AN ANALYSIS OF MALE-FEMALE ENROLLMENT TRENDS IN OKLAHOMA VOCATIONAL EDUCATION PROGRAMS DURING THE PERIOD 1972 - 1979

By

MOHAMMAD KHALIL-UR REHMAN

Bachelor of Arts

University of the Panjab

Lahore, Pakistan

1970

Submitted to the Faculty of the Graduate College of the Oklahoma State University in partial fulfillment of the requirements for the Degree of DOCTOR OF EDUCATION December, 1980



1980 D R345a Cop.2

.



AN ANALYSIS OF MALE-FEMALE ENROLLMENT TRENDS IN OKLAHOMA VOCATIONAL EDUCATION PROGRAMS DURING THE PERIOD 1972 - 1979

Thesis Approved:

ušil 2 man Dean of the Graduate College

ACKNOWLEDGMENTS

The author wishes to express his sincere appreciation to the doc= toral committee, Dr. Lloyd D. Briggs, committee chairman, Dr. Donald Phillips, Dr. William D. Frazier, Dr. Richard Tinnell, Dr. Lloyd Wiggins and Dr. Herbert M. Jelley.

I thank Dr. Lloyd Briggs, who served as chairman of the author's doctoral committee, willingly gave his special attention to improve this thesis. His encouragement and motivation has provided an enormous help to successfully complete this thesis. Good feelings about Dr. Briggs can never be sufficiently described with these written words.

Sincere appreciations are also extended to Dr. William D. Frazier for his extensive help in development of this thesis. I thank him for the enthusiasm and readiness he demonstrated whenever he was called upon.

Dr. Richard Tinnell's guidance is heartly recognized because of his readiness to help and open door policy he demonstrated throughout the period of the development of this thesis and continued untill its com-

Sincere appreciation and thank you may be the words used to best describe my expressions to all those who helped to make this study possible.

I thank the panel of experts for their time and advise they provided when they were consulted for classification of programs. All of them including Dr. Fern Green, Janice Burnett, John Freidemann, Paula Smith, and Linda Wilson, are worthy of praise and appreciation, and of

course, Paula Smith deserves more because of her help in initiating, planning and scheduling of this meeting.

I thank Mr. Edward G. Hollman (librarian) for extraordinary effort in retrieval of professional references. He always showed more readiness than anybody else.

I thank my wife Zahida Rehman, for helping in computations, locating references, and typing the rough draft for this study.

I thank Mrs. Rehana Asghar for providing assistance in computational review of this study, She willingly provided this service even though She was advised bed-rest before little Shahla (Dr. Asghar's daughter) was due.

I thank Dr. Tom Thomas of the State Department of Vocational and Technical Education for his assistance in making the official documents readily available whenever their reference was needed for this study. Moreover, I appreciate his efforts in producing the figures in graphic form.

I thank my brother Mr. Habib Rahman, a graduate student in Chemical Engineering, for taking a full charge of the family responsibilities during my studies, thus providing enough time to conduct this study.

I thank Mr. Mohammad Chaudhry of system designs for editing a portion of this study.

I thank Dean Norman N. Durham of the Graduate College for encouragement and the guidance which proved to be the major supportive factor in starting and completing this study.

The author realizes that during his studies at Oklahoma State University he has been associated with many nice people who have helped others as a part of their character and he realizes that he was lucky to be associated with these people.

iv

TABLE OF CONTENTS

Chapter	r	Page
I.	INTRODUCTION	1
	Statement of the ProblemNeed for the StudyPurpose of the StudyHypotheseDefinition of Terms	4 4 5 7
II.	REVIEW OF RELATED LITERATURE	
	Identification of the Need Factors which led to P.L. 94-482 Increase in Numbers of Working Women Results, Methodology and Research Educational Comparison Women and Vocational Education What does P.L. 94-482 Include	8 9 10 11 11 12 15 29
III.	METHODOLOGY	31
	Selection of Subjects	31 32 34
IV.	RESULTS	36
	Introduction	36 37
	Enrollments	38
	Comprehensive High Schools	40
	and Rural Programs	42
	Vocational Programs Enrollment	49
	Adult Vocational Programs	50 51

v

Chapte	r	Page
۷.	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	59
	Summary of Findings	60 61 61
VI.	A SELECTED BIBLIOGRAPHY	62
VII.	APPENDIX A - DATA COLLECTION INSTRUMENT	64
VIII.	APPENDIX B - RAW DATA	66
IX.	APPENDIX C - PANEL OF EXPERTS	86
х.	APPENDIX D - PROGRAM CLASSIFICATIONS	88

LIST OF TABLES

Table	Page
Ι.	Chi-Square Analysis of Sex Difference in Vocational Program Enrollment
II.	Percentage of Minority Enrollment in Specific programs and "t" Test Analysis of Differences
III.	Chi-Square Analysis of Sex Differences in AVTS Program Enrollment
IV.	Chi-Square Analysis of Sex Differences in Compre- hensive High School Vocational Programs 42
V.	Chi-Square Analysis of Sex Differences in Tra- ditionally Male Oriented Vocational Program Enrollment in Urban Areas
VI.	Chi-Square Analysis of Sex Differences in Tra- ditionally Male Oriented Vocational Programs Located in Suburban Areas
VII.	Chi-Square Analysis of Sex Differences in Tra- ditionally Male Oriented Vocational Programs Located in Rural Areas
VIII.	Chi-Square Analysis of Sex Differences in Traditionally Female Oriented Vocational Programs Located in Urban Areas
IX.	Chi-Square Analysis of Sex Differences in Traditionally Female Oriented Vocational Programs Located in Suburban Areas
х.	Chi-Square Analysis of Sex Differences in Traditionally Female Oriented Vocational Programs Located in Rural Areas
XI.	Chi-Square Analysis of Sex Differences in Secondary School Vocational Programs
XII.	Chi-Square Analysis of Sex Differences in Full-Time Adult Vocational Programs

Table	P	age
XIII.	Percentage of Minority Enrollment by Orientation of Program	52
XIV.	Percentage of Minority Enrollment by Orientation in Area Vocational Schools and High Schools	52
XV.	Percentage of Minority Enrollment by Orientation in Urban, Suburban, and Rural Schools	53
XVI.	Percentage of Minority Enrollment by Orientation in Secondary and Adult Programs	53
XVII.	Increase in Enrollments	54

LIST OF FIGURES

Figure		Page	
1.	Male/Female Total Enrollment Analysis	55	
2.	Male/Female Enrollment Analysis by Types of School	56	
3.	Male/Female Enrollment Analysis by Location of School	57	
4.	Male/Female Enrollment Analysis by Level of Program	58	

CHAPTER I

INTRODUCTION

Sexism has been defined as "a limiting role for either sex" and in the wake of the "women's movement" of the 1960's and 1970's it has emerged as an issue in American education. While addressing the organizational meeting of the Subtask Force on Sex Role Stereotyping in the schools, Thompson (1976) stated:

We treat women and men differently in our society; all societies do and always have. There are historically understandable reasons based on biological and physiological differences, the child-bearing function of the female and the greater physical strength of the male. Now, however, it is widely recognized that in a developed, technological society like ours those characteristics do not justify the extent of the differences in treatment which still prevails. Persuasive arguments have been made that the attitudes and practices which polarize women and men and exaggerate their differences result in a denial of opportunity to both sexes and create especially difficult problems in a country where equality has always been a national goal --simple justice requires us to put an end to sex role stereotyping (p. 3).

Concerns over sex role stereotyping have stimulated efforts all over the Country to reduce the different treatment of women and men to justifiable instances. As indicated by Thompson (1976), we of the late twentieth century, are living in quite a different age than the previous one in which families needed many children and "muscle-power" was the prime source of energy. In today's age, differences between the sexes relative to occupational interests and pursuits do not matter. Sex difference rarely matters to one's educability, job per-

formance, political ability, recreational needs or most roles of responsibility within the family.

Many federal rules, regulations, acts, and subsequent amendments have shown concern with this problem. Most have recommended certain steps to provide equal opportunities for citizens in order to avoid discrimination in employment and education. The following list includes some of the laws and executive orders which address opportunity:

. Age Discrimination Employment Act

. Civil Rights Act of 1964, Title VII

. Education Amendments of 1972, Title IX

. Education Amendments of 1976, Title II

- . Equal Pay Act of 1963
- . Executive Order 11246, Amended by 11375
- . Executive Order 11478

. National Labor Relations Act

. Regualtions of the Bureau of Apprenticeship and Training

. Women's Educational Equity Act of 1974

The Education Amendments of 1976 refer directly to this problem. These amendments mandate that a study be made of the extent of sex discrimination and sex stereotyping in vocational education. They require that efforts toward reducing sex discrimination and sex stereotyping both in training programs and in the occupations to which they lead be monitored by state agencies. Some of the positive actions required by these amendments to reduce sex stereotyping and discrimination in vocational education programs were aggregated by Harrison (1978):

 Taking action to create awareness of vocational education programs and activities designed to reduce sex stereotyping in all fields;

- b. Gathering, analyzing, and disseminating data on the status of men and women students and employees in vocational education programs in the States;
- c. Developing and supporting actions to correct problems uncovered through the operation of b above;
- d. Reviewing grant distribution by the State board to assure that the needs and interests of women are considered in projects benefited under the Act;
- e. Reviewing all the State's vocational education programs for sex bias;
- f. Monitoring the implimentation of Law prohibiting sex discrimination in all of the State's hiring, firing, and promotion procedures regarding vocational education;
- g. Reviewing and providing recommendations regarding the overcoming of sex stereotyping and sex bias in vocational education programs for the annual program plan and report;
- h. Assisting LEA's and others in improving vocational education opportunities for women; and,
- i. Making available to a number of specified agencies and councils, the Commissioner of Education, and the general public, information developed pursuant to the activities listed above (p. 3).

One of the reasons which led Congress to pass such laws and to include such specific provisions in the amendments was a report submitted to the ninety-fourth Congress of the United States, Subcommittee on Education and Labor (1975). This report presented findings of the subcommittee of the status of women in vocational education, the enforcement provisions of anti-discrimination legislation, and the results of a recently completed civil rights survey. A detailed research report entitled "Women in Vocational Education" was appended. That report examined the status of women in the world of work, sexism in society and education, and related problems for women in education.

Concerns of this report are reflected in the Vocational Amendments of 1976, Public Law 94-482, which were signed into law on October 12, 1976. Title II of P.L. 94-482 is a major revision of the Vocational Amendments of 1968. This Title is concerned with furnishing equal educational opportunities in vocational education programs to persons of both sexes and with eliminating sex discrimination and sex stereotyping from all vocational programs. Title II mandates each state to reserve \$50,000 each fiscal year for supporting the employment of full-time personnel to assist the State Board for Vocational Education in fulfilling these purposes of the Act.

Statement of the Problem

Though steps have been taken to eliminate sex role stereotyping and sex discrimination from vocational education programs in Oklahoma, little information has been available to determine the success of such efforts. Data to indicate changes in sex distribution among the State's vocational enrollments since these efforts were initiated have been heretofore nonexistent.

Need for the Study

In addition to the above-mentioned federal legislation requirement for evaluating vocational programs to determine progress being made toward reducing sex discrimination and sex stereotyping, a special request was made by the State Department of Vocational and Technical Education (1978), asking for the following specific information:

Review the status of programs in overcoming sex bias and sex stereotyping in vocational education programs for the annual plan and accountability report. - - Analyze enrollment data. Compare the base data of 1977 and make recommendations. - - the equity staff is requesting a statistical analysis be completed in FY 79 which will provide a complete analysis of the data (p. 197). The above-mentioned request gave rise to this specific study and cooperation has been provided by the Oklahoma State Department of Vocational and Technical Education for conducting the research. Moreover, the U.S. Office of Education stressed the need to show tangible results rather than merely activities and policies in regard to the elimination of sex bias and sex stereotyping in the State Plan and Accountability Reports (Cornelson, 1979).

Purpose of the Study

The purpose of this study was to determine whether or not a statistically significant change in the sex distribution of enrollments in programs of vocational education in Oklahoma has occured since the educational equity operation was initiated.

Hypotheses

- There is no statistically significant difference in sex distribution in vocational programs when enrollments before and after 1976 are compared.
- 2. There is no statistically significant difference in sex distribution in the specific program areas listed in Table II when enrollments before and after 1976 are compared.
- 3. A. There is no statistically significant difference in sex distribution in Area Vocational Technical School programs when enrollments before and after 1976 are compared.
- 3. B. There is no statistically significant difference in sex distribution in comprehensive high school vocational

programs when enrollments before and after 1976 are compared.

- 4. A. 1. There is no statistically significant difference in sex distribution of enrollments in traditionally male-oriented programs located in urban areas.
- 4. A. 2. There is no statistically significant difference in sex distribution of enrollments in traditionally male-oriented programs located in **sub**urban areas.
- 4. A. 3. There is no statistically significant difference in traditionally male-oriented vocational programs located in rural areas when enrollments before and after 1976 are compared.
- 4. B. 1. There is no statistically significant difference in sex distribution of enrollments in traditionally female-oriented vocational programs in urban areas.
- 4. B. 2. There is no statistically significant difference in sex distribution of enrollments in traditionally female-oriented vocational programs located in suburban areas.
- 4. B. 3. There is no statistically significant difference in sex distribution of enrollments in traditionally female-oriented vocational programs located in rural areas.
- 5. A. There is no statistically significant difference in sex distribution in secondary school vocational programs when enrollments before and after 1976 are compared.
- 5. B. There is no statistically significant difference in sex distribution in full-time adult vocational programs when enrollments before and after 1976 are compared.

Definition of Terms

<u>Traditional Programs</u>: Programs, which have historically been dominated by one sex or another. For an example, auto mechanics may, traditionally, have been dominated by males and cosmetology, by females.

Sex Stereotyping: Having some characteristics associated with one sex or the other.

Sex Bias: The tendency to strongly associate certain behavioral characteristics to one sex or another.

<u>AVTS Programs</u>: Area vocational technical school (AVTS) programs operated in Oklahoma are those which offer only vocational-technical programs at secondary and adult level.

Secondary Programs: Those programs which enroll full-time students in grades 9, 10, 11, and 12.

Adult Programs: Programs operated for persons no longer enrolled in secondary schools.

<u>Comprehensive High School:</u> A school offering all forms of secondary education including vocatioanl-technical, general education and others, at secondary level.

<u>Urban Schools:</u> Schools located in big cities where the population was estimated to be over 60,000. The cities included in this category were: Oklahoma City, Tulsa, Lawton and Norman.

<u>Suburban Schools:</u> Schools located in small cities where the population was estimated to be less than 60,000 but more than 10,000. The towns included in this category were: Midwest City, Enid, Muskogee, Stillwater, Shawnee, Del City, Bartlesville, Ponca City, Enid, Muskogee, Moore, Ardmore, Bethany, Duncan, McAlester, Broken Arrow, Ada, Chickasha, Okmulgee, Sapula, El Reno, Miami, Yukon, Sand Springs, and Durant.

<u>Rural Schools</u>: Schools located in small towns where the population was estimated to be less than 10,000. The rest of the schools which were not listed in above-mentioned two categories were defined as rural schools.

<u>Majority Students (sex)</u>: Female students enrolled in traditionally female-oriented programs as classified in Appendix D, are known to be majority students in that program. Similarly the male students enrolled in traditionally male-oriented programs are classified as majority students.

<u>Minority Students (sex)</u>: Male students enrolled in female-oriented programs listed in Appendix D, are classified as minority students. Similarly, the female students enrolled in male-oriented programs are classified as minority students.

CHAPTER II

REVIEW OF RELATED LITERATURE

This Chapter presents and describes information from the literature related to this study. The purpose of the study was to determine whether a significant change has occured in the sex distribution of enrollments in Oklahoma's vocational education programs since the move toward educational equity was initiated. Moreover, some background information on education equity is presented and relative to various aspects of the State and Federal requirements. The majority of this law, other related laws, and implications for the future of vocational education.

Identification of the Need

Factors Which Led to P.L. 94-482

Harrison (1978) summarized the factors which led Congress to include specifications in the amendments for sex equity in education. The author writes that the problems of sex discrimination and stereotyping in vocational education and in hiring and promotion policies in the labor force have been pointed out repeatedly. This was especially true during the hearings before the House Subcommittee on Elementary, Secondary, and Vocational Education in March, 1975. Some of the factors are listed and described in the following paragraphs.

Increase in Numbers of Working Women

The above mentioned author calculates that between 1950 and 1978 the number of working women increased by 117 percent. Moreover, there was a large increase in the percentage of working married women and those with small children.

9

According to Harrison (1958), the percentage of unmarried women has increased also, due in part to the fact that there are unmarried women. The number of women heads of households increased from 1 to 10 in 1966 to 1 in 8 in 1978. The proportion for this group would be 1 in 7 by 1980.

In addition to the economic factors, the increased number of working women is due partially to a decline in the national birth rate which has freed some women from the responsibilities of motherhood. Other factors which may account for today's greater number of working women is their higher levels of education and greater interest in the challenge and responsibility of a career.

The lower earnings of women according to Harrison (1978), also has caused concern and promoted the passage of equal opportunity laws. It was estimated that an average, fully-employed women earns approximately \$6 for every \$10 earned by her male counterpart and that such a lag exists in virtually all occupational groups. In 1955, fully employed women earned an average of 64 percent as much as fully employed men; by 1974 that percentage had dropped to 57. In 1973, the median salary for men was 11,186; for women it was \$5,772. The reason given by Harrison (1978) for this gap was simply unequal pay for the same work. However, much of the difference was due to the low paying jobs in which most women work. Men worked in a wide variety of occupations; less than 20 percent fit into the ten leading categories of predominately male occupations. By comparison, over 40 percent of the Nation's women work in occupations dominated by females, and in 17 of the leading female occupations, women account for over 90 percent of the employees.

As stated by Harrison (1978), women are heavily represented in lower paying jobs, men in higher paying ones like sales, health, and engineering. In retail trade, most women are clerks; few work in wholesale or management positions; and men earn, on the average, 65 percent more money. More women than men wind up in "semi-professional" positions such as social worker and teacher, but far fewer in high-status, high-paying professions such as law, medicine and engineering.

Results, Methodology and Research Instruments

Kerlinger (1973) suggests, while describing methodology-data collection in research reports, the following steps may be included:

- 1. Sample and sampling method
- 2. How hypotheses were tested (methodology), experimental procedures, instrumentation
- 3. Measurement of variables
- 4. Methods of analysis, statistics
- 5. Pretesting and pilot studies

In review of literature the emphasis was placed on few of the above mentioned steps.

Educational Comparison

In comparing educational attainment of women with men, women are not now less educated. As stated by Harrison (1978), the average years of schooling in 1973 was 12.1 for women compared with 12.0 for men. In 1964, women accounted for 38 percent of college student; in 1977 the figure edged over 50 percent. Nevertheless, women at every educational level earn less than men; only at the graduate degree level do they come even within 60 percent of men's earnings. In 1972, the average female college graduate earned \$8,736 per year; the average male high school graduate earned \$11,073.

A question was raised by Harrison (1978), to find if there were any exception to such patterns. Then the matter was responded that the exception to this pattern was the group of women which had pursued traditionally male dominated careers. It was further stated that while the number of women following this course was increasing, there were still few. Between 1960 and 1970, the number of women lawyers rose from seven percent to nine percent. For machinists, the number went from 1.3 percent to 3.1 percent. In 1947, only 1.6 percent of all female workers were employed in crafts and kindred jobs.

Women and Vocational Education

According to Harrison (1978), though women are slightly over half of vocational education students, they study traditionally female-oriented, low paying occupations. Forty-two percent were studying homemaking and consumer education courses while 20 percent were preparing for office work related courses (mostly secretarial and clerical). In the fields of health, 92 percent of the students in health and paramedical technology (including dental hygiene and nursing) were women; they constituted only 14 percent of those in mechanical and engineering technology.

According to Harrison (1978), the point is not that these discrepencies are the fault of vocational education. Even college women chose traditional roles disproportionately. In 1971 only 6.5 percent of college women were preparing for nontraditional careers. Thirty-six percent were earning B.A.'s in education, 2.9 percent in business and management, 0.8 percent in physical sciences. Vocational education is no better or worse than the rest of socity. Women bring to their career decisions a long chain of influence and socialization contributed to by parents, peers, the media, teachers, counselors and various other sources.

The clustering of men and women into separate occupations, according to Harrison (1978), is definitely a limitation to women. It was further stated that such clustering was a limitation to men as well. It was because of these reasons, that the new legislation was concerned that equal access to all training programs be provided and encouraged for men and women. It was further suggested by Harrison that the choice for vocational education was either to perpetuate the stereotyping and resultant inequalities, or to play an active role of support and encouragement in fostering equal access to all occupations for which vocational students train. This opportunity for vocational education was said to be a decisive one to make genuine impact on a situation that had long been in need of correction.

What Does P.L. 94-482 Include?

The Vocational Education Amendments of 1976, Public Law 94-482, was signed into law on October 12, 1976. Title II of P.L. 94-482 is a major

revision of the Vocational Education Amendments of 1968. This title is concerned with furnishing equal educational opportunities in vocational education programs to persons of both sexes and eliminating sex discrimination and sex stereotyping from all vocational programs.

The State Department of Vocational and Technical Education (1979), in its Oklahoma Annual State Plan for 1979, included a special section under the title of "Policies for Eliminating Sex Discrimination", which stated:

The Oklahoma State Department of Vocational and Technical Education shall provide equal educational opportunities in vocational education programs to persons of both sexes and eliminate sex bias and sex stereotyping from all vocational education programs (p. 83).

Subsection 1 of section G of the 1979 plan provides the guidelines for eliminating such bias and stereotyping.

G. Review the status of programs in overcoming sex bias and sex stereotyping in vocational education programs for the annual plan and accountability report. --- Analyze enrollment data. Compare the base data of FY 77 and make recommendations (p. 85).

The state agencies also are obligated to eliminate sex bias and reduce sex stereotyping in all vocational programs. The following functions and responsibilities are to cooperate and coordinate with federal efforts to overcome this problem.

The functions which Oklahoma State Department of Vocational and Technical Education (1979) implemented for FY 1979, were mentioned in its Annual Accountibility Report of 1979, included:

- A. Taking such action as may be necessary to create awareness of programs and activities in vocational education that are designed to reduce sex stereotyping in all vocational education programs;
- B. Gathering, analyzing, and disseminating data on the status of men and women, students and employees in the vocational education programs of the state;

- C. Developing and supporting actions to correct any problems brought to the attention of such personnel through activities carried out under clause (B) of this sentence;
- D. Reviewing the distribution of grants by the State Board to assure that the interests and needs of women are addressed in the projects assisted under this act;
- E. Reviewing all vocational education programs in the State for sex bias;
- F. Monitoring the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures within the State relating to vocational education;
- G. Reviewing and submitting recommendations with respect to the overcoming of sex stereotyping and sex bias in vocational education programs for the annual program plan and report;
- H. Assisting local educational agencies and other interested parties in the state in improving vocational education opportunities for women;
- I. Making readily available to the State Board, the State and National Advisory Councils on Vocational Education, the State Commission on the Status of Women, the Commissioner and the general public, information developed pursuant to this subsection (p. 2).

During the hearing before the subcommittee on post secondary education of the Committee on Education and Labor, House of Representatives, Ninety Fourth Congress of the United States (1975), many complaints were filed against sex discrimination practices. The different methods used for showing sex discrimination against women in some of the complaints filed included the following:

Complaints filed by the student government of the University of Minnisota against sex discrimination practiced by the University policies included descriptive statements by comparing financial aid provided to both sexes, including sports facilities in swimming, track, tennis, gym-, nastics and in other sports. Moreover, other comparisons were made in enrollments, facilities, uniforms, travel benefits, financial aid, other awards, coaches' salary and official benifits. The enrollments of both sexes were compared for every college.

A research study conducted in Illinois by the State Department of Education (1977), used different methods for comparing sex distribution among administrators, teachers and students. An analysis was made of the number of male and female administrators for the purpose of eliminating any discrimination in employment (recruitment, hiring, placement, and promotion of educational personnel) in the state's public elementary and secondary schools. The numbers and percentages of certificated, full-time administrative personnel, by position and sex, were compared during the period 1968-1977. For this time span, a percentage sex distribution goal was established for each administrative level in the system. The percentage was derived from an analysis of the total population strength for both sexes.

In the same study, evidence of sex discrimination in the Illinois vocational education programs was presented through a comparison of 1972/1976, male/female enrollments in vocational education. Fields of vocational education included in the study were agriculture, distributive education, health, home-making/consumer, gainful home economics, office, technical, and trade industry education.

Some Techniques Used in Evaluation

There are various kinds of the designs of evaluating systems. In every situation the specific design can be selected according to the needs of training organizations. No design, of course, will be universal for all situations. Lawson and Wentling (1975) suggest that several techniques can be combined to build a system of evaluation. The techniques mentioned

include learner assessment, the follow-up of former learners, the employer survey, the consultative team evaluation, the evaluation of education and training personnel, and the cost-related evaluation.

Learner Assessment: Sometimes, though it is desirable to have the coordinator, or another trained observer make his own appraisal of the program, yet the measurement of learner performance according to Lawson and Wentling (1975), is probably the most widely used evaluation technique. The competencies desired at the end of the program are indicated in the objectives of the program. The measurement of these competencies is the central focus of the evaluation. These competencies, according to Lawson and Wentling (1975), fall within the cognitive, affective, psychomotor, or perceptual domains. Many types of instruments were suggested to be utilized to measure student performance---paper and pencil, attitude scales, project or product ratings, and presentation ratings.

The Follow-up of Former Learners: A follow-up study involves contacting individuals subsequent to their participation in an education or training program. For vocational programs in certain states, maintaining such records is mandated by law. This contact as indicated by Lawson and Wentling (1975), can provide placement information as well as other information relating to the post-program activities of the graduate dropout. This method provides the opportunities to utilize the former learners suggestions for improvement by asking their perception of the training program's strengths and weaknesses.

The Employer Survey: If one is going to evaluate a vocational program, according to Lawson and Wentling (1975), an employer survey, usually obtained through mail, can provide yet another vantage point to learner performance. The questionnaires or rating forms are the traditional instruments for this kind of survey. The programs's strengths and weaknesses can be identified by integrating the information about the same body of learners obtained through the utilization of student measurement, student follow-up, and employer survey.

The Evaluation of Education and Training Personnel: The importance of the assessment of personnel performance was recognized by Lawson and Wentling (1975). The contribution of assessment of personnel performance to the success of a program narrated by these authors appears as under:

Many times the evaluation of faculty is thought of only in terms of tenure, promotion, or meeting a governing board mandate. However, personnel performance is probably the most important contributor to the success of a program. Although the assessment of faculty and other personnnel has traditionally been accomplished through observation and rating by a superior, evaluation through observation by peers, self-observation by way of video tape, rating by students, and the utilization of teacher performance tests can broaden the scope of faculty and ancillary personnel performance assessment (p. 34).

Specific deficiencies of staff members can be identified by such assessment; moreover, such assessment can be enormously helpful to make recommendations for remediation.

Cost Analysis Evaluation: A cost related evaluation further provides the strength to the above-mentioned techniques. A program may not be considered efficient if it does not qualify this standard. Lawson and Wentling (1975, p. 35) stated that, "Cost studies must attempt to correlate costs to outcomes, facilitating program decision making." In a time of financial constraints, the cost would be given enormous consideration in making a crucial decision of continuing or dropping a training program.

Training program evaluation techiques and methodology described in the reviewd literature were very interesting, relevant and helpful for determining and designing the methodology for this study. Since intent of this study was to evaluate the effectiveness of the Educational equity Staff activities, it was deemed appropriate to review the techniques used for evaluating other programs.

During a study for evaluating the effectiveness of training methods, Newstrom (1980), developed a contingency approach. A questionnaire was developed which allowed respondents to rate the effectiveness of nine standard training methods for achieving each of six training objectives. The methods which were evaluated by Newstrom, include: case study, conference (discussion) method, lecture (with question), business games, movie films, programmed instruction, role playing, sensitivity training (T-groups and television lecture). The training objectives examined were an expansion of the basic trio of knowledge, skills and attitudes: knowledge acquisition, changing attitudes, problem solving skills,interpersonal skills, participant acceptance and knowledge retention.

Fifty-four usable questionnaires were completed for a return rate of 27 percent. For analyzing the results, the mean effectiveness of each method for each of the six training objectices was calculated. A rank order was developed from these means to describe the relative effectiveness of each method.

In the study described above, the assumption, "though one training director can not borrow evaluation results from another; he/she can, however, borrow evaluation techniques," (p. 78). Therefore, the results of the studies were not reported; rather, methods and instruments were described. Four program evaluation steps have been recognized and described by Kirkpatrick (1959a) which were very important and most common for evaluating training programs.

These four steps are:

1. Reaction

2. Learning

3. Behavior

4. Results

Evaluating Programs in Terms of Reaction: The measuring of reaction would be similar to findings of the conferees. "How well the trainees liked a particular training program" would be an appropriate definition for reaction. This technique of measurement has varied effects on decision-making about a training program. For maximum learning, one must have interest and enthusiasm for the program.

For measuring the reaction of the participants, it is recommended that written comment sheets be used which are designed to obtain the desired reaction. The important point for consideration would be designing the form in such a way that the comments can be tabulated and quantified. To implement the reaction of enrollee, it is also suggested to have the coordinator, training director or another trained observer make his own appraisal of the session. It usually is considered more meaningful to have the combination of these two evaluations than either one by itself.

Measurement of reaction, of course, does not provide any surety that any learning has taken place. Neither is there any assurance of any behavioral change, nor an indication of the results which can be attributed to the training program. But still the results of reaction measurements may have some effect on the decision for continuation or termination of the training program. Evaluating Program in Terms of Learning: The next step in evaluation is, "Learning Step" which is much more difficult to measure than that of reaction to a program. What principles, facts, and techniques were understood and absorbed by the conferees? The limited scope of learning does not include on-the-job use of these principles, facts, and techniques.

Some suggestions were made by Kirkpatrick (1959b), to measure the learning of each conferee so that quantitative results can be determined. A before-and-after approach should be used so that any change in learning may be associated with that specific training program. In this study, some other suggestions were included: As far as possible, the learning should be measured on an objective basis. Where possible, a control group (not receiving the training) should be used to compare with the experimental group which receives the training. Where possible, a statistical analysis should be used for evaluating the training results. Statistical analysis can provide an evident proof in terms of correlation or level of confidence.

The evaluation in terms of learning requires more knowledge and skills than evaluation in terms of reaction. For planning the evaluation procedures, analyzing the data, or interpreting the results, a relatively high level of statistical knowledge is necessary. In certain cases training departments may have to seek the help of professional statisticians.

It was pointed out in this article that it would be relatively easy to plan classroom demonstrations and presentations to measure learing where the program was aimed at the teaching of skills. It was suggested to use a paper and pencil test where principles and facts were the objectives of the traing program. If a standardized test is available and the place is suitable, it is advisable to use it. If, on the other hand, it is not

possible to find a suitable standardized test, the trainer may use his own skills and ingenuity in devising his own measuring instrument.

Kirkpatrick (1959ª) has cited the example of the American Telephone and Telegraph Company which incorporated into their "Personnel Factor in Management" program, a short test measuring the sensitivity and empathy. This paper and pencil test measures learning in this company's own program. In this test, each individual is asked to rank, in order of importance, sometimes dealing with human relations. A group discussion follows this activity. After additional group activities, a determination is made of the degree increase of sensitivity at the end of the program.

The ability to measure reaction and learning in a particular program can be used to advantage in "selling" future programs and in increasing one's status and position in the organization, especially if a training director can prove that his program has been effective in terms of reaction and learning.

Evaluating Programs in Terms of Behavior: The next step of measuring the effectiveness of training programs is the behavior step. The emphasis of this section is on describing briefly some of the best experiments which have been used to measure training program effectiveness in terms of on-thejob behavior. As was predicted previously, only methods and instruments used in these studies are described here since the data, per se, is irrelevant to this particular study.

Kirkpatrick (1979) indicates that there may be a big difference between knowing principles and techniques and using them on the job. Kirckpatick's idea was supported by Robert Katz, a professor at Dartmouth. Katz (1956) recognized the problem which existed in a transition between learning and changes in behavior on the job. Katz (1956, p. 72) stated:

If a person is going to change his job behavior, five basic requirements must exist:

1. He must want to improve, 2. He must recognize his own weekness. 3. He must work in a permissive climate. 4. He must have some help from someone who is interested and skilled. 5. He must have an opportunity to try out the new learned ideas, (p. 72).

If these five conditions are met, there can be some measures for predicting the success of training programs. Kirkpatrick (1960a) suggests five guideposts to follow in evaluating training programs relative to behavior changes. These guideposts are:

- 1. A systematic appraisal should be made of on-the-job performance on a before-and-after basis.
- 2. The appraisal of performance should be made by one or more of the following groups (the more the better):
 - A. The person receiving the training
 - B. His superior or supervisors
 - C. His subordinates
 - D. His peers or other people thoroughly familiar with his performance.
- 3. A statistical analysis should be made to compare before and after performance and relate changes to the training program.
- 4. The post-training appraisal should be made three months or more after the training so that the trainees have an opportunity to put into practice what they have learned. Subsequent appraisals may add to the validity of the study.
- 5. A control group (not receiving the training) should be used (p. N.A.).

Other studies included in this review have dealt with behavioral changes as an evaluative step for the training programs. These are described below.

Meier and Pulichere (1980) described an effort to measure behav-

ioral change as a result of an assertiveness training program conducted at a research and development facility in New Jersey. This training program was conducted by an experienced external trainer from the Women's Center for group of 10 to 12 participants. Over the two and one-half years in which these programs were conducted, two trainers and 14 facilitators took part in training 206 participants in 16 sessions. The training content of the above mentioned program was standard assertiveness training fare. The program was company sponsored and was on a voluntary basis. The target population consisted of four groups whose selection was rationalized and supported by the training objectives, which was to reduce passive behavior in three populations within the engineering center of the company's facility. Minorities and women were two elements of the population. When an audit of their performance appraisal was made, it was revealed that women and minorities had a disproportionate number of comments indicating inappropriately passive behavicr. The short service employers, a third population, faced problems of passive behavior which was identified by supervisors and senior-technical employees.

An instrument was developed to be used on a before and after basis for measuring the change of behavior caused by this training program. This instrument was to be completed at the beginning of each session by the participant's immediate supervisor and then again six weeks after the conclusion of the session, thus yielding data collected over a 12-week span.

The instrument provided the opportunity to make a comprehensive comparison in behavior before and after the training program. The supervisor was asked to rate statements about the employee's behavior in typical work situation on an evaluative instrument with a five point scale. The instrument contained seven questions for each area of behavior: assertive, passive, and aggressive. The summation of supervisors' responses to each behavior may be compared in both before and after situations and an evaluation of change in behavior can be made on this basis.

Only 19 pairs of responses, out of 36, were considered usable from the three assertiveness training groups on which the instrument for measuring perceived behavior was used. The difference of 17 resulted chiefly from a change of supervisors during that period. For using the statistical test, it was realized that the number of participants measured was relatively small. It was decided therefore to use the "t-test" whose results indicated that assertiveness training did have a direct effect on the participants' behavior.

As the main objective of the program was to reduce passiveness and to replace it with assertiveness, the organization was highly pleased with these results. Not much concern was shown about the less significant decrease in aggressiveness, particularly in light of the low level of aggressiveness as measured by the initial instruments.

There was an endeavor to measure the reactions of the participants. To fulfill this objective, participants were asked to characterize the program's usefulness to themselves on the following five point scale: (poor, fair, good, very good, and excellent).

It was concluded that the assertiveness training program proved to be successful along several dimensions. The supervisor observed a significant supportive change in the participants' behavior and the participants' attitude and the participants' reaction was very positive towards the program, indicating its usefulness. It was recommended that the program, should be continued in its present form and be initiated at other company locations.

Flishman-Harris Studies: Kirkpatrick (1960a), while reviewing literature relative to measring effectiveness of training programs in terms of on-the-job behavior, found that Flishman used seven paper-and-pencil

questionnaires and surveyed a group of trainees, their supervisors and their subordinates. According to Kirkpatrick, to evaluate a training program which had been conducted at the Central School of the International Harvester Company, Fleishman developed a study design and a battery of research instruments. These were used to evaluate the effectiveness of that particular training program.

Kirkpatrick further related that a follow-up study was conducted by Harris, in the same organization, to support the date which Fleishman had discovered. He worked with experimental and control groups by using before-and-after measures of job performance. The sources for obtaining information were trainees themselves as well as their subordinates.

The Sorensen Study: Kirkpatrick (1960) describes this study as the most comprehensive research ever conducted to evaluate the effectiveness of training program in terms of on-the-job behavior. The study was conducted at the Crotonville Advanced Management Course of The General Electric Company. The title used for that study was "observed changes inquiry." The **purpose** of the "inquiry" was to answer the questions:

- 1. Have manager graduates of General Electric's Advanced Management courses of 1956 been observed to have changed in their manner of managing?
- 2. What inferences may be made from similarities and differences of changes observed in graduates and nongraduates? (p. N.A.).

The different approaches were used to measure observed behavior by asking the managers (graduates and non-graduates alike) to indicate changes they observed in their own style of managing during the previous twelve months. The second group contacted were the subordinates who were asked to describe changes they had observed in the managers during the past twelve months. Another group which was included in the inquiry con-

sisted of their peers. The peers were asked to describe changes in behavior. The last group to be included consisted of the superiors of the control and experimental groups. These individuals were asked to describe the changes which they rated in their subbordinates' behavior. These data were very helpful for comparing the observed changes of all four groups.

Instead of using the before and after approach, Sorensen used experimental as well as control groups and asked eleven of the participants to indicate what changes, if any, had taken place during the past year. Four different appoaches to measure observed changes included the man himself, his subordinates, his peers, and his superiors. The comprehensiveness of his study is positively effected by aggragating the findings of this multi-group approach.

The Moon-Hariton Study: Moon and Hariton (1958) conducted a study in the engineering section of the department of the General Electric Company, upon realizing the need for a more extensive appraisal and personnel development program. Its two main features were: (1) a revised performance appraisal system and (2) a training program designed to equip line managerial personnel to use appraisal information in helping their subordinates develop themselves. To attempt to evaluate the effectiveness of the program, a questionnaire was designed to obtain the subordinates' view about changes in their managers. It was felt that the opinions of the manager would add to the picture; therefore, they were also surveyed.

The questionnaire asked respondents to compare present conditions with what they were two years ago. In other words, instead of measuring the attitudes before and after the program, the subordinates and the managers were asked to indicate what changes had taken place during the last two years.
The Stroud Study: Stoud (1959) used several different approaches to evaluate a new Training Program called "Personal Factors in Management" at the Bell Telephone Company of Pennsylvania. These approaches were used to compare the results and obtain a more valid indication of on-thejob behavioral changes that resulted from the program.

For determining whether or not the Training Program fulfilled the objectives, the first step was the formulation of a questionnaire to be filled out by four separate groups: (1) conferees (2) controllees supervisors (not taking the courses) (3) supervisors of the conferees and (4) supervisors of the controllers.

The first part of the questionnaire was the "consisideration scale" taken from the leader behavior description questionnaire which originated in the Ohio State University leadership studies. The second part of the questionnaire was called the critical incident section in which the conferee and control groups were asked to describe four types of incidents that had occurred on the job. The third and final section of the questionnaire applied to the conferees only. Their opinion about helpfulness of the training course in achieving each of its five stated objectives.

The decision about the evaluation of this program was made after it had begun. Therefore, it was impossible to make before and after comparison, though the superiority of measuring behavior prior to the program and then comparing it to behavior measured after the program was recognized and mentioned by Miss Stoud, however, in this study, an attempt was made to get the questionnaire respondents to compare on-the-job behavior before the program with that following the program.

The above-mentioned studies attemted to evaluate the programs in terms of on-the-job behavior. The usefulness of measuring the effective-

ness of training programs in scientific and statistical terms is very necessary and worthwhile if training programs are going to increase in effectiveness and their benefits made clear to top management.

The next step of evaluating program effectiveness can be stated in terms of results. The objectives of most training programs are desired in terms of results. These results, according to Kirkpatrick (1960b), could be classified as: reduction of costs; reduction of turnover and absenteeism; reduction of grievances; increase in quantity and quality of production; or improved morale.

Kirkpatric suggests that it would be best to evaluate training programs directly in terms of results desired. It was also recommended that, for evaluating programs in terms of results, the training directors should start evaluating in terms of the results desired. It was also recommended that, for evaluating programs in terms of results, the training directors should start evaluating in terms of the three criteria mentioned earlier: determining the reactions of the trainees, attempting to measure what learning takes place, and trying to measure changes in on-the-job behaviors.

Several evaluations have been made in terms of results. They do not offer specific formulas for other training directors. Every trainer, in his specific situation, can use his own skills and ingenuity in devising his own measuring instrument. Some of such studies are cited below.

Safety Programs: A study was briefly described by Kirkpatrick (1960b) in which a comparison was made of plant safety records for the nine month period before the training program with a comparable period after the program.

About one of their safety programs, Dr. G. Roy Fugul of the General Electric Company, described a before-and-after evaluation, at a 1958

Conference of The Management Institute, University of Wisconson. The purpose of the training was to reduce the number of accidents and to increase the regularity with which all accidents, major and minor, were reported. The Training Program consisted of the usual presentations, discussions, and movies which were very dramatic in describing accidents and their implications. When a comprehensive evaluation was made of the training program it was found that the training program had not achieved the desired results.

While describing an evaluation of change model, Miner and Miner (1977) suggest that the personal manager should be capable of carrying out change evaluation studies on his own programs when appropriate. To discriminate between a good study and a poor one, the manager should have a sufficient knowledge of the logic of evaluation.

For providing knowledge about the logic of evaluation, Miner and Miner (1977, P. 329) discussed two models. The "before and after" model was compared with an "after-only model". To determine that the change, if any, was caused by the course itself, and not by some external factor, it was suggested that a control group be used carrying out the same pretest-posttest procedure. This will help to determine the effectiveness of treatment by comparing with an experimental group.

Summary

Related literature was reviewed in this chapter exploring the background and factors which led to federal legislation regarding educational equity programs and included methodologies and results of previous research studies. Some other techniques used for evaluating training programs were also reviewed.

In the review of literature it was found that the number of working women had increased during the last two decades but that their average earning were lower than those of men. It was found that women, as compared to men, were equally educated. It was found, however, that though women comprised slightly more than half of the vocational education students, most were prepared for traditionally female oriented, low paying occupations.

While evaluating the effectiveness of training programs, different methods were found to be useful and helpful for determining the methodology for this study. The most common methods being used by evaluators include, before and after methods with control and experimental groups, and an "only-after" model with and without control groups.

The four common steps of evaluation were mentioned and several studies were cited using four steps as criteria for evaluation. These steps included reaction, learning, behavior, and results.

CHAPTER III

METHODOLOGY

This chapter explains the methodology utilized in this research study to collect data and analyze results. As indicated previously, the purpose of this study was to determine whether or not a statistically significant change in the sex distribution of enrollments in programs of vocational education in Oklahoma has occured since the educational equity operation was initiated.

Selection of Subjects

A panel of experts was organized from the State Department of Vocational and Technical Education to help select and classify schools for the study. Qualifications and designations of the panel of experts appear in Appendix C. The panel met on the 7th of March 1979 to determine the status of non-traditional programs and also to determine the status of the schools relative to their being urban, suburban or rural.

The members of the committee reviewed lists of all the programs offered in Oklahoma Vocational Technical Schools, Comprehensive High Schools and in Area Vocational Technical Schools including full-time adult programs and special vocational programs for high school students and adults.

Based upon the panel's recommendation, the programs' list was divided into two categories, i. e., male oriented and female oriented. The list

of such programs appear in Appendix E. Programs in which experts observed that traditional enrollments were dominated by the male students, were labled as male oriented programs. In some future references, the abbreviation "M" was used for male and "F" was used for females.

The programs thus divided in two categories were further divided into sub-categories, for reporting to the United States Office of Education (USOE). The following further breakdown in the enrollments was decided for the above-mentioned reporting purpose:

1. Enrollments in Area Vocational Technical Schools (AVTS).

2. Enrollments in Comprehensive High Schools (HS).

3. Enrollments in the programs offered in big cities (urban).

4. Enrollments in the programs offered in medium sized towns (sub-urban).

5. Enrollments in the programs offered in small sized towns (rural).

 Enrollments in the programs offered at the secondary school level, i.e., a program designed for high school youths including grade 9 - 12.

7. Enrollments in the programs offered for adult persons who have completed or left high school and who are not described in the definitions of post-secondary or secondary programs.

Collection of the Data

Upon determining the type of breakdown to be made, the Division of System Design and Computer Services at Oklahoma State University, was contacted for retrievel of the above-mentioned data for the years 1972 - 1979. The Division of System Design and Computer Services provides contracted services of various kinds, including data storage and subsequent retrieval, system analysis, programming and data control activities associated with computer system input/out put.

The Oklahoma State Department of Vocational and Technical Education (OK Vo-tech), has developed a form (included in Appendix A) called program enrollment form, under the Vocational Education Data System (VEDS). Such reporting has been required by, Federal Law (1976), for certain states. These systems are designed to meet planning and overall needs for data.

The following data were gathered annually through Vocational Education Data system:

A. Individual Student Enrollment Record

1. Sex

- 2. Handicapping Conditions
- 3. Disadvantaged Conditions
- 4. Race
- 5. Age

B. Completion Status

1. Continuing in the program this year

- 2. Was not in the program last year
- 3. Transferred to another vocational program at the same school or in-district AVTS.
- 4. Transferred to another school.
- 5. Transferred out of vocational education into an academic or general education program at the same school.
- 6. Left School prior to completion of program but completed 50% or more of the program.

7. Left school prior to completion of the program, completed less

than 50% of the program.

8. Completed the program.

C. Follw-up

1. In College

2. Working full-time in field or a closely related field.

3. Employed part time

4. Unemployed

5. National labor force

D. Certain Routine Reports

1. Summary of enrollment by school District/Division

2. Follow-up study of graduates

3. Occupational Training Information System (supply)

E. Other reports as requested by users.

Development of the Instrument

As mentioned earlier, a breakdown in the enrollment was made to determine whether or not a change in the sex distribution of enrollments in programs of vocational education in Oklahoma has occured since the educational equity operation was initiated by Oklahoma State Department of Vocational and Technical Education.

The breakdown of enrollment was made in many major areas including enrollments in: AVTS, high schools, programs offered in urban, suburn and rural areas, programs offered at secondary and adult levels.

Analysis of the Data

As hypotheses One, Three, Four, and Five fall under the category of nominal data, the Chi-Square statistic was selected to test these hypotheses. Hypothesis Two attempts to compare mean percentages of two groups i.e., percentage of minority enrollments before and after 1976. If one is to determine if the mean performance of two groups is significantly different or while attempting to determine if the difference between two means is greater than that which could be expected from chance, Key (1974) suggests to use the "t" test as an appropriate statistical technique in this situation. Thus the dependent "t" test was used to compare the mean percentages of both the groups, i.e., minority percentage before and after 1976.

CHAPTER IV

RESULTS

Introduction

The purpose of the study was to determine whether a change in the sex distribution of enrollments in programs of vocational education in Oklahoma has occured since the educational equity operation was initiated. A total of 51 program areas which are traditionally cosidered male programs or female programs were identified for use in this study. There were 19 traditionally female programs and 32 traditionally male programs identified by the experts listed in Appendix C.

The design of this study included the development of five hypotheses. Each of these hypotheses contained one or more specific areas of comparison. The focus of comparison was always on minority enrollments "before" and "after" 1976, the year in which the educational equity emphasis was initiated in Oklahoma by the State Department of Vocational and Technical Education.

Hypothesis One was tested using the chi square statistic, by comparing sex distribution in all traditional programs before and after 1976. Hypothesis Two related to an assessment of the minority enrollments before and after 1976 in each of the selected programs. The "t" test was made to determine if the difference between the two groups was greater than that which could be expected from chance. To conduct these tests, the minority per-

centage was aggregated both before and after 1976 for each program and the mean percentages were compared.

Identifying points of difference helps in address the solution in a specific area. Moreover, a Federal regulation requires that detailed results must be revealed when Federal funds have been expended. Consequently, a specific check of minority enrollment was made to compare before and after enrollments using the educational equity emphasis beginning in 1976 as the mid-point. The specific breakout and comparison of data was made to test hypotheses numbers three, four and five in the following categories: Area vocational-technical schools versus comprehensive high schools, programs located in urban, sub-urban, or rural areas; and secondary vocational programs versus full-time adult vocational programs. In some cases, the comparisons was made separately for traditionally male-oriented and traditionally female-oriented programs.

Analysis of Sex Differences in

Vocational Programs

Hypothesis One: <u>There is no statistically significant difference</u> <u>in sex distribution within vocational programs when enrollments before</u> <u>and after 1976 are compared</u>. Table I shows the analysis of sex difference in vocational programs and breaks enrollments, for the purpose of comparison, into two main categories: before 1976 and after 1976.

Ho₁: The chi-square test reveals that this hypothesis can be rejected at the p \lt .001 level of significance. It is concluded, therefore that there was a significantly greater ratio of minority to majority sex enrollments after 1976.

TABLE I

Period	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	26,881	261,320	0700 500
After 1976	34,958	217,735	2700.588

CHI-SQUARE ANALYSIS OF SEX DIFFERENCE IN VOCATIONAL PROGRAM ENROLLMENT

P < .0001

Analysis of Sex Differences in

Specific Program Enrollments

For analyzing sex differences in specific programs, minority enrollments before and after 1976 were aggregated and their percentage of total enrollment was calculated. A hypothesis was formulated involving the difference in these two groups, i.e., before and after 1976.

Hypothesis Two: <u>There is no statistically significant difference in</u> <u>sex distribution in the specific program areas listed in Table II when</u> <u>enrollments before and after 1976 are compared.</u> Data in Table II indicate the percentage of minority enrollments in the specific programs and the results of the "t" test.

HO₂: The "t" test reveals that this hypothesis can be rejected as the calculated value of the probability is .0287. Because it is less than .05, this hypothesis is rejected and it may be concluded that there is a significant difference in sex distribution for specific program areas listed in Table II, with the ratio of minority to majority enrollments measuring after 1976.

TABLE II

PERCENTAGE OF MINORITY ENROLLMENT IN SPECIFIC PROGRAMS AND "t" TEST ANALYSIS OF DIFFERENCES

Program	Percentage of Minority Before 1976	Enrollment After 1976
A	4 22	0.09
Agriculture	4.22 50.00	9.00
Project Distributive Education	42 76	35 60
Air-conditioning and Pofrigoration	0 14	0 37
Ani-conditioning and Kerrigeration	0.02	2.85
Auto Pody	0.02	2.05
Auto Mochanica & Compact car	0.29	0.00
Auto mechanics a compact car	0.37	2 02
Company in Ant	0.37 // 91	2.02
Commercial Art	40.01	42.10
Commercial Photo	49.11	34.40
Carpentary Electricity	0.29	1.17
Discal Machanica	0.29	1.00
Diesel Mechanics	0.04	0.39
Brick Masonary	16 05	16 25
	10.95	10.25
Electronics	1.00	2.01
	33.84	23.22
Machine Shop	0.36	3.00
Sheet Metal	0.18	1.29
Welding	0.31	1.61
Small Engine Repair	0.74	1.82
Cabinet Making	0.73	5.40
Coordinated Vocational Education Trg	·	0.07
Mechanical Cluster	0.45	0.97
Construction	0.30	2.06
Horticulture	21.36	23.70
Heavy Equipment Operator	2.77	4.36
Truck Driver	6.85	24.81
Meat Processing	3.33	9.80
Custodial Service and Maintenance/	1 07	< 07
Building & Ground	1.8/	6.8/
Interdisciplinary Cooperative		10 70
Education	45.55	43.78

Program	Percentage of Minority Before 1976	Enrollment After 1976
Distributive Education	38 10	36 61
Dental Office Assistant	0.40	0 79
Health Services	6 48	5 39
Operating Room Assistant	22 97	17 20
Comprehensive Home Economics	8 44	16 21
Cloth Production and Management	1 01	1 67
Food Management	28 86	48.75
Institutional and Home Services	0.36	2 78
Cooperative & Home Economics	0.50	2.70
related Occupations	21 19	28 79
Child Care	1 07	2 44
Data Processing	2 17	19 59
Secretarial Training	2 67	1.38
Graphics	34,60	49.63
Cosmetology	0.66	1.39
Tailoring	47.48	37.65
Unholstery	36.87	33.68
Coordinated Vocational Education	50.07	33.00
Training Home & Com.	5,59	10.38
Bank/Savings & Loan	0.0	6.40
Mean Percentage	11.66	14.04

TABLE II (CONTINUED)

t = 2.6084 Probability = .0287

Analysis of Sex Differences in AVTS and

Comprehensive High Schools

As indicated previously, partly because of Federal requirements and partly to facilitate addressing the problems in specific areas, the decision was made to analyze the enrollment data in area vocational technical school programs. The following hypothesis was formulated to address this area of concern. Hypothesis Three A: <u>There is no statistically significant differ-</u> <u>ence in sex distribution in AVTS programs when enrollments before and</u> <u>after 1976 are compared.</u> The enrollment data in AVTS programs were aggregated and further divided into two groups, i.e., before and after 1976. Table III depicts the data relating to this point of concern.

The analysis of data in Table III indicates that the probability, with 1 degree of freedom, was less than .0001; therefore, this hypothesis may be rejected. It may be concluded that there is a statistically significant difference in sex distribution in area vocational-technical school programs when enrollments before and after 1976 are compared with a greater proportion of minority students enrolled after 1976.

TABLE III

Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	3,274	40,793	
After 1976	6,216	48,201	443.082

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN AVTS PROGRAM ENROLLMENT

P < .0001

Hypothesis Three B: <u>There is no statistically significant differ-</u> ence in sex distribution in comprehensive high school vocational programs when enrollments before and after 1976 are compared. Table IV shows the probability to be less than .0001. On this basis, the null hypothesis is rejected. There is a significant difference with a greater ratio of minority sex in comprehensive high school vocational programs after 1976.

TABLE IV

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN COMPREHENSIVE HIGH SCHOOL VOCATIONAL PROGRAMS

Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	23,617	220,525	
After 1976	28,472	169,528	2439.1144

P < .0001

Analysis of Sex Distribution in Urban,

Suburban, and Rural Programs

Analysis of Sex Distribution in Traditionally Male-Oriented Vocational Programs Located in Urban Areas

As mentioned in previous chapters, male-oriented vocational programs were separately aggregated and they were further broken down into urban, suburban, and rural areas. The following hypothesis was developed to analyze the sex differences in traditionally male-oriented vocational programs located in urban areas. Hypothesis Four Al: <u>There is no statistically significant differ-</u> <u>ence in sex distribution of enrollments in traditionally male-oriented</u> <u>programs located in urban areas when enrollments before and after 1976</u> <u>are compared.</u> Table V presents the results of analysis of the data pertinent to this concern.

TABLE V

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN TRADITIONALLY MALE-ORIENTED VOCATIONAL PROGRAM ENROLLMENT IN URBAN AREAS

Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	1,463	7,676	111 0010
After 1976	1,713	5,932	111.0812

P < .0001

The chi-square analysis reveals that this hypothesis can be rejected on the basis that p < .0001. This implies that the statistically significant difference probably does exist in enrollments before and after 1976 in traditionally male-oriented vocational programs located in urban areas.

Analysis of Sex Distribution in Traditionally Male

Oriented Vocational Programs Located in

Suburban Areas

For the purpose of comparison and analysis in the two groups, i. e., enrollments before and after 1976 in traditionally male oriented vocational programs located in suburban areas, the following hypothesis was formulated.

Hypothesis Four A2: There is no statistically significant difference in sex distribution of enrollments in traditionally male oriented programs located in suburban areas. For the purpose of this analysis, the chi-square statistic was employed. Data in Table VI indicate that the probability, in this case, was less than .0001; therefore, HO_{4A2} . can be rejected.

TABLE VI

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN TRADITIONALLY MALE ORIENTED VOCATIONAL PROGRAMS LOCATED IN SUBURBAN AREAS

Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	2,365	17,774	331.7447
After 1976	1,911	7,832	

p < .0001

Analysis of Sex Distribution in Traditionally Male

Oriented Vocational Programs Located in

Rural Areas

Hypothesis Four A(3) relates to sex distribution in traditionally male oriented vocational programs located in rural areas.

Hypothesis Four A(3): <u>There is no statistically significant differ</u> ence in traditionally male oriented vocational programs located in rural areas when enrollments before and after 1976 are compared. Data pertinent to this group and the analysis results are presented in Table VII.

TABLE VII

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN TRADITIONALLY MALE ORIENTED VOCATIONAL PROGRAMS LOCATED IN RURAL AREAS

Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	• 5,140	78,537	(10,550
After 1976	6,676	63,476	612.550

p < .0001

The chi-square test reveals that this hypothesis can be rejected at the $p \ge .0001$ level of significance. This result implies that a statistically significant difference probably does exist in traditionally male-oriented vocational programs when enrollments before and after 1976 are compared.

Analysis of Sex Distribution in Traditionally Female

Oriented Vocational Programs Located in Urban Areas

Hypothesis Four B(1) relates to sex distribution in traditionally female oriented vocational programs located in urban areas.

Hypothesis Four B(1): <u>There is no statistically significant differ-</u> ence in sex distribution of enrollments in traditionally female oriented <u>vocational programs located in urban areas</u>. Appropriate data and the results of the analysis are presented in Table VIII.

TABLE VIII

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN TRADITIONALLY FEMALE ORIENTED VOCATIONAL PROGRAMS LOCATED IN URBAN AREAS

Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	• 2,568	12,262	
After 1976	2,293	9,880	10.4/109

p ∠ .001

The chi-square test reveals that this hypothesis can be rejected at the p < .001 level of significance. Analysis of Sex Distribution in Traditionally Female

Oriented Vocational Programs Located in

Suburban Areas

Hypothesis Four B(2) was developed to analyze the sex distribution in traditionally female oriented vocational programs located in suburban areas.

Hypothesis Four B(2): <u>There is no statistically significant</u> <u>difference in sex distribution of enrollments in traditionally female</u> <u>oriented vocational programs located in suburban areas.</u> Results of the analysis are presented in Table IX.

TABLE IX

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN TRADITIONALLY FEMALE ORIENTED VOCATIONAL PROGRAMS LOCATED IN SUBURBAN AREAS

Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	5,166	24,362	765.743
After 1976	6,905	18,367	

p < .0001

The chi-square test reveals that this hypothesis can be rejected at the p \angle .0001 level of significance.

Analysis of Sex Distribution in Traditionally Female

Oriented Vocational Programs Located in

Rural Areas

Hypothesis Four B(3) was developed to analyze the sex distribution in traditionally female oriented vocational programs located in rural areas.

Hypothesis Four B(3): <u>There is no statistically significant differ</u><u>ence in sex distribution of enrollments in traditionally female oriented</u><u>vocational programs located in rural areas</u>. Results of the analysis are presented in Table X.

TABLE X

		·	
Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	6,915	79,915	
After 1976	9,244	64,041	947.03528

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN TRADITIONALLY FEMALE ORIENTED VOCATIONAL PROGRAMS LOCATED IN RURAL AREAS

p < .0001

The chi-square test reveals that this hypothesis can be rejected at the p < .0001 level of significance. Within all the groups identified by the six sub-hypotheses, the ratio of minority sex enrollment increased after 1976.

Analysis of Sex Differences in Secondary

School Vocational Program Enrollment

Hypothesis Five A was developed to analyze the sex distribution in secondary school vocational programs.

Hypothesis Five A: <u>There is no statistically significant difference</u> in sex distribution in secondary school vocational programs when enroll-<u>ments before and after 1976 are compared</u>. Table XI presents the results of the analysis.

The chi-square test reveals that this hypothesis can be rejected at the p < .0001 level of significance. The ratio of minority sex enroll-ment was greater after 1976.

TABLE XI

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN SECONDARY SCHOOL VOCATIONAL PROGRAMS

Group	Minority Enrollment	Majority Enrollment	Chi Square
Before 1976	25,913	248,500	00/0 //0/
After 1976	32,664	204,654	2343.6436

p∠.0001

Analysis of Sex Differences in Full-Time

Adult Vocational Programs

Hypothesis Five B was developed to analyze the sex distribution in full-time adult vocational programs.

Hypothesis Five B: <u>There is no statistically significant difference</u> <u>in sex distribution in adult vocational programs when enrollments before</u> <u>and after 1976 are compared.</u> Table XII presents the results of the analysis.

TABLE XII

CHI-SQUARE ANALYSIS OF SEX DIFFERENCES IN FULL-TIME ADULT VOCATIONAL PROGRAMS

Group	Minority Enrollment	Majority Enrollment	Chi Square	
Before 1976	967	12,803	0/0.055	
After 1976	1,568	10,727	242.955	

p < .0001

The chi-square test reveals that hypothesis HO5B can be rejected at the p < .0001 level of significance, therefore, it is concluded that there probably was a statistically greater ratio of minority to majority sex enrollments after 1976.

Serendipitious Results

Some serendipitious results were obtained from observation of the data when cells were observed in Tables XIII through XVII. It appears that male were more likely to be a larger percentage of the enrollment in female-oriented programs than were female in male-oriented programs before 1976. The trend is reversed after 1976 where a greater percentage of female were enrolled in male-oriented programs in area vocational schools, in urban schools, and in adult programs. The fact that this trend did not appear in suburban and rural schools and in secondary schools in general may point up the barriers presented by tradition in provincial parts of the state which may be less supportive of female liberation. A second possible explanation for this variation may be that enrollments in non-traditional programs are increasing; however, for the most part, programs leading to low paying jobs (usually associated with traditional female jobs) simply are not attractive to the male population.

Figures 1 through 4 provide another way of visualizing the data from Tables XIII through XVII. The data for 1972-73 were omitted because they represented only two programs. This was not considered to be an adequate sample of the state-wide situation.

TABLE XIII

Year	Male Oriented	Female Oriented	
1972–1973	7.01	9.69	
1973-1974	6.43	9.70	
1974-1975	8.13	10.78	
1975-1976	10.19	12.94	
Total before 1976	7.94	10.78	
1976-1977	11.43	14.68	
1977-1978	13.53	15.60	
1978-1979	11.51	15.92	
Total after 1976	12.16	15.40	

PERCENTAGE OF MINORITY ENROLLMENT BY ORIENTATION OF PROGRAM

TABLE XIV

PERCENTAGE OF MINORITY ENROLLMENT BY ORIENTATION IN AREA VOCATIONAL SCHOOLS AND HIGH SCHOOLS

	High Sc	chools	Area Vocational Schools		
	Male	Female	Male	Female	
Year	Oriented	Oriented	Oriented	Oriented	
1972-1973	7 29	973	5.55	9.22	
1972-1974	6.73	9.89	5.09	8.36	
1974-1975	8.56	11.11	6.47	8.33	
1975-1976	10.29	13.68	9.46	7.82	
Total before	e				
1976	8.22	11.10	6.64	8.43	
1976-1977	11.55	15.73	11.12	8.17	
1977-1978	11.66	16.95	17.70	7.68	
1978-1979	12.10	17.29	9.97	8.28	
Total after					
1976	11.77	16.66	12.93	8.04	

TABLE XV

Year	Urban Male Oriented	Schools Female Oriented	Suburban Male Oriented	Schools Female Oriented	Rural Male Oriented	Schools Female Oriented
1972-1973	14.26	18,20	9,92	13.77	5.78	7.04
1973-1974	14.05	15.82	9.82	15.60	5.13	6.94
1974-1975	17.09	17.76	12.44	17.13	6.57	7.90
1975-1976	18.66	17.49	16.05	22.77	7.03	9.84
Total before						
1976	16.02	17.32	12.06	17.32	6.13	7.93
1976-1977	25.84	18.91	18.71	25.80	8.80	11.86
1977-1978	19.96	18.22	19.66	27.77	9.72	12.98
1978-1979	20.82	19.40	20.57	28.33	10.04	13.01
Total after						
1976	22.21	18.84	19.65	27.30	9.52	12.62

PERCENTAGE OF MINORITY ENROLLMENT BY ORIENTATION IN URBAN, SUBURBAN, AND RURAL SCHOOLS

TABLE XVI

PERCENTAGE OF MINORITY ENROLLMENT BY ORIENTATION IN SECONDARY AND ADULT PROGRAMS

	Secondar	y Programs	Adult Programs		
	Male	Female	Male	Female	
Year	Oriented	Oriented	Oriented	Oriented	
1972-1973	7.16	9.57	4.77	36.42	
1973-1974	6.56	9.80	4.59	7.04	
1974-1975	8.32	10,91	5.64	8.42	
1975-1976	9.02	13.34	14.72	4.67	
Total before	2				
1976	7.77	10.91	7.43	5.66	
1976-1977	10.35	15.19	42.70	5.95	
1977-1978	12.33	16.25	29.62	5.61	
1978-1979	11.33	16.74	15.46	5.09	
Total after					
1976	11.34	16.06	29.26	5.55	

TABLE XVII

INCREASE IN ENROLLMENTS

Year	Minority	Difference	Percent	Majority	Difference	Percent
1972-73	5,460			59,863		
1973 - 74	5,854	394	(7.22)	66,433	6,570	(10.98)
1974-75	7,009	1,155	(19.73)	66,970	537	(0.81)
1975-76	8,558	1,549	(22.10)	68,054	1,084	(1.62)
Average P	ercent Ind	rease	(16.35)			(4.47)
1975-76	8,558			68,054		
1976-77	10,987	2,429	(28.38)	72,967	4,913	(7.22)
1977-78	12,555	1,568	(14.27)	73,586	619	(0.85)
1978-79	11,416	-1,139	(-9.07)	71,182	2,404	(-3.27)
Average P	ercent Ind	crease	(11.19)			(1.60)
Increase	from 1972	-73 to 1978-	-79			
1972-73	5,460			59,863		
1978-79	11,416	5,956	(109.08)	71,182	11,319	(18.91)
1973–74) 1974–75 1975–76)	21,421			201,457		
1976-77) 1977-78 1978-79)	34,958	13,537	(63.14)	217,735	16,278	(8.08)



ភូភូ





Figure 3. Male/Female Enrollment Analysis by Location of School



Figure 4. Male/Female Enrollment Analysis by Level of Program

58

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

During the women's movement of the 1960's and 1970's the different treatment of women and men has been condemned more than that in any other age. When general practice was found to be contrary to the national goal of equality, concerns over sex stereotyping have stimulated agencies and organizations nation-wide to reduce differences in treatment of women and men to justifiable situations. Apart from struggles made by individuals and state-level agencies, there have been many federal rules, regulations, acts, and subsequent amendments which have included steps to cope with the problem. The main focus of the federal intent of legislation was to recommend steps for providing equal opportunities to its citizens and to avoid discrimination in employment and education.

The Education Amendments of 1976 require that efforts towards the reduction of sex discrimination and sex stereotyping, both in training programs and in the occupations to which they lead, be monitored by state agencies. Moreover, a special request, from the Equity Staff for specific information was included in Annual Accountability report of 1978 of State Department of Vocational and Technical Education.

These requests were some of the factors which gave rise to this specific study. The main purpose of the study was to determine whether or not a statistically significant change in the sex distribution of enrollments in programs of vocational education in Oklahoma has occurred

since the educational equity operation was initiated.

With the help of a panel of experts, traditionally sex oriented programs were identified. Enrollments in these programs were aggregated, for the period 1972-1979.

The data was divided into the following sub-categories of enrollments in: Area vocational technical schools, comprehensive high schools, urban, sub-urban, rural, secondary schools and adult programs.

Summary of Findings

The following findings were summarized as consequences of the outcomes of this research:

1. There was a significantly greater ratio of minority to majority sex enrollments after 1976.

2. There was a significant difference in sex distribution in favor of the after 1976 group in the specific program areas listed in table II.

3. There was a statistically significant difference in sex distribution in favor of the after 1976 group in area vocational-technical school programs.

4. There was a significant difference with greater ratio of minority sex in comprehensive vocational programs after 1976.

5. Within all the six sub-groups including programs located in urban, sub-urban, and rural in both male and female oriented programs, the ratio of minority sex enrollment increased after 1976.

6. The ratio of minority sex enrollment was greater after 1976 in both secondary school vocational programs and in Full-Time Adult programs.

7. Male were more likely to be a larger percentage of the enrollment in female oriented programs before 1976. But the trend reversed after 1976 where a greater percentage of females were enrolled in male oriented programs in area vocational school in urban schools, and in adult programs. This trend did not appear in suburban and rural schools or in secondary schools in general.

Conclusions

1. It is concluded that there has been a significant change in nontraditional enrollment since 1976 when the comparison was made with the enrollments in non-traditional programs before 1976. It is assumed that the Educational Equity operation did contribute to this change.

2. Enrollments in female adult programs shifted towards increased enrollments in non-traditional programs while adult male programs have not shown such a trend.

Recommendations

1. It is recommended that emphasis on Education Equity be continued and that further studies with greater controls of trend data be conducted to test the assumption that the action taken by the Education Equity Program influences these changes.

2. If the State of Oklahoma desires to continue this movement with the adult population, special emphasis should be placed on male adult programs.

3. A similar study should be made of post-secondary programs, so that the effectiveness of such activities can be evaluated for that area.

A SELECTED BIBLIOGRAPHY

- Age Discrimination in Employment Act of 1967. U.S. Statutes at Large. Vol. 81 (1967).
- Civil Rights Act of 1964. U.S. Statutes at Large. Vol. 78 (1964).
- Cornelsen, LeRoy A. <u>Policy Memorandum</u>. Division of State Vocational Program Operations, HEW, Washington, D.C., 1978.

Education Amendments of 1972. U.S. Statutes at Large. Vol. 88 (1972).

Education Amendments of 1976. U.S. Statutes at Large. Vol. 90 (1976).

Equal Pay Act of 1963. U.S. Statutes at Large. Vol. 77 (1963).

- Harrison, Laurie R. <u>A National Study of Sex Stereotyping and Discrimina-</u> tion in Vocation1 Education. March 30, 1978. (ED 154171)
- Illinois State Office of Education. <u>Sex Equity in Illinois Schools:</u> <u>Problems Research and Remidies</u>. Illinois State Office of Education, <u>Springfield</u>, 1977. (ED 157890)
- Katz, Robert. "Human Relation Skills can be Sharpened." <u>Harvard Business</u> Review, July-August, 1956, pp. 61-72.
- Kerlinger, Fred N. Foundations of Behavioral Research. Holt, Rinehart and Wilston, Inc., New York, 1973.
- Key, James P. <u>Research Design in Occupational Education</u>. Agriculture Education Department, Oklahoma State University, Stillwater, Oklahoma, 1979.
- Kirkpatrick, Donald L. "Techniques for Evaluating Training Programs, Part 1: Reaction." Training and Development Journal, November, 1959a (Page not available)
- Kirkpatrick, Donald L. "Techniques for Evaluating Training Programs, Part 2: Learning." Training and Development Journal, December, 1959b (page not available)
- Kirkpatrick, Donald L. "Techniques for Evaluating Training Programs, Part 3: Behaviors." <u>Training and Development Journal</u>, January, 1960a (page not available)
- Kirk patrick, Donald L. "Techniques for Evaluating Training Programs, Part 4: Results." <u>Training and Development Journal</u>, February, 1960b (page not available)
- Kirkpatrick, Donald L. "Focusing on Reaction, Learning, Behavior and Results ... Techniques for Evaluating Training Programs." <u>Training</u> and <u>Development</u> Journal, June, 1979, pp. 78-92.
- Meir T. K. and Joeph P. Pulichene. "Evaluating the Effectiveness of Assertiveness Training." <u>Training and Development Journal</u>, February, 1980, pp. 66-68.
- Miner, John B. and Mary Green Miner. <u>Personnel and Industrial Rela</u>tions. MacMillan Publishing Co., Inc., New York, 1977.

National Labor Relations Act. U.S. Statutes at Large, Vol. 49 (1935).

- Newstrom W. John. "Evaluating the Effectiveness of Training Methods." The Personal Administrator, January 1980, pp. 55-60.
- Oklahoma State Department of Vocational and Technical Education, <u>Account-</u> ability Report. Stillwater, Oklahoma, 1978.
- Oklahoma State Department of Vocational and Technical Education, <u>Account-</u> ability Report. Stillwater, Oklahoma, 1979.
- Oklahoma State Department of Vocational and Technical Education, <u>Annual</u> State Plan, Stillwater Oklahoma, 1979.
- Stroud, P. V. "Evaluating a Human Relations Training Program." <u>Personnel</u>, November-December, 1959, pp. 52-60.
- Thompson, Barbara. <u>Final Report of the Sex Role Stereotyping Sub-Task</u> <u>Force</u>. Wisconsin State Department of Public Instruction, Madison, February 1976.
- U.S. Congress House Committee on Education and Labor. <u>Sex Discrimina-</u> <u>tion and Sex Stereotyping in Vocational Education</u>. (Hearing before the SubCommittee on Elementary, Secondary and Vocational Education of the Committee on Education and Labor). House of Representatives Ninety-Fourth Congress. First Session, 1975. (ED 116090)
- U.S. Congress House Committee on Education and Labor. <u>Sex Discrimination</u> <u>Regulations</u>. (Hearing before the SubCommittee on Postsecondary Education of the Committee on Education and Labor). House of Representatives Ninety-Fourth Congress, 1975. (ED 118012)
- U.S. President. Executive Order 11246. "Equal Employment Opportunity." Federal Register, Vol. 30, no. 187, 28, September 1965, pp. 12319-25.
- U.S. President. Executive Order 11375. "Amending Executive Order No. 11246, Relating to Equal Employment Opportunity." <u>Federal Register</u>, Vol. 32, no. 201, October 17, 1967, pp. 14303-4.
- Welting Tim L. and Tom E. Lawson. <u>Evaluating Occupational</u> <u>Education</u> and <u>Training Programs</u>. Allyn and Bacon, Inc., 1975.
- Women's Educational Equity Act of 1975. U.S. <u>Statutes at Large</u>, Vol. 88 (1974).

APPENDIX A

DATA COLLECTION INSTRUMENT

3- 002-DX3 OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION rev. 7-1-78) PROGRAM ENROLLMENT FORM (CHECK ONE) SECONDARY... COLLEGIATE... LONG-TERM ADULT.... SHORT-TERM ADULT....

Batch No. (1-3) FOR STATE OFFICE USE ONLY School Name __Location__ School Code (4-12) Program Name _____ Teacher Name _____ Level ____ (13) Div _____ (14-15) Teacher Social Security #_____ (28-36) Program Code (16-19) Contract No. (20-22) Page No. (23-27) Number of Students Enrolled in Program Date. Short Special Needs Student Name Term Handicaps Dis. Year in Prog. u. Adult Grade Level 1 (See IEP) ò Only Occupational Econ or Acad Social Security Race 2nd Initial First Second LESA Third Fourth 1st Initial Objective Σ Age Fifth Number Last Name Ρ Code Comp Code Sex (Print or Type) or S 37 38 39 - 48 58 - 63 64 65-66 67-68 69 70 71 72 73 74 75 76 77 78 49 - 57 1 1 1 1 1 1 1 $\mathbf{1}$ 1 1 2 -1 1 1 1 3 1 1 1 4 1 1 1 1 F 1 1 6 1 1 7 8 9 1 1 10 1 1 1 11 12 1 1 13 14 15 1 1 16 1 17 18 1 1 1 1 19 1 1 1 1 1 1 1 ł 1 1 20

Please read instructions carefully before completing this form

APPENDIX B

RAW DATA

CREAMENT STATE DEFOTINENT OF VECATIONAL AND TECHNICAL EDUCATION CLATINT, PHILINENT TRENDS SCHOOL YEAR 1972-1972

			••			SCA	CEL YE.	AR 19 Ter Cla	572-157 Assfs	22	•					•		
							UPIER	100 00	13323									
CLASS	CLASS		VTS	•	5	. URE	AN SI	, SUB	UREAN .	t de Ru	RAL	* SI	EC	" 🖓 🛛 ADUL	.T •	 T-01 	ral i	
CUUE	NAME	\						· · · · ·				<u>е н</u>		<u> </u>	F	• »	·	
1 101001	AC ECC THE ITY			1062	, 29	21				953		1002		. 1	. .	1082		· · ·
1 01012	VOC AG T V) . .		A763					15		116		148	•		4750	148	
	VOC 16 11V			7683				315		- 3322		1641			<u>.</u>	- 7687		
1 11 11 3	VEC AG ILLY 1.	- 09		2851	1	55		108	11				31			2851		
11114	VUC AG IV V	10.0		2371	25	1		101		1969	. 24	2071	25			2071	25	·· .
1.1.21	AC HECH IV /			1475	5	·		133		1266		1475	5			1475		
1.11122	AS MECH TIV			292		10		21		251		292				292		
	PHOJECT DE T	<u> </u>	4	71, •	116	5	25	24	35	38	56	71	120			71	121	
1.4912	FROJECT CE II	PC 6	24	20		4	1	15	10	1	2	26	37			26	37	
1 04013	PROJECT DE IIU	3	13	5	5			5	3		ž	E	18		• 1	e	18	
· 17 Jul	ICT 1		22	£10	4 6 5	112		175	153	322	284	614	491			614	491	
17 1.2	107 11			127	112	7	3	37	29	63	81	127	113			127	113	•
17311	ALACOND .FEF 1	10 330	1	211				211				351	3	190		241	1	
1/012	FIRCOND REF 11	1.22		12/				127						127		20.4		
17.13	AUDI PED IN	v ° 2		·			· · ·		1 - E			10 A	-					
117022	JEPH HEP 11117.			16		Ě				10	-		.			10	7	
17.23	AFEL HEE 111	947					· · · · · · · · · · · · · · · ·			e							· · · -	
17031	AUTO BODY T	228		252	. 1	82	•	131	. 1	41		369		111	1	480	1	
. 117032	AUTO BOEY II	140		63		12		57	-	18		187	•	49		236	-	
17.33	ALTC BOCY 110"	~18 · 3		8				ż		6		11				- 11		
17041	AUTJ NECH T	438	•	1211	: S	239		487		485	5	1363	9	286		1645	9	
-17342	AUTE MECH 11 17	0029 314	1	599		\$r		229		280		757	1	156	•	913	1	
	AUTC MECH 111	. `4 `		129		4		17		356		123				133		
-117051	AIRCRAFT MECH 1	154	1	27				27				183	1			182	1	
-117.152	AIRCE MECH 11	17. 93		2				2								95		
-117.53	AINCH MECH III									. •		. 5						
11/101	COMM ANT 1	18	31	.95				55	49			49 1 1 5	40	73	34	112	80	
17.52	CCHP APT 11 17.	03/. <u></u>						····· •	22						14	59		
17:71			· .	10	51	10	51	•				20				28	31	
	COM PLOTO 11/7	0031 7	ġ	• •	••	• *						27				- 7		
.17:01	CAREENTRY I	304	i	775	1	······································		165		602		1074				- 1074	3	
.17.02	CIFFENTRY 1117	2033 79		346	-	-	•	53		293		425				425	•	,
17183	CARFENTEY 111	1.2		138	•			20		118		146				148		
- 41 M 1 1	ELECTRICITY 1	113		165		42	••••••	123				172		106		27e		
117.92	ELECTRICITY 11	2		51		15		32				32		21		53		
- 17:93 (ELECTRICITY 111			2				2				2				2		
17191	GIESEL MECH 1	26 8	1	163				1 81		2		271		190		451		
171.2	DIESEL MECH 11	97		119			•	115				97		119		216		
17103	DIESCL MECH 111	3													· .			
117174	CHICK MUSINPY I	· · · ·		41		1.,		36				135				175		
117136	HOLER MASEN II	10036		,		,		•				.1				11		
171.70	CLUVETNE 1)	• · · · · · · · · · · · · · · · · · · ·	-,				······ 6 7 ···										
17163	PLLNBING 11	e 0						44					•	44		4.4		;
17111 0	ORAFTING 1	213	31	176	22	12		141	14	22	e	246	46	33	7	275	53	1.0
17112 0	CHAFTING 11	. 115	10	- s 3	e	- · · · ·	· · · · ·	73	•••••••••••••••••••••••••••••••••••••••	15	······ 1 ····	175		28	- 3	20.2	16 -	
17113 (DRAFIING 111	7		25	7	22.	1	e	1	5	÷ €	42	7			42	7	

......

Ľ.

r

67

AT CTAL UNKNOWNS 4981

 LIA VAUTUR C	40.01	

-

. •

			_			FEMALE	DAIEN	TED CLA	SEES									
CLASS	CLASS		ITS 1	<u>ج</u>	rs j	. UFE	AN	ູ້ຮູບຮູບ	REAN	RUR	AL	• 58	ic j	ADU	.т 🦾 н	• ·· . TC1	ral_5	•
LUCE	NAME	· · ·							<u></u>					M		- ² .		÷
504002 DE	11			. C4J	- 240	100	. 203	27	102		203	. 340	. 007	1 . · ·	•	740	340	
-17011 56	TA DEE ASST				2.00				1 102			2-0				2.00		ŝ
71 21 651	TCAL TE ASST																	í-
	TH SER CAR	2.6	452	11					. 37		36	. 77	525				52	ŝ
	CTICAL NURSE		32.						- AA-	-	· · · ·		76		•		70	6
C+-11 CO	F HE I			115	E225		- 624		-1313	102	- E 2 8 E		- E2 2 5			-115	- 822	s
(19012 CON	PHEII			28	6629		449	2	1315	- 26	4865	28	6629			28	662	5
11 1 - 7513 661	F FE 111			20	12505		122	10	697	12	2775	20	2575			20	357	5
- (FHEIN			25	2629		136		- 320	25	-2172-	25	2629			25	-262	- e
77621 CH1	LD CARE 1	1	75	1	153		41		107	1	2	. 2	225	* ·	•	2	22	5
1 9022 CH	LD CARE 11		1	2	12				12	. 5	2	2	13	· ·		ż	1	3
3 4:31 CLC	TH MGT 1	···· 1	115	5	172		1		68		10 2	e	287			e e	28	,
(1.9532 CLU	Th HG7 11	• ·	42		8				8				. 50				5:	2
- 9041 FCC	D NGT I	51 -	82	45	E4	18	7			27	7.7	96	166			.96	160	6
199642 F.30	D NGT II	6	12	15	1	15						21	13			21	1:	3 _
000 19001 FAH	ILY LIVING 1			1106	1284	112	23	3\$7	. 353	687	90 B	1106	1284			1 10 E	1284	4
	K-071EN-1-			184	247			43	42	141	267	184	245			184	249	9
19093 FER	0			25	124			13	3)	22	5 4	35	124			35	124	4° "
2-196.94 CCG	FERATIVE HE			4	65				31	· •	38	4	69			4	69	9
e-12.JI SEC	RETIAL COR		33	15	462	13	119	3	236		107	16	4 \$5			16	495	5
G-14LUZ GEN	OFF CUE		1	\$9	755	32	268	12	165	. 55	222	95	756			- · · · ·	756	5
-14C53 CAT	A PRCC CCE			13	27	12	15				12	- 13	27			13	52	1
-14021 DAT	A PROC	9.)	284	19	31			. 19	29			55	315	<u> </u>		55	315	5
2 14031 GEN	OFF TPNG	3	250	175	573	аć	255	53	168	36	147	178	750		73	178	823)
7-14071 SEC	TRNG	2	4,10	14	229		Z 1	2	154	12	104	16	629			16	629	2
-14191 GRA	PHIC CLPM	11								·		11	17			11	17	<u>′</u> _
17161 CUS	METOLOGY 1		195	. 1	408		132		119	. . 1	157	1	633			1	60.3	3
-17182 CCS	RETCLEGY 11		43		263		- 117 .		. 65		. 81 .		306				30.6	\$
17231 TAI	LOAING 1											14				14		!
17232 141	LCHING II			12	C	12	. C					12	. 0			12	c	3
	LURING III								~~			1				1		
	LUSIENT I								<u>-</u> .				<u>e</u>					,
17212 UFH	CLSICFT 11			20	c	19	•	10	2			. 10	5	16		26	c	,
117213 0FH				- -			4.5		~ ~			-		· •				
22931 CVE	1 NUME C 1			· 1								`	163					2 -
21.232 646					74				. . .				74					•
ANY COLUM	N TOTALS	226	2226	2952	27385	606	2724	911	570 2	1425	18959	3123	29515	5 55	\$6	3170	2 961	1

•

CHLANCHA STATE CEMPETTERY OF VOCATIONAL AND TECHNICAL EQUCATION SCA PATTERY ENADLEST TRENDS SCHOOL YEAR 1972-1973

		,			SCH	CCL YEA	EC CLA	73-197 5565	•							
CLASS CLASS CUDE NAME OICCL AG CCC TAG I	м ^л и	1S F	M 436	5 - 36		F	SUEU 75	ROAN F 2	RUR. 261	AL 54	• SEC	F	AD UL	'e 3	1GT	AL F 36
3 1002 AG OCC TNG 11 . 31311 VCC AG 1 . 01012 VCC AG 11			562C 4479	28 ¢ 131	126	43	424	51 12	5080	192 100	5630 4479	286			5620	286
01013 VOC AG 111 01014 VCC AG IV 01021 AG MECH I			2008	35	55	5.	209	15	2799	J1 J0 15	2516 3008 1662	51 35 15			2516 3008 1662	51 35 15
OIUJ2 MORTICULTURE 1 OIUJ2 MORTICULTURE 11	12	13	2		•••				102		12	13			. 12	132
04011 FREACT DE 1 04012 PREJECT DE 11 04012 PREJECT DE 11	• •		85	110	. 7	17	24 6 2	27	54	66 10	85 6	110			85 6 1 J	110
- 17001 ICT 1 	13 20	32 2	676*	415	79 22	51 7	262	168 54	215	196 54 3	689 165 10	447	10		689 165 26	447
17011 A1R CON & REF 1 17012 A1R CUN REF 11 17013 A1RCOND REF 111	351 128	1	178				175				317 115 3	1	209	•	526 287 3	L
17021 APPL ACP 1 17022 AFFL FEF 11 17031 ALTO BUDY 1	374		221	1	71		131	. 1	25 25 19	1	19 25 407	1	. 128	1	25 595 216	1
17033 % 76 800 11 17033 % 76 800 11 17041 ALTO MECH 1 17042 AUTE MECH 1	640	1	1140	•	231	2	400	2	209 313	•	12 1546 826	2	234	3	1780	5
17043 ALTE MLCH 111 - 17351 AIHCRAFT MECH 1 - 17352 AIFCF MECH 11	146		83		3		12		68		83 163 130		4		83 167 131	
17061 CCM ART I 17062 CCM ART II 17063 CCMM ART III	20 15	18	81 50 3	44 25 1			503	44 25 1			33 26 3	25 1	68 39	34	101	43 43
- 17071 CGNN PHOTU 1 - 17072 CCPH FHGTU 11 - 17081 CALFENTRY 1	14 5 303	5	616		22		118		676		1181	5	1.8	1	1199	454
- 17022 CARPENTRY 11 - 17023 CARPENTRY 111 - 17051 ELECTRICITY 1	123		124		68 33		2C 147		104		124 198		140 53		124 338	,
-17093 ELECTRICITY III 	318 103		1 148 120		ĩ		148				298 91		168		1 466 229	
- 17104 BAICK MASCNAY I - 17105 EHICK MASCN II . 17106 EFICK MASCN III	163 32		59 22 1		10 6 1		16		33		205 54 2		17		222	
17167 PLUMUING I 17108 PLUMUING II 17111 DRAFTING I	49 286	66	46 220	28	65	2	46 143 58	17	12	9	42	80 10	61 46 85	14	103 46 506	94 21

UKLAHUNA STATE DEPANTA'NT DI' VUCATTUNAL AND TECHNICAL EDUCATTUN SEX PATTEIN ENACLEMENT TRENDS

.

-

		-			UECA	13	SUBUR	GÁN	RURA		SEC	-	AUULI	- ::	1014	L_
LLASS LLASS		F		F i	N	``F	N.	F	н.	F . 4	• • M	F 1	-		· • • •	
	~	•	40	4		_	25	3	15		5.0.1	10	29		532	10
THE CREATENNICS	232	× 3	250	7	150	7	72		20		. 227				235	1
17121 ELECTRONICS 11	104	. 1	121		79		30		10		- î i	•	-		11	
17121 FLECTECNICS 111	2		s		2	~	,				23		6.		25	
17111 RAD TY REP 1	29					•			7	7	195	97	80	22	275	119
17141 PRINTING 1	85	55	150	EC	33	ž	122	33	•		85	45	31	8	116	53
17142 FEINTING IL	37	17	75	30	12	3.	ìś	~7	1		16	7			16	
17143 PRINTING 111			15	1	78		÷ F	i			347		52	1 L	344	
17151 PACHINE STOP I	303		26	•	20		30				130		- 34		124	
17152 MACH SHUP 11	114		50								1		•		1.20	
17153 MACH SHUP III			50		26						120				14	
17161 SPEET PETAL 1	103		20		20						35				827	1
17162 SPEEL MLIAL II	544	1	262		183		66		34		140	•	34		207	-
17171 WELCLA I	107	-	100		53		15		28		200		•		24	
17172 BELDER IN			26				13		13		20		53		188	
17173 RELUER ANA	138		50				20				135				13	
17107 SHL ENG APP LL	13										82		•		82	
17331 CABINETMAK 1			£2+		34		26		22		36				36	
17722 CAFINETHAK 11			26	• •	10		10		10							
17223 CABINETMAK 111			5								56		5		61	
17291 FARM EQUIP 1	58		-				3				10		4	1. A.	14	
17292 FARM EGULF 11	10		•								20	1	46		66	1
-17301 HEY COULD OPER	66	1		•									55	1	55	1
17303 TRUCK CRIVER	55	1									15		11		26	
17365 CARFENTRY	20										16		1		17	
17JO6 EUTCHERING	17.												•			
17311 / AIRCRAFT FRAME	v		14.4				14		120		144				113	
20011 CVET MECH C I			122				10		122		132				344	•
120012 CVEL MLCH C II			344				145		155		344				242	
22021 CVET CEN C 11			242				78		164	-	242	6			16	ú
MOTI OVET FORTICULTU			18	٤	10	3,			205	20.3	373	345			374	395
OBOLL (C-DP VUC ED L	64	39	210	356	68	130	17	22	203	26	91	45			91	45
VUCOLA CC-CE VCC ED 11	6	2	£5	43	23	10			15	87	17	99		3	17	102
99312 CEMP SCL IL		2	17	100		5	2			.						
			*****			113	FOFS	552	1 5977	1081	30833	2166	2284	110	33117	2276
****COLUFN TOTALS	6157	2.30	10250	1740	1914					- /						

.

70

•

CL7.33	CLASS	4. J	VTS	н	15	* URE	2AN	ろしみし	REAN	FLF	AL j	.* 5	EC	ACU	NL T	** ,	TCT	1L
COLC	NARE	4 M	F.	, #	F	* м	F	H	F	¥	F	* N	F	· M	F		M	F
17121	ELECTRONICS 1	2::) 2	267	10	211	10	34		22		467	13				467	13
117122	CLECTRENICS 11	62	!	127	3	97	3	16		7		5.55	3				2.12	2
17123	ELECTRONICS 111	14		2						2		14					14	
17131	RAD TV REP 1	50	, ,	2,1				. 21				7.7					77	
. 17135	RAD TV REF 11	53	1	12				12				65					65	
17133	LAD 1V AFF 111	1		1			•••	·· 1	•••••			2					· 2	
17141	FRINTING 1	94	47	155	48	* 15		146	48			191	7e	. 62	17		252	95
17142	FRINTING IL	4 1	26	91	17	17		74	17			95	31	37	12		132	43
17143	PRINTING 111			12				12				15	3				15	3
17151	HICH SHOP 1	291	1	56		18		78				310	1	67			377	1
17152	MACE SEOP II	124		45		18		27				143		26			169	
17153	MACH SHOP III	12					-	• •				16			••••		16	
17161	SHEET METAL 1	. 24		53	• 1	22						57					57	
17162	SHEET HETAL .11	12		8		8						20					20	
17163	SHEET METAL 111	•••		E.		5						5				•	. e -	
17171	>ELCER 1	352		235	1	124		34	1	. E7.		597	1		•		587	1
17172	WELDEA 11	115		73		29		19		25		188					188	
117173	WELDER 111			28		5		· · · · · · · · · · · · · · · · · · ·		19		32			• •		2.2	
17191	SML ENG REF 1	88		€5				és				89		6.4			153	
117192	SHL ENG CEP 11	13										13					13	
17221	CABINETHAK IN	• •• • • • •		152		91				44		152			-	· -, ·	152	
17 222	CAUINET MAK 11 170	081		45		7.		17		21		- 45					45	
17223	CABINETHAK 111			19		•		1)		9		.19					15	
17231	FARK EQUIP 1	. 49		7 7			· · · · · · · · ·	7				49	• • •• •••				56	• •••
17292	FARM SCLIF PP 2	з		2				. 2				3		.2			5	
27-11	CVET NECH C 1			257	1	17		45		195	1	. 257	1				257	1
21012	CVET MECH C 11			102						- 102 -		1.2					102	• ••
2:121	CVET CON C 1			350	` 4	34		76		287	4	350	4				390	4
12:022	CVET CON C 11			113				1		112		113		•			112	
Sar 11	CO-CP VEC EC 1	16	. 12	362		116	158	29	29	257	192	378	394				378	384
99212	CO-CP VCC 11		5	92	69	37	35	1	4		26	67	. 74				97	74

ŧ

.

-

•

OKLAFCHA STATE CEPARTHENT OF VOCATIONAL AND TECHNICAL EDUCATION SEX PATTERN ERECLEMENT TRENDS SCHOUL YEAR 1574-1975 # MALE ORIENTEC CLASSES

.

٠.

.

.

.

CLASS	LLASS	• •	NVTS F	×	HS F	+ URE		SUBU	REAN F	RUA	F	• SE • M	EC F	ADU N	LT C	• тот • н	F.
" ulout	AG OCC THE I		9	230	15		3	68	2-	161	10	246	15-	2		248	15
101002	AG CCC TNG II			25	2			1		38	2	39	2			39	2
3 01011	VEC AG I			5737	451	153	58	426	€3	\$158	330	5737	451	•		5737	451
01012	"VOC"AG 11f			4421		71		315		-4031-	132	4421	190			4421	- 196
01013	VCC AG III /			3376	52	55	S	216	.8	3101	75	3376	92			3376	92
01014	VCC AG IV			2079	53			112	9	1967	44	2079	53			2079	53
- 01021	AG NECH I			5 1238	12	45	1.1	51 91		1102		1238	12		• • • • • •	. 1538.	12 -
01 022	AG RECH II.			287	2	. 7		27		243	2	287	2			287	2
-01021	FORTICULTURE IT	10	. 8	20	. 12					20	12	30	20			30	20
-01032	HERTICULTURE II	7	666	2		• • • • • • • • • • • • • • • • • • • •		• · · · · · • • • • • • • •					6 -				6
01221	AGRI BUSINESS 7	- 1												1		1	
101331	FORT ICUL TURE	з	3					· ·						3	3	3	з
104 CI I	FACIECT NE I	••••••	9.	301	120	7	19	43	03	58		115-	15 8 .		• • •	112	129
34012	PROJECT DE II	6	21	22	14	5		7	5	10	5	28	35			28	35
04013	FRCJECT DE III			. E	2			5	i 1	1	. 1	6	2			6	2
117001	101 1	26	- 36	533	427	78	25 -		164	267 -	239	559	463		-	559	463
317002	107 11			185	125	31	20	£2	48	56	57	. 189	125			189	125
717003	RADIC BECACCAST	27	5	1						1		10	1	18	4	28	5
	ALECCAD REF 1	332	· · · · ·	165				165				262	·· · 1 ·	235		4 77	1
-17012	AIRCOND REF 11	165		331	9 - C			1 68				155		118		273	:
717013	AIRCOND REF 111	· /		5	1.00			. 5				5				. 5	s
17021	APPL REP 1 T			70		44.				26		70	•••••		· -	70	
17022	APPL REP 11-			21		11				10		21				21	
217023	AFFL REP 111/			E						6		- 6				6	
- 17631	ALTO BUDY I	J48	2	195	2	81		52	2	26		427	2 -	120	2	547	4
- 17032	AUTC BCDY II	135		55		21		55		13		194		40		234	
17033	ALTE BEDY III	9		15		1		3		e		23		1		24	
- 217041	AUTO MECH 1	580	2	I CS E .	29	242		- 356 -	3	500	23	1496	28	192	. 3 .	1678	31-
- 17042	AUTC NECH II	327		591	4	100	1	2(5		278	3	803	4	115		918	4
1217043	AUTC MECH III	,		87		1		2 C		. 66		• 87				87	
170E1	AIRCRAFT NECH 1	145						32				171		6	••••	177	··· · . –
17052	AIRCE MECH 11	70									· · ·	69		1		70	
- 170EL	CENN ART 1	32	46	62	44			62	44			45	53	49	37	94	90
- 17062	CEMM ART 11	- 12	25	27				27	23			19	32		16		48 -
_17063	CCNN AFT 111	•		3	5			2	5			3	5			3	5
~ 17 67 1	CCMM PHUTU 1	12	8									12	8			12	8
-17372	CENN PHETG 11											7.	3				3
-: 170E1	CANFENTRY 1	4 00		641	4			165	2	532	2	1012	4	35		1047	4
- 17082	CARPENTRY 11	169		512	2			65		447	2	676	2	5		661	2
_ 17083	CARPENTRY 111			152.				10	•••••	125		135				135	
17651	ELECTRICITY 1	202	2	197	1	53		144	1			245	1	154	2	395	3
17092	ELECTHICITY 11	55		٤٢		18	•	42				89		26		115	
~ 17653	ELECTRICITY 111	•	•••••			3 .	•••••		• • • •					· ·		3	· · · · · ·
- 17101	DIESEL MECH 1	294		165				169				209		154		463	
17102	CIESEL MECH 11	119		44				-44				134		49		183	
	DIESEL WECH III		•	••		···-···	•••••		• •			1				1	· - ·
- 17104	ERICK MASONRY I	248	3	36				12		26		200	3 .	20		286	з
217105	EFICK MASCN II	52		20		4		13		12		81		1		02	
-717106	URICK MASCN III	. 3		s				6				15 -				12	···· •
217107	FLUNDING I	55	1	ec				e o				J 6	1	79		115	1 .

CLASS	5405S	* * ***	н ^{н5} ғ ‡	UREAN	SUEUREAN	NRURAL F N SEC F	NADULT S AN NOTAL
****CGLU#	N TETALS	7091 491	26355 2471	2105 434	4:03 651	19707 1386 30959 2811	2527. 151 33486 2962

CLAS	S CLASS	. J AV	15_	, н	s_ •	URE	AN E	SUEU	REAN		L_ 3	_ SE	c _	្រុង១យ	T_ :	זכז	AL
1.7.6	A BULLADING MI	• 1		7 21	F •	· ·	F	7	r	-		· · 。	•	7 31			•
317100		214		2/6	20	23		159	17	27	2	356	59	87	19	443	76
317113	CEAETING I									<u>5</u>		- 208	48-		- 2	227	- 50-
117117	There that it i		58	27		10	•	1.	•			26			-	29	
117121	FLECTECNICS I	271	A **	. 167		123	5	26		1.6		337	11	11		358	11
17122												-192-					
71712	ELECTRONICS III		-	22						÷		23		•		23	-
17141	EAC TY DED 1	47		23	•	•		23		•		57		13		70	
* 1 7 1 3 3	BAD TH CEETIN																
317141		55	82	175	64	16	7	141	A A	12		188	116	46	30	234	146
317142	GEINTING 11	A0	27		14	.,	•	57	14		2	88	3.8	1.6	5	196	
- 17147	ECINTING IN			10	',	_ · · _		10	·			- 10-					
17151	HACH SHOP I	102		67	,	27	2	70	· .	• •		. 320	,	79	1	396	
17157	BACH SHER IT	105	•		-	5		53		• •	•	113	-	20	•	133	
717151	NACH SHOP IT					· ·	· · · · · · · · ·										
217161	CLEET METAL	67				35						-	·, ·	6	•	102	
17162	SHEET NOTAL IN			16		16					•	52		1 1		56	
11161	SHEET NETAL 111				-			· · · · · · · · · · · · · · · · · · ·									
17171	WEICER 1	597		3.16		212		• •		50		808	1	47	1 1	655	2
317177	SELDER 1	107		121		60		4.6		16		307	•	11	-	31.6	-
17173	WELDEN THIS					,										A -	
17161	Chi ENG CED 1	1 75		50	:	-			,	. *	•	126		59	2	105	2
17102	SWI ENG BED 11	24		.,	•			.,	•			24		7	-	31	-
17221	(AFINETHAR)				·····						·	56				56 -	
17221					•	11	•	15				31	•			3,	•
. 17227	CADINETHAN III																
117771	ELECTED NECH IT		<u>-</u>														
117379	ELECTRC RECH 31	27	•	-										· •	•		•
117341	CCC SED SOVE I											62				70	
117703														15		66 -	
117202	CHEN LAB ASST 1	34										16	· • •			16	14
1,7201				•									• •	•		47	••
\$ 17251	FARM EQUIP RF 1			······				······								20	
317301		66	•	•				•						96	2	20	,
217301	TELCK DELVEE	160									•			156	-	156	-
17305	CADDENINDY		· · · · · · · · · · · · · · · · · · ·														
17305	ELTCHEELLG	20									•			20		50	,
117300	EVECTECNICS 31	11	•											11	•	11	•
117110	VELCER														;	-102 -	
-117310	AISCHAFT FEAME	7	- î			۰.								7	ĩ		1
117721	I PULL STERY	12	:	15				13	5	2		16		31	ġ		10
114111	UNCLASSIFIED	21	;													21	
- 20011	CVET NECH C 1		•	301	2	120	2	76		146		301				301	2
20012	CVET NECH C 11			132	-	5	-	16		111		132	-			132	•
120021	CVET CCN C 1							-124-				- 550-				550	
20022	CVET CON C 11			328	•	29		EE		211		328				328	•
200 23	CVET LURTICULTU			25	s	12	2			13	. 7	25	9			25	9
99011	CC-CP. VCC ED 1		53				- 187	23		271-	216-	-483-	491			- 403 -	-491
199012	CO-OP VOC ED 11	2.3	6	55	74	12	15	13	13	74	46	122	80			122	80
199312	NURSE A C II	1	-	72	166	14	53	· 11	16	47 4	99	71	167	2	1	73	168

•

73

.

• 1 () • #1.	UPKNLWNG	7:241

.

CLASS	CLASS		v 1 S	н	s	. URE	AN	SUEU	REAN	RUF	AL	* S	EC	ADU	LT	**	TOT	AL
CEVE	NAME	* н	F '	· N	F	* H	F .	м	F	N	F	* N	F	M	F		M	F '
04002	DE 11	45	130-	736	906	246 -		357	378	133-	214-	781	-1032		•		781	1036
_04003	CE 111	21	45	231	318	, 78	110	104	133	49	75	252	363	•			252	363
04335	CASHIEN CHECKER		208									3	63	1	113		4	208
-07011	CENTAL OFF ASST		91										88		3			- 91
107021	MECICAL OF ASST		138									1	134		4		1	138
07021	HEALTH SEE CAR		531	3	90			3	30	· •	60	. 39	577		44		47	621
- 37 34 1	PRACTICA			······································	-100-											• ••••••		- 100
07341	EEACTICAL NUESE	20	592	2	163	•	123				40		5	24	750		24	755
07361	IDED DW TECH	20	372		17	8	17								17			17
- 07351					e e i i					5.0-	-6830-		- 0011-				-120-	
09012	COND HE II			24	7011		354	. 15	1543	11	5114	24	7011		•		24	7011
00012				27	7766	-	169		431		2056	21	3765				23	3755
- 04017	COAP RE III						64				-1051-							-2367
09014		· · .			2307				302	-	1951		2301					210
05021	CHILD CARE I	•	00	د	112	2	07		85			~		-			•	230
09022	CFILD CARE II		96				21		10									
05031	CLETH MGT I		93	ě.	167			2	41		92	. J	201		, y			2/0
09632	CLCTH MGT II		25		43				20				23		5			08
09041	FOOD MET 1	61	176	26	147	15	35			17	112	87	302	10	21		57	323
05042	FCED FGT II	19	44	•		0	- 19 . 1 - 1				د	22	51	3			25	51
0 90 5 1	HERE FURNISH 1		27		36						36		53		10			63
09052	PEPE FURNISH II		11	•									9	•	2			11
- 09061	FAMILY LIVING 1			1775	1591	113	85	515	264	1147	1142	1775	1591				1775	1591
09071	WCRK URIEN 1			232	365			\$3	94	139	271	232	365				232	365
- 05081	FASHICK DESIGN	1	50		34				•		34	- A. (11)	69	•	15		1	84
05653	HERO		7	59	117-	18	29	12	46	29	42	59	124				59	124
- 09094	CCOPERATIVE HE			52	22C	27	20	9	69	56	131	92	220				92	220
69655	CCCLPATICHAL SE		53										45		8			53
-09321	VCC SERVICES		22										7		8			22
-14001	SECRETIAL CCE		18	· · • •	225	з	9 7		46	1 1	82 1	4	242		· 1		4	243
. 14002	GEN OFF COE	4	51	93	1277	39	462	15	297	. 32	518	97	1310		18		97	1328
14002	CATA PRUC COE					14	21				16	14					- 14 -	37-
14021	DATA FRGC	57	283									55	207	2	16		57	283
- 14031	GEN OFF TRNG	1	283	65	155	16	98	46	69	3	28	66	352		126		66	478
-14071-	SEC TRNG	20	555	17	41					-17-	41	22	472	15	124		- 37-	596
-14051	GRAFHIC CCNN	8	22									7	18	1	4		8	22
14321	CCMPUTER PGN	15	4							•				15	4		15	•
14331	GEN CFF CLERK	8	21 6										7-		20 9		8	. 516 -
. 17181	CCSMLTCLCGY 1	2	153	5	364		148		S3 .	5	123	7	517				7	517
17182	COSMETCLUGY 11		ac	1	165	1	73		48		61	1	262				1	262
1 72 01-	TAILCEING 1			16	10-	10-	10 -				,	10-	10-				- 10 -	10
17202	TAILORING 11			8	1 C	8	10					8	10				8	10
17211	UPHCLSTERY 1	10	10	64	44	22	5	42	39			35	21	39	33		74	54
-17212	UFHELSTERY 11			13-			2	12 -				13.		5	4		18	12 -
17213	UFHOLSTERY 111			4	1		1	. 4				4	1				4	1
17283	CCC SEH GIFLS 1		27	•.									29					29
- 17284	CCC SEF GIFLS 2-		5							·		······	S					. 5 .
120021	CVET HOME C 1	17	* 2	31 -	252	6	109	. 12	69		74	·· 33	252	2			35	252
20032	CVET HENE C 11			2.			28	. 2 "	. 29 .		39.	2	56				2	96
																	-	• • •
****CCL	LUNN TOTALS	308	40 51	3679	29433	676	3131	1276	£174	1727	20128	3902	31869	145	1576	6	4047	33484

CKLAHCMA STATE CEPARTMENT OF VCCATIONAL AND TECHNICAL EDUCATION SEX PAITERN ENALLAENT TRENCS , School year 1974-1975 Female oriented classes

		•	HALE DRIENT	ED CLASSES	c			
CLASS CLASS	AVIS	15 4	UREAN	SLBUREAN	RURAL *	SEC	ADULT	TCTAL
COUL NAME *	N F	8 F 4	N F	F F	N F *	N F	H F ++	N F
401001 AG ECC TENG 1	• '	222 21	4	. e	170 21	232 21		232 21
4 DICCZ AG CCC INNG II	•••	30	120 41.	- 38G - 72	518.3 477	5639 590		5665 590
SOLULI VIC AG II		465 277	76 30	323 42	4054 205	4405 277		4465 277
V 01012 VCC AG 111		661 138	48 17	120 27	2503 54	2681 138	• •	2681 139
HUIGIA VEC AG IV	i india india	700	10 3.	207 13 .	249358	2700 74	• •• ·	2700 74
SOICZE AG PECH I		548		. 199 1 1		154823	· · · · · · · · · · · · · · · · · · ·	1548 23
		225	- 11 Jac -	32	31 35	205	• · · · ·	203
TOTOTE PERITURITING IT		1 2			3 2	3 2		3 2
131341 FESESTAY		EJ É			81 6	81 6		E1 6
301321 AGET BUSINESS	12					3	9	12
JUCII PROJECT-DE-1-7		86 113	12 10	24. 57	40 46	86 113		86 113
4 JAUI2 PREJECT DE 11		2	. 2.			_ · ,2 ··-		5 1 ²
A CACIS PROJECT DE TIT	· · · · · · · · · · · · · · · · · · ·	ACE	··· 01 -·· 32 -	- 141 - 154	742 170	525 100 -		524 195
417002 (CT 11)	3 2	146 116	20 3	16 71	57 44	149 120		145 120
LITCCE RADIC SECAUCAST	20 5	· · · · · · · ·				12 2	8 3	20 5
417011 AINCOLD REF I	346 1	18		. 18		270	54 1	364 1
417012 FIFCCND FEF II-	154	11		11		131	34	155
417013 AIRCOND REF ITT	· · · ·	2		2	74	8		
117021 APPL REP 1	•		. 16		14			29
717022 APPL REP 111/2			2		7			Ś
417331 AUTC EUDY 1	360 2	112 1	64 1	15	29	445 3	27	472 3
_ 417332 ALTO BLOY 11	169	35	. 26		- S	192	12	204
117333. AUTO ECUY 111	2	10	2	· · · · · · · · · · · · · · · · · · ·		12		12
- 417041 AUTC MEER T	033 8	942 12	22/ 5	213	581 7	1597 ZI	13	1023 21 BAH A
- 17042 ACTO MCCH 11	550	• <u>7 2</u> 0	2 1	•••	87	105	1	106
117044 CENFACT CAR NEC	. 20					26		26
- 417051 ATRCR HECH I	153 2			· .		146 2	7	153 2
417032 AIRCE MECH II	25					93	2	55
1/COL CON AFT 1	42 44					26 51	34	50 57
LUITOCE LUM AND II	10. 10		····. ·· ··	· · · · · · · · · · · · · · · · · · ·		4 4	• • • • • •	
-417071 0048 20010 1	3 1ú	• •		• •		5 16	•	5 16
-117072 LEMK PEUTU 11	8 7					8 . 7		8 7
-1117021 CARFENTRY 1	409 2	8 333		103 2	565	1032 . 10	45	1077 10
_ 417032 CARPENTRY []	214	265		65	202	5/1	12	583
- 917033 CAFFLATRY 111	215 1	65 1	45	10 1	132	248 2	£2	300 2
Z HIZARI ELECTRICITY I	CA 1	34	26	10		126	6 1	132 1
217053 FIFCHRICHTY III		14		14		14	••••	14
417101 DIESLL ALCH I	333					322	11	333
- 417102 CIESEL HECH 11	203		• · · •		en e	192	11	202
4171C4 BRICK MASCH 1	294 1	30	· · · · ·	· • • • • • • • • • • • • • • • • • • •	···· (3	144	<u>40</u>	143
JULIOS BRICK RASEN II	123	~ }		5	14			6
UITICT FLUMING I	30	32	•	32		60	8	68

GKLAHICHA STATE DEFTSFISENT OF VECTTICHAL AND TECHNICAL EDUCATION Sey Nattenn Fingelystitteren trendes USACCOMPENSION AND SECOND

ŧ

	CLASS CLASS	AVTS HS 4	UREAN SIBURDAN RURAL	SEC ADULT SE TOT	
	TTICE FLUTEING II	15 268 02 150 25	27 2 103 22 20	11 4 15 5 397 65 31 6 418	о 1
	117112 DRAFTING LL	115 24 75 6	12 1 48 4 16	1 189 JC 2 191	30
	417121 ELECTACNIES 1	JJ7 16 180 10	91 6 (E 3 21	1 477 24 4G 2 517	26
	A17123 ELECTRUNICS III		12	20	
	417132 HAC TV RCP I		25	28 20 48	
	SIZIAL PRINTING L	123 122 U4 52 32 35 65 21	20 8 45 40 19 13 47 17	▲ 200 163 7 11 207 ▲ 96 58 2 2 5€	60
	117143 FRINTING THE 117151 FACH SHUP I	319 3 42	42		5
	117152 MACH SHUP II 117153 MACH SHUP III	149 7	7	149 7 156	
	17161 SHEET HETAL I 17102 SPEET ALTAL II	1 73 55 66	23	57 1 58	i
	-317163 SHEET HETAE III	J 2 566 4 242 5		5 5 5 7 7 19 8 70 1 809	9
		249 115	83		7
	117191 SPL ENG REP 1		118 4	103 1 94 3 257	4
	17221 CAUINETAAK I	ζξ	32 3. 19	G5 3 65	3
	AITZEL CHEINEFTAN II	143	12 1 14 /	122 26 149	1
	417285 CHEM TECH 1	19 22	· · · · · · · · · · · · · · · · · · ·		28
	117286 CHER LECHILI 117291 FAR'S EJJIP RP L	53 53		5 3 1 5 6 50 58	8
	117292 FAFR EQUIN APTI 117297 RERTICULTURE 1	1 1 42	· · · · · · · · · · · · · · · · · · ·	9 9 11 16 4 26 15	42
•	-17301 HLV EULIP OPER		• • • • • • • • • • • • • • • • • • •	4 2 4 6 36 5 42	2 5
	ATTIJO2 FEV EQUIP MAINT	42		42 20 3 109 14 129	17
	17335 CARPENTRY 17306 EUTCHERING	22 21 1		22 22	
	173C7 ELECTRENICS 117338 COMPACT CAR REC	16		18 18	
	SITSIS SELCER TSITSII AIRCEAFT FRAME	45 1 6		81 85 6 6	1
	17321 ELECTRIC LINEMA	12	· · · · · · · · · · · · · · · · · · ·	12 12	
•	- LETTI UNCLASSIFIED	55 55	63 36	99 55	31
	20011 CVET PLCH C I			120 120 120	4
	S.23021 CVET CENS C 1	£12 2	105 407 2	512 2 512 512 3 512	2
	geover their time (1)			4//	۷
		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	- · · ·

20033 CVET FURT I		22 2 10	1 1 1	15 4 25 5	7 F F 7 7 F	
PJ20034 CVLT HCRT 11	1 2524 1949	13 2 13	177 341	13 2	13 2	
21031 CASIC PREVOC ST	194 145	165 1 36	· · · · · · · · · · · · · · · · · · ·		4163	
Syssell CO-OP VO ED LT	- 24 27	543 522 124	194 72 68		595 583	
TUSJII ACLLT LVE	Y. 4 . 41				4	
395312 SPECIAL ADULT	3 5	•	, K. 1411 A. 11 A. 14 A. 14			
****CELUMN TOTALS	10701 2758 3	31581 E44C* 20CE	569 3641 916	26305 6955 41278 10940	1370 297 426 2 112 38	
	11	13 11 9.8	21 10 35		11 11	-
	, +p) (h)	25 10 2558 . 1759	292 7.363 631	26,241 1:25 2:116 3101	1517 217 3103 3447	
		• • • •				

	UKLAHCKA STATE	DUFARTIENT OF VI SEX PATTERN FN SCECCL YEAR FERALE ORIENTED	CLIPENT TRENDS ILIPENT TRENDS ISTE-ISTE C CLASSES	- EDUCATION	
CLASS CLASS # A	WTS IS	• URBAN	SLOLRBAN BLRAL	SEC A	OULT
CUCE NAME * #	F K F	* # F	F F F	• H F , H	F ++ H F
J4JJ2 CE 11 48) ELC 659 55C	230 367	361 427 168 210	. 747 1162	4 747 1166
34003 UL 111 23	. 37 336 384	. 126 127	145 128 61	5 359 421	
04335 CASHIER CHECKER 3	116				J
07011 ELNTAL CFF ASST	83			13	10 85
GTUZI NEG CHFICE ASSI	155		· · · · ·	7 30 634	
APPENDENTS SEE 11		· · · · · · · · · · · · · · · · · · ·		······································	
ATCAL PRACTICAL NUMBER	3 61			3 \$3	3 03
JTAN PRACTICAL NURSE 16	677 4 162	2 117	2 45	2 20	3 837 20 839
J7JSI CFEF FH TECH Y	40		-		40 9 40
UJJ11 CCMP HE I	247 5266	38 . 620	22. 1499 177_ 7167	247 92861	247 \$286
09012 C(MP HE 11	61 642C	5 329	30 1105 22 4920	61 6420	61 6420
09013 CCMP HE 111	26 3563	1 166	19 (25 6 2763	26 3563	26 3563
09014 CC2P FE IV		45	337	9 2490	S 2450
OSCUL CHILD LAKE I		1 100		1 2/5	
USC22 CPILG CARE II		1 25	40 2 04	1 60	
	21 27		30 2 9	2 172	12 2 204
AVAL FERA NET I 75	206 78 178	21 114	17 6	110 377	7 117 364
BYDAZ FECS WET 11 17	56 15 16	12	16	28 63	7 29 70
JACES HERE FLENISH I	34 29		29	55	8 63
04052 HERE FURNISH 11	12			10	
COCOL FANILY LIVING	2378 1767	. 55. 83.	516 451 1367 1193	23781767	2378 1767
09071 NLAK GRIENT	432 666		220 218 212 445	432 666	432 666
JJUJI FASH & MERCHAN 1	135 1 42	•	1 15 27	2 160	11 2 177
0905J FEFC	27 . 41	the same search and	4 5	1. <u>1</u>	
COUPA CECPERATIVE HE		42 100	. 7 58	······· 110	
USOSS CCCUPATIONAL SR 1	20		30		
LANDA CECENTIA COR. 7	23	7 116	3 80 35	6 251 1	16 7 247
INCO CIN SHE CIE	20 66 553	A1 424	7 235 12 333	60 1010	2 60 1012
LACE CATA PROC COF	7 22	5 22		\$ 22	9 22
14039 EASIC SKILLS	266 717	40 211	.74 171 92 333	206 717	206 717
14CCU VOL 1	74	53	21	74	74
14307 VCE 11		55		55	
14311 EANK/SAV & LUAN	33			32 .	1 33
14021 UATA FALCESS 71	312			67 233 4	28 71 312
14031 CLN CFF TRNG				1 3/8 _ 3	225 4 617
14G/L SEC JENG	013		· · · · · · · · · · · · · · · · · · ·		137 13 022
INCOLUCION IS	14			11 17 4	2 13 19
				3	AA 7 AA
TTIRT CRAMETINGS T	146 3 377	1 163	1 90 1 124	7 523	7 523
17132 CESPETULGGY II	6.3 5 225	62	51 5 92	5 200	5 288
17193 CCSMCILLCGY 111		2		ę	5
17201 TAILURING 1		13 6 .			13 6
17202 TAILCHING 11		E ' 6		в. 6	8 6
17203 TAILORING FIL				1	1
17211 UPI CLSTERY 1 20	9 23 16	25 8		50 22 3	3 53 25
LIZIZ CHILLSIENT II 10	J. 4		• •• · • • • • • • •	· · · · · · · · · · · · · · · · · · ·	3 20 12

٠

																				_	_		_	_	the second se	and the second se	Statement and statement		
CLASS C	LASS APL	:	м	AVT	s F		ж ·	۲ ٤	F	:	URI	JAN		SLE	LABAN		A VA	AL.F	:	M	SEC	F	N	ADULT	F	::	HTOT	F	
17213 UPFOLS	FERY 111 F GIAL I				20			· ·	1	: : · ·	2			2		• • •	:.		• • •		4 .	19	-	•	. 1	۰.	· _ *		20 -
17284 UCC SEI	R GIRL II	• •				· · · ·	. 6		s																}			¦	2-
20031 CVET FI	CME C 1 CME C 11.					· ·	2		105		••••		•••	5	17 4	o 5		. 3	ō .'.	-	5	75	• •				5		75
++++CCLUPN TO	CTALS .			89	458	3	47 č	2. 3	004	4		2113	457	1 2 5	c_ej	0.6	2240	205	31	_50	67.3	2913		_84	171	3	515	1_34	5.27_
STOTAL LAKNO	NS 405	0		5	92		. 14		20		. 11					1	11.				ه .			<u>່</u>	15		,'3	-	• . •

.

.

-

						SEX P SCI PALI	CCL Y	EAFOLL EAF 1 NIEC (L	PENT TI 576-15 ASSES	RENDS 77			ч.					
	CLASS		vis`		+5	+ UR	AN	SLE	LREAN	RUI	AL	• •	SEC		DULT		TOT	11
6.5.5	NAME	÷ м'			F	* P	F		F	N N	F	* M	F	M	F			F
501331	AC CCC THNG I		-	125	24			45	7	180	27	235	j 34				235	34
5 01002	AG CCC TENG II			. 45	. 6			2		43	. 6		5 6				45	6
201011	VUC AG 1			5861	. 752	. 134		473	90	5254		. 5861	752				5861	752
-01015	VCC AG II			4371	253	63	25	. 315		3595	315	4371	393				43/1	393
(0101)	2 VÇÇ AG 111			3505	221	60	26	. 272		2674	103	2200	221				3200	221
501014	VOC AG IV									2191		2216				· · · ·	1707	
201051	AG ALCH I	· · · · •		170 -				110			20						. 1703	JZ
- 31622	AG MECH II							26	· • • ·		37		60				128	**
421221	FORTICOLIONE I	/				•0	32											
- 01 032	ECTESTON A			· · · ·	· · · 7	···· · • · · ·	-			. 36		36		,			31	
	AG BUSINESS	1.9			·· •		c								5	-	18	•
564011	FRUECTOEL			56	106	3	. 17	23	36	20	53	56	1 1 6		-		56	106
504313	FRUILLI DI TOLILI		. 15			-												15
17001	ICT I		10		. 346	108	27	. 150	152			. 560					560	364
517002	101 11	2		133	S2	11	6	48	53	- 74	33	135	5 92	_	_	_	135	92
517311	AIRCOND REF 1 -	352	2							-		263		8	9	2	352	2
\$ 17012	AIRCONJ FLF 11-	101			5							144		3	7		181	
1 17012	AIRCEND HEF 111-	4				-												
: 17321	AFFL REP 1	28		35		· !				32							26	
: 17925	AFFL HLP II			15						14							13	
117023	AFPL REP 111.			1.11						· · · · · · · · ·		- 512		2	5 .		457	3
17031		1.1.2			.	26	. - -					216	· · · ·	· • · • • •			224	5
17,132		102		1		ĩ						5			•			
C1 7031	ALTC BODY TILL	46.4	7	í a D	32	245	10	163	2	57 e	20	+ 1787	35		5		1852	39
C1734 '	ALL SPECH II	450		44 5	3	110	· · · i	70	· · ·	268	· · · · · · · · · · · · · · · · · · ·	861	j	1	7 .		858	Ĵ
17031	ALTE RECE THE			63	· ĭ	5	·· · -			68	· · · · · ·		- ī				55	· 1
\$17044	CENFACT CAR PEC	· 3ĭ	1		•							26	i I		5		31	1
117051	ATRCK MLCH I	143	. z		-								1	. 1	6	1	143	2
17052	AIFCE HECH 11	. 85	. 1	-								63	1		Ζ.		85	1
\$ 17361	LLNY ART I	· 40	40	20	13			20	13			60	55			2	60	61
170-2	CLMA ANT II	20	. 18	ŧ	7			5	7			31	24			1	21	25
. 170LJ	CC## AFT 111			. 5	3			E					3				5	3
- 11371	CCRA PHUTD 1	7	14			-	-				••••		14	·· .			2	11
-{17072	COMM FRUIC II	- 1	12		•							1246	12			e .		12
- 11/051	CARFENTRY 1	550	10		y			104		513	y	501				3	1333	
- 11032	CARELFIARY 11	225		16	••				•••	117		- 114			y .		134	
		102				· 31						- 322		· · · · P	5		417	3
		130	5			24						106		ĩ	Ř.		124	-
		1.0		- 4								19			-		19	
111101	DIESEL HECH I	376	· _ · · ·									343	1		3	. '	276	1
117102	CIESCL MCCH II	234										1 7 1		- 1 -	3		204	
\$ 17104	BHICK MASEN I	333	1	43				21		22		249	- 1	4	7		356	1
517105	ERICK NASON 11	.131	. 1	26				14		12		. 149	1	1.1.1	e		157	1
117164	EFICK MASCN III			5.				3		2		5					5	
517107	PLUATING I	41										35			5		41	
(17100	FLUARING II	- 23										-22						
517111	BRAPTING I	290	. 49		14	. 22				5			. 55		, (212	0.0

GALAHCHA STATE DEFARTHENT OF VCCATICNAL AND TECHNICAL EDUCATION

	*	-	15		HS	4	LA	AN		SLCU	44.05		FUFFL		S	EC		ADL	ILT_	::	101	^L_
CUJE NAVE	•	M	F 1C	۴,		F1C*) N 14	F		M25	F .	*	7	· • •	196	וני מ		ົຣ	- i	2	200	. * 0
CITILS CHAFTING III		4			i i		5			3			,5 1		17	24		56	2	3	514	27
CITIZI LLECIFUNICS I		140	21	10	8	0	25			11			10		221		, _ `	15	1	i .	242	. 8
17123 ELECTALNICS III				1	C								10		14	5		13	1	L	58	3
17121 RAD TV REP 1		29													23	•		. 4			25	
217133 HAU TV HEF III		1					26	·	£		- 15		12	· · c	21	20	5	29	2.	s	243	226
,17141 PRINTING 1 217142 EEIKTING 11		51	1/3	2		26	- ĉ	• • •		2c	23		.9	ź	85	70	3	1	4		55	82
S 17142 FHINTING III					ş .	. 1.				!	1		3				3 '	58		1 .	403	: i .
STATEL MACH SHOP I		1/0	•		1	· · · · ·	24	• •	• • • •						1 80			14			194	
FITTEL SHEET HETAL I		81		1	7	•	17								54			ĩ			55	1
CITISE SPEET METAL II		640	. 13	. 21	3	1	115	· . 1		15		-	£3		701	1	2	86	. 3	2	853	. 14 .
11/1/2 ACLDER 11		278	-		?		53			15			17					21			15	
17173 WELDER III 117191 611 ENG 660 1		1.81	2		à.	1.1				E					162		1	27	4	2	185	3
17192 SHL ENG REP 11		58.	. 1		2.					. 2.					58		1	. 2	•••	· · · · ·	6	•
117193 SAL ENG REP 111		6		ç	с *	1	36			19	1		35		90		1				90	1
172.22 CAE INCTHAK 11				X	E	i .,	11	. . 1		15		••• ••	E	-;:	20		•				ĩĭ	. .
17291 DCC SER BOYS 1		165	3		- 			~			•••••	-			147		3	18			165	. 3
117232 ELC SER ECYS 11		07													1	1	÷ .	v		•	ĩi	18
17235 CPLN ILCH I 17236 CHEN TECH II		.2	2		÷										2		2		• •		52	2
117291 FARE ECUIE AP I		52													15	5					ĩŝ	
117295 RES INST REP 1		13		· 1	S .	. 14							19.	34 -	- 19	14	<u>,</u>	12		n	15	14 82
SITZET HERTICULIUNE I	1	53	82					·			• · · • ·						6	•••		1	E	
-"17290 FURTICULTURE TIJ"		ม รั																130		6	130	36
17302 TRUCK UNIVER		1 10	95		~	•		•										15			15	
17305 CIFFERING	-	20	2													2	1	18		1	18	4
-17307 ELECTRONICS		12																14			14	
17JIC BELDER	•	143	. 6	• • •		. i	·						• ••			· · · -		143		c	143	0
TALTALL AIRCRAFT FRAME		8																. 20			20	
AITJAL AULT ICT		10				· ·				·				· · · · · ·	•			4			16	
117351 FLUNDRY		9 .		. 10	15	10	105	10	• • • •	•	• ••				21			84	1	0	105	10
117362 FEATING & A/C		20											05	62	539	10	0	18			539	100
213111 UNCLASSIFICE .		134	- 38		7.								\$7		. 9						57	
20012 CVET MECH C 11	•			50		6				163	2	4	ś1	• •	594		5				594	6
(2002) CVET CENS C I					· .																	•

	AVIS		LCLHEAN M F	HURAL F M F	ADULT ** TUTAL H F ** H F 3 475 3
CODE NAME C20022 EVET CONS CII -20033 EVET HERT I	475	\$ 11 9 5 3 2	160	8 19 5 3 12 7719 6936 10225 896	9 19 5 12 5 10226 8573 - 12 12
22034 VCC CRILIT CAR CIJOSI LASIC PREVEC ST 121061 LEARNING LAB	1991 1832 E235 616 326		SE	- 51 - 11 - 124 - 1 400 15 	2 216 169 616 32C 64E 610 200 123
VENTER STATE	34 25 460 60 116 42	58 21 21 272 221 272 27 13 27		35	8 242 242 261 288 7 88 52 100 59
****CULUMN TUTALS	12195 2109 3440	5 10565 2447 870	2858 693 61 19	25120 9002 44534 12	24. 12120
	10:01- 1277 76:	3 34-4 2"79 772 too b 1 2"79 772	14		10 1131 131

•

-

.

LKLAFERI STATE ELPARTRENT OF VCCATIONAL AND TECHNICAL EDUCATION Sex pattern frollfert trenes School yeaf 1976-1977 Fenale onionted classes

CLASS CLASS	• AV15	HS	UFEJN .	SLEURE /N	AUFAL	SEC	ADULT	10 TAL
CCDE NAHE Jaugz de 11	* M F 57 211	M F 736 1105	• M F 239 J42	316 487 .	161 267	792 1219		793 1320
JAJJJ EE 111 DZCLL FENTAL FEE ASST	. 13 . 58	277 347	. 85 103	. 132 133	. 60 111	288 430	2 15	250 445
-37321 NEC OFFICE ASST	157	.				137	15	157
-07032 HEALTH SER 1	34 658	2 44		23	2 21	1 63	2	1 65
07041 PRACTICAL NURSE	2 42	· · · · · · · · · · · · · · · · · · ·			51	1 22	27 955	2 42
GIJSI CFER FX ILCH	9 60					• ••	9 60	S 60
JIJII CONF HE I	2 9	217 5011	17 2 621	26 1493	274 7697	317 9811		317 9811
09012 CC4P He 11		76 + 6455	13 296	7 1071	58 5088	78 (455		78 6455 E6 2450
CSCIA CCPF HE IV		20 2388	. 2 150	1	17 1904	20 2388		20 2388
09322 CHILD CARE I	2 132	45		13		73	16	2 -00
05031 CLCIH PJ1 1	1 67	4 184		5 52	4 132	5 230	21	5 251
25041 FECC MGT 1	91 214		15 6		30 67	112 240	24	136 289
05042 F62D MGT 11 07051 FCVE FJRA13H 1	25 55 37	35	7 • .		1 35	33 62	6	33 64
COUSE HERE FURNISH II	11	1124 2217	111 100	1256 626	1707 1476	3074 2210	_ I	15
09071 SCAK LRIENT		540 631	51 35	265 249	220 347	540 031		540 631
CICEL FASH & REACHAN DIJJJ FLAD	6 169	40 30		. 7 . 3 .	. 33 . 27	40 30		40 30
05054 CLEPERATIVE FE	1.44	120 275	. 50 .149	EA	80 142	130 375	15	130 375
09321 VECATIONAL SERV	12						9	12
14001 SECRETIAL CEL	1 55	27 775	_ 14 _ 297	7 131	é 351	27 758	JZ	27 798
14JOJ DATA PHEC COE	22	219 915	E 10 59 208	50 179	110 452	8 10	, 2 2	10 12
143C6-VGE 1	•		. 1 40	3 . 107	47 213	51 300	1 A A A A A A A A A A A A A A A A A A A	£1 366
14011 BANK/SAV & LCAN	1 32	- 8 144	_ 2 33			1 25	. 7	1 32
14J21 CATA PROCESS	71 236	2 139	105		2 34	62 257 9 406	9 29	71 206
14141 ACCOUNTING 1	20 31				·····	7 7	13 24	20 31
14071 SEC TARG	17 7	10 8			10 8	26 15	1	27 15
14321 CEN DEF CLERK		· · · · · · · · · · · · · · · · · · ·					6 205	1 103
1/101 COSHETOLOGY I	1 227	2 408	2 229	7 74	129	3 632	3	3 635
17201 TAILCEING 1	1 37	E 10	. 0 10			. 8 .10	· .	8 10
17292 TAILORING TI 17293 TAILCHING TI						5 3	• • •	5 5
17211 LEHELSTLAY I	24 30	39 8	39 8			93 3E 22 A	*	93 38 27 A
THE OF OLSTERT IT	1.5 5			-				
LLASS	* 4V15	⊁s	UREAN	SLEUREAN .	RURAL +	SEC F	ADULT **	
COLE NAME	* N _ F	7 F 1	2			° 4 ° 3		20 17
17331 UPHOLSTERY	2,0	20 17.		12 11	20			10
20031 CVET HOME C I 20032 CVET HOME C II		1		3 64				3 103
****COLUMN TOTALS	405 545	3 4661 31665	775 3341	2101 6043	2921 21698	6147 34319	138 2181	6286 36535
+TUTAL LARACENS . 507	s	······································	······································					
			A		and the second s			

UKLAFDRA STATE DEPARTFERT DE VCCATICNAL AND TECHNICAL EUUCATICN Sex patt CRN Enfollpent Thends School year Hale Oriented Classes

CLASS	CLASS	•	AVTS_	, r	s _		Ν _Γ	Sueu	REAN			• s	EC	. "^	DULT	•••	TGTA	L : F
63160	AG ELC JENG I	* ¹⁴ /	•	224	539	•	•	27	· •	197	35	224	39				224	39
631002	AG DEC TENG IT			23	5			2	2	21	3 `	23	5				23	
4 21 21 1	VCC AG I			5860	645	1.156	. 60		130	5306_	. 655 .	5860	845				510	843
< 11215	VCC AG 11			4314	473	54	30 -	224	12	2655	195	2851	241				851	241
301013				2712	172	16	12	120	18	2474	152	2712	172			ž	712	172
1 61 621	AG SPCH I		•• •	1663	···· sì ·	<u>3</u> 9	- î î	146	3	1498	47	1653	51			t	683	51
-331022	AC NECH 11			354	5	· 3		42		309	5	354	5				354	5
110102	HERTICULTURE I)	,		107	87	30	- 24 .				53	10/	87				107	21
101032	FORTICULTURE IN					. 13	- 11 -		· · · · · ·	···· · • • • • •	17		41		· · · ·	• •••	41	- i
331041	ALCI NISTROSS				• . • .		· · . ·	• • • • •		· ·- · ·	· •	ji	- TT - 1Å	· · · •	8		49	14
- 34311	FREJECT DE T			64	1(7			37	42	27	65	64	107				64	107
5 64012	FECJECT DE 11				1		1.											104
617001		. 49) 16	551	390	111	42	165				155		· · · ·			1 - 5	590
-11032				125		1.4		¢¢	22	70	43	248		9	17		345	
217011	ATREEND REP 11	15										129			25		154	
al 701 1	ALECEND REF 111	é i		- 1 - 1	••••	•						17			4		21	-
617021	AFFE HEP 1 -	Sec. 35	2	36						26		71	2		:		71	2
(17)22	APPL NEP 11-	1.								11							~	
517024	AFEL REP III		·		• • •	6.6			•··· ··			406	6	•• •	24	1.	scŏ	7
-01/031	ALLE BEDY I	20		53	e	30	•	-	••••	22		252		7	3		255	
· 5 17013	111 YG35 3104			7		2		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	·	5		11		_			11.	
- 117041	ALTO HECH I	776	5 17	E7C	46	208	13_	. 173	2.	489	31_	1621			7	1 }	643	61
(17042	2010 HECH 11	485	•	456	·s	124	<u>, 5</u>	. /g.	•		· · · · · *	9/0			2		97	
11043	ALIC PLCH III			50		0		-				28			3		21	
	AISTS NECH 1					**						131	. 4		3		124	•
-617052	AIRCE NECH II											65			2	-	67	1.0
+ 17061	CEMN ART 1	i ii 29	≥ <u>5</u> €	17	11			17	11			46	64			3	30	56
-517012	CCFF ART II	22	2 23	10	1			15	5			30	20				<u> </u>	2
317683	CLAM ART III	10		· •.	. 4	• • • •		•••	.			10	15				10	15
	CENY FOLLE II		10									ົ 5	10				5	10
1.17091	CARPENTRY I	520) 7	846	5	18		66		742	5	1305	9	6	1	3 1	366	12
1-17032	CALFENTRY IL	25	r. 1	357	Z						· · · · · · · · · · ·	. 113	. 2	. 1	1		111	3
17083	CARFENIAT III			109	·· ,	12 .	· · ·	. 16	••••••			307	4	· · · 4	ġ ·		156	4
412052	ELECTRICITY I	150	ĩ	22	•	20	•	12				170	1	1	2		182	1
2617052	ELECTRICITY III		-			3					i	· · · · · · · · · · · · · · · · · · ·			_	_		-
-117101	ETESEL MECH I	i 402	: 5										· · · · · · · •	. 2	2	1	402	5
\$ 171.02	DIESLL MECH II	202	-					10				329			ŭ ·	2	368	5
31/104	BRICK MASEN I	327						ié	•	10		173	-	ī	1	ī	184	i -
17104	BRICK MASEN III	2	•	4						2		6					6	
111107	FLUAEING 1	25	• • ·		•							27			2		25	
4171Ce	FLUPDING II	20						60	2		6	340	6.6	-	Ă .	3	418	71
- 3 I MITI	CRAFTING I	ل ت د			_ C	·•			-					···· · •				•••

,

-

LASS (17)113 (17)11	CLADS MANGE EMAFTING III DEAFTING III ELECTEVING III ELECTEVINGS II HAC TW REP II FAC TW REP III PACT WREP III PACT WREP III PACT WREP III PART WREP III PART WREP III PART WREP II PART WREP III PACH SHEF I PACH SHEF II SHEET NETAL III SHEET NETAL III SHEET NETAL III SHEET NETAL III SHEET RETAL III SHET RETAL III SHET RETAL III SHET RETAL III SHET RETAL III	10000000000000000000000000000000000000	TS 23 22 26 164 56 26 164 56 186 12 12 186 12 11 1 11 12 1 11 12 5 12 12 60 10 22 10 13 26 10 13 26 10 14 101 26 10 11 10 13 26 10 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 113 26 27 25 4 20 25 4 11 113 26 26 6 6	+S F + 3 	UREAN M	State State <td< th=""><th>RURAL + + + i + - 27</th><th>$\begin{array}{cccccccccccccccccccccccccccccccccccc$</th><th>A DULT H 6 - 38 - 12 - 17 - 15 - 6 - 7 - 42 - 4 - 7 - 3 </th><th>$\begin{array}{c} \bullet & T(T AL \\ \bullet & M \\ & Ie4 & f \\ & 1e4 & f \\ & 1e5 & 2e5 \\ & 2e5 & 2e5 \\ & 1e5 & 1e5 \\ & 1e5 &$</th><th></th></td<>	RURAL + + + i + - 27	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	A DULT H 6 - 38 - 12 - 17 - 15 - 6 - 7 - 42 - 4 - 7 - 3 	$\begin{array}{c} \bullet & T(T AL \\ \bullet & M \\ & Ie4 & f \\ & 1e4 & f \\ & 1e5 & 2e5 \\ & 2e5 & 2e5 \\ & 1e5 & 1e5 \\ & 1e5 & $	
CODC (21041 -21041 -21041 -21041 -21041 +21041 -495012 -305012 -30	NAME VCC EFTERT CAR UASIC PREVOC SI LEARNING LAD EXTLORAFLACEWAN CG-CP VC ED IN CC-CP VC ED IN ADLLT CVE LUWN TGTALS	* H 2350 144J 284 31 31 33 13715 74 74 76%(S	2450 7220 53 1154 6 252 22 131 4793, 3222 21 77 710 547 7 2105 18 12	F 115 30 1 452 96 5622 23 	ORCANY F W F 368 150 14 26 2217 211 72 72 1/113 411	SCLUME 4N H 12 E2 15 18 2 62 71 2 62 715 2 62 715 2 62 715 2 62 715 2 62 715 2 62 715 2 72 2 75 2 75	HUHAL Image: Constraint of the second s	SEC 547 547 547 547 547 547 547 547	ADULT F 2C6 383 72 54 30 64 1689 711 72 1	* 1017/L * M F 10070, 8677 53 36 1442, 1164 256 252 547 556 162 118 33 67 46940 1444	

.

.

-

and other in the second of the	· .		_`	KLAHURA	SINTE	SEX PARTI	ATTERN FOUL YE ORIEN	ENHGLL	10 ALL PENT T 577-19 ASSES	AND TECH RENDS 78	FRICAL	ECUCAT	ION					-
CLASS CODE 04002 BE 04002 DE 04002 DE	CLASS NAME II III III III III III CFECKER	¥ и 51 14 26	VTS F 198 91 467	717	F 1G38 472	• URE • # 218 94	AN F 207 123	508 1 240 119	URBAN F 5 CG	Π. Π. Π. Π. Π. Π. Π. Π. Π. Π.	AL F 225 179	* 5 • N 756 J06	EC 1235 557	н	ADUL	F 1 178	** TG1 ** M 768 300 26	F F 1236 563 467
	TAL LEF ASST DEFFILE ASST DEFFILE ASST DEFFILE ASST DEFFILE CTICAL NORSE DAZ ASST	L E 2 4 E	75 135 537 54 45 18	• €	77 11	•	•• 		······································	6	66 7	37 2 4 3	71 121 555 65 49		2	4 14 59		75 135 614 65 45
-37341 FHA -37331 CPE 97361 NUR 07371 NED -37341 GEN 05001 CH1	CTICAL NURSE R RM FECH SE ASSI OFF ASSI UFF ASSI LD CAFE CVE	22 12 6	735 36 30 17 10	. 13	131 • 62	, 11 , , ,	62	 					61 2 3 		31 12 6	825 34 88 14 5	35	685 36 88 17 10
09003 FER 09005 FEC 09012 CCM 09012 CCM 09013 CCM 09013 CCM	0 CVE 0 HGT CVE F HE I P FE II P FE III P FE III			24 16 565 184 76 21	52 18 5210 6100 3337 2458	18 16 25 15 3	33 18 573 251 120 15	54 37 35	45 - 1340 - 875 - 564 - 375	45C 132 34 21	14 7297 4754 2653 2058	24 16 569 184 76 31	92 18 9210 6100 3337 2468		····	•••	24 16 569 164 70 31	52 18 9210 6100 2337 2480
03022 CH1 03022 CH1 03031 CLC 03031 FLC 03031 FLC 03032 FCC 05031 FCC	LD CARE I LD CARE II TH MGT I TH MGT II D MGT II C MGT II F FUENISH I	1 2 1 78 18	125 50 211 23 210 59 21	3 50 6	164 26 51 6	28 6	51 51 148	· · · ·		1 1 22	89 20 30	1 3 2 118 21	284 55 354 50 246 60	· · · ·	2 _ 3 ` 3	23 21 15 5	2 128 24	207 59 375 56 261 65
04052 FCR 04061 F4R 05071 WEF 04091 FAS 04091 FEF 04091 FEF	E FORMISH II TEY LIVING K LEFERT H G MERCHAN C DIRATIVE ME	•	10 19	3C44 541 1(77	2516 579 21	114 39	116 54	1258 267 10	799 246 21	- 1632 215	1601	3044 541 10	16 2516 579 14 21			•	3044 541 10	16 2516 579 18 21
	LPATIONAL SR ATICNAL SERV RETIAL COE OFF CJE A PREC COE	2	134 19 69	6 - 45 - 3	166 665 17	i3 	15 17 375 17		106 162	18	43	6 49 3	162 15 213 889 17			24	6 47 3	135 186 19 235 889
14010 VCE 14010 VCE 14011 EANN 14021 DATA 14021 GEN	I 11 (/SAV & LUAN FRCCESS DFF IRNG CURTING	72	51 364 443	2e 15 E	472 221 128		115	1	43	36 15 3	28J 146 28	38 3 61 10	472 221 21 276 356	1	2	20 83 215	354 30 15 72 12	1370 472 221 51 364 571
14042 ACCO 14071 SEC 14091 GRAF 14092 BLS	UNTING II TRNG HIC CLH4 URG 6 MGMT	1 5 12 12	490 14 17	12	18			· · · · · · ·		12	12	21 10	360 2J 10		3	13 120 3 7	1 5 24 12	33 490 26 17

.

CLASS	CLASS	•		AVTS_		HS_		UHEA	N	510	LRUAN,	RUHA	L	S	EC.	AC	ULT	11 TO	TAL
CUUE	NAME NED DECOSTADA	*	м,	^F	۳	F	*	M	F	м	F -	м		· * ,	- r	M	۴ ۵	** "	5 47
14331	GEN CEE CLERK		4	209			-					· · · · · ·	t ::	•	17	· · •	252		269
14241	BANKISAV & LC	AN		3 51													. 38		51
14351	ACCOUNTING			22												, <u>,</u>	12	·	
14361	SPALL ULS NGM	1	14	126					•						8	14	117		125
14371	CUSWITCHISY I		3	230	17	408		4	181	11	65	. 2	142	20	636	-	8	' 20	644
117132	COSHETULUGY I	i T		125	i	210		1	115		1 23		72	1	231			1	335
17103	COSPETILEGY I	11				1									1	1		1	1
117201	TAILEFING I				ş	. 4		. 9	· •	· · ·					4				
1/202	TAILUSING 11	•••••			-		· ·	- - -						s		· •··· ·· ·· ·		· · · · · · · · · · · · · · · · · · ·	ž
17211	UPHOL STERY 1		. <u>3</u> 8		32	···· 11		~32 °	17					°0	56			70	`58 ⁻
17212	UFFOLSTERY 11		20	8	13	. 3		13	3					33	11	••		33	11
17213	UPHCESTERY II	1	. 1			_1 ·									2				
-17283	DCC SER GIRE	1	1	13		· · ·	4.14			• • •••• •		····	,				···· · 5	··· 18	
20071	CANT HEAT					úĚ				ē	32		36	8	68			à	68
20012	CVET HUME C I	1			č	73				. <u>.</u> 5	46		. 27	6	73			¢	73
****((ELUMN TETALS	• • •	48	7 5830	625	e 2086	e	5,5	2353 42	236	e e 155 8 72		21358 £7	604	5 34246		6 228	678	5 36716 64
# IUTAL	UNKNUANS	532															·· · /		•

. .

UNLAILEA SIAIL	SEX PATTORN ENROLLPENT	AND TECHNICAL	ELUCAT JUN	
······································	SCHOOL YEAR 1578-1 MALE BRIENTED CLASSES	979 -		

.....

			MALE	GRIENIE	E CLAS	2253		·								
ELASS (11455)	WTS-	+S	+ URE	AN	SLULF	BAN -	RUR	AL	* . SI	EC-		ADULT	**	TO	T AL	
LCD2 0432 * 4	F	P	· · · • · · · N	F	N.	F	м	F	* N	F	- M	1		H	F	
* / 31000 VO AG		- 17386 19	58 -1- 253	- 116	1512	247	15878	1595	17370	1958				17396	1958	· •
. DI DIC VI AN ALCI		65			29		50	2	85	2				62	2	
. 201705 VO NG YORT'S U		78	25 41	72			3/	13						20		í
91015 %G FUEINERS 24	2								10						26	
							·		- 412	- 12		15	• • •	. 567		•
		>e					20		69	· 6					6	
17317 4LT: TITY		155	95				- 35		749			3a		- 787	6	
1702 4010 8:00 199			41 293	8	239	3	. 832	· 30 -	26 31	75	·-· · 8	31	4	2772		
-17002/ AIACENET "LCH 100	5	•							179	5		5 '	-	185	5	, "
17L02 CONN AST 47	84	16	17		:6	17			62	91		1	10	63	- 101	
2 /17093 CCMM FHOTOV . 15	25								- 15	25			· . ·	15	25	,
17003 CAFFE. INY-9	23	1368	18		174 -	1 -	1158		2150	- 3	12	20 .	11	2211	1. 11	
T/ 17:53 LLICTRICITY -1" 1 527	3	82	1 38	1	24				511					539		
Y 117003 DIESEL MICH					7				540				1	- 127		
TITES BRICK MASSING LIG		C1			-1					5		. .	• • • •	124		
	14.5	121	72 72	2	77	5	12	15.	534	- 113	2	- i i	15	527	128	
			- A · · · 100	·	21 .			- 2		. 26	.	95	20	701	45	-
THING TADLETY FOR THAT IS		••••		0				-	- 41	3		9 .		53	3	
11/004 PC UT (LAN 1 1 1 151	323	124 1	07 43	37	54	53	27	17	257	4:5	. 1	в	24	275	432	
1 17.14 MACHERE SHEAT 192	52	42	1 40	1					599	15	12	21	39	720	53	i
170C4 SHCCT HETH, - 16 149	- 3	31	- 31	• • • •					. 159	· 3	• 1	3		179	. 3	1
17504 ACLDING 1029		30 3	11 154	8	36		. 113		1129	23	20	2	12	1332		
17:04 SHALL THU P.PR-3, 231	· S	36-		-			. 36		200	. 5		7		267		1.1
17205 CAUTICINAKING 4 33		105	13 42	2	- 25	2	28	. *.	1.18	13	'			130	. 13	
117775 FARN TIVIP REPR-13 13									03							-
ARE TODS CEMPACT CAR ALCE 30	¥. 1										-	÷.	1 i	45	· 81	
							-					õ.	· ĩ	- 2	° 1	
WALTON MEAT DEACTS LIG	< 8 j.				• •				• • • • • • • •		•	6	ž		2	
ANTITOD CUSTODIAL STRVI	45	142	37 142	37	-						14	1	37	142	37	-
2-17000 FLURICULTUREA TA 3	J17	- 1 -								12	• •	3	5	3	17	•
	. 5 5	2.2						•			7	3	5	73	5	
17010 TRUCK JRIVLE 30.	\$45	. 									-	36	45	86	. 45	÷ 1.
20 217055" ELECTRG-42CH 20	\ ~ ~ ? ? 	24							. 9		1	1	1 -	. 20		
X-17051 IND C.IEN THU - 3 16 8	人口	S						•	208		-			7, 6		
X-17 31 HHT/L 35, GOUDI-2291	1	65 6	3 28	3					248	. 4				317	. 2	
X 1754 INSTRUMENT REPASS	3 2						200		- 26	,	•	·		263	ĭ	
20005 CV21 4_CH_37	·	1586	1 10.		CA		1 35 1		1547	• 7				1548	47	
1 1000 UNIT 1 1000 15 150		27	10 27	15					47	15				47	10	
1 - 20 116 (VET WEINITUS - (-) 1.0		74	19 34	. 19					34	jõ			•	34	19	1
21315 VEC ERITINATION		ce	1 3 26-	10	. •		32		58	19			• •	68	. 10	.*
59305 ILE (CUDP) JCT 1 1 104	- 119	-1338 10	32 276	180	330 "	287	732	565	1442	1151	• •	• •	· ·	1442	1151	- •
Nr.M. IL									1.1.1							_
****COLUAN TOTALS 930	2 1085	25005 3	443 2004	527	2374	615	20627	- 2301	33323	426	0 14	00	268	34807	452	8

.

SEA	ARTNENT OF VECATIONAL AND TECHNICAL X PATTERN ENROLLMENT TRENDS SCHOOL YEAR 1578-1979	EQUCATION
FEP	MALE UNIENTED (LASSES	and the second secon
CLASS	URDAN SLOURDAN RURAL	* SEC ADULT **- TOTAL
COUL NAME * H F K F *	North Frank Martin Frank Martin Frank	**************************************
UNDID CASHIER CHECKER AND STE 6 54	6 94	12 15 454 16 466
- 04 090 DL (CODE AATIVE (/S 4,77-316-1045-1004-2	299 554 470 692 276 558	1121 2113 7 1122 2120
07:00 HEALTH SER	4 - 27 - 45	35
-07100 DEITA _AJ ASST 13 4)		6 27 7 13 13 40
2 070 JU UPER RN TELIS FITTU	6-	
-27015 PRAC NURSE	4 49 50 50	
29311 CLOTH PROJ 6 NG 2 244 83 24218 1	133 1054 1727 4525 2555 16639	-2 317 $7 - 2$ 324
-03001 /000 AGAT	-28 34 10 27	151 348 19 25 180 373 -
1 09002/HEAL FORNESHING 10 1173 10.97 1045	7 31 18 18 18	13 201 4 20 17 222
- 0909: (EUC) 1041, (COUPE	12 15	12 - 15 12 - 15
-09094 (IUI D (CLOP) - 19 - 19 - 19 - 76 19	19 76	19 76 19 76
14002 UFFICE ASST 1 2, 11324 113 931	15 250 1 107 97 574	119 1454 10 801 129 2255
234401 MARA TOLET // 23 / 29		
2-14002 DATA PROL / #21 78 333 - 15 10-		
17 28 114 12 GRADHICS (11)	17 28 17 28	
14010 KKPG 5 ACCTG 7 122 101		
)" 14010 BANK/SAV & LCAN-1611 13 175	2 2 200 " 7A 1 105	9 $$
- 17724 TAILUPING	14	14 - 8
17005 UFHCLSTLINY 02 51 45 22	39 18 4 3 1-	
20003 CVET 002 CUM 36 231	22 7	22 7 22 7
	767 7186 9478 4163 - 3172 90045-	
	101 2160 5426 0104 2129 20402	0101 00411 100 5884 0880 30315

.

TOTAL UNKNOWNS 32

APPENDIX C

PANEL OF EXPERTS

Panel of Experts

- Dr. Fern Green, Chairperson, Director of Educational Equity Services, Division of Educational Equity Services.
- Janice Burnett, Records Specialist, Division of Research Planning and Evaluation.
- John Friedmann, Acting State Supervisor, DE/Marketting/present State Supervisor of Adult Education.
- Paula Smith, Assistant Coordinator of Planning, Division of Research Planning and Evaluation.
- Linda Wilson, Administrative Assistant of Educational Equity, Division of Educational Equity.

APPENDIX D

4

.

.

.

PROGRAM CLASSIFICATIONS

÷

PROGRAM COMPONENT MASTER

September 22, 1978

Program Name	Valid Program Component
Agriculture (All Vo Ag I, II, III, IV)	A - Ag Mechanics I
	B - Ag Mechanics II
	C - Forestry I
	D - Forestry II
	E - Horticulture I
•	F - Horticulture II
	.G - VAOT I
	H - VAOT II
	U - Orientation to Ag Careers
Home Economics (All Home Ec I, II, III, IV))Family Living
	J - Work Orientation
	K - Clothing Production and Management
	L - Food Management
	M - Home Furnishings
	N - Home Economics Related Occupations
	$x \leftarrow 0$ - Child Care
	P - Home Economics (Cooperative)
	Q - Food Management (Cooperative)
	R - Home Economics Related Occupations (Cooperative
	S - Child Care (Cooperative)
	T - Introduction to Occupations
Business & Office (Office Assistant)	Basic Skills
	SYSTEMS DESIGN AND COMPUTER SERVICES
. · ·	Kevised 09-21-78
	•
	•

VT000014 PROGRAM CODE MASTER LISTING (NUMERICAL) PREPARED BY SYSTEMS DESIGN & COMPUTER SERVICES

DATE RUN 10/31/78

	CODE	PROGRAM	
	C01000	ADMINISTRATION	ADMINISTRATION
	002000	OPER AND MAINT	OPERATION AND MAINTENANCE
	003000	FIXED CHARGES	FIXED CHARGES
	004000	TRANSPORTATION	TRANSPORTATION
	005000	SUPPORT PGM-DISAD	SUPPORT PROGRAM FOR DISADVANTAGED
	008000	SUPPORT PGM-HDCP	SUPPORT PROGRAM FOR HANDICAPPED
	009000	WORK STUDY	WORK STUDY
m_	010000	VO AG	VOCATIONAL AGRICULTURE
m	010029	VO AG MECH	VOCATIONAL AGRICULTURE-MECHANICS
M	010057	VO AG HORT	VOCATIONAL AGRICULTURE-HORTICULTURE
M	010152	AG BUSINESS	AGRICULTURE BUSINESS
M	010154	FARM BUS MGMT	FARM BUSINESS MANAGEMENT
M	010156	VADT	VOCATIONAL AGRICULTURE OCCUP TRAINING
F	040000	DE	DISTRIBUTIVE EDUCATION
F	040166	CASHIER CHECKER	CASHIER CHECKER
F	C40900	DE (COOPERATIVE)	DISTRIBUTIVE EDUCATION (COOPERATIVE)
F	C70007	DEN OFF ASST	DENTAL OFFICE ASSISTANT
٢	C70008	HEALTH SER	HEALTH SERVICE CAREERS
F	C70009	DENTAL LAB ASST	DENTAL LABORATORY ASSISTANT
F	C70074	MED OFF ASST	MEDICAL OFFICE ASSISTANT
F	C70C86	OPER RM TECH .	OPERATING ROOM TECHNICIAN
F	c70159	PRAC NURSE	PRACTICAL NURSE
T	C 90 009	HOME ECON	HOME ECONOMICS
F	C 90010	CLOTH PROD & MGMT	CLOTHING PRODUCTION & MANAGEMENT
F	090011	FOOD MGMT	FOOD MANAGEMENT
F	090018	OCC SERV(DOMESTIC)	OCCUPATIONAL SERVICES (DOMESTIC)

۰.

VT000014

٠

PROGRAM CODE MASTER LISTING (NUMERICAL) PREPARED BY SYSTEMS DESIGN & COMPUTER SERVICES

DATE RUN 10/31/78

	PROGRAM CODE	PRÓGRAM NAME	1
F	C 90020	HOME FURNISHINGS	HOME FURNISHINGS
F	090044	HERO	HOME ECONOMICS RELATED OCCUPATIONS
F.	C 90096	CHILD CARE	CHILD CARE
F	090130	INSTI HOME SER	INSTITUTIONAL & HOME SERVICES
	C 90900	HOME ECON (COOP)	HOME ECONOMICS (COOPERATIVE)
<u>م</u>	090911	FOOD MGMT (COOP)	FOOD MANAGEMENT (COOPERATION
F	090944	HERO (COOP)	HOME ECON RELATED OCCUP (COOPERATIVE)
F	090996	CHILD CARE (COOP)	CHILD CARE (COOPERATIVE)
F	140000	OFFICE ASST	OFFICE ASSISTANT
F	140016	MANAGEMENT	MANAGEMENT
F	140018	SEC TRNG	SECRETARIAL TRAINING
F	140019	SEC TRNG (COOP)	SECRETARIAL TRAINING (COOPERATIVE)
F	140022	DATA PROC	DATA PROCESSING
F	140024	GRAPHICS	GRAPHICS
F	140025	OFFICE ASST (COOP)	OFFICE ASSISTANT (COOPERATIVE)
F	140102	BKPG & ACCTG	BOOKKEEPING AND ACCOUNTING
F	140106	BANK/SAV & LOAN	BANKING AND SAVINGS AND LOAN
F	140902	BKPG & ACCTG(COOP) .	BCOKKEEPING AND ACCOUNTING (COOPERATIVE)
F	140906	BANK/SEL (COUP)	BANKING & SAVINGS & LOAN (COOPERATIVE)
F	140916	MANAGEMENT (CODP.)	MANAGEMENT (COOPERATIVE)
F.	140922	DATA PROC (COOP)	DATA PROCESSING (COOPERATIVE)
F	140924	GRAPHICS (COOP)	GRAPHICS (COOPERATIVE)
M	170026	AIRCOND & REF	AIRCONDITIONING AND REFRIGERATION
М	170027	APPL REPAIR	APPLIANCE REPAIR
М	170028	AUTO BODY	AUTO BODY
Μ	170029	AUTO MECH	AUTO MECHANICS

.

VT000014 PROGRAM CODE MASTER LISTING (NUMERICAL) . • PREPARED BY SYSTEMS DESIGN & COMPUTER SERVICES

٠

DATE RUN 10/31/78

	PROGRAM CODE	PROGRAM	
m	170030	AIRCRAFT MECH	AIRCRAFT MECHANICS
yn	170031	COMM ART	COMMERCIAL ART
57	170032	COMM PHOTO	COMMERCIAL PHOTOGRAPHY
Sn	170033	CARPENTRY	CARPENTRY
511	170034	ELECTRICITY	ELECTRICITY
59	170035	DIESEL MECH	DIESEL MECHANICS
711	170036	BRICK MASONRY	BRICK MASONRY
72	170039	PLUMBING	PLUMBING
12	170040	DRAFT ING	DRAFTING
Sit	170041	ELECTRONICS	ELECTRONICS
51	170042	RADIO-TV REPAIR	RADIO AND TELEVISION REPAIR
511	170043	PRINTING	PRINTING
タル	170044	MACHINE SHOP	MACHINE SHOP
n	170045	SHEET METAL	SHEET METAL
511	170046	WELDING	WELDING
F	170047	COSME TOLOGY	COSMETOLOGY
うれ	170048	SMALL ENG REPR	SMALL ENGINE REPAIR
F	170049	TAILORING	TAILCRING
F	170050	UPHOL STERY	UPHOLSTERY
m	170051	CABINETMAKING	CABINETMAKING
711	170052	FARM EQUIP REPR	FARM EQUIPMENT REPAIR
'77!	170053	HYDRAULICS	HYDRAULICS
47	7 170054	MUS INSTRU REPR	MUSICAL INSTRUMENT REPAIR
シャ	170055	COMPACT CAR MECH	COMPACT CAR MECHANICS
10	170056	FCUNDRY	FOUNDRY
m	170057	TEI HORT	T&I HORTICULTURE

92

÷,

VT000014

PROGRAM CODE MASTER LISTING (NUMERICAL) PREPARED BY SYSTEMS DESIGN & COMPUTER SERVICES

DATE RUN 10/31/78

PROGRAM CODE	PROGRAM NAME	•
YA 170059	AIRCRAFT FRAME	AIRCRAFT FRAME
77 170060	MEAT PROCESSING	MEAT PROCESSING
202 170061	CUSTODIAL SERVICES	CUSTEDIAL SERVICES
170062	FLORICULTURE	FLORICULTURE
-1-701-61-	RADIO-BROADCAST	RADIO-BROADCASTING-
7 170162	HEAVY EQUIP OPR	HEAVY EQUIPMENT OPERATOR
77 170163	HEAVY EQUIP MNT	HEAVY EQUIPMENT MAINTENANCE
74 170164	TRUCK DRIVER	TRUCK DRIVER
54 170166	ELECT LINEMAN	ELECTRIC LINEMAN
× 170517	ELECTRO-MECH	ELECTRO-MECHANICAL
71/170518	IND CHEM	INDUSTRIAL CHEMISTRY
<i>אל</i> 170519	OCC SERV (MAINT)	OCCUPATIONAL SERVICES (MAINTENANCE)
170-525	IN ARTS CRAFTS	INDIAN-ARTS AND CRAETS
SA 170540	INSTRUMENT REPAIR	INSTRUMENT REPAIR
20000	GVET-UNASSIGNED	EVET-UNASSIGNED
200055 וויצ	CVET MECH	CVET-MECHANICAL CLUSTER
SN 200056	CVET CONST	CVET-CONSTRUCTION CLUSTER
F 200057	CVET HEME & COMM	CVET-HOME & COMMUNITY SERVICE CLUSTER
ンガ 200058	CVET HORT	CVET-HORTICULTURE CLUSTER
F 200160	CVET BUS	CVET-BUSINESS CLUSTER
11 200162	CVET PRINTING	CVET-PRINTING CLUSTER
71 210059	VOC ORIENTATION	VOCATIONAL ORIENTATION
M 210060	BASIC PRE VOC ST	BASIC PREVOCATIONAL STUDIES
M 210061	LEARNING LAB	LEARNING LABORATORY
210071	- EXPLORATION	EXPLCRAT-I-ON-
400001	INDUSTRIAL-ARTS	INDUSTA LAL ARIS.

VT000014 PROGRAM CODE MASTER LISTING (NUMERICAL) PREPARED BY SYSTEMS DESIGN & COMPUTER SERVICES

DATE RUN 10/31/78

SPECTAL-ADULT

PRUGRAM

M 990054

71/ 990055

CODE

ICE

990672- SPECIAL-ADULT

PROGRAM

NAME ICE (COOP) UVE

.

INTERDISCIPLINARY COOPERATIVE EDUCATION

INTERDISCIPLINARY COOPERATIVE EDUCATION

Mohammad Khalil-ur Rehman

Candidate for the Degree of

Doctor of Education

Thesis: AN ANALYSIS OF MALE-FEMALE ENROLLMENT TRENDS IN OKLAHOMA VOCA-TIONAL EDUCATION PROGRAMS DURING THE PERIOD 1972 - 1979

Major Field: Occupational and Adult Education

Minor Field: Business Education

Biographical:

Personal Data: Born in Pakistan, September 9, 1941, the son of Mohammad Saeed and Sakina Bibi.

- Education: Graduated from Islamia High School Kunjah District Gujrat, Pakistan, 1958; received certificate of Carrier/Radio Technician grade IV and grade III, 1960; received certificate of Army Special Education, from Directorate of Army Education, Pakistan, 1973, received a certificate of Higher Secondary Education from Board of Education, Lahore Pakistan, 1964; received Bachelor of Arts from Panjab University, 1970; while studying for Master of Education in Business and Industrial Education, University of panjab and The Pennsylvania State University, specialized in teaching secretarial subjects, 1972, and 1977, respectively; completed requirements for the Doctor of Education degree from Oklahoma State University, December, 1980.
- Professional Experience: Served in Pakistan Army as a carrier technician from 1958-1969; served as a part-time physical education instructor in Panjab University Laboratory School, New Camps, Lahore, Pakistan, Director of New Era College of Commerce and Technology (self-established) in Lahore and Kunjah, Pakistan, 1972-1974; Commercial Office Assistant in Hobba Trading and Contracting Company, Tripoli, Libya 1974-1975. Graduate Research Assistant, The Pennsylvania State University, 1976-1977; Graduate Research Associate from March 1979 to June 1980; Oklahoma State University; Member of Iota Lambda Sigma (ILS), Phi delta Kappa, Oklahoma Adult and Continuing Education Association, National Business Education Association and American Vocational Association.