


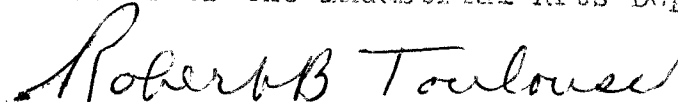
A STUDY OF THE AVAILABILITY OF INDUSTRIAL ARTS TEACHERS
AND ITS EFFECTS UPON THE INDUSTRIAL ARTS PROGRAMS
IN THE PUBLIC SCHOOLS OF NORTH TEXAS

APPROVED:


Major Professor


Minor Professor


Director of the Industrial Arts Department


Dean of the Graduate School

A STUDY OF THE AVAILABILITY OF INDUSTRIAL ARTS TEACHERS
AND ITS EFFECTS UPON THE INDUSTRIAL ARTS PROGRAMS
IN THE PUBLIC SCHOOLS OF NORTH TEXAS

THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

Artre H. Rusk, Jr., B. S.

Denton, Texas

August, 1968

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
Chapter	
I. INTRODUCTION	1
Statement of the Problem	
Purpose of the Study	
Limitations of the Study	
Source of Data	
Definition of Terms	
Organization of the Study	
Recent and Related Studies	
II. AVAILABILITY OF QUALIFIED INDUSTRIAL ARTS TEACHERS IN THE TWENTY-FOUR SCHOOL DISTRICTS SURVEYED FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68	11
III. FACTORS INFLUENCING THE AVAILABILITY OF INDUSTRIAL ARTS TEACHERS IN THE TWENTY- FOUR SCHOOL DISTRICTS SURVEYED FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68	18
IV. THE EFFECTS OF INDUSTRIAL ARTS TEACHER AVAILABILITY UPON THE STATUS OF THE INDUSTRIAL ARTS PROGRAMS IN THE TWENTY- FOUR SCHOOL DISTRICTS SURVEYED FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68	27
V. SUMMARY, FINDINGS, AND CONCLUSIONS	35
Summary	
Findings	
Conclusions	
Recommendations	
APPENDIX	41
BIBLIOGRAPHY	55

LIST OF TABLES

Table	Page
I. Number of Staff Members Teaching Industrial Arts Employed by the Twenty-Four School Districts during the School Years 1965-66 Through 1967-68	12
II. Number of Districts in Which Additional Industrial Arts Teachers Were Needed With the Total Number Needed for the School Years 1965-66 Through 1967-68	13
III. Areas of Industrial Arts Instruction in Which a Teacher Shortage Existed in the Twenty-Four School Districts for the School Years 1965-66 Through 1967-68	15
IV. Projected Need for Additional Industrial Arts Teachers in the Twenty-Four School Districts Given by the Area of Instruction for the School Year 1968-69	16
V. Inadequate Salary Funds as an Influence Upon the Availability of Industrial Arts Teachers for the School Years 1965-66 Through 1967-68	20
VI. The Lack of Industrial Arts Facilities as an Influence Upon the Availability of Industrial Arts Teachers for the School Years 1965-66 Through 1967-68	21
VII. The Lack of Qualified Industrial Arts Teachers Available for Employment as an Influencing Factor Upon Teacher Availability for the School Years 1965-66 Through 1967-68	23
VIII. The Number of Industrial Arts Teacher Education Graduates at Abilene Christian College, East Texas State University, and North Texas State University for the Years 1965 Through 1967	24

Table	Page
IX. Utilization of Industrial Arts Facilities in the Twenty-Four School Districts for the School Years 1965-66 Through 1967-68 . . .	28
X. Number of School Districts Unable to Make Needed Expansion of Their Industrial Arts Programs During the School Years 1965-66 Through 1967-68	30
XI. Industrial Arts Courses Offered in the Twenty- Four School Districts Surveyed for the School Years 1965-66 Through 1967-68	32

CHAPTER I

INTRODUCTION

In recent years public attention has been drawn to an apparent teacher shortage in the public schools of Texas. Concern has been expressed by some educators as to the effects this shortage has upon the various subject matter area programs.¹ Although recent studies have been made concerning the shortage of teachers in the public schools of Texas,² no recent studies have been made as to the availability of industrial arts teachers and its effects upon the industrial arts programs in these schools.

Statement of the Problem

The problem of this study was to determine the availability of industrial arts teachers and its effects upon certain aspects of the industrial arts programs of selected public schools of North Texas.

Purpose of the Study

The purpose of this study was twofold: First, to determine the availability of qualified industrial arts teachers in

¹Texas Education Agency, Division of Teacher Education and Certification, Report On Teacher Supply and Demand In Texas (Austin, 1966), p. iii.

²Ibid.

the twenty-four North Texas area school districts surveyed; and second, to ascertain the effects of industrial arts teacher availability upon the status of the industrial arts programs in the school districts surveyed.

In obtaining the data necessary to achieve the above purpose, it was necessary to seek answers to the following questions:

1. Was industrial arts teacher availability a problem of concern to those staff members responsible for developing and maintaining an adequate industrial arts program in the school districts surveyed?
2. What were some of the major factors influencing industrial arts teacher availability in the school districts surveyed?
3. What was the status of the industrial arts programs in the school districts surveyed?
4. What were some of the major factors influencing the status of the industrial arts programs in the school districts surveyed?

Limitations of the Study

This study was limited to ascertaining the availability of qualified industrial arts teachers and its effects upon the industrial arts programs in the school districts surveyed for the school years 1965-66, 1966-67, and 1967-68. The study was further limited to twenty-four accredited independent school districts in the North Texas area which are as follows: Bowie,

Bonham, Burkburnett, Castleberry, Commerce, Decatur, Denison, Denton, Duncanville, Gainesville, Graham, Grand Prairie, Grapevine, Greenville, Holliday, Iowa Park, Irving, Jacksboro, Keller, Lewisville, McKinney, Paris, Weatherford, and White Settlement. These school districts were selected from a list of public schools compiled by the Texas Education Agency, Austin, Texas.³

A further limitation was made in the selection of the school districts used in this study. An attempt was made to obtain at least one school district in each of the nineteen counties in the North Texas area included in this study. Additional school districts were selected in those counties having large population centers, such as Dallas, Denton, and Wichita counties.

Source of Data

Data for this study were obtained from three sources: (1) from pertinent records and information made available in the school districts' administration offices, (2) through interviews conducted with appropriate staff members of the school districts surveyed, and (3) from the directors of those departments most concerned with industrial arts teacher education at Abilene Christian College, Abilene, Texas, East Texas State

³Texas Education Agency, Public School Directory 1967-68, Bulletin Number 674 (Austin, 1967).

University, Commerce, Texas, and North Texas State University at Denton, Texas.

Definition of Terms

For the purpose of this study it was necessary to establish specific meanings for the use of certain terms. They are defined as follows:

1. Availability, as used in this study, refers to those qualified persons available to be utilized as members of the school districts' staff at the discretion of the school districts' administration and according to the needs of the students.

2. Effects refers to those changes made in the industrial arts programs as a result of the availability of qualified industrial arts teachers.

3. Industrial Arts refers to the body of subject matter or the body of courses, organized for the development of understandings about the technical, consumer, occupational, recreational, organizational, social, historical, and cultural aspects of industry and technology. Learning experiences involve activities such as experimenting, designing, constructing, evaluation, and using tools, materials, and processes which provide opportunities for creativity and problem solving.⁴

⁴Marshall L. Schmitt and W. Dale Chismore, "Definitions for Industrial Arts," Industrial Arts and Vocational Education, LVI (March, 1967), 103-104.

4. Industrial Arts Program refers to those programs which offer one or more of the industrial arts courses or activities, such as woodworking, metalworking, drafting, electricity, electronics, crafts, power mechanics, or graphic arts.

5. Accredited School Districts refers to those schools that have been approved by the Texas Education Agency for meeting a set of prescribed standards in regard to facilities, faculty, and curriculum concept, and designated as such in the Texas Education Agency's list of public schools.⁵

6. Qualified Industrial Arts Teachers is a phrase which refers to those persons certified as teachers of industrial arts by the Texas Education Agency.

7. Status of the Industrial Arts Programs is a phrase which refers to conditions of the industrial arts programs in regard to utilization of industrial arts facilities, industrial arts program growth in relation to the districts' population growth at pertinent grade levels, and the industrial arts programs' course offerings.

Organization of the Study

The study is organized as follows: Chapter I includes an introduction to the study, statement of the problem, purpose of the study, limitation of the study, source of data,

⁵Texas Education Agency, Public School Directory 1967-68, Bulletin Number 674 (Austin, 1967).

definition of terms, organization of the study, and a summary of recent related studies.

Data as to the availability of qualified industrial arts teachers in the school districts surveyed are presented in Chapter II. The data for the school years 1965-66, 1966-67, and 1967-68 are analyzed by separation of the data on teacher availability into several categories.

The factors influencing the availability of industrial arts teachers in the school districts surveyed are presented in Chapter III. These influences are analyzed for the school years 1965-66, 1966-67, and 1967-68. Attention is given to the data as to the courses offered, available facilities, salary funds, and teachers available for employment.

The effects of industrial arts teacher availability upon the industrial arts programs in the twenty-four school districts surveyed are listed in Chapter IV. This presentation includes the data concerning the courses offered in the districts, industrial arts programs, the utilization of the districts' industrial arts facilities, and the growth of the districts' industrial arts programs as related to the needs of the students.

The summary, findings, conclusions, and recommendations of the study are given in Chapter V.

Recent and Related Studies

A study of the qualifications and general status of the elementary, junior high, and senior high school industrial

arts teachers in Texas was made by Jack P. Dial in 1953.⁶ The purpose of Dial's study was twofold: First, to establish the qualifications and general status of industrial arts teachers who were currently teaching in Texas; and second, to compare the basic qualifications as prescribed by the Texas Department of Education and by leaders in the field of industrial arts.

In regard to general status, Dial found that the average industrial arts teacher taught at least four industrial arts classes a day at the senior high level. The average industrial arts teacher also had taught at two different schools, and had 8.6 years of teaching experience.

In 1954, Robert H. Glenn made a study of the qualifications and general status of the industrial arts teachers of Arkansas.⁷ This study was very similar to the study by Dial except for the state involved. Glenn's stated purpose was to find the present qualifications and status of thirty-seven industrial arts teachers in Arkansas. He then compared his findings with those of Dial's study as to the two state's

⁶Jack P. Dial, "A Study of the Qualifications and Status of 190 Industrial Arts Teachers in the Elementary, Junior High, and Senior High Schools of Texas," unpublished master's thesis, Department of Industrial Arts, North Texas State University, Denton, Texas, 1953.

⁷Robert H. Glenn, "An Analysis of the Qualifications and General Status of the Industrial Arts Teachers Employed in the Secondary Schools of Arkansas During the 1953-54 School Year," unpublished master's thesis, Department of Industrial Arts, North Texas State University, Denton, Texas, 1954.

requirements of professional preparation, teacher work loads, salaries, and educational backgrounds.

In 1967, Billy M. Moore made a study of the qualifications and status of industrial arts teachers in Texas.⁸ Moore's study included 152 industrial arts teachers representing a distribution throughout the state. Although Moore's purpose was to ascertain the qualifications and status of industrial arts teachers in Texas, the data presented in the study revealed pertinent information concerning the status of the industrial arts programs in the public schools in Texas.

Moore's study listed data concerning the phases of industrial arts taught by the 152 industrial arts teachers reporting. Analysis of these data revealed the average industrial arts teacher taught at least two different phases of industrial arts every day, with the more frequently taught courses being drafting, woodworking, metalworking, and crafts. With this generally good distribution of the phases of industrial arts being taught in the schools included in the study, only 16.5 per cent of the teachers reported teaching classes outside of the industrial arts programs in their schools.

Data concerning the instructional methods used by the 152 teachers revealed only six who were not using some type

⁸Billy M. Moore, "A Study of the Qualifications and Status of Industrial Arts Teachers in Texas," unpublished master's thesis, Department of Industrial Arts, North Texas State University, Denton, Texas, 1967.

of established curriculum guide. Additional data concerning instructional methods showed that ninety-one of the 152 teachers had made significant changes in the courses they were teaching since the previous school year. Revision of courses to include new instructional areas was reported by thirty teachers, and eleven of the 152 teachers reported new course offerings for the upper ability students. Among the more advanced offerings were descriptive geometry, architectural drafting, pre-engineering drafting, advanced power mechanics, foundry, and reinforced plastics.

One of the more recent and comprehensive studies in the area of teacher supply and demand was reported in 1966. The report was compiled by the Division of Teacher Education and Certification of the Texas Education Agency.⁹ As this report was designed to present data pertaining to teachers of all subject matter areas, there was a number of data concerning the supply and demand of industrial arts teachers in Texas.

The data in this report included figures from the school year 1961-62 through the school year 1964-65. Data concerning the growth in the number of secondary classroom teachers by teaching assignment reveal an overall increase of 28 per cent, with industrial arts teachers having a 26 per cent increase in numbers for the same period. Although these data indicated the number of industrial arts teachers was

⁹Texas Education Agency, Division of Teacher Education and Certification, Report on Teacher Supply and Demand in Texas (Austin, 1966).

increasing at a rate comparable to the overall percentage increase, other data in the report indicated the number of new industrial arts teachers was not adequate to meet the demand in the school years 1961-62 through 1964-65.

Some explanation of this inadequacy can be found in the data of the report concerning a follow-up study of the teacher education graduates with bachelor's degrees for the school year 1964-65. Of the 156 industrial arts teachers certified only eighty-four reported accepting teaching positions. Additional significance can be drawn from the data showing an increase of 101 per cent in the number of high school graduates for the ten year period between 1954 and 1964. The report also presented a projected need figure of an additional 9,131 teachers in the public schools of Texas before the school year 1970-71.

CHAPTER II

AVAILABILITY OF QUALIFIED INDUSTRIAL ARTS TEACHERS IN THE TWENTY-FOUR SCHOOL DISTRICTS SURVEYED FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68

This chapter will present data concerning the availability of qualified industrial arts teachers to the twenty-four school districts surveyed for this study. A list of these twenty-four school districts in the North Texas area appears in Appendix A of this study. Also included in Appendix B is a map of the North Texas area indicating the location of each school district surveyed for this study.

To obtain the data concerning the availability of industrial arts teachers, a questionnaire was designed to obtain answers to questions pertaining to availability as it was defined in Chapter I. A copy of this questionnaire is included in Appendix C of this study. One copy of this questionnaire, serving as the recording instrument for the data obtained, was then completed in each of the twenty-four school districts.

The data were analyzed, and the pertinent information concerning industrial arts teacher availability was presented in the following manner. First, the number of industrial arts teachers employed was compared with the

additional industrial arts teachers needed in the twenty-four school districts for the school years 1965-66 through 1967-68. Second, the areas of industrial arts instruction where the additional staff needs existed during the school years 1965-66 through 1967-68 were analyzed for pertinent information. And third, the projected needs of industrial arts teachers for the 1968-69 school year were examined with attention given to the area of instruction where the projected need will exist. These projected needs were in addition to the present teaching staffs in the school districts. Twelve of the twenty-four school districts reported operating in the 1967-68 school year with an industrial arts teacher shortage.

Table I contains data concerning the number of industrial arts teachers employed in the twenty-four school districts during the school years 1965-66 through 1967-68. The data are presented with the total number of teachers employed in the twenty-four districts' industrial arts programs for the school year indicated.

TABLE I

NUMBER OF STAFF MEMBERS TEACHING INDUSTRIAL ARTS EMPLOYED
BY THE TWENTY-FOUR SCHOOL DISTRICTS DURING THE
SCHOOL YEARS 1965-66 THROUGH 1967-68

School Year	Number of Industrial Arts Teachers Employed
1965-66	52
1966-67	51
1967-68	52

Of the twenty-four districts surveyed, sixteen reported no change in the number of industrial arts teachers employed during the three year period. Four of the districts reported a decrease in the number of industrial arts teachers employed. Two of the districts reported an increase in the number of industrial arts teachers employed, and two of the districts reported having no industrial arts teachers employed during the three year period. The situation existing in the last two districts will be discussed with appropriate data later in this study.

Table II presents the data concerning the school districts' industrial arts teacher needs for the school years 1965-66 through 1967-68. These data are presented with the number of districts reporting industrial arts teacher shortages, and the total number of these shortages, in the twenty-four school districts for the school year indicated.

TABLE II

NUMBER OF DISTRICTS IN WHICH ADDITIONAL INDUSTRIAL ARTS
TEACHERS WERE NEEDED WITH THE TOTAL NUMBER NEEDED
FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68

School Year	Number of Districts With Industrial Arts Teacher Shortage	Total Number of Industrial Arts Teachers Needed
1965-66	3	5
1966-67	7	9
1967-68	12	19

Fourteen of the twenty-four school districts reported a shortage of industrial arts teachers at least once during the three year period. Five of the school districts reported a shortage of at least two full-time industrial arts teachers during the same period. As indicated by the data in Table II, one-half of the school districts reported an industrial arts teacher shortage for the school year 1967-68.

It should also be noted in Table II that the increase in the total number of industrial arts needed by the twenty-four districts more than doubled between the school years 1966-67 and 1967-68. Additional implications of this increase will be examined in Chapter III with the factors influencing the availability of industrial arts teachers.

The data in Table III represent the total number of additional industrial arts teachers needed by the twenty-four districts, listed by the area of industrial arts instruction where the need existed for the school years indicated.

As the data in Table III reveal, the shortage of general shop teachers was present in all the years studied. Seven of the ten general shop teachers needed for the 1967-68 school year were needed for the intermediate or junior high grade levels. The remaining twelve teacher shortages were for industrial arts areas at the ninth grade level or above. One of the three shortages existing in the metalworking area was for a facility built in 1966 and not utilized for the last two school years. Two of the four drafting area shortages

were for teachers in new facilities being used on a part-time basis during the 1967-68 school year.

TABLE III

AREAS OF INDUSTRIAL ARTS INSTRUCTION IN WHICH A TEACHER SHORTAGE EXISTED IN THE TWENTY-FOUR SCHOOL DISTRICTS FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68

School Year	Number of Additional Teachers Needed, Listed By Area of Instruction Where Needs Existed			
	General Shop	Woodworking	Metalworking	Drafting
1965-66	5			
1966-67	8		1	
1967-68	10	2	3	4

In addition to data obtained concerning the availability of industrial arts teachers during the school years 1965-66 through 1967-68, a projected figure was obtained in the twenty-four school districts for the school year 1968-69. Although this projected figure was in some cases dependent upon industrial arts program expansion within the school district, it was in all cases a stated desire of the administration to employ these additional industrial arts teachers. It should be noted that in all cases the projected figure was based on facilities and student needs known to exist for the 1968-69 school year.

Table IV presents the projected number of additional industrial arts teachers needed in the twenty-four districts for the 1968-69 school year. As noted previously, these needs were in addition to the teacher shortages in existence for the 1967-68 school year. These data are presented with the area of industrial arts instruction where the projected need will exist.

TABLE IV

PROJECTED NEED FOR ADDITIONAL INDUSTRIAL ARTS TEACHERS IN
THE TWENTY-FOUR SCHOOL DISTRICTS GIVEN BY THE AREA
OF INSTRUCTION FOR THE SCHOOL YEAR 1968-69

Area of Instruction	Projected Industrial Arts Teacher Needs
General Shop	5
Metalworking	2
Woodworking	1

The data in Table IV indicate the greatest number of industrial arts teachers will be needed for the general shop area. As noted previously, the general shop was also the area of instruction with the greatest shortage of teachers in the school years 1965-66 through 1967-68. This previous shortage added to the figures given in Table IV indicate an even greater shortage of teachers in this area for the 1968-69 school year.

Summary

The data concerning the availability of industrial arts teachers in the twenty-four school districts for the school years 1965-66 through 1967-68 indicate a growing shortage of industrial arts teachers. A study of the data revealed the shortage increase to be greatest in the school year 1967-68.

Comparing these shortage figures with the total number of industrial arts teachers employed in the twenty-four schools districts shows no progress towards a solution. Table I indicates the availability of industrial arts teachers in the twenty-four districts as being very low, if the total number of industrial arts teachers employed is an indication when compared with the data in Table II.

As indicated in Table III, the instructional area in the industrial arts programs affected the greatest by the shortage of industrial arts teachers was the general shop. The increasing shortages in this area of industrial arts instruction emphasizes that an increase in the availability of the average industrial arts teacher education graduate would alleviate the shortage in this area. The data would also indicate this shortage of available teachers exists in the general shop area of the industrial arts programs and not in the more advanced areas of instruction. The data concerning the additional industrial arts teachers needed for the school year 1968-69 emphasize further that the general shop area was the most affected by the short supply of industrial arts teachers.

CHAPTER III

FACTORS INFLUENCING THE AVAILABILITY OF INDUSTRIAL ARTS TEACHERS IN THE TWENTY-FOUR SCHOOL DISTRICTS SURVEYED FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68

The data concerning the factors influencing the availability of industrial arts teachers in the twenty-four school districts surveyed will be presented in this chapter. The data concerning these influences were obtained from two sources. The first source was the questionnaire noted at the beginning of Chapter II. The second source was a questionnaire completed by three institutions engaged in industrial arts teacher education, serving the North Texas area. The three institutions were Abilene Christian College, East Texas State University, and North Texas State University. A copy of the questionnaire and the accompanying letter are included as Appendix D of this study.

After the above questionnaires were completed, the data were analyzed, and they are presented in this chapter in the following manner. First, the lack of salary funds as an influencing factor on industrial arts teacher availability was examined, and data are presented concerning this influence for the school years 1965-66, 1966-67, and 1967-68. Second, the lack of facilities as an influence upon the availability

of industrial arts teachers was examined, and data presented concerning this influence for the school years 1965-66, 1966-67, and 1967-68. Third, the lack of qualified industrial arts teachers available for employment was examined, and data are presented for the school years 1965-66, 1966-67, and 1967-68. Fourth, the information obtained from the three institutions engaged in industrial arts teacher education was examined, and data concerning the supply and demand of industrial arts teacher education graduates for the years 1965, 1966, and 1967 are presented.

The lack of salary funds was found to be an influence upon the availability of industrial arts teachers in four of the twenty-four school districts surveyed. In these four school districts, the use of a near minimum salary scale resulted in an inadequate number of applicants from which to choose in the selection of industrial arts teachers. Two of the school districts surveyed had received no applications for employment from industrial arts teachers for over three school years. In these school districts inadequate salary funds were a problem of concern to those responsible for developing and maintaining an adequate industrial arts program.

Table V presents the data concerning inadequate salary funds as an influence upon the availability of industrial arts teachers. This table presents the data with the number of school districts reporting inadequate salary funds as an

influence upon the availability of industrial arts teachers for the school years indicated.

TABLE V

INADEQUATE SALARY FUNDS AS AN INFLUENCE UPON THE
AVAILABILITY OF INDUSTRIAL ARTS TEACHERS FOR
THE SCHOOL YEARS 1965-66 THROUGH 1967-68

School Year	Number of School Districts Reporting Inadequate Salary Funds
1965-66	2
1966-67	2
1967-68	4

In those districts reporting the inadequate salary funds as an influence upon the availability of industrial arts teachers the effects were very apparent. One of these districts reported a decreasing from three industrial arts teachers employed in the 1965-66 school year to one industrial arts teacher employed in the 1967-68 school year. All industrial arts facilities in this district were closed with the exception of one general shop area used as a drafting area. The former drafting area was across a hallway and was being used as a classroom for another subject matter area. In another of these school districts, this one adjacent to a metropolitan area, the industrial arts program employed three teachers in two of the districts' schools for the school year 1965-66 decreasing to one part-time industrial arts teacher employed in one school for the school year 1967-68. This school district

reported two schools with industrial arts facilities not being used for the 1967-68 school year.

The second major influence upon the availability of industrial arts teachers in the twenty-four school districts surveyed was the lack of facilities for instructional areas. This factor was found to be more frequently present in those districts experiencing overall school population growth. Although these districts were planning or building facilities whenever possible, the influence was a major one to those districts involved.

Table VI presents the data concerning the districts with the lack of facilities as an influence upon the availability of industrial arts teachers. The data represent the number of districts reporting a shortage of available industrial arts teachers due to the lack of facilities for instructional areas for the school years indicated.

TABLE VI

THE LACK OF INDUSTRIAL ARTS FACILITIES AS AN INFLUENCE
UPON THE AVAILABILITY OF INDUSTRIAL ARTS TEACHERS
FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68

School Year	Number of School Districts Reporting the Lack of Industrial Arts Facilities
1965-66	7
1966-67	5
1967-68	4

As the data in Table VI indicate, the lack of industrial arts facilities was an influence in a greater number of the twenty-four school districts during the 1965-66 school year than in the 1967-68 school year. These data indicate the inclusion of industrial arts facilities in the new buildings in the twenty-four districts, or the conversion or expansion of the existing facilities to include industrial arts instructional areas. Two of the four districts reporting a lack of industrial arts facilities were also experiencing the lack of salary funds for the 1967-68 school year. These school districts had experienced a consolidation of their school populations into a central location, with part of their industrial arts facilities being converted to other use. The two other school districts reporting a lack of industrial arts facilities for 1967-68 school year were located in a metropolitan area. Both of these districts reported the lack of available industrial arts teachers in their programs due to the lack of facilities. These two districts were experiencing an overall school population growth, and the lack of industrial arts facilities was a temporary problem due to new facilities being made ready for the 1968-69 school year.

The third major influence upon the availability of industrial arts teachers in the twenty-four school districts surveyed was the lack of industrial arts teachers available for employment. Several of these districts reported a

vigorous teacher recruiting program for the school year 1967-68 that had produced very little results.

The data concerning the lack of teachers available for employment by the twenty-four school districts surveyed for the school years 1965-66 through 1967-68 are presented in Table VII. The data are presented with the number of school districts reporting the lack of industrial arts teachers available for employment as a major influence upon teacher availability for the school year indicated.

TABLE VII

THE LACK OF QUALIFIED INDUSTRIAL ARTS TEACHERS AVAILABLE
FOR EMPLOYMENT AS AN INFLUENCING FACTOR UPON TEACHER
AVAILABILITY FOR THE SCHOOL YEARS
1965-66 THROUGH 1967-68

School Year	Number of School Districts Reporting This Influence
1965-66	4
1966-67	6
1967-68	8

Further study of the data in Table VII reveals this influence to be a major factor showing steady growth for the school years 1965-66 through 1967-68. This information together with the data received from the three institutions engaged in industrial arts teacher education reveal this influence to be even greater than the data given so far in this chapter would indicate.

The data requested from Abilene Christian College, East Texas State University, and North Texas State University indicate a demand for industrial arts teachers that far exceeded the supply for the three school years studied. These data are presented in Table VIII with the number of industrial arts teacher education graduates at the three institutions for the years indicated.

TABLE VIII

THE NUMBER OF INDUSTRIAL ARTS TEACHER EDUCATION GRADUATES AT ABILENE CHRISTIAN COLLEGE, EAST TEXAS STATE UNIVERSITY, AND NORTH TEXAS STATE UNIVERSITY FOR THE YEARS 1965 THROUGH 1967

Year	Number of Industrial Arts Teacher Education Graduates		
	A.C.C.	ETSU	NTSU
1965	6	23	68
1966	5	20	51
1967	8	25	76

In addition to these data presented in Table VIII, information was obtained from these three institutions concerning the number of requests to employ industrial arts teacher education graduates. Although no exact figures were available, estimates as to the ratio of the number of requests to the number of industrial arts teacher education graduates for the three year period were reported.

Abilene Christian College reported the number of requests to employ industrial arts teacher education graduates exceeded the number of these graduates by a ratio of four to one for the three year period. At East Texas State University this ratio was estimated as being two to one. And, at North Texas State University the ratio was reported to be approximately two to one for the same period.

The data in Table VIII give further emphasis to the difficulty in employing industrial arts teachers encountered by the school districts in the North Texas area. These data indicate a direct influence upon the availability of industrial arts teachers in the North Texas Area.

Summary

The factors influencing the availability of industrial arts teachers presented in this chapter had some influence upon all of the twenty-four school districts surveyed.

The lack of salary funds had the more direct effect upon the school districts outside the metropolitan area. This lack of salary funds was not only reflected in the shortage of industrial arts teachers in some districts, but it was also a factor in the turnover of personnel. As noted in the discussion accompanying the data, some of the school districts were on a constant competitive basis with adjacent school districts for their own teaching staffs.

In some cases the lack of salary funds was accompanied by the lack of other funds, with the resulting shortages of equipment and facilities. Although the lack of facilities was not always a problem of available funds, in some cases noted in the discussion of the data, the school district was experiencing a school population growth that the building program could not overtake in one or two years.

The lack of facilities in some districts was a direct influence upon the availability of industrial arts teachers. In these districts industrial arts teachers hesitated to join these staffs when they knew temporary or inadequate facilities were to be used as industrial arts instructional areas. These temporary facilities, in addition to the larger class loads, were influential in those districts experiencing a rapid school population growth.

The lack of teachers available to be employed was an increasing influence as the data in Table VII indicated. The data and the information reported by the three institutions do not apparently offer a solution to this supply and demand problem of industrial arts teachers.

CHAPTER IV

THE EFFECTS OF INDUSTRIAL ARTS TEACHER AVAILABILITY UPON THE STATUS OF THE INDUSTRIAL ARTS PROGRAMS IN THE TWENTY-FOUR SCHOOL DISTRICTS SURVEYED FOR THE SCHOOL YEARS 1965-66 THROUGH 1967-68

The data concerning the effects of industrial arts teacher availability upon the status of the industrial arts programs in the twenty-four school districts surveyed are presented in this chapter. The questionnaire designed for this study included sections pertaining to the status of the industrial arts programs in the twenty-four school districts for the school years 1965-66 through 1967-68. The data obtained from these sections of the questionnaire were analyzed for the effects of the availability of industrial arts teachers upon the status of the industrial arts programs in the twenty-four school districts.

These data were presented to ascertain the effects of industrial arts teacher availability upon the districts' industrial arts programs. Attention was given to the following factors. First, the utilization of industrial arts facilities was examined. Second, the growth of the industrial arts program was compared to the growth of its school district at the pertinent grade levels. And third, the course offerings

in the industrial arts programs of the twenty-four school districts were examined for changes in the number of industrial arts courses offered, development of additional areas of instruction, and the maintenance of an adequate and desirable industrial arts program.

The utilization of existing industrial arts facilities varied widely in the twenty-four school districts surveyed. The data concerning the utilization of these facilities are presented in Table IX. This table represents the total number of schools with industrial arts facilities, in the twenty-four school districts, not being utilized as industrial arts instructional areas due to the lack of available industrial arts teachers for the school years 1965-66 through 1967-68.

TABLE IX

UTILIZATION OF INDUSTRIAL ARTS FACILITIES IN THE
TWENTY-FOUR SCHOOL DISTRICTS FOR THE SCHOOL
YEARS 1965-66 THROUGH 1967-68

School Year	Number of Schools in the Twenty-four Districts with Industrial Arts Facilities Not Being Utilized
1965-66	4
1966-67	6
1967-68	10

Further examination of the data presented in Table IX revealed that three of the schools listed under the school year 1965-66 were in one school district. This district had discontinued the use of these industrial arts facilities due to

its inability to obtain qualified industrial arts teachers. The administrators in this district could see no immediate solution to this problem, and these three schools also appear under the totals for the school years 1966-67 and 1967-68. The remaining schools listed in Table IX were distributed among five other school districts. Among these districts the major influence for the closing of these facilities was the lack of available industrial arts teachers. None of the districts reported closing industrial arts facilities due to lack of student needs.

The data concerning the growth of the districts' industrial arts programs as compared to the districts' growth at pertinent grade levels are presented in Table X. These data were based on information obtained from those districts unable to enlarge their industrial arts programs to meet the needs of the students due to the lack of available industrial arts teachers. The expansion of the industrial arts programs in these districts was desirable for two reasons. First, more classes in industrial arts were needed to fulfill the needs of those students unable to enroll in the existing industrial arts program, and, second, to initiate new or more advanced areas of industrial arts instruction to meet the needs of the students.

These data are presented with the total number of districts unable to enlarge their industrial arts programs at a rate comparable to the districts' growth at pertinent grade

levels for the school years 1965-66 through 1967-68. The data represent only those school districts unable to make needed industrial arts program expansion due to the lack of available industrial arts teachers.

TABLE X

NUMBER OF SCHOOL DISTRICTS UNABLE TO MAKE NEEDED EXPANSION
OF THEIR INDUSTRIAL ARTS PROGRAMS DURING THE
SCHOOL YEARS 1965-66 THROUGH 1967-68

School Year	Number of Districts Unable To Make Needed Expansion
1965-66	1
1966-67	2
1967-68	4

Further analysis of the data presented in Table X reveals that one of the school districts unable to make needed expansion of its industrial arts programs appears under the totals for all three school years under study. This district is located in a large population center. Two of the other three districts included in the data in Table X are also located in the same geographical area. Four of the districts reported minor expansion of their industrial arts programs through the use of facilities not originally intended as an industrial arts instructional area. Three of these four districts reported increasing the number of students per class as a temporary means of accommodating those additional students expressing a desire to enroll in an industrial arts course.

The remaining districts were either experiencing no overall district growth or were experiencing growth at the grade levels below those pertinent to their industrial arts programs. Sixteen of these school districts had shown no appreciable growth at grade levels involving their industrial arts programs. Three of the sixteen school districts had built new schools during the three year period that included industrial arts facilities to replace abandoned facilities. The building program in these three school districts reflected no overall school district growth, but rather the up-dating of existing facilities.

No definite information could be obtained as to industrial arts teacher availability having effected industrial arts program growth in the twenty-four districts surveyed. Those districts showing a comparable growth of their industrial arts programs were also the districts experiencing an overall population growth. Only two of the school districts located in the large population centers had not experienced appreciable increases in their school populations.

The data concerning the course offering in the twenty-four school districts were analyzed, and are presented in Table XI. These data are given by the total number of school districts offering a particular industrial arts course in the school years 1965-66 through 1967-68.

Further study of the data presented in Table XI reveals a steady decrease in the number of different industrial arts

TABLE XI

INDUSTRIAL ARTS COURSES OFFERED IN THE TWENTY-FOUR SCHOOL
DISTRICTS SURVEYED FOR THE SCHOOL YEARS
1965-66 THROUGH 1967-68

Title of Course	Number of School Districts Offering The Course During the School Year Indicated		
	1965-66	1966-67	1967-68
General Shop	16	16	18
Introductory General Shop	11	9	9
Drafting	9	9	11
Woodworking	8	6	4
Machine Woodworking	5	5	4
Machine Metalworking	4	3	3
Metalworking	4	4	4
Machine Drafting	3	2	2
Handicrafts	3	2	2
Electricity/ Electronics	2	2	2
Power Mechanics	2	2	2
Architectural Drafting	2	1	1
Welding	2	1	1
Printing	1	1	1

courses taught in the twenty-four school districts. Five of the twenty-four school districts reported a decrease in the number of industrial arts courses in their programs due to the loss of industrial arts staff members. Two school districts decreased the number of different courses due to a consolidation of school facilities.

Summary

The effects of industrial arts teacher availability upon the status of the industrial arts programs in the twenty-four school districts surveyed were examined in this chapter. The data presented revealed the effects were identifiable and increasing in number.

The data concerning the utilization of industrial arts facilities indicated availability of industrial arts teachers to be a problem of concern in five of the twenty-four school districts surveyed during the 1967-68 school year. The number of schools with industrial arts facilities not being utilized had more than tripled in number during the last three school years. The number of school districts with closed industrial arts facilities increased from two school districts in the school year 1965-66 to five school districts in the 1967-68 school year.

Further examination of the data revealed four of the twenty-four school districts unable to enlarge their industrial arts programs to meet the needs of the students due to a lack

of available industrial arts teachers. Three of the school districts were located in a large population center, and these three districts were also experiencing a school population growth.

The industrial arts programs' course offerings in the twenty-four school districts were studied, and data were obtained that indicated that fifteen of the districts' programs were offering less than three different industrial arts courses. Five of the seven school districts offering three or more industrial arts courses in their programs were located in a large population center. Only one of the seven school districts offering one industrial arts course was located in this same area. This district had also reported a shortage of two industrial arts teachers for the 1967-68 school year. The lack of available industrial arts teachers was reported by nine of the twenty-four school districts as a major influence in offering more areas of industrial arts instruction.

CHAPTER V

SUMMARY, FINDINGS, AND CONCLUSIONS

Summary

The purpose of this study was twofold: First to determine the availability of industrial arts teachers in the North Texas area; and second, to ascertain the effects of this availability upon the industrial arts programs in the public schools in the North Texas area.

The study was limited to data obtained in twenty-four school districts in the North Texas area and from information obtained from three institutions, engaged in industrial arts teacher education, serving the North Texas area.

Four studies were found with information relating to the purpose of this study. One of the more recent of these was a study reported by the Texas Education Agency in 1966. This study was made by the Division of Teacher Education and Certification and was concerned with the supply and demand of teachers in Texas for the school year 1964-65. Another of the recent and related studies was made by Moore concerning the qualifications and status of industrial arts teachers in Texas in 1967.

The data concerning the availability of industrial arts teachers were obtained by the completion of a questionnaire

with information obtained from appropriate persons in each of the twenty-four school districts. Additional information concerning the factors influencing industrial arts teacher availability was obtained from a questionnaire completed by appropriate persons at Abilene Christian College, East Texas State University, and North Texas State University.

The data obtained from the questionnaires were analyzed, and a presentation of the availability of industrial arts teachers in the North Texas area was made. Interpretation of the data indicated the availability of industrial arts teachers to be a problem of growing concern to school administrators in the North Texas area. One-half of the twenty-four school districts surveyed were operating with a shortage of industrial arts teachers for the 1967-68 school year. The area of industrial arts instruction effected most by this shortage was the general shop, with a total shortage of ten teachers for the 1967-68 school year.

Further analysis of the data established three major factors influencing the availability of industrial arts teachers. First, the lack of salary funds was found to be an influence upon the availability of industrial arts teachers in the North Texas area. Data concerning this influence revealed a total of four school districts reporting this as a major influence on their shortage of industrial arts teachers for the 1967-68 school year. Second, the lack of industrial arts facilities was established as an influence upon the

availability of industrial arts teachers in the North Texas area. Two of the school districts reporting a lack of industrial arts facilities for the 1967-68 school year were also experiencing a lack of salary funds for the same period. Two of the school districts reporting a lack of facilities were experiencing a growth in their school population and were planning to have new facilities open for the 1968-69 school year. Third, the lack of industrial arts teachers available for employment was also determined to be an influence upon the availability of industrial arts teachers in the North Texas area. The influence upon the availability of industrial arts teachers was often related to the salary paid by the district.

The information obtained from the three institutions engaged in industrial arts teacher education further emphasized the problem of a lack of teachers available for employment in the North Texas area. Two of these institutions reported a demand exceeding the supply of industrial arts teachers by a ratio of two to one, with the third institution having five requests to employ for each industrial arts teacher education graduate.

The effects of industrial arts teacher availability upon the industrial arts programs in the North Texas area were obtained through further analysis of the data. Data concerning the industrial arts courses offered in the twenty-four school districts revealed seven of the schools offering only one area

of industrial arts instruction. Nine of the twenty-four school districts reported the lack of industrial arts teachers as the cause for not offering more areas of instruction in their industrial arts programs.

Findings

Based on the data obtained the following findings are presented:

1. During the 1967-68 school year there was a shortage of industrial arts teachers in fifty per cent of the twenty-four school districts surveyed.

2. The total shortage of industrial arts teachers in the twenty-four districts surveyed increased by 110 per cent between the school years 1966-67 and 1967-68.

3. The area of industrial arts instruction where the greatest shortage of teachers existed in the twenty-four school districts surveyed was the general shop.

4. The lack of salary funds was a major influence upon the availability of industrial arts teachers in the North Texas area.

5. The lack of industrial arts facilities was a major influence upon the availability of industrial arts teachers in the North Texas area.

6. The lack of industrial arts teachers available to be employed was a major influence upon the availability of industrial arts teachers in the North Texas area.

7. The availability of industrial arts teachers had a direct effect upon the utilization of industrial arts facilities in the North Texas area.

8. The availability of industrial arts teachers had a direct effect upon the growth of the industrial arts programs in the North Texas area.

9. The availability of industrial arts teachers limited the number of different industrial arts courses offered in the North Texas area.

Conclusions

The conclusions, based on the data obtained, are presented as follows:

1. Because of the data obtained concerning industrial arts teacher availability in the twenty-four districts surveyed, it was concluded that a shortage of industrial arts teachers existed in the North Texas area.

2. According to the findings, it was concluded that the lack of industrial arts teacher education graduates available for employment as teachers was a major influence upon the shortage of industrial arts teachers in the North Texas area.

3. The availability of industrial arts teachers was a direct influence upon the status of a school district's industrial arts program in the North Texas area.

4. Based on the trend indicated by the findings of this study, it was concluded that the shortage of industrial arts

teachers in the North Texas area would become more critical in the future.

5. Based on the findings of this study, and insofar as the school districts surveyed were representative of school districts in other areas of the state, it was concluded that a shortage of industrial arts teachers existed throughout Texas.

Recommendations

The following recommendations are made from the conclusions drawn from the study:

1. Industrial arts teachers in the North Texas area should encourage their students to investigate the opportunities of a career in the teaching profession, particularly in the field of industrial arts.

2. Student industrial arts organizations in the public schools of the North Texas area should include in their programs the dissemination of information concerning industrial arts teacher education programs and the scholarships available at various institutions to students in such programs.

3. Comparable studies should be made in other areas of Texas to see if similar situations that brought about the findings of this study exist.

4. A coordinated state-wide effort should be made by industrial arts teachers' professional organizations to increase the number of industrial arts teacher education graduates available for employment as industrial arts teachers.

APPENDIX A

A LIST OF THE SCHOOL DISTRICTS SURVEYED FOR THIS STUDY

Bowie Independent School District, Montague County.
Bonham Independent School District, Fannin County.
Burkburnett Independent School District, Wichita County.
Castleberry Independent School District, Tarrant County.
Commerce Independent School District, Hunt County.
Decatur Independent School District, Wise County.
Denison Independent School District, Grayson, County.
Denton Independent School District, Denton, County.
Duncanville Independent School District, Dallas County.
Gainesville Independent School District, Cooke County.
Graham Independent School District, Young County.
Grand Prairie Independent School District, Dallas County.
Grapevine Independent School District, Tarrant County.
Greenville Independent School District, Hunt County.
Holliday Independent School District, Archer County.
Iowa Park Independent School District, Wichita County.
Irving Independent School District, Dallas County.
Jacksboro Independent School District, Jack County.
Keller Independent School District, Tarrant County.
Lewisville Independent School District, Denton, County.
McKinney Independent School District, Collin County.
Paris Independent School District, Lamar County.
Weatherford Independent School District, Parker County.
White Settlement Independent School District, Tarrant County.

APPENDIX B

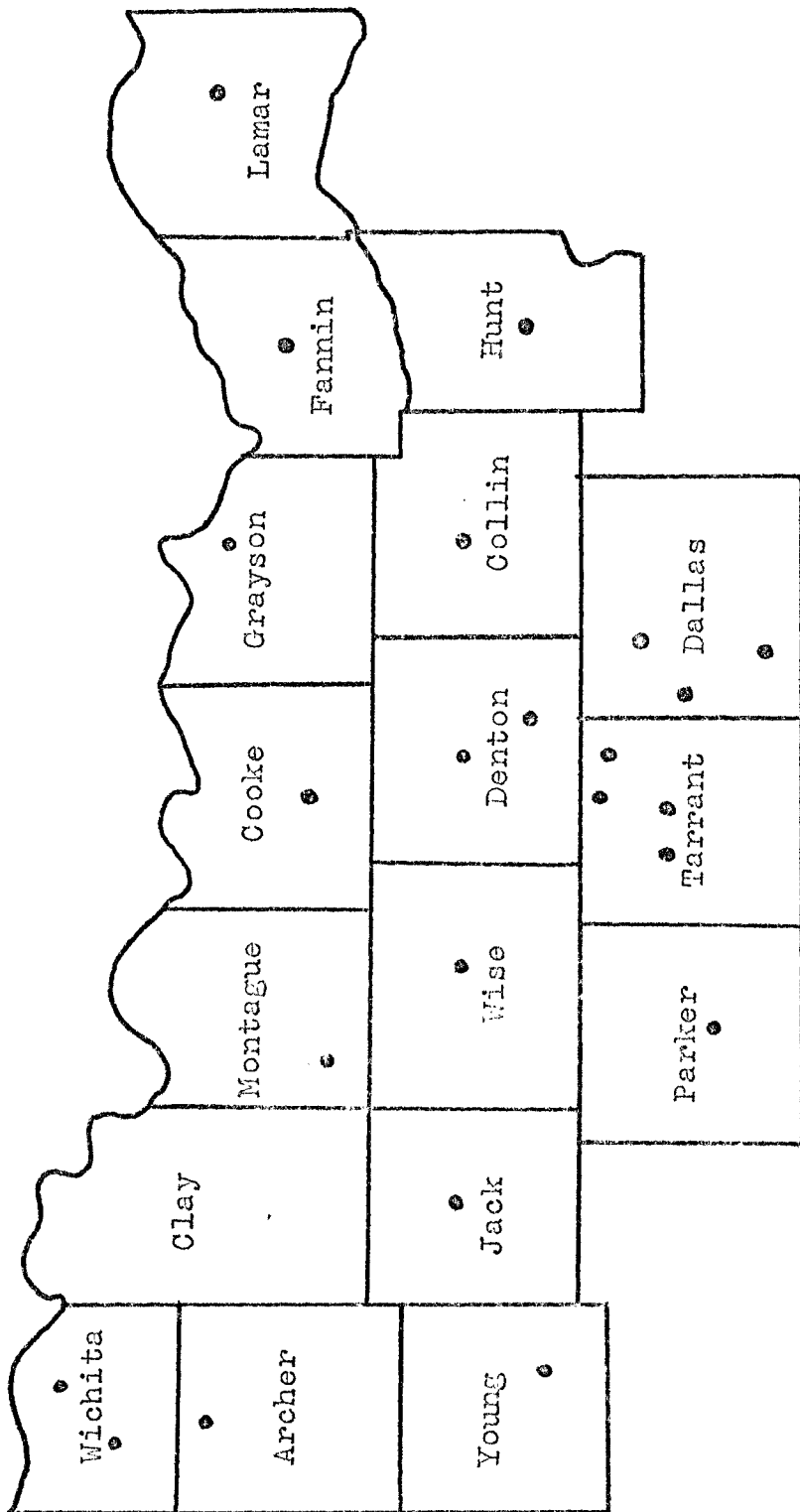


Fig. 1--Spot county map of the North Texas area showing the location of the 24 school districts included in this study.

QUESTIONNAIRE

Name of school district _____

Date _____

Person(s) contacted

(1) _____ Title _____

(2) _____ Title _____

(3) _____ Title _____

(4) _____ Title _____

1. District Enrollment

School Year 1965-66 Jr. High _____ High School _____

District Total _____

School Year 1966-67 Jr. High _____ High School _____

District Total _____

School Year 1967-68 Jr. High _____ High School _____

District Total _____

2. District Industrial Arts Program Enrollment

School Year 1965-66 Jr. High _____ High School _____

School Year 1966-67 Jr. High _____ High School _____

School Year 1967-68 Jr. High _____ High School _____

3. Number of teachers in the industrial arts program in the district in the school years indicated

School Year 1965-66 Jr. High _____ High School _____

School Year 1966-67 Jr. High _____ High School _____

School Year 1967-68 Jr. High _____ High School _____

4. Number of industrial arts teachers that were needed and were not available to fulfill the needs of a desirable industrial arts program in the district in the school years indicated

School Year 1965-66 Jr. High _____ High School _____

School Year 1966-67 Jr. High _____ High School _____

School Year 1967-68 Jr. High _____ High School _____

5. Causes of teacher shortages in the district industrial arts program in the school year indicated

School Year 1965-66 () Lack of salary funds
 () Lack of facilities for instructional areas
 () Lack of teachers available for employment
 () Other reasons _____

School Year 1966-67 () Lack of salary funds
 () Lack of facilities for instructional areas
 () Lack of teachers available for employment
 () Other reasons _____

- School Year 1967-68 () Lack of salary funds
- () Lack of facilities for instructional areas
- () Lack of teachers available for employment
- () Other reasons _____

6. Areas of instruction in the industrial arts program where teacher shortage existed in the school year indicated

School Year 1965-66
 Jr. High _____
 High School _____

School Year 1966-67
 Jr. High _____
 High School _____

School Year 1967-68
 Jr. High _____
 High School _____

7. Projected industrial arts teacher needs in addition to present staff for the school year 1968-69

Jr. High _____ High School _____
 Areas of instruction where projected needs will exist
 Jr. High _____ High School _____

8. Number of schools in the district with industrial arts instructional areas not being utilized in the school years indicated

School Year 1965-66

Jr. High _____ Number of areas _____

Type of instructional areas _____

High School _____ Number of areas _____

Type of instructional areas _____

School Year 1966-67

Jr. High _____ Number of areas _____

Type of instructional areas _____

High School _____ Number of areas _____

Type of instructional areas _____

School Year 1967-68

Jr. High _____ Number of areas _____

Type of instructional areas _____

High School _____ Number of areas _____

Type of instructional areas _____

9. Number of schools in the district in the school year indicated

School Year 1965-66 Jr. High _____ High School _____
 School Year 1966-67 Jr. High _____ High School _____
 School Year 1967-68 Jr. High _____ High School _____

10. Number of schools in the district with an industrial arts instructional area in the school years indicated

School Year 1965-66 Jr. High _____ High School _____
 School Year 1966-67 Jr. High _____ High School _____
 School Year 1967-68 Jr. High _____ High School _____

11. Number of schools planned or under construction in the district at the present time

Jr. High _____ High School _____

12. Number of schools planned or under construction in the district with an industrial arts instructional area

Jr. High _____ High School _____

13. Courses offered in the industrial arts program of the district in the school years indicated

Introductory Courses Grades 7 and 8

	School Year		
	1965-66	1966-67	1967-68
Ceramics	_____	_____	_____
Drafting	_____	_____	_____
Electricity	_____	_____	_____

	School Year 1965-66	1966-67	1967-68
General Shop	_____	_____	_____
Handicrafts	_____	_____	_____
Leathercraft	_____	_____	_____
Metalworking	_____	_____	_____
Plastics	_____	_____	_____
Woodworking	_____	_____	_____
General Courses Grades 9 Through 12			
Drafting	_____	_____	_____
Electricity	_____	_____	_____
Graphic Arts	_____	_____	_____
Handicrafts	_____	_____	_____
Metalworking	_____	_____	_____
Power Mechanics	_____	_____	_____
General Shop	_____	_____	_____
Woodworking	_____	_____	_____
Advanced Courses Grades 10 Through 12			
Architectural Drafting I	_____	_____	_____
Architectural Drafting II	_____	_____	_____
Basic Electronics	_____	_____	_____
Ceramics	_____	_____	_____
Industrial Materials Manufacturing Processes	_____	_____	_____

	School Year		
	1965-66	1966-67	1967-68
Jewelry	_____	_____	_____
Leatherworking	_____	_____	_____
Machine Drafting I	_____	_____	_____
Machine Drafting II	_____	_____	_____
Machine Metalworking I	_____	_____	_____
Machine Metalworking II	_____	_____	_____
Machine Woodworking I	_____	_____	_____
Machine Woodworking II	_____	_____	_____
Photography I	_____	_____	_____
Photography II	_____	_____	_____
Plastics	_____	_____	_____
Pre-engineering Descriptive Geometry	_____	_____	_____
Pre-engineering Drafting	_____	_____	_____
Printing I	_____	_____	_____
Printing II	_____	_____	_____
Sheet Metalworking	_____	_____	_____
Technical Drafting I	_____	_____	_____
Technical Drafting II	_____	_____	_____
Welding	_____	_____	_____

14. Special courses (TEA approved) being offered in the district as part of the industrial arts program, or to be offered in the school 1968-69 (noted as such)

Name of Course _____

Course Content _____

Grade Level(s) _____ Prerequisite _____

Name of Course _____

Course Content _____

Grade Level(s) _____ Prerequisite _____

15. Which factor has the greatest influence in the addition of new areas of instruction, or the expansion of present areas in the industrial arts program of the district
- Facilities and equipment _____
- Community or social influence _____
- Funds for teacher salaries _____
- Student needs _____
- Teachers available for employment _____
- Teachers qualified to instruct in the new or expansion areas _____

16. Do you wish to be sent a summary of this study?

(1) _____ Mailing Address _____

(2) _____ Mailing Address _____

(3) _____ Mailing Address _____

(4) _____ Mailing Address _____

APPENDIX D

Dr. Welcome E. Wright
Department of Industrial Education
East Texas State University
Commerce, Texas

Dear Sir:

At present I am conducting a study to ascertain the effect of teacher availability on the industrial arts programs of the public schools in the North Texas area. As a part of this study I am gathering information pertaining to graduates, certified to teach in the area of industrial arts for the school years 1965-66 through 1967-68.

Enclosed is a stamped, addressed card with a short form questionnaire that, when completed, will furnish information that will be a vital part of the findings of the study. I am sure that the very nature of the service that your department renders will emphasize the importance of this type of research.

Your cooperation will be greatly appreciated.

Sincerely yours,

Artre H. Rusk
Graduate Student

Enclosure

QUESTIONNAIRE

EAST TEXAS STATE UNIVERSITY
INDUSTRIAL EDUCATION DEPARTMENT

Year	Number of Graduates Certified to Teach Industrial Arts	Number of Requests for Industrial Arts Teachers
1965	_____	_____
1966	_____	_____
1967	_____	_____

Mr. Jerry Drennan
Department of Industrial Education
Abilene Christian College
Abilene, Texas

Dear Sir:

At present I am conducting a study to ascertain the effect of teacher availability on the industrial arts programs of the public schools in the North Texas area. As a part of this study I am gathering information pertaining to graduates, certified to teach in the area of industrial arts for the school years 1965-66 through 1967-68.

Enclosed is a stamped, addressed card with a short form questionnaire that, when completed, will furnish information that will be a vital part of the findings of the study. I am sure that the very nature of the service that your department renders will emphasize the importance of this type of research.

Your cooperation will be greatly appreciated.

Sincerely yours,

Artre H. Rusk
Graduate Student

Enclosure

QUESTIONNAIRE

ABILENE CHRISTIAN COLLEGE
INDUSTRIAL EDUCATION DEPARTMENT

Year	Number of Graduates Certified to Teach Industrial Arts	Number of Requests for Industrial Arts Teachers
1965	_____	_____
1966	_____	_____
1967	_____	_____

BIBLIOGRAPHY

Articles

National Education Association, "A New Look at Teacher Supply and Demand," National Education Association Research Bulletin, XLII (December, 1966), 117-123.

National Education Association, "The Selective Shortage of Teachers," National Education Association Research Bulletin, XLI (November, 1966), 72-76.

Schmitt, Marshall L. and W. Dale Chismore, "Definitions for Industrial Arts," Industrial Arts and Vocational Education, LVI (March, 1967), 103-104.

Reports

Schmitt, Marshall L. and Albert L. Pelley, Industrial Arts Education - A Survey of Programs, Teachers, Students, and Curriculum, Washington, Government Printing Office, 1966.

Texas Education Agency, Division of Teacher Education and Certification, Report on Teacher Supply and Demand in Texas, Texas Education Agency, 1966.

Bulletins

Texas Education Agency, Public School Directory 1967-68, Bulletin Number 674, Austin, Texas Education Agency, 1967.

Unpublished Materials

Dial, Jack P., "A Study of the Qualifications and Status of 190 Industrial Arts Teachers in the Elementary, Junior High, and Senior High Schools of Texas," unpublished master's thesis, Department of Industrial Arts, North Texas State University, Denton, Texas, 1953.

Glenn, Robert H., "An Analysis of the Qualifications and General Status of Industrial Arts Teachers Employed in the Secondary Schools of Arkansas During the 1953-54 School Year," unpublished master's thesis, Department of Industrial Arts, North Texas State University, Denton, Texas, 1954.

Moore, Billy M., "A Study of the Qualifications and Status of Industrial Arts Teachers in Texas," unpublished master's thesis, Department of Industrial Arts, North Texas State University, Denton, Texas, 1967.