

TRENDS IN MINORITY FEMALE ENROLLMENT IN  
OKLAHOMA NON-TRADITIONAL VOCATIONAL  
AND TECHNICAL PROGRAMS  
FROM 1971-1981

By

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## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION. . . . .	1
Need of the Study. . . . .	2
Problem of the Study . . . . .	2
Purpose of the Study . . . . .	3
Questions of the Study . . . . .	3
Scope. . . . .	4
Limitations of the Study . . . . .	4
Definition of Terms. . . . .	4
Organization of the Study. . . . .	4
II. REVIEW OF SELECTED LITERATURE . . . . .	7
Introduction . . . . .	7
Status . . . . .	7
Education . . . . .	8
Employment . . . . .	8
Earnings . . . . .	9
The Minority Female . . . Double Bind. . . . .	9
Non-Traditional Vocational and Technical Education	
Career Choices of Minority Women . . . . .	12
Current Legislation Effecting Non-Traditional	
Minority Women's Training. . . . .	14
Conclusion . . . . .	17
III. METHODOLOGY . . . . .	18
Purpose of the Study . . . . .	18
Definition of Population . . . . .	18
Collection of the Data . . . . .	19
The Data Gathering Instrument. . . . .	20
Analysis of the Data . . . . .	20
IV. PRESENTATION OF FINDINGS. . . . .	21
Identification of Non-Traditional Programs . . . . .	21
Overall Female Minority Enrollment . . . . .	23
Programs with Some Relevant Change in Minority	
Females. . . . .	25
Programs with No Change in Enrollment by Minority	
Female . . . . .	35

Chapter	Page
Programs with Missing Data. . . . .	54
Comments on Possible Effects and Recording System . . . .	56
Summary . . . . .	57
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS. . . . .	58
Summary . . . . .	58
Conclusion. . . . .	60
Recommendations . . . . .	60
Furthy Study. . . . .	61
BIBLIOGRAPHY . . . . .	63
APPENDIX A - VO-TECH STUDENT ACCOUNTING SYSTEM SECONDARY AND LONG-TERM PROGRAM ENROLLMENT FORM . . . . .	64
APPENDIX B - OVERALL YEARLY FEMALE ENROLLMENT. . . . .	67

## LIST OF TABLES

Table	Page
I. Overall Yearly Enrollment Figures by Race of Females. . . .	24
II. Yearly Enrollment Figures for Agriculture Production by Race of Females. . . . .	27
III. Yearly Enrollment Figures for Agricultural Mechanics by by Race of Females. . . . .	28
IV. Yearly Enrollment Figures for Ornamental Horticulture by Race of Females. . . . .	29
V. Yearly Enrollment Figures for Photography by Race of Females. . . . .	31
VI. Yearly Enrollment Figures for Custodial Services by Race of Females. . . . .	32
VII. Yearly Enrollment Figures For Drafting By Race of Females . . . . .	33
VIII. Yearly Enrollment Figures For Electronics By Race of Females . . . . .	34
IX. Yearly Enrollment Figures for Printing by Race of Females .	36
X. Yearly Enrollment Figures by Machinist by Race of Females .	37
XI. Yearly Enrollment Figures by Upholstery Race of Females . .	38
XII. Yearly Enrollment Figures by Air Conditioning by Race of Females. . . . .	40
XIII. Yearly Enrollment Figures by Appliance Repair by Race of Females. . . . .	41
XIV. Yearly Enrollment Figures by Equipment Operator by Race of Females. . . . .	42
XV. Yearly Enrollment Figures by Auto Parts, Service Station by Race of Females. . . . .	43



Table	Page
XVI. Yearly Enrollment Figures by Aircraft Mechanics by Race of Females. . . . .	44
XVII. Yearly Enrollment Figures by Diesel Mechanics by Race of Females. . . . .	45
XVIII. Yearly Enrollment by Figures by Masonry by Race of Females . . . . .	46
XIX. Yearly Enrollment Figures by Small Engine Repair by Race of Females. . . . .	47
XX. Yearly Enrollment Figures by Carpentry by Race of Females . . . . .	48
XXI. Yearly Enrollment Figures by Electricity by Race of Females . . . . .	50
XXII. Yearly Enrollment Figures by Auto Body by Race of Females . . . . .	51
XXIII. Yearly Enrollment Figures by Auto Mechanics by Race of Females. . . . .	52
XXIV. Yearly Enrollment Figures by Sheet Metal by Race of Females. . . . .	53
XXV. Yearly Enrollment Figures by Welder by Race of Females . . . . .	55

FIGURE

Figure	Page
1. Overall Yearly Female Enrollment. . . . .	68

## CHAPTER I

### INTRODUCTION

In the prehistory era, most advances in society were developed by women: agriculture, building, weaving, basketry, pottery, woodworking, trading and domesticating animals. Throughout the books of the Old Testament, women are often seen as traders, farmers, and builders. These types of occupations today are held mainly by men. Up until the turn of the last century, women were told and taught that their place was in the home. Even now, most positions held by women are considered to be "women's work." Since the 1920's, women have been slowly moving into non-traditional careers (Valiant, 1980).

However, if the population of women according to race is broken down, the slower movement of minorities into non-traditional training can be seen. Jusenius (1975) discovered that white movement away from traditionally female occupations was very limited. More white women in the National Longitudinal Survey (NLS) sample than black women tended to move out of traditionally female occupations over the 1967-1971 period. On the other hand, black women tended to move into typically female intensive occupations. The proportion of black women in atypical jobs decreased by three percent and the proportion of white women in atypical jobs increased by four percent (Herman, 1980).

For women with a high school diploma and training, the skilled trades offer expanded job opportunities. In 1978 the Office of Education

predicted an increase in the number of women enrolled in agriculture, technical, and trade and industry education at the secondary level (Herman, 1978).

It is evident that women are moving into non-traditional training. Female statistical enrollment, as a whole, has been compiled, but there have been no statistics compiled to examine the racial enrollment of women in non-traditional vocational and technical careers in the state of Oklahoma.

#### Need of the Study

As a career specialist with the State Department of Vocational - Technical Education, the investigator has noted that many young girls show an interest in non-traditional careers but hesitate, because of the lack of other females or males of the same race enrolled in these types of classes. Research has revealed that more minority women are heads of households than white women. Instead of supplementing the families' income, their income is often used as the sole or main source of income. Most male-stereotyped occupations pay higher earnings than female-stereotyped vocations. Thus, in order for these minority women to adequately support their families, non-traditional vocational and technical training should be considered as an alternative.

#### Problem of the Study

The major problem of the study was related to the insufficient statistics compiled regarding the racial trend of females in non-traditional vocational and technical training, when 1971 through 1981 yearly enrollments are considered.

### Purpose of Study

The purpose of this research was to identify the number of females according to race enrolled in non-traditional vocational and technical training for the past ten years to determine trends.

### Questions of the Study

The specific question which this study sought to answer was: Are there identifiable patterns of female enrollment in non-traditional training programs?

1. Is there an increase in American Indian female enrollment in non-traditional vocational and technical training, when 1971 through 1981 yearly enrollments are compared?

2. Is there an increase in Afro-American female enrollment in non-traditional vocational and technical training, when 1971 through 1981 yearly enrollments are compared?

3. Is there an increase in Hispanic female enrollment in non-traditional vocational and technical training, when 1971 through 1981 yearly enrollments are compared?

4. Is there an increase in Anglo-Saxon female enrollment in non-traditional vocational and technical training, when 1971 through 1981 yearly enrollments are compared?

5. Is there an increase in Asian female enrollment in non-traditional vocational and technical training, when 1971 through 1981 yearly enrollments are compared?

## Scope

The emphasis of the study was placed primarily on Black, Hispanic, Indian and Asian female enrollments in vocational and technical training in Oklahoma with comparisons to female white and male enrollments.

## Limitations of the Study

The study was conducted under the following limitations:

1. The computer was programmed to printout enrollment percentages by occupational objective instead of occupational courses. For example, the student was not necessarily in horticulture courses. They could have been in Industrial Cooperative Education (ICE) or production agriculture, but their objectives were toward horticulture.

2. The study did not include any portion of the population enrolled in the traditional female vocational and technical training programs in Oklahoma.

3. Limited numbers of Hispanic and Asians were in vocational training programs in Oklahoma.

## Definition of Terms

The following terms and definitions were used throughout this study:

Adult Programs: Programs or training received by persons no longer enrolled in secondary schools.

AVTS Programs: Area vocational-technical school (AVTS) programs are programs offered in specially designed facilities; shared by comprehensive public schools; and which provide only vocational-technical

programs at secondary and adult levels to populations of designated areas.

Comprehensive High School: A school that offers all forms of secondary education (vocational and technical, general education, and others).

Minority Female: Refers to Black, Hispanic, Asian, and American Indian.

Non-traditional Vocational-Technical Training: Training received by the minority sex which has historically been dominated by one sex or another. For an example, auto mechanics may, traditionally, have been dominated by males and cosmetology by females. Therefore, auto mechanics was a non-traditional career for females and cosmetology was a non-traditional career for males.

Occupational Objectives: Goals of employment reflected by training selected by a student.

Occupational Trends: Refers to selected aspects of career development that show a definite increase in the number of women enrolled in non-traditional vocational training.

Sex Stereotyping: Generalization in which roles are prescribed for females and males; act as models in patterning behavior for children.

Subjects: Refers to 1971-1981 graduates of Oklahoma's vocational and technical schools.

### Organization of the Study

Chapter I introduces the study and presents the problem, need, purpose, questions, scope, limitations, and definition of terms. Chapter II reviews related literature pertaining to the research problem. It

includes sources of information on background of the search, history of female minority struggle and accomplishments, current status of the female minority, and female minority future trends. Chapter III describes the methodology used for the research in this study by explaining how the population was defined; reviewing the instruments used to collect the data; an explanation how the data was analyzed, and the results were reported. Chapter IV explains the findings of the study. Chapter V concludes the study with a summary, conclusions and recommendations.



## CHAPTER II

### REVIEW OF SELECTED LITERATURE

#### Introduction

A review of literature will be presented related to published works concerning white and minority female trends in non-traditional education and/or career education. In order to organize this chapter so as to identify the most salient research questions, it was decided to divide the chapter into the following sections (1) trends of women by: (a) status, (b) education, (c) employment and (d) earnings, (2) the minority female . . . double bind, (3) non-traditional vocational and technical education career choices of minority women, and (4) current legislation effecting non-traditional minority women's training.

#### Status

Women are working outside the home. In fact, six out of ten women between the ages of 19 and 64 are currently employed outside the home. Furthermore, nine out of every ten females will work outside the home some time in their lives. Thus the average women can expect to spend nearly 30 years of her life in the work force, compared to almost 40 years for men. In 1980, over half of all married women were working outside the home or looking for work (Title IX: The Half Full, Half Empty Glass, 1981).

The main reason women work is because of economic need. Almost two-thirds of all women in the labor force in 1979 were single, widowed, divorced, or separated, or had husbands whose earnings were less than \$10,000. Of all women workers, about 17 percent maintained a family. Of all black women workers, about 25 percent maintained a family. Even in two-parent families where the wife is a wage earner, she usually contributes 25-40 percent of the family income. In 1979 in husband-wife families, 15 percent were poor when the wife did not work, while only four percent were poor when she worked (Title IX, 1981).

#### Education

Definitely women need education to get better jobs. In 1978 three-fifths of the 10.8 million women at or below the poverty level were school dropouts. Women have higher unemployment rates than men at all educational levels. Still women with four or more years of college have a lower unemployment rate than women with less education. Women with less than four years of high school have the highest unemployment rate of all adult women in the labor force (Title IX, 1981).

#### Employment

Only as women move into a broader range of jobs than they have traditionally held, opportunities for advancement and better income will come. Of the 441 jobs classified by the census in 1980, only 60 had significant numbers of women. There has been a projection made by the U.S. Department of Labor, that between 1975 and 1990 12 million women will be added to the the American labor force. This will bring the total number of working women to over 48.5 million.

## Earnings

Most of the female population are found in low-paying jobs. The average female earns about three-fifths of what a man does (Title IX, 1981). Of all full-time, year round workers, white men earn the most. White men are followed by spanish origin males, black males, white females, black females, and spanish origin females. In 1979, women were 80 percent of all clerical workers, but only six percent of skilled craft workers. They were 63 percent of retail sales workers, but only 25 percent of nonfarm managers and administrators (Alden and Seiferth, 1978).

### The Minority Female . . . Double Bind

Among all poor families in 1979, half were maintained by women. Three out of four poor black families were maintained by women. This shows an increase in percentages, since in 1969 only about one-third of all poor families were maintained by women.

Thus it is important to recognize that the minority woman faces a double bind in the job market. She is both a member of a racial-ethnic minority group and a female. In the past, minority women have had much higher rates of participation in the paid work force than white women. However, the 1975 labor force participation rate of minority women was only slightly higher than that of non-minority (Georgia Department of Education, 1979).

Since 1970, little evidence exists of any advance in the relative earnings of black females. When the jobs in the top five percent of the earnings distribution are viewed, one can readily see that the black

females held none of them in 1960 and essentially none in 1973. Black women earn less than white women (a median income of \$2,810) are employed in greater numbers (about 60 percent between the ages of 20 and 54), and hold a greater percentage of low-paying, low-status jobs (54 percent are employed as operatives or service workers). Women headed 35 percent of the black families in 1975 and earned a median income of only \$4,465. Still a large number of black women in the labor force reflect their continuing obligation to supply a substantial proportion of family income. Also, evidence that no matter how small the education attainments are, education raises participation rates more for blacks than for white women (Dodge, 1981).

Mexican-American constitutes the second largest minority in the United States today, and more than 90 percent of Mexican-American them are city dwellers. A young Chicano, Vilma Martinez (cited in Dodge, 1981, p. 38) has speculated that "in 15 or 20 years the Hispanic population will surpass the black population."

Vocational training opportunities must be made more accessible and relevant to Chicano's lives. Chicano's complete an average of only nine years of school. One-fourth of them have completed less than five years of school, 23 percent have completed high school, and only 2.2 percent of those 25 years of age and older are college graduates. The annual income of Chicanos in 1974 was less than \$5,000. Fourteen percent of Chicano families are supported by Chicanos and one-half of these are below poverty level (Dodge, 1981).

Only 6.2 percent of Indian females and 5.8 percent of Indian males in the southwest have completed eight years of school, while the total population, according to the 1970 census, indicates that American Indians

complete a median of 10.5 years of school with a third graduating from high school (Dodge, 1981). Employment and job opportunities for Indian women are, naturally, affected by the level and quality of their educational background. More Indian women than any other group (86 percent) earn less than \$5,000 per year. In 1970 35 percent of Indian women participated in the labor force. As a group they earned a median annual income of \$1,697. Seventy percent were in the position of clerks, or domestic service workers. In almost half of the Indian households in 1969, both husband and wife worked earning median incomes of \$3,300. The Indian population is the smallest and poorest of all American's ethnic groups (Dodge, 1982).

Asians constitutes less than one prcent of the population. A large percentage of Asian-American women (50 percent) work outside the home than do black women (48 percent) or white women (41 percent). Census data for 1970 indicate that 23 percent Filipino and 58 percent of Chinese-American women between 18 and 24 years of age are in college. Of all Japanese-Americans in high school, about three-fourths finish. Thus, Asian-Americans have reached high levels of educational and occupational achievement (Dodge, 1981).

Other findings show that minority women with children are more likely to work than non-minority women with children. Minority women tend to be concentrated in the lower paying occupations in our society. Therefore, as expected, they have the lowest average incomes of all workers. This is an added burden to minority women, since they are more likely than white women to be in the paid work force as a result of economic need (Dodge, 1981).

Non-traditional Vocational and Technical  
Education Career Choices of  
Minority Women

Even though, in recent years, minority women enrollments in colleges and universities have increased, there has been no significant increase of these persons in the areas of science and technology (Vetter, 1975). The rate of occupational segregation by sex is as great today as it was at the turn of the century, according to recent results of a three-year study of institutional sexism and racism released by the non-profit Council on Interracial Books for Children sponsored by the Carnegie Corporation (Alden and Seiferth, 1979), a non-profit educational foundation. It can be noted in reviewing the world of work, that there is an increase in demand for technically skilled employees as well as increasing salaries in these fields. As evidence by both enrollment in training programs and employment statistics, minorities and women have not been entering these fields.

At the present time one of the moral and legal challenges vocational educators face, is the necessity to provide sex equity in their educational programs. Attitudes exist that inhibit the progress of female and minority students in making career choices. Students learn, from sex-role stereotyping and socialization, that many economic, social and psychological roles are differentiated by gender alone. Thus stereotyping often blocks human understanding, communication, and potential. Since sex-role stereotyping is so rooted in our culture, it affects career, educational and occupational choices of women (Alden and Seiferth, 1979).

The three basic motivating factors that influence student's vocational training were interest, ability and earnings. Interest was the single most powerful motivating force. Three quarters of the non-traditional women indicated that it was very important to their selection and training. The second strongest factor was ability. Half of all non-traditional are motivated by ability. However, non-traditional women consider ability in their area less important to their selection of training than traditional women. Perhaps this can be interpreted to mean that they question their own ability, and therefore, decide that ability is not important. At one time earnings had been considered by educational personnel to be a critical factor in motivating women to enter non-traditional occupations. Student's responses, however, showed that earnings was not as important a factor for non-traditional women. Still minority women than white women considered earnings a more important factor in their choice of occupational training programs (Kane and Frazee, 1978).

The three top influentials of non-traditional students were counselors, teachers, and parents. Both counselors and teachers had more influence on traditional women than non-traditional women. Men educational personnel were more influential on non-traditional women. Since more men teach non-traditional vocational courses, and more women teach traditional courses, this accounted for non-traditional women selecting men teachers. Parents are the most influential group on non-traditional students, but, unless they had specific relevant information, the parents' role was likely to be that of supporting and encouraging students, rather than assisting them in their career decision-making (Kane and Frazee, 1978).

It can be concluded that counselors, teachers, and parents need to form a network that would encourage non-traditional students to pursue their interest in vocational training. This would first start by educating counselors, teachers, and parents in occupational guidance techniques that are not based on sex-bias or sex-stereotyping.

#### Current Legislation Effecting Non-Traditional Minority Women's Training

Civil rights laws which address vocational education were enacted to ensure that equal opportunities are provided to all students. As one reads each of these laws, one element is clear. Each individual is endowed with the right to pursue a desired goal and vocational education's obligation is to ensure that opportunity is always theirs.

The Equal Pay Act of 1963 is an amendment to the Fair Labor Standards Act which prohibits discrimination in salaries and fringe benefits on the basis of sex. It applies to most workers in both the public and private sectors including schools and colleges. It was amended by Title IX in 1972 to include executive, professional, and administrative employees (Title IX: The Half Full, Half Empty Glass, 1981).

Title IV Act of the Civil Rights Act of 1964, as a result of Title IX, now authorizes funding to support state education agencies, local school boards, regional assistance centers, and training institutes that provide free assistance to elementary and secondary schools on problems related to sex desegregation (Title IX: The Half Full, Half Empty Glass, 1981).



Title VII prohibits discrimination against employees on the basis of sex, as well as on race, color, religion, and national origin. Educational institutions have been covered since 1972 with the passage of the Equal Employment Opportunity Act of 1972.

Educative Orders 11246 (1965) as amended by Executive Order 11375 (1967), applies to institutions have been covered since 1972 with the passage of the Equal Employment Opportunity Act of 1972 (Title IX: The Half Full, Half Empty Glass, 1981).

Executive Orders 11246 (1965) as amended by Executive Order 11375 (1967), applies to institutions and firms with federal contracts of \$10,000 or more. It prohibits discrimination against students in administration and against some employees on the basis of sex, race, color, religion, or national origin (Title IX: The Half Full, Half Empty Glass, 1981).

Title VII and Title VIII of the Public Health Service Act as amended in 1971 prohibits all institutions receiving federal funds for training of health professionals from discriminating against students in admissions and against some employees on the basis of sex (Title IX: The Half Full, Half Empty Glass, 1981).

Title IX of Education Amendments of 1972 prohibits discrimination against students and employees on the basis of sex in virtually all programs and activities of education agencies and institutions receiving federal financial assistance. Title IX was the first amendment that prevented sex discrimination in schools and colleges.

Women's Educational Equity Act of 1974 and 1978 authorized funding at all levels of education for model educational programs of national, statewide, or general significance to overcome sex stereotyping and

achieve educational equity for girls and women. It also established the National Advisory Council on Women's Educational Programs to advise the secretary of education regarding this program.

Title II of Education Amendments of 1976 requires that states receiving vocational education funds develop and carry out activities and programs to eliminate sex bias, stereotyping and discrimination in vocational education to assure equal access to such programs for both women and men. It requires states to hire full-time staff to plan and implement such programs and activities. It also permits use of federal funds for programs for displaced homemakers, single heads of households, homemakers and part-time workers seeking full-time jobs and persons seeking jobs in areas non-traditional for their sex (Title IX: The Half Full, Half Empty Glass, 1981).

Career Incentive Education Act Act of 1977 requires that assistance be provided to educational agencies and institutions in eliminating sex bias and stereotyping in career education programs and promoting equal opportunity in students' career choices.

Comprehensive Employment and Training Act of 1978 prohibits sex discrimination with respect to participation or employment in connection with any activity funded under this law, and requires specific services be planned for displaced homemakers, single parents, women, as well as for other groups which have particular difficulties in obtaining employment.

Pregnancy Discrimination Act of 1978 prohibits discrimination in employment on the basis of pregnancy, childbirth, and related medical conditions.

## Conclusion

In the past ten years increasing research has been reported concerning the working woman. However, when one starts to find information concerning the minority working woman, the data is limited. Very little current research has been conducted on the local, state, or national level since the 1970 census. Since this group is a combination of the two most discriminate groups, race and sex, these women more limited career opportunities.

## CHAPTER III

### METHODOLOGY

The intended function of this chapter is to (1) review purposes of the study, (2) describe the research design of the study, (3) describe the method by which the population was determined, and (4) state the method by which the data were collected and analyzed.

#### Purpose of the Study

The purpose of this research was to identify the number of females according to race enrolled in non-traditional vocational and technical training for the past ten years to determine trends.

#### Definition of Population

All of the vocational and technical program enrollments were included in this study from 1971 to 1981. These enrollments included secondary females and male students. Female students were further grouped according to race. Parents, teachers, and counselors often encouraged females to enter more traditional vocational training. Based on this observation the female enrollment trends in non-traditional vocational training for the past ten years was investigated. The following list is a breakdown in enrollment of data collected:

1. Enrollment of American Indian female students in non-traditional vocational and technical training.

2. Enrollment of Afro-American female students in non-traditional vocational and technical training.
3. Enrollment of Hispanic female students in non-traditional vocational and technical training.
4. Enrollment of white female students in non-traditional vocational and technical training.
5. Enrollment of Asian female students in non-traditional vocational and technical training.
6. Enrollment of the total male students in traditional vocational and technical training.

#### Collection of the Data

After deciding what information was needed, the Division of Systems Design and Computer Services at Oklahoma State University (OSU), was contacted for retrieval of the above mentioned data for the years 1971-1981. This procedure was selected, since the State Department of Vocational and Technical Education's terminals link up with the OSU's computers.

According to Oklahoma State Vocational and Technical Education Department's Policies and Procedures (1979), the Division of Systems Design and Computer Services provides contracted services of various kinds. Service includes data storage, and subsequent retrieval, system analysis, programming, and data control activities associated with computer system input/output.

The Oklahoma State Department of Vocational and Technical Education has developed a program enrollment form (see Appendix A for a sample

form) under the Vocational Education Data System. Such reports have been developed in certain states to prove enrollment compliance to federal laws.

### The Data-Gathering Instrument

As mentioned earlier, a breakdown in the enrollment to determine whether or not a change in the participation by sex according to race of enrollees in programs of vocational education in Oklahoma has occurred since the educational equity operation was initiated by Oklahoma State Department of Vocational and Technical Education. The breakdown of enrollment was by two major areas: sex and race.

With the permission of Dr. Chuck Hopkins, Assistant State Director of the State Department of Vocational and Technical Education and the consent of Dr. William Frazier, research coordinator, the data was collected from the program enrollment forms of 1971-1981 stored in OSU's computer memory banks.

### Analysis of the Data

The data, that were gathered, are compiled in a yearly sequence program by program over a ten year span. This allowed the researcher to compare percentiles of female enrollment by race to male enrollment in each of these programs. Trends in non-traditional enrollment were analyzed to identify increases, decreases, or stabilizations. All the program totals of enrollment percentages were listed for both sexes. At 25 percent a natural breaking point was discovered, this was the arbitrary percentage used to classify non-traditional and traditional programs.

## CHAPTER IV

### PRESENTATION OF FINDINGS

This chapter is organized according to data spanning ten years of figures of minority female enrollments as compared to male enrollment. The following sections are discussed:

1. The identification of non-traditional programs;
2. Overall female minority enrollment;
3. Programs with some relevant change for minority females;
4. Programs with no change in enrollment by minority female;
5. Programs with missing data; and
6. Comments on possible effects of recording systems.

#### Identification of Non-Traditional Programs

All programs of vocational and technical education were analyzed and identified according to non-traditional and traditional. If a program had at least 25 percent females enrolled, it was considered traditional. If a program had less than 25 percent, it was considered non-traditional. Again, as stated earlier, all programs' total enrollments by sex were listed. Twenty-five percent female enrollment was identified as the cut off between non-tradition and traditional programs since there seemed to be a natural breaking point there. The following is a list of all programs that were analyzed in the data research:

## List of Occupational Objective Codes

## A. Vocational Agriculture

1. 01.0100 Agricultural Production
2. 01.0200 Agricultural Supplies/Services
3. 01.0300 Agricultural Mechanics
4. 01.0400 Agriculture Products
5. 01.0500 Ornamental Horticulture
6. 01.0600 Agriculture Resources
7. 01.0700 Forestry
8. 01.9900 Agriculture, Other

## B. Trade and Industrial Education

1. 17.0100 Air Conditioning
2. 17.0201 Appliance Repair
3. 17.0301 Auto Body
4. 17.0302 Auto Mechanics
5. 17.0399 Auto Parts, Service Station
6. 17.0401 Aircraft Mechanics
7. 17.0500 Blueprint Reading
8. 17.0600 Business Machine Repair
9. 17.0700 Commercial Art
10. 17.0900 Photography
11. 17.1001 Carpentry
12. 17.1002 Electricity
13. 17.1003 Heavy Equipment Operator
14. 17.1004 Masonry
15. 17.1007 Plumbing and Pipefitting
16. 17.1099 Other Constructional and Maintenance Trades
17. 17.1100 Custodial Services
18. 17.1200 Diesel Mechanics
19. 17.1300 Drafting
20. 17.1400 Electrician and Related
21. 17.1401 Industrial Electrician
22. 17.1402 Electric Lineman
23. 17.1502 Electronics
24. 17.1503 Radio and TV Repair
25. 17.1600 Laundry and Dry Cleaning
26. 17.1700 Foremanship, Supervision, and Management Development
27. 17.1902 Printing
28. 17.2100 Instr. Maintenance and Repair
29. 17.2302 Machinist
30. 17.2305 Sheet Metal
31. 17.2306 Welder
32. 17.2400 Metallurgy Occupations
33. 17.2601 Barber
34. 17.2602 Cosmetology
35. 17.2700 Plastics Occupations
36. 17.2801 Fireman Training
37. 17.2802 Law Enforcement Training
38. 17.2899 Water & Sewage Treatment



39.	17.2900	Other Quality Food Occupations
40.	17.2901	Baker
41.	17.2902	Cook/Chef
42.	17.2903	Butcher
43.	17.2904	Waiter-Waitress
44.	17.3100	Small Engine Repair
45.	17.3200	Stationary Energy Sources Occupations
46.	17.3300	Textile Production and Fabrication
47.	17.3302	Tailoring
48.	17.3400	Leather Working
49.	17.3500	Upholstery
50.	17.3600	Woodworking
51.	17.3601	Cabinetmaking
52.	17.9900	Other Trade & Industry Occupations
53.	17.9901	Truck Driver
54.	17.9902	Farm Equipment Repair
55.	17.9903	Hydraulics
56.	17.9904	Indian Arts I Crafts
57.	17.9905	Auto, Truck Tire Production
58.	17.9906	Electromechanical
59.	17.9907	Industrial Chem.

#### Overall Female Minority Enrollment

Overall female minority enrollment has increased steadily over the past ten years as shown in Table I. It can be shown more graphically in the overall yearly enrollment chart (Appendix B). There seems to be a steady yearly increase of little less than one percent for the past ten years. However, the 1978-1979 and 1979-1982 enrollments show only a .1 percent increase. In 1971 there were 3131 female students enrolled in vocational programs, which was 10.5 percent of the total enrollment of students. In 1981 there were 6491 female students enrolled in vocational programs which was 17.7 percent of the total student enrollment. This table shows that the number of females enrolled in vocational programs has doubled over the past ten years. In fact, almost all minority female enrollment has doubled except the Asian population. Female Asian enrollment has decreased from 29 students to 11 from 1971 to 1981. In terms of percentages, this was a decrease from .1 percent to zero.

TABLE I  
OVERALL YEARLY ENROLLMENT FIGURES  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	152	.05	271	.9	30	.1	2649	8.9	29	.1	3131	10.5	26565	89.5	29696
72-73	154	.5	317	.9	27	.1	3253	9.6	10	.0	3761	11.1	29975	88.9	33736
73-74	203	.5	366	1.0	25	.1	3831	10.3	41	.1	4466	12	32700	88.0	37166
74-75	203	.6	327	.1	39	.1	3982	10.8	119	.3	4760	12.7	32093	87.3	36763
75-76	229	.6	417	1.1	33	.1	4385	11.9	55	.1	5119	13.9	31733	86.1	36852
76-77	268	.7	460	1.2	44	.1	4990	12.0	33	.1	5795	14.9	32980	85.1	38775
77-78	335	.9	451	1.2	44	.1	5359	13.8	27	.1	6216	16.0	32752	84.0	38968
78-79	502	1.2	513	1.2	59	.1	5949	14.2	61	.1	7084	16.9	34732	83.1	41816
79-80	390	1.1	442	1.2	53	.1	5305	14.5	12	.0	6202	17.0	30377	83.0	36579
80-81	398	1.1	450	1.2	58	.2	5574	15.2	11	.0	6491	17.7	30229	82.3	37620

percent. Indian female enrollment in 1971 was 152 and 398 in 1982. Black female enrollment was 271 in 1971 and 450 in 1982. Hispanic female enrollment increased to 48 in 1981 from 30 in 1971. White females had the greatest increase to 5574 students in 1982 from 2649 in 1971. Percentages did not reflect as large of an increase from 1971 to 1982. Indian female enrollment percentage increased from .5 to 1.1 percent. Black female enrollment rose from .9 percent to 1.2 percent. Hispanic female enrollment gained from .1 percent to .2 percent. And white female enrollment increased from 8.9 to 15.2 percent. If only individual programs are reviewed, it appears that not much progress has been made in female non-traditional enrollment. However after scanning the overall tables, it appears that a steady increase in female enrollment has occurred over the past 10 years has been in progress.

After information on all non-traditional programs was compiled results were grouped into three areas. One area contained all the programs that showed some relevant change in enrollment by minority females. The second area consisted of all the programs that had no change in enrollment by minority sex. The last area grouped all of the programs that did not have enough data to analyze an increase, decrease, or stabilization of enrollment trends.

#### Programs with Some Relevant Change

##### In Minority Females

Non-traditional programs that had significant changes in enrollment by sex is the first group that will be discussed. Since Agriculture programs were few in number, their change in enrollment

will be considered first. Trade and Industry had the largest number of varied occupational programs of all the divisions of vocational and technical education. Thus each program will be studied as an individual course unrelated to the other programs found in its division.

Agriculture production, as seen in Table II, had a change in enrollment of females from 1971 to 1981. Every year had an increase in the number and percentage of female enrollment. Females increased in numbers from 223 to 2075 and in percentages from 1.8 percent to 14.7 percent. Every minority group also increased. Although the actual number in the Asian female group fluctuated from 0 to 11 to 1 throughout the ten year period, the percent of the total population was never above zero.

Agriculture mechanic, as seen in Table III, had only a very slight increase in female enrollment. It increased in percentage only from .7 percent to 1.8 percent in ten ten years. There was an increase of 50 females, who enrolled over the past ten years. Yet, there was no major increase of female Blacks, Hispanics, or Asians. However, female Indians numbers did increase from 1 to 15. This does not represent a large increase in terms of percentages, since in 1971 there were zero percent Indian females as compared to 1981 when there were .36 percent.

Ornamental Horticulture, as seen in Table IV, is one agriculture program that has increased in female enrollment to the point it can now be classified as traditional. In 1971 there were only 18 females enrolled. In 1981 there were 279 females enrolled, which represented 47 more females than males enrolled for that year. Females increased

TABLE II  
YEARLY ENROLLMENT FIGURES FOR AGRICULTURE  
PRODUCTION BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	7	0	7	0	1	0	208	1.69	0	0	223	1.80	12112	98.0	12335
72-73	20	0	5	0	0	0	326	2.40	0	0	351	2.60	13117	95.0	13468
73-74	27	0	2	0	0	0	295	29.60	0	0	622	41.60	14326	95.8	14948
74-75	28	0	0	0	2	0	804	5.39	11	0	845	5.66	14069	94.0	14914
75-76	37	12	5	0	2	0	1031	6.90	8	0	1083	7.20	13834	92.7	14917
76-77	56	.36	7	0	4	0	1410	9.00	5	0	1482	9.50	14072	90.0	15554
77-78	64	.4	11	0	3	0	1611	10.00	8	0	1697	10.88	13893	89.0	15590
78-79	104	.56	11	0	10	0	1753	9.50	4	0	1882	10.20	16569	89.8	18451
79-80	105	.77	13	0	5	0	1693	12.50	0	0	1762	13.00	11710	86.5	13526
80-81	130	.92	13	0	10	0	1921	13.60	1	0	2075	14.70	11970	85.0	14045

TABLE III  
YEARLY ENROLLMENT FIGURES FOR AGRICULTURAL  
MECHANICS BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	1	0	1	0	0	0	23	.60	0	0	25	.70	3539	99.3	3564
72-73	2	.1	2	.1	0	0	21	.60	0	0	25	.70	3371	99.3	3396
73-74	0	0	0	0	0	0	20	.60	0	0	20	.56	3550	99.4	3570
74-75	1	0	0	0	0	0	24	.70	0	0	25	.76	3251	99.2	3276
75-76	6	.2	1	0	0	0	34	.90	1	0	42	1.10	3681	98.9	3723
76-77	13	.3	1	0	0	0	47	1.20	1	0	62	1.56	3888	98.4	3950
77-78	6	.1	1	0	0	0	31	.80	0	0	38	.93	4029	99.1	4067
78-79	15	.35	0	0	3	0	58	1.37	0	0	76	1.80	4128	98.1	4204
79-80	10	.21	0	0	0	0	94	1.98	0	0	104	2.19	4633	97.8	4737
80-81	15	.36	0	0	0	0	60	1.45	0	0	75	1.80	4061	98.1	4136

TABLE IV  
YEARLY ENROLLMENT FIGURES FOR ORNAMENTAL  
HORTICULTURE BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	18	17.0	0	0	18	16.98	88	83.0	106
72-73	5	3.3	3	2	0	0	44	29.3	1	.7	53	35.30	97	64.7	150
73-74	1	.5	3	1.5	0	0	56	28.9	0	0	60	30.90	134	69.1	194
74-75	6	2.3	3	1.1	0	0	63	23.7	0	0	72	27.00	194	27.9	266
75-76	6	1.9	1	.3	0	0	89	28.3	1	.3	97	30.80	217	69.1	314
76-77	12	3.5	3	.9	1	.3	103	29.8	3	.9	122	35.20	224	74.7	346
77-78	26	6.9	2	.5	0	0	135	34.5	0	0	164	41.90	227	58.1	391
78-79	7	1.8	10	2.6	2	.5	163	43.8	3	.8	185	49.70	187	50.2	372
79-80	22	3.9	10	1.7	2	.3	246	44.1	2	.3	282	50.60	275	49.3	557
80-81	12	2.3	3	.5	2	.3	262	51.2	0	0	279	54.50	232	45.4	511

by percentages from 16.98 to 54.5. However, there were only slight increases in enrollment of Indians, Blacks, and Hispanics, while there was no increase of Asian females.

The first trade and industry program to be discussed is photography, in Table V. In 1971 females were the smallest group to be enrolled. There were only 15 which grew to 22 in 1981. Therefore, in 1971 39.5 percent of students enrolled were female and in 1981, 61.1 percent were female. Thus the minority non-traditional sex became the majority traditional sex. Even though the increase was large, it was primarily found in the white female. Indian, Hispanics, and Asians had zero percent enrollment in 1981, while blacks increased only two percent.

Custodial Services, in Table VI, had an increase in the number of females enrolled. However, the female enrollment by percentage declined from 7.7 percent to 6.3 percent. Indian and Black females percentage enrollments slightly increased, whereas Hispanic and Asian enrollments remained zero percent.

Drafting, Table VII, number and percentage increases for female enrollment. In 1971 60 women enrolled, whereas in 1981 137 women enrolled. Therefore, the female enrollment increased from 9.5 percent to 19.6 percent. Indian, Blacks and Hispanic female enrollment increased slightly while Asian female enrollment remained at zero percent.

Electronics, in Table VIII, had an increase in female enrollment in both numbers and percentages. In ten years, female enrollment increased from six women, or 1.3 percent, to 36 women, or 5.5 percent.



TABLE V  
YEARLY ENROLLMENT FIGURES FOR PHOTOGRAPHY  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	15	38.5	0	0	15	39.5	24	61.5	39
72-73	1	1.1	1	1.1	2	2.2	50	54.3	0	0	54	58.7	38	41.3	92
73-74	1	8.3	2	16.7	0	0	7	58.3	2	16.7	12	100.0	0	0.0	12
74-75	0	0	0	0	0	0	15	41.7	0	0	15	41.7	21	58.3	36
75-76	0	0	3	6.7	0	0	26	57.8	0	0	29	64.6	16	35.6	45
76-77	0	0	0	0	0	0	1	50	0	0	1	50.0	1	50.0	2
77-78	0	0	0	0	0	0	28	60.9	0	0	28	60.9	18	39.1	46
78-79	2	1.8	3	2.8	0	0	57	52.3	0	0	52	56.9	47	43.1	109
79-80	0	0	1	5	0	0	9	45	0	0	10	50.0	10	50.0	20
80-81	0	0	1	2.8	0	0	21	58.3	0	0	22	61.1	14	38.9	36

TABLE VI  
YEARLY ENROLLMENT FIGURES FOR CUSTODIAL  
SERVICES BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0.0	0	0.0	0	0	2	7.7	0	0	1	7.7	13	91.2	26
72-73	0	0.0	0	0.0	0	0	2	5.6	0	0	2	5.6	23	93.3	36
73-74	1	2.6	2	5.3	0	0	5	13.2	0	0	8	21.1	30	78.9	38
74-75	1	.6	0	0.0	0	0	3	1.8	0	0	4	2.4	160	97.6	164
75-76	0	0.0	1	.5	0	0	13	5.9	1	.5	15	6.9	204	93.2	219
76-77	1	.4	2	18.0	0	0	8	3.1	0	0	11	4.3	244	95.7	255
77-78	0	0.0	3	1.1	0	0	6	2.1	0	0	9	3.2	275	96.8	284
78-79	0	0.0	1	.3	0	0	3	1.0	0	0	4	1.3	297	98.7	301
79-80	8	3.1	1	.4	0	0	5	1.9	0	0	14	5.4	247	94.6	261
80-81	5	2.0	2	.8	0	0	9	3.5	0	0	16	6.3	240	93.8	256

TABLE VII  
YEARLY ENROLLMENT FIGURES FOR DRAFTING  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	1	.2	0	0	0	0	59	9.3	0	0	60	9.5	576	90.6	636
72-73	6	.8	1	.1	0	0	80	10.5	2	.3	89	11.7	673	88.3	762
73-74	7	.8	4	.5	0	0	107	12.5	1	.1	119	13.9	739	86.1	858
74-75	3	.4	3	.4	2	.2	130	15.4	0	0	138	16.4	707	83.7	845
75-76	8	1	3	.4	0	0	117	15.2	1	.1	129	16.7	643	83.3	772
76-77	3	.4	2	.3	0	0	99	14.1	1	.1	105	14.9	597	85.0	702
77-78	5	.7	6	.9	0	0	84	12.2	2	.3	97	14.1	589	85.9	686
78-79	4	.6	2	.31	1	.1	133	18.9	2	.3	14	20.2	560	79.8	702
79-80	5	.8	4	.7	1	.2	105	17.4	1	.2	116	19.3	489	80.8	605
80-81	5	.7	6	.9	1	.1	125	17.9	0	0	137	19.6	562	80.4	699

TABLE VIII  
YEARLY ENROLLMENT FIGURES FOR ELECTRONICS  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	2	.4	0	0	4	.9	0	0	6	1.3	446	98.7	341
72-73	2	.3	2	.3	0	0	12	1.7	0	0	6	2.3	690	97.7	706
73-74	0	0	4	.8	0	0	5	1.0	0	0	9	1.8	501	98.2	510
74-75	1	.2	1	.2	0	0	15	2.4	0	0	17	2.8	607	97.3	624
75-76	4	.5	5	.6	1	.1	23	2.9	0	0	33	4.1	765	95.9	798
76-77	2	.3	3	.4	0	0	28	3.5	1	.1	34	4.3	763	95.7	797
77-78	4	.5	4	.5	0	0	29	3.4	0	0	37	4.4	811	95.6	848
78-79	5	.7	6	.9	1	.1	24	3.6	0	0	37	5.3	639	94.7	675
79-80	0	0	0	0	1	.6	2	1.2	0	0	3	1.8	169	98.3	172
80-81	2	.3	5	.8	2	.3	27	4.1	0	0	36	5.5	619	94.5	655

Indian, Black and Hispanic females had a small increase in enrollment, no Asian females were enrolled in 1981.

Printing, in Table IX, is another program which changed from minority female program to majority female program. In 1971, 122 females enrolled in printing. This expanded yearly until 430 females were enrolled in printing in 1981. This increased the percentage from 26.7 percent to 61.6 percent. All races except Asians showed a small increase in enrollment. Asian females declined from 1.5 percent to zero percent.

Machinist, in Table X, showed an increase in the numbers of females enrolled from four to 20. This was an increase of percentage from .8 percent to 2.7 percent. Indian, Black, and Hispanic percentages increased from zero to .1 percent. Asian female percentage of enrollment remained at zero.

Upholstery, in Table XI, is the last program that had an increase in female enrollment. Female enrollment increased from 33 individual people to 67 individual people, which meant that the percentage increased from 27.2 percent to 36.4 percent. Hispanic and Asian female enrollments were zero, with Indians having only three females enrolled and Blacks having 18.

#### Programs With No Change In Enrollment by Minority Female

There were 14 programs, all of which were found in the Trade and Industrial division, in which no changes in enrollment trends existed over the past ten years. These programs have slight flexibilities in enrollment, but for the most part stay the same. In the following

TABLE IX  
YEARLY ENROLLMENT FIGURES FOR PRINTING  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	16	3.5	8	1.8	1	.2	90	19.7	7	1.5	122	26.7	335	73.3	457
72-73	23	4.0	20	3.5	0	0	106	18.6	0	0	149	26.1	420	73.8	569
73-74	27	4.4	23	3.8	2	.3	130	21.3	0	0	182	29.8	427	70.1	609
74-75	21	3.7	24	4.2	0	0	146	25.7	10	1.8	201	35.4	368	64.7	569
75-76	25	4.1	28	4.8	2	.3	188	32.4	1	12.0	243	41.8	338	58.2	581
76-77	22	3.4	22	3.4	2	.3	261	40.0	0	0	307	47.0	346	53.0	653
77-78	56	7.3	13	1.9	6	19	269	39.2	1	.1	339	49.4	347	50.6	686
78-79	37	5.3	23	3.3	8	1.2	346	49.8	3	.4	417	60.0	278	40.0	695
79-80	38	6.1	23	3.7	8	1.3	305	48.6	2	.3	376	60.0	252	40.1	628
80-81	42	6.3	20	3.0	6	.9	345	51.4	0	0	413	61.6	258	38.5	671

TABLE X  
YEARLY ENROLLMENT FIGURES BY MACHINIST BY  
RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	4	.8	0	0	4	.8	519	99.2	523
72-73	0	0	1	.2	0	0	1	.2	0	0	2	.4	582	99.7	584
73-74	0	0	1	.2	0	0	2	.3	0	0	3	.5	579	99.5	582
74-75	0	0	0	0	0	0	1	.2	2	.4	3	.6	548	99.5	551
75-76	0	0	0	0	1	.2	3	.5	0	0	4	.7	552	99.3	556
76-77	0	0	0	0	0	0	4	.7	0	0	4	.7	606	99.3	610
77-78	2	.4	0	0	0	0	10	1.8	0	0	12	2.2	549	97.9	561
78-79	6	.7	3	.4	0	0	33	4	0	0	42	5.1	790	95.0	832
79-80	1	.2	3	.5	1	.2	8	1.2	0	0	13	9.1	642	98.0	655
80-81	1	.1	1	.1	1	.1	17	2.4	0	0	20	2.7	675	97.1	695

TABLE XI  
YEARLY ENROLLMENT FIGURES BY UPHOLSTERY  
RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	1	.8	12	9.9	0	0	20	16.5	0	0	33	27.2	88	27.7	121
72-73	5	3.1	12	7.5	0	0	23	14.4	0	0	40	25.0	120	78.0	160
73-74	7	4.5	11	7.0	0	0	49	31.2	0	0	67	42.7	90	57.3	157
74-75	5	2.8	11	6.1	1	.6	53	29.6	0	0	70	39.1	109	60.9	179
75-76	1	.8	9	7.5	1	.8	30	25.0	0	0	41	34.1	79	65.8	120
76-77	0	0	15	8.6	0	0	35	20.0	0	0	50	28.6	125	71.4	175
77-78	0	0	29	17.2	0	0	41	24.3	0	0	70	41.5	99	58.6	169
78-79	6	2.3	35	13.0	0	0	93	35.5	0	0	133	50.8	129	49.2	262
79-80	5	3.2	15	9.5	0	0	52	32.9	0	0	72	45.6	86	54.4	158
80-81	3	1.6	18	9.5	0	0	46	24.3	0	0	67	36.4	122	64.6	189



analysis, any unusual changes over a couple of years will be mentioned; however, these changes usually stabilized the following year.

Although Air-Conditioning (Table XII) did not increase or decrease, during the 1978-79 school year 207 white females enrolled. This was an increase of 206 over the year before. The following year the enrollment of these white females dropped to eight. That same year female Indians, Blacks, Hispanics, and Asians increased in enrollment by less than 1.5 percent; the following year they each declined in enrollment also.

Appliance repair (Table XIII) and heavy equipment operator (Table XIV) are two programs that show zero female enrollment in both 1971 and in 1981. This was true for all ten years for heavy equipment operator. Appliance repair never exceeded six women enrolled in a program a year or 7 percent. There was an up and down enrollment pattern that never exceeded six students.

Auto parts-service station (Table XV), aircraft mechanic (Table XVI), diesel mechanics (Table XVII), masonry (Table XVIII), and small engine repair (Table XIX) are five programs that have several things in common. First, their total female enrollment does not exceed ten people for any of the ten years. Secondly, none of the minority race female enrollments for any of the ten years exceeds one student. With the exception of masonry, all show a very slight increase in white female enrollment.

Carpentry (Table XX) had an increase in enrollment from four to 23 females when 1971 was compared to 1981. This was an increase in percentage as 1971 was compared to 1981 from .4 percent to 1.1 percent.

TABLE XII  
YEARLY ENROLLMENT FIGURES BY AIR CONDITIONING  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	2	.4	0	0	2	.4	509	99.6	511
72-73	0	0	0	0	0	0	3	.4	0	0	3	.4	756	99.6	759
73-74	0	0	0	0	0	0	1	.1	0	0	1	.1	798	99.9	799
74-75	0	0	0	0	0	0	1	.1	0	0	1	.1	780	99.9	781
75-76	0	0	0	0	0	0	1	.2	0	0	1	.2	542	99.8	543
76-77	2	.4	1	.2	0	0	0	0	0	0	3	.6	528	99.4	531
77-78	0	0	1	.2	0	0	0	0	0	0	1	.2	506	99.8	507
78-79	12	1.2	16	1.6	1	.1	171	17.2	7	.7	207	20.8	786	79.2	993
79-80	1	.2	1	.2	0	0	6	1.2	0	0	8	1.6	504	98.4	512
80-81	0	0	0	0	0	0	4	.9	0	0	4	.9	458	99.1	462

TABLE XIII  
YEARLY ENROLLMENT FIGURES BY APPLIANCE REPAIR  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	0	0	0	0	0	0	101	100	101
72-73	0	0	0	0	0	0	5	6.1	0	0	5	6.1	77	93.9	82
73-74	0	0	0	0	0	0	1	2.3	0	0	1	2.3	42	97.7	43
74-75	0	0	0	0	0	0	0	0	0	0	0	0	86	100	86
75-76	0	0	0	0	0	0	5	6	0	0	5	6	79	94	84
76-77	0	0	0	0	0	0	3	3.1	0	0	3	3.1	94	96.9	97
77-78	0	0	0	0	0	0	3	2.8	0	0	3	2.8	106	97.2	109
78-79	0	0	2	2.1	0	0	4	4.2	0	0	6	6.3	89	93.7	95
79-80	0	0	2	2.7	0	0	0	0	0	0	2	2.7	72	97.3	74
80-81	0	0	0	0	0	0	0	0	0	0	0	0	66	100	66

TABLE XIV  
YEARLY ENROLLMENT FIGURES BY EQUIPMENT OPERATOR  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	0	0	0	0	0	0	25	100	25
72-73	0	0	0	0	0	0	0	0	0	0	0	0	3	100	3
73-74	0	0	0	0	0	0	0	0	0	0	0	0	10	100	10
74-75	0	0	0	0	0	0	0	0	0	0	0	0	4	100	4
75-76	0	0	0	0	0	0	0	0	0	0	0	0	1	100	1
76-77	0	0	0	0	0	0	0	0	0	0	0	0	1	100	1
77-78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78-79	0	0	0	0	0	0	2	10.5	0	0	2	10.5	17	89.5	19
79-80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80-81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE XV  
YEARLY ENROLLMENT FIGURES BY AUTO PARTS,  
SERVICE STATION BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	1	1.4	1	1.4	0	0	2	2.8	72	97.3	74
72-73	0	0	0	0	0	0	1	1.3	0	0	1	1.3	79	98.8	80
73-74	0	0	1.1	0	0	0	0	0	0	0	1	1.1	90	98.9	91
74-75	0	0	0	0	0	0	0	0	0	0	0	0	44	100	44
75-76	0	0	0	0	0	0	1	2.0	0	0	1	2.0	50	98	51
76-77	0	0	0	0	0	0	2	3.6	0	0	2	3.6	54	96.4	56
77-78	0	0	0	0	0	0	1	2.4	0	0	1	2.4	41	97.6	42
78-79	0	0	0	0	0	0	1	14.3	0	0	1	14.3	6	85.7	7
79-80	0	0	0	0	0	0	3	27.3	0	0	3	27.3	8	72.7	11
80-81	0	0	0	0	0	0	1	5.9	0	0	1	5.9	16	97.9	17

TABLE XVI  
YEARLY ENROLLMENT FIGURES BY AIRCRAFT  
MECHANICS BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	1	.3	0	0	1	.3	308	99.7	309
72-73	0	0	0	0	0	0	5	1.7	0	0	5	1.7	286	98.3	291
73-74	0	0	1	.3	0	0	2	.6	0	0	3	.9	305	99.0	308
74-75	0	0	0	0	0	0	1	.4	0	0	1	.4	243	99.6	244
75-76	0	0	0	0	0	0	2	.9	0	0	2	.9	212	99.1	214
76-77	0	0	0	0	0	0	2	1.1	0	0	2	1.1	174	87.8	186
77-78	0	0	0	0	0	0	4	2.4	0	0	5	2.4	204	97.6	209
78-79	0	0	1	.6	0	0	4	2.5	0	0	5	3.1	158	96.9	163
79-80	0	0	1	.6	0	0	1	.6	0	0	2	1.2	156	98.6	158
80-81	0	0	0	0	0	0	1	.6	0	0	1	.6	161	99.4	162

TABLE XVII  
YEARLY ENROLLMENT FIGURES BY DIESEL  
MECHANICS BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	1	.3	0	0	1	.3	374	99.7	375
72-73	1	.1	0	0	0	0	2	.3	0	0	3	.4	678	99.6	681
73-74	0	0	0	0	0	0	0	0	0	0	0	0	696	100.0	696
74-75	0	0	0	0	0	0	0	0	0	0	0	0	651	100.0	651
75-76	0	0	0	0	0	0	0	0	0	0	0	0	538	100.0	538
76-77	1	.2	0	0	0	0	2	.3	0	0	3	.5	581	99.5	584
77-78	0	0	0	0	0	0	6	1.0	0	0	6	1.0	602	99.0	608
78-79	0	0	1	.3	0	0	3	1.0	0	0	4	1.3	297	98.7	301
79-80	0	0	0	0	0	0	2	.3	0	0	2	.3	626	99.7	628
80-81	0	0	1	.1	0	0	7	1.0	0	0	8	1.1	670	98.8	678

TOTAL XVIII  
YEARLY ENROLLMENT FIGURES BY MASONRY  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	1	1.6	0	0	0	0	0	0	1	1.6	62	98.4	64
72-73	0	0	0	0	0	0	0	0	0	0	0	0	148	100.0	148
73-74	0	0	0	0	0	0	2	.7	0	0	2	.7	283	99.3	285
74-75	0	0	0	0	0	0	4	1.	0	0	4	1.0	385	99.0	389
75-76	0	0	0	0	0	0	1	.2	0	0	1	.2	484	99.8	485
76-77	0	0	0	0	0	0	2	.4	0	0	2	.4	556	99.6	558
77-78	1	.2	1	.2	0	0	8	1.4	0	0	8	1.8	561	98.2	571
78-79	0	0	0	0	1	.2	4	.7	0	0	5	.9	599	99.2	604
79-80	0	0	0	0	0	0	1	.2	0	0	1	.2	632	99.8	633
80-81	1	.2	0	0	0	0	3	.5	0	0	4	.7	607	99.3	611



TABLE XIX  
YEARLY ENROLLMENT FIGURES BY SMALL ENGINE  
REPAIR BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	0	0	0	0	0	0	94	100.0	94
72-73	0	0	0	0	0	0	1	.5	0	0	1	.5	183	99.5	184
73-74	0	0	0	0	0	0	0	0	0	0	0	0	193	100.0	193
74-75	0	0	0	0	0	0	2	.9	0	0	2	.9	232	99.1	232
75-76	1	.3	0	0	0	0	3	.9	0	0	4	1.2	325	98.8	329
76-77	0	0	0	0	0	0	3	1.2	0	0	3	1.2	247	98.8	250
77-78	0	0	0	0	0	0	4	1.8	1	.5	5	2.3	212	97.7	217
78-79	1	.3	0	0	0	0	9	2.4	0	0	10	2.7	366	97.3	376
79-80	0	0	0	0	0	0	3	1.2	0	0	3	1.2	354	98.8	257
80-81	0	0	0	0	0	0	4	1.4	0	0	4	1.4	274	98.6	278

TABLE XX  
YEARLY ENROLLMENT FIGURES BY CARPENTRY  
BY RACE OF FEMALES

Female Races										Total		Total		Yearly	
Years	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	2	.2	0	0	0	0	2	.2	0	0	4	.4	1170	99.7	1174
72-73	2	.1	1	.1	0	0	14	.8	0	0	17	1.0	1678	99.0	1695
73-74	7	.4	15	.8	0	0	61	3.3	3	.2	86	4.7	1790	95.4	1876
74-75	2	.1	5	.3	1	.1	41	2.1	0	0	49	2.6	1903	97.5	1952
75-76	7	.4	1	.1	1	.1	39	2.1	0	0	48	2.7	1850	97.5	1898
76-77	4	.2	3	.1	1	0	28	1.3	0	0	36	1.6	3081	98.4	2117
77-78	3	.1	1	0	0	0	19	.9	0	0	23	1.0	2183	99.0	2206
78-79	3	.1	4	.4	0	0	39	1.6	0	0	46	1.9	2359	98.1	2405
79-80	6	.3	0	0	0	0	30	1.4	0	0	36	1.7	2153	98.4	2189
80-81	6	3.0	0	0	1	0	16	.8	0	0	23	1.1	2059	98.9	2082

The Indian race was the only group to show an increase in numbers of enrollment and percentages.

Electricity (Table XXI), like carpentry, had a slight increase in female enrollment. In 1971, it had one female enrolled which consisted of only .8 percent of the enrollment. In 1981, it had increased to six people at 2.3 percent of the enrollment. Female Indians increased enrollment from zero to three while Blacks and Hispanics increased by one. Asians never enrolled in electricity any of the ten years.

Auto body (Table XXII) had a small increase of females who enrolled. There were three to enroll in 1971 and 15 in 1981, which made the enrollment percentages for 1971 to be .5 and for 1981 1.7 percent. Indians and Hispanics increased to two over the entire ten years. Asians and Blacks remained zero in enrollment.

Auto mechanics (Table XXIII) was different than all the other programs in that from the years 1973 through 1980 there was a marked increase of female students enrolled in auto mechanics. Then in 1981 enrollment figures dropped in numbers to the same enrollment figures of 1971. Indians and Blacks showed the same phenomenon. However, Hispanics and Asians did not increase in a similar manner to the female Indians and Blacks.

For the most part there was not much change in the sheet metal program (Table XXIV), although there was one year in which there was a dramatic change in enrollment. That was in the 1978-79 school year. They increased from one to 30 and then dropped the following year to two. Although the female Indians and Blacks increased in enrollment, the hispanics and Asians remained with zero enrollments.

TABLE XXI  
YEARLY ENROLLMENT FIGURES BY ELECTRICITY  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	0	0	1	.8	0	0	1	.8	126	99.2	127
72-73	0	0	0	0	0	0	0	0	0	0	0	0	348	100.0	348
73-74	0	0	0	0	1	.2	12	2.8	0	0	13	3.0	413	96.9	426
74-75	0	0	0	0	0	0	8	1.5	0	0	8	1.5	528	98.5	536
75-76	0	0	0	0	0	0	5	1.1	0	0	5	1.1	451	98.9	456
76-77	1	.2	0	0	0	0	2	.4	0	0	3	.6	465	99.4	468
77-78	1	.2	0	0	0	0	4	.9	0	0	5	1.1	451	98.9	456
78-79	0	0	0	0	0	0	11	2.5	0	0	11	2.5	430	97.5	441
79-80	0	0	0	0	0	0	1	.4	0	0	1	.4	251	99.6	252
80-81	3	1.1	1	.5	1	.5	1	.4	0	0	6	2.3	265	96.8	271

TABLE XXII  
YEARLY ENROLLMENT FIGURES BY AUTO BODY  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	1	.2	0	0	2	.3	0	0	3	.5	580	99.5	583
72-73	0	0	0	0	0	0	1	.1	0	0	1	.1	750	99.9	751
73-74	0	0	1	.1	0	0	4	.5	0	0	5	.6	760	99.3	765
74-75	1	.1	0	0	0	0	5	.6	0	0	6	.7	816	99.3	822
75-76	0	0	0	0	0	0	3	.4	0	0	3	.4	703	99.6	706
76-77	0	0	0	0	0	0	3	.4	0	0	3	.4	791	99.6	794
77-78	1	.1	0	0	0	0	6	.8	0	0	7	.9	768	99.1	775
78-79	1	.1	0	0	0	0	8	.8	0	0	9	.9	961	99.1	970
79-80	0	0	0	0	0	0	16	2.1	0	0	76	2.1	764	97.9	780
80-81	2	.2	0	0	2	.2	11	1.3	0	0	15	1.7	862	98.2	817

TABLE XXIII  
YEARLY ENROLLMENT FIGURES BY AUTO MECHANICS  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	2	.1	0	0	10	.4	0	0	12	.5	2359	99.3	2371
72-73	0	0	0	0	0	0	27	1.0	0	0	17	1.0	2743	991	2770
73-74	2	.1	2	.1	3	.1	46	1.5	0	0	53	1.8	2932	98.2	2985
74-75	18	.6	1	0	1	0	32	1.2	0	0	52	1.8	2718	98.1	2770
75-76	6	.2	18	.6	0	0	53	2.0	0	0	77	2.9	2640	97.2	2717
76-77	5	.2	3	.1	1	0	49	1.7	0	0	58	2.	2900	98.0	2958
77-78	12	.4	1	0	2	.1	65	2.2	0	0	80	2.7	2818	96.2	2898
78-79	18	.6	0	0	0	0	84	2.8	0	0	102	3.4	2930	96.6	3032
79-80	8	.3	0	0	2	.1	58	2.1	0	0	68	2.5	2729	97.6	2797
80-81	2	.2	0	0	2	.2	11	1.3	0	0	15	1.7	802	98.2	817

TABLE XXIV  
YEARLY ENROLLMENT FIGURES BY SHEET METAL  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	0	0	1	1.	0	0	0	0	1	1.0	96	99	97
72-73	0	0	0	0	0	0	0	0	0	0	0	0	86	100	86
73-74	0	0	0	0	0	0	0	0	0	0	0	0	170	100	170
74-75	0	0	0	0	0	0	0	0	0	0	0	0	175	100	175
75-76	0	0	0	0	0	0	1	.6	0	0	1	.6	154	99.4	155
76-77	0	0	0	0	0	0	1	.7	0	0	1	.7	151	99.3	152
77-78	0	0	0	0	0	0	2	1.5	0	0	2	1.5	129	98.5	131
78-79	4	1.8	3	1.4	0	0	23	10.5	0	0	30	13.7	189	86.3	319
79-80	0	0	0	0	0	0	2	1.9	0	0	2	1.9	103	98.1	105
80-81	0	0	0	0	0	0	2	2	0	0	2	2.0	100	98	102

The welder program (Table XXV) had increased from four to 32 in the female enrollments from 1971 to 1982. However, that is only an increase from .5 percent in 1971 to 2.3 percent in 1981. The Indians, Blacks, and Hispanics picked up in female enrollment, but the Asians never enrolled one female in any of the ten years.

#### Programs With Missing Data

The last group will not be discussed in great detail because of insufficient and incomplete data. In fact, all of the tables were incomplete so that conclusions about ten-year trends were not feasible.

There were five programs that had very few students enrolled. They were heating, metallurgy occupations, law enforcement training, truck driving and baker. Laundry and dry cleaning and cook/chef were two programs that did have a larger total enrollment. Even with a large enrollment the yearly data was not sufficient to draw any conclusions. The rest of the occupational programs with insufficient data are listed as follows: plumbing and pipefitting; electrician; fireman training; stationary energy sources occupations; hydraulics; butcher; truck driver; tailoring; radio and TV repair; business machine repair; barber; plastics occupations; electromechanical programs; industrial chemistry; cabinetmaking; Indian arts and crafts; woodworking; textile production and fabrication; and auto, truck tire production.

Industrial chemistry, textile production and fabrication, cabinetmaking, and woodworking all showed a minute increase in female enrollment. The rest of the programs listed showed a decrease; low



TABLE XXV  
YEARLY ENROLLMENT FIGURES BY WELDER  
BY RACE OF FEMALES

Years	Female Races										Total		Total		Yearly
	Indian		Black		Hispanic		White		Asian		Female		Male		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
71-72	0	0	1	.1	0	0	3	.4	0	0	4	.5	687	99.4	691
72-73	1	.1	0	0	0	0	5	.6	0	0	6	.7	840	99.3	846
73-74	3	.3	0	0	0	0	12	1.1	0	0	15	1.4	1034	98.6	1049
74-75	1	.1	0	0	0	0	1	.1	0	0	2	.2	1189	99.8	1191
75-76	2	.2	0	0	0	0	8	.7	0	0	10	.9	1187	99.2	1197
76-77	1	.1	0	0	0	0	14	1.1	0	0	15	1.2	1224	98.8	1239
77-78	2	.2	2	.2	0	0	11	.9	0	0	15	1.3	1250	98.8	1265
78-79	3	.2	12	.7	1	.1	33	1.9	0	0	49	2.9	1659	97.1	1708
79-80	5	.4	13	1.1	1	.1	27	2.3	0	0	47	3.9	1153	96.2	1199
80-81	3	.2	6	.4	1	.1	22	1.6	0	0	32	2.3	1327	97.6	1359

enrollment, or zero female enrollment. Even the programs with missing data show a very slow increase of female enrollments.

#### Comments on Possible Effects and Recording System

It should be mentioned that annually teachers of vocational programs turn in their enrollment sheets to the State Department of Vocational and Technical Education. Computer programmers compile the data into one large pool of information for each program. Then individual school enrollments are discarded. Janice Burnett, Information Service Coordinator for the State Department of Vocational and Technical Education, has been in charge of analyzing and disseminating the data. Some of the tables show leaps in enrollment. A program might jump 300 people and fall 300 students the next year. This type of trend cannot be explained unless it is investigated before school enrollment forms are discarded.

One other situation should be explained. Numerous programs had only one or two students enrolled over a year. This has usually been because these students are enrolled in cooperative vocational occupation classes. These students select an area of study and then find on-the-job training in their selected area. One student might select auto body and another person might choose woodworking, therefore, no large enrollment would be reflected and one or two student enrollments would appear frequently.

### Summary

The data over the past ten years showed a gradual increase in female minority enrollment. The Asian population had the least amount of female enrollment. In fact, it was the only race that showed a decrease in female enrollment. Still the white female had the greatest enrollment and the greatest increase in enrollment over the past ten years. Minority females did not enroll in non-traditional occupational programs that would increase their income level considerably.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes and discusses the results of the study. A summary of the findings presented in Chapter IV is first presented, followed by the researcher's conclusions based on these findings. The final part of this chapter discusses recommendations for further research and practice.

#### Summary

The problem of the study was related to the insufficient statistics compiled regarding the racial trend of females in non-traditional vocational and technical training, when 1971 through 1981 yearly enrollments were compared. The purpose of this research was to identify the number of females according to race enrolled in non-traditional vocational and technical training for the past ten years to determine trends.

The population for the study was all students enrolled in vocational and technical programs from 1971 to 1981. This information was found on computer discs that were programmed with yearly enrollment data collected from the teachers of each program area.

The data were sent to the State Department of Vocational and Technical Education in the early fall of each semester. The teacher reviewed the raw information directly from the enrolled students. No type of certification was necessary.

One mandate of the Vocational and Technical Act of 1976 was that each state should hire a full-time educational equity coordinator. This person would be in charge of program's sex fair reviews. Since that is the researcher's present job duty as Oklahoma's Educational Equity Coordinator major differences in raw enrollment reports from the public schools and the individual vocational programs have been noticed. Many times teachers neglect to ask students their race and use thier own judgement by appearance. Often times students are not aware of their race, especially in the areas of Indians. More accurate record keeping procedures need to be developed.

Overall in the past ten years, there has been a clear increase in the total female enrollment. However, the majority of females were still found in the traditional vocational and technical programs of home economics, business and office and health occupations. Of all the divisions that were studied, the trade and industry division had the lowest percentage of female enrollments. In fact, the absolute lowest female enrollments were found in the automotive and construction trades.

There was an increase in minority females found in agriculture programs. However, this increase was found predominately in horticulture. In fact, in the last ten years horticulture has moved from a predominately male program to a large majority female program. The following programs were the only programs that reported an increase in female enrollment: (1) Agriculture Production; (2) Agriculture Mechanics; (3) Ornamental Horticulture; (4) Photography; (5) Custodial Services; (6) Drafting; (7) Electronics; (8) Printing; (9) Machinist; (10) Upholstery.

These programs represent a small proportion of the number of programs in the trade and industrial division. In fact, there were only 5.9 percent of these programs that reported an increase in female enrollment. Since the Vocational Education Act of 1976, recruitment efforts have been initiated by the State Department of Vocational and Technical Education in Oklahoma. In the last five years, progress has been slowly made in total female enrollment in non-traditional vocational and technical programs.

### Conclusions

Ten years have shown a slow movement of females into non-traditional programs. The biggest group of females to move in this direction were found to be white. Minorities were not found in high percentages in any non-traditional programs. Asians were found the least in such programs. Agriculture has increased greatly in female enrollment. However, the trade and industrial division has experienced only a slow and gradual increase, if any, into its programs. In fact, some programs have decreased in female enrollment. Statistics show that many programs need to work on recruitment of females since they have not increased or perhaps have decreased in female enrollment.

### Recommendations

The following recommendations for practice are based on the results of the study. It is recommended that:

1. Emphasis on educational equity be continued.
2. Better reporting system for enrollment reports be developed.
3. More educational equity workshops should be done for students.

4. This thesis should be shared with the Educational Equity Coordinator of the other 49 states.

5. The findings of this thesis should be published in the Oklahoma Vocational Association Newsletter, Expressions.

6. Individual schools make an effort to recruit minority females in non-traditional vocational programs.

#### Further Study

Additional studies could be concluded to identify or collect the following information.

1. A five year follow-up study should be initiated to report whether or not non-traditional graduates of vocational and technical programs are working in the occupations and technical programs are working in the occupations for which they were trained.

2. A study, similar to this one, could include male minority enrollment information.

3. A study of how the economy affects non-traditional vocational and technical enrollment would be beneficial in finding possible causes of fluctuations in non-traditional female enrollment.

4. A study of enrollment patterns for each vocational and technical area school could be undertaken to discover if some schools have better non-traditional enrollment procedures than others.

5. The number of percentages of female students who enrolled in non-traditional vocational and technical programs who actually graduated from the program.

6. The percentages and number of females who continued further training after the completion of non-traditional vocational and technical programs.

7. Possible reasons students do not enroll in non-traditional vocational and technical programs.

8. Possible reasons students who do enroll in non-traditional vocational and technical programs drop out.

9. A study to determine why changes in enrollment patterns occur could shed light on how students select vocational and technical programs.



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APPENDIX A

VO-TECH STUDENT ACCOUNTING SYSTEM

SECONDARY AND LONG-TERM PROGRAM

ENROLLMENT FORM

# VO-TECH STUDENT ACCOUNTING SYSTEM SECONDARY AND LONG-TERM ADULT PROGRAM ENROLLMENT FORM

## IMPORTANT-PLEASE READ:

FOR SECONDARY AND LONG-TERM ADULT PROGRAMS ONLY, please provide enrollment information for ALL STUDENTS ENROLLED AS OF OCTOBER 1. October 1 enrollment is DUE OCTOBER 10. If additional students enroll AFTER OCTOBER 1, please submit another program enrollment form which lists only the additional students. Program enrollments AFTER OCTOBER 1 are due one week after the student enrolls.

(Check one) \_\_\_\_\_ 4. This form includes enrollments AS OF OCTOBER 1.  
(80)

\_\_\_\_\_ 5. This form includes enrollments AFTER OCTOBER 1.

PLEASE READ GUIDEBOOK CAREFULLY BEFORE COMPLETING THIS FORM.

## FOR STATE OFFICE USE ONLY

\_\_\_\_ (1-3)

\_\_\_\_ (4-12)

\_\_\_\_ (13) \_\_\_\_ (14-15)

\_\_\_\_ (16-19)

Contract # \_\_\_\_ (20-22)

\_\_\_\_ (23-27)

School Name \_\_\_\_\_

Location \_\_\_\_\_

Program Name \_\_\_\_\_

Teacher Name \_\_\_\_\_

Social Security # \_\_\_\_\_

Date \_\_\_\_\_

Number of Student Names  
submitted on this form \_\_\_\_\_

Student Name			Social Security Number	Occupational Objective Code	Sex M or F	Age	Grade Level	Vocational Class Level	Race	Special Needs						
1st Initial	2nd Initial	Last Name (Print or Type)								Handicaps (See IEP)				Other Special Groups & Wk. Study	LEP	Econ or Acad Dis.
37	38	39 - 48	49 - 57	58 - 63	64	65-66	67-68	69	70	71	72	73	74			
1																
2																
3																
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20																

**COL. 67-68 (GRADE LEVEL)****CODE HIGH SCHOOL STUDENTS**

- 09 Freshman
- 10 Sophomore
- 11 Junior
- 12 Senior

**CODE LONG-TERM ADULT STUDENTS**  
(500 contact hours or more  
and/or open entry/open exit)**FIRST YEAR ADULTS**

- 13 enrolled 3 hours or less per day
- 14 enrolled more than 3 hours per day

**SECOND YEAR ADULTS**

- 23 enrolled 3 hours or less per day
- 24 enrolled more than 3 hours per day

**COL. 69 (VOCATIONAL CLASS LEVEL)-  
COMPLETE FOR SECONDARY PROGRAMS ONLY**

Use 1, 2, 3 or 4 to indicate, according to curriculum  
content, the vocational class level in which the student  
is enrolled; i.e., Vo Ag IV-use 4; Ag Mech II-use 2.

**COL. 70 (RACE)****CODE**

- 0 American Indian or Native Alaskan
- 1 Black, not of Hispanic origin
- 2 Hispanic
- 3 White, not of Hispanic origin
- 4 Asian or Pacific Islander

**COL. 71-74 (HANDICAP)****CODE**

- 0 Not Handicapped
- 1 Mentally Retarded
- 2 Hard of Hearing
- 3 Deaf
- 4 Speech Impaired
- 5 Visually Handicapped
- 6 Seriously Emotionally Disturbed
- 7 Orthopedically Impaired
- 8 Other Health Impaired
- 9 Specific Learning Disability
- A Deaf/Blind

**COL. 75 (CETA, DISPLACED HOMEMAKER, OTHER  
SPECIAL GROUPS AND WORKSTUDY)****CODE**

- 0 Not CETA, Not Displaced Homemaker, Not  
Other Special Groups and Not Workstudy
- 1 CETA Client  
(adult students only)
- 2 Displaced Homemaker  
(adult students only)
- 3 Both CETA and Displaced Homemaker
- 4 Other Special Groups  
(adults only)
- 5 Both CETA and Other Special Groups
- 6 Workstudy (economically disadvantaged  
Secondary Students only)

**COL. 76 (LIMITED ENGLISH PROFICIENCY)****CODE**

- 0 Not Limited in English Proficiency
- 1 Limited English Proficiency

**COL. 77 (DISADVANTAGED)****CODE**

- 0 Neither Economically nor Academically  
Disadvantaged
- 1 Economically Disadvantaged
- 2 Academically Disadvantaged
- 3 Both Economically and Academically  
Disadvantaged

**REFER TO GUIDEBOOK FOR OPERATIONAL DEFINITIONS AND DOCUMENTATION PROCEDURES**

EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

APPENDIX B

OVERALL YEARLY FEMALE ENROLLMENT

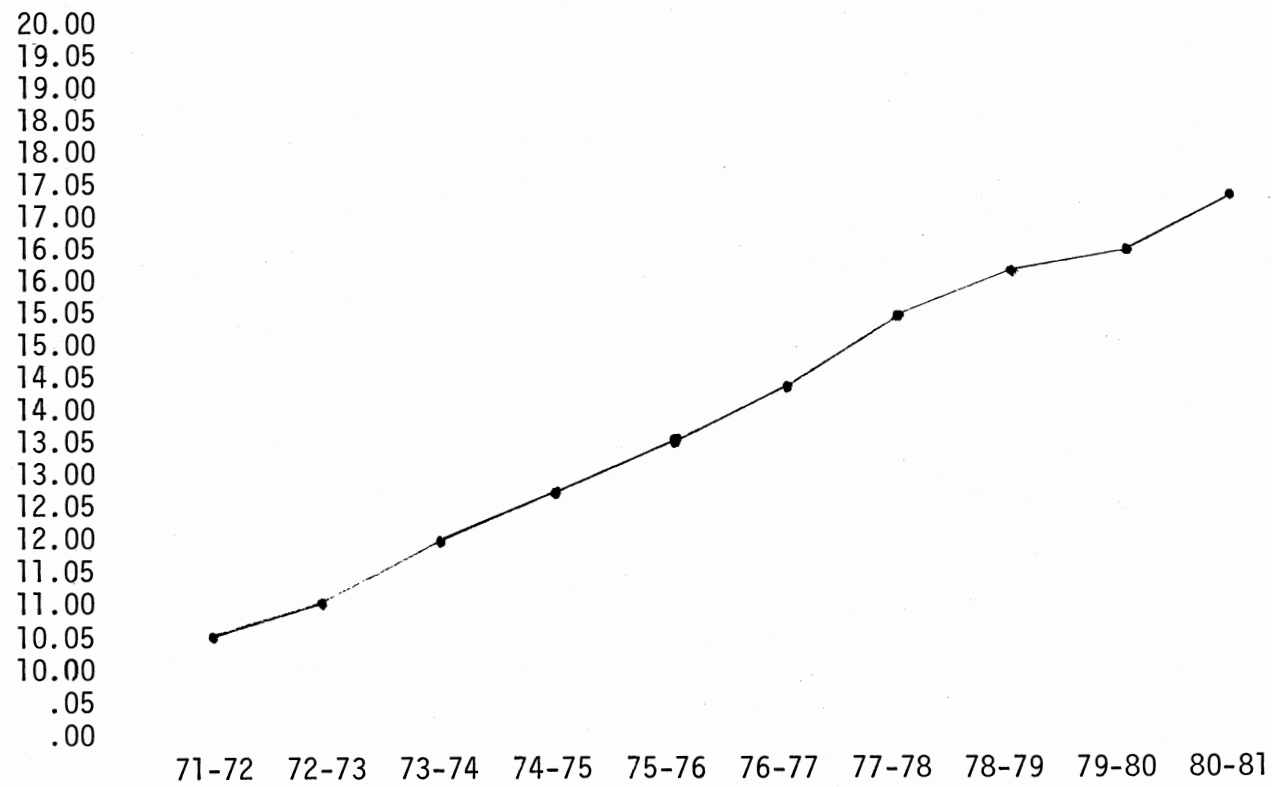


Figure 1, Overall Yearly Female Enrollment

## VITA 2

Lou Ann Hargrave

Candidate for the Degree of

Master of Science

Thesis: TRENDS IN MINORITY FEMALE ENROLLMENT IN OKLAHOMA  
NON-TRADITIONAL VOCATIONAL AND TECHNICAL PROGRAMS FROM  
1971-1981

Major Field: Occupational and Adult Education

### Biographical:

Personal Data: Born in Windfield, Kansas, December 12, 1954, the daughter of Charles and Vivian Hargrave.

Education: Attended public school in Antlers, Oklahoma; received Bachelor of Science in Home Economics degree from Oklahoma State University, 1977; completed requirements for the Master of Science degree at Oklahoma State University in May, 1982.

Professional Experience: Vocational Home Economics teacher, Broken Bow High School, Broken Bow, Oklahoma, 1977-1979; Career Specialist, State Department of Vocational and Technical Education, Stillwater, Oklahoma, 1974-1981; Education Equity Coordinator, State Department of Vocational and Technical Education, Stillwater, Oklahoma, 1981-present.

Professional Organization: American Vocational Association; Oklahoma Vocational Association; Oklahoma Personnel and guidance Association; Oklahoma Career Education Association; American Home Economics Association, Omicron Nu; Phi Upsilon Omicron.