Farnam	Farnam High School	1
Farwell	Farwell High School	1

Table XXI (Continued)

City	School	Number of Teachers Reporting
Firth	Firth High School	0
Franklin	Franklin Public School	1
Fremont	Fremont High School	0
Gandy	Logan County High School	1
Gering	Gering High School	0
Gibbon	Gibbon High School	1
Giltner	Giltner High School	1
Glenvil	Glenvil High School	1
Gothenburg	Gothenburg Public School	1
Grand Island	Grand Island High School	0
Grant	Perkins County High School	0
Greeley	Greeley High School	1
Gresham	Gresham High School	1
Gretna	Gretna High School	1
Guide Rock	Eckley High School	1
Gurley	Gurley High School	1
Halsey	Thomas County Rural High School	0
Hardy	Hardy High School	0
Harrisburg	Harrisburg High School	0
Hartington	Hartington High School	1
Hastings	Hastings High School	4
Hayes Center	Hayes County High School	1
Hebron	Hebron High School	0
Hemingford	Hemingford High School	1
Henderson	Henderson Community School	1
Herman	Herman High School	1
Hershey	Hershey Public School	1
Hickman	Hickman High School	0
Hildreth	Hildreth High School	0
Holdrege	Holdrege High School	1
Hooper	Hooper High School	1
Humboldt	Humboldt High School	1
Humphrey	Humphrey High School	0
Huntley	Huntley High School	1
Hyannis	Hyannis High School	0
Imperial	Chase County High School	1
Indianola	Indianola High School	1
Jackson	Jackson High School	1
Johnson	Johnson High School	1
Juniata	Juniata High School	1
Kearney	Kearney High School	1
Kearney	West Kearney High School	1
Kenesaw	Kenesaw High School	1
*Kimball	Kimball County High School	1
Laurel	Laurel High School	1
Leigh	Leigh High School	0
Lewellen	Lewellen High School	0
Lexington	Lexington High School	1
Lincoln	Lincoln High School	5
Lincoln	College View High School	0
Lincoln	Teachers College High School	1

Table XXI (Continued)

City	School	Number of Teachers Reporting
Lincoln	Northeast High School	1
Lodgepole	Lodgepole High School	1
Loomis	Loomis High School	0
Louisville	Louisville High School	1
Lyman	Lyman High School	0
Lyons	Lyons High School	1
McCook	McCook High School	0
McCool Junction	McCool Junction High School	0
Madison	Madison High School	1
Madrid	Madrid Consolidated School	1
Malcolm	Malcolm Public School	1
Malmo	Malmo High School	1
Mason City	Mason City High School	1
Maxwell	Maxwell High School	1
Mead	Mead High School	1
Meadow Grove	Meadow Grove High School	1
Merna	Merna High School	0
Millard	Millard High School	1
Miller	Miller High School	1
Milligan	Milligan High School	0
Minatare	Minatare High School	1
Mitchell	Mitchell High School	1
Mitchell	Sunflower School	1
*Morrill	Morrill High School	1
Mullen	Mullen High School	0
Murdock	Murdock High School	1
Nebraska City	Nebraska City Public School	1
Neligh	Neligh High School	1
Newcastle	Newcastle High School	0
Niobrara	Niobrara High School	1
Norfolk	Senior High School	2
North Platte	North Platte High School	1
Oakland	Oakland High School	0
Oconto	Oconto High School	1
Omaha	Benson High School	0
Omaha	Central High School	0
Omaha	North High School	0
Omaha	South High School	9
Omaha	Technical High School	4
Omaha	Westside High School	1
Orchard	Orchard High School	0
Ord	Ord High School	1
Osceola	Osceola High School	0
Osmond	Osmond High School	1
Overton	Overton High School	0
Oxford	Mascot High School	1
Page	Page Public School	1
Palmer	Palmer High School	0
Palmyra	Palmyra High School	0
Panama	Panama High School	1
Papillion	Papillion High School	0

Table XXI (Continued)

City	School	Number of Teachers Reporting
Parks	Parks High School	1
Pawnee City	Pawnee City Public School	1
Paxton	Paxton High School	0
Pender	Pender High School	0
Peru	Teachers College Campus School	2
Phillips	Phillips High School	1
Pierce	Pierce High School	0
Platte Center	Platte Center High School	1
Plattsmouth	Plattsmouth High School	1
Pleasanton	Pleasanton High School	1
Plymouth	Plymouth Public School	1
Polk	Polk Public School	1
Ponca	Ponca Public School	1
Primrose	Primrose High School	1
Ralston	Ralston High School	0
Ravenna	Ravenna High School	0
Republican City	Republican City High School	1
Riverdale	Riverdale High School	0
Rockville	Rockville High School	1
Rosalie	Rosalie Public School	1
Roseland	Roseland High School	0
Royal	Royal Public School	1
Ruskin	Ruskin High School	1
Salem	Salem Public School	1
Salem	Honey Creek School	1
Sargent	Sargent High School	0
Schuyler	Schuyler High School	0
Scottsbluff	Scottsbluff High School	1
Scribner	Scribner High School	0
Seward	Seward High School	1
Shickley	Shickley High School	0
Sidney	Sidney High School	1
Silver Creek	Silver Creek High School	1
Snyder	Snyder High School	0
Spencer	Spencer High School	1
Springfield	Springfield High School	0
Stanton	Stanton High School	1
Stapleton	Stapleton High School	1
Stratton	Stratton High School	0
Stromsburg	Stromsburg High School	0
Stuart	Stuart Public School	1
Sumner	Sumner High School	1
Sunol	Sunol High School	0
Superior	Junior and Senior High School	1
Sutherland	Sutherland High School	0
Syracuse	Syracuse High School	1
Tekamah	Tekamah High School	0
Thayer	Thayer Public School	1
Thedford	Thomas County High School	1
Thurston	Thurston High School	1
Tilden	Tilden Public School	1

Table XXI (Continued)

City	School	Number of Teachers Reporting
Trenton	Trenton High School	0
Trumbull	Trumbull High School	0
Tryon	McPherson County High School	1
Ulysses	Ulysses High School	1
Unadilla	Unadilla High School	1
Union	Union High School	0
Utica	Utica High School	0
Valparaiso	Valparaiso Public School	1
Venango	Venango High School	0
Verdon	Verdon High School	1
Virginia	Virginia Consolidated School	1
Waco	Waco High School	0
Wahoo	Wahoo High School	0
Wallace	Wallace High School	0
Waterbury	District C 2 School	1
Wausa	Wausa High School	1
Wayne	Wayne City School	1
Wayne	Teachers College High School	1
Weeping Water	Weeping Water High School	0
Western	Western Public School	1
Westerville	Westerville High School	0
West Point	West Point High School	0
Winnebago	Winnebago Public School	1
Winside	Winside High School	0
Wisner	Wisner High School	0
Wood River	Wood River Public School	1
Wymore	Wymore City Schools	1
Wynot	Wynot High School	1
York	York High School	1

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