

ACTIONS NECESSARY TO OVERCOME SEX BIAS AND SEX
STEREOTYPING IN VOCATIONAL EDUCATION
IDENTIFIED BY SELECTED NATIONAL
LEADERS

By

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Feelings and non-verbal perceptions can never be described with written expressions as the word is never the actuality. The meaning is lessened or lost in a sea of inadequate words. The feelings and perceptions can only be extracted from the words as the eyes and ears of the receiver shape the perception. Similarly, intellectual debts can never be counted or re-paid. They can only be left to remain in the fiber of the debtor to nurture and grow or to be passed on to others through osmosis.

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CHAPTER I

INTRODUCTION

Traditions in living and thinking form the basis of attitudes affecting major social and economic considerations that perpetuate the difficulties faced in any attempt to overcome sex bias and sex stereotyping in vocational education. Within the confines of these very practical social and economic considerations, can vocational education provide equality in educational opportunities without endangering intense personal masculine and feminine traits and roles?

Women are entering the work force at a rate never before experienced in our history (Ginzberg, 1977). The standard of living to which most families have grown accustomed indeed has forced many women to seek employment so as to maintain that standard. More and more women are becoming single heads of households, thus necessitating their participation in the labor force. Few of these women possess the salable skills and competencies necessary to compete in the work market place.

Traditional societal and economic patterns and pressures are now being challenged in our legislatures and courts. This is evidenced by punitive actions concerning equal pay and sex discrimination as well as existing state and federal legislation for displaced homemakers (Raimy, 1977). The Congress has implied that vocational education has the responsibility to take the lead in helping to change these patterns.

At 1975 hearings before the Subcommittee on Education of the Senate Committee on Labor and Public Welfare reviewing vocational education programs, the United States General Accounting Office reported:

...barriers, such as age, sex, and entrance requirements, have restricted access to training and employment. Our report describes these obstacles. For example:

As illustrated by the sex chart on page 85 in our report, vocational training for women traditionally has been clustered around stereotyped female occupational roles which HEW noted are compensated at lower-income levels.

We made recommendations to the Secretary of HEW and to the Congress concerning ways to reduce the impact of these barriers which inhibit persons from participating in vocational education (p. 26).

The United States Congress has determined that vocational education must provide and extend sex fair opportunities for women to develop competitive salable skills and work competencies. This is evidenced by the sweeping force in vocational education appearing in Public Law 94-482, Title II, Section 104(b)(1) which states:

(b)(1) Any state desiring to participate in the programs authorized by this Act shall also assign such full-time personnel as may be necessary to assist the State Board in fulfilling the purposes of this Act by

(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 of the status of men and women, students, and employees in vocational education programs of that 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, 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; and
- (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.

(2) From the funds appropriated to carry out subpart 2, each State shall reserve \$50,000 in each fiscal year to carry out this subsection.

Since it has been mandated by the Congress of the United States to overcome and eliminate sex bias and sex stereotyping in vocational education there becomes a question as to whether or not this elimination in training will result in the elimination of sex bias and sex stereotyping in the workplace. Some judgments must be made by personnel assigned to assist the State Board in fulfilling the purposes of this Act as to how this elimination will be accomplished. This study is an attempt to identify and prioritize those actions thought to be necessary to assure full participation in vocational education for both sexes.

Statement of the Problem

Enrollments and status reports in vocational education clearly document sex bias and sex stereotyping in traditional course offerings, however, little has been said about actions which will correct this lack of balance. Vocational education has been given a major mandate

In overcoming sex bias and sex stereotyping. Personnel assigned to assist the State Board for Vocational Education are faced with meeting this mandate. Few of these people bring with them to their new job a broad experience base in dealing with sex equity. Few of these people have an abundance of solutions other than their own personal judgments. To be assured that this mandate is carried out, there must be an indepth investigation of actions necessary to meet the mandate. These actions have not been identified. This study has been conducted in an attempt to provide actions thought to be necessary in overcoming sex bias and sex stereotyping in vocational education.

Purpose of the Study

The primary purpose of the study is to identify and prioritize the actions necessary to overcome sex bias and sex stereotyping in vocational education. This will include actions which if implemented will assure full participation of students in all areas of vocational education.

A secondary purpose of the study will be to help determine the direction in which personnel assigned to assist the State Board in providing educational equity should proceed in overcoming sex bias and sex stereotyping.

Need for the Study

Public Law 94-482 clearly mandates that sex bias and sex stereotyping be eliminated. Support for this mandate by the State Board and by administration is strongly suggested by the legislation. A State Board for Vocational Education responsible for the administration of

P.L. 94-482 is charged with designating and assigning personnel to work full time to furnish equal educational opportunities to both sexes and eliminate sex discrimination and sex stereotyping from all vocational programs.

Regarding actions necessary to accomplish the mandate, the Task Force on Legislation and Regulations of the National Advisory Council on Vocational Education (1977) recommended that the determination of ways to eliminate sex bias and sex stereotyping in enrollment patterns, access to programs, or recruiting practices should be left to the discretion of the States. Further, the Task Force recommended that States should establish policies to this end.

Included in the mandate is the requirement that personnel assigned to assist the State Board make every effort to implement the laws prohibiting sex discrimination in all hiring and promotion procedures. In speaking to the immediate and long-range implications of P.L 94-482, Stevenson (1977) states:

This may not be the problem many people originally thought it would be. Experience is clearly demonstrating that employers with their viewpoints of the profit motive are eager to hire competent individuals and generally use this as the sole criteria for employment. Those of us in education must become equally conscious of what constitutes true employability to the end that we shed our shroud of stereotyping (p. 13).

With this in mind we may ask, is there really a problem in vocational education? Who has recognized the problem and who has not?

Another question now becomes, how? How to "shed the shroud of stereotyping?" How do we in vocational education overcome, eliminate sex bias and sex stereotyping, how do we stamp out sex discrimination, how do we eliminate the denial of rights, how do we turn the negative effects to positive effects? What must be done first?

The Rules and Regulations for P.L. 94-482 only mirror the language appearing in the Act. The actions necessary to meet this challenge are not described. This study is an attempt to identify and prioritize some actions upon which a group of selected national leaders have reached a consensus. The Delphi Technique was used. If implemented these actions could provide a guide for those personnel assisting State Boards in providing sex-fair vocational education.

Objectives

The terminal objective of this study is to provide an action guide that could be utilized by personnel assigned to assist State Boards in assuring full participation by any individual in any program in vocational education. The specific objectives include:

1. To identify persons from vocational education, agencies, business and industry, government, and other educational disciplines to provide input for the investigation.
2. To identify actions necessary to overcome sex bias and sex stereotyping in vocational education.
3. To determine if actions other than open access to programs are necessary.
4. To determine the ranking of actions submitted by the participants.
5. To determine the comparative rankings of recommendations by persons from vocational education, agencies, business and industry, government, and other education disciplines.
6. To determine the comparative rankings of recommendations by men and women.

Definitions

Sex Bias - behaviors resulting from the assumption that one sex is superior to the other.

Sex stereotyping - attributing behaviors, abilities, interests, values, and roles to a person or group of persons on the basis of their sex.

Sex discrimination - any action which limits or denies a person or group of persons on the basis of their sex.

Action - the state or process of doing or the manner of movement.

Scope of the Study

Representatives from business and industry, public and private agencies, vocational education, government, and other educational disciplines were selected by an initial advisory panel to the study. This panel consisted of Dr. Fern Green, Director of Educational Equity, Oklahoma State Department of Vocational Education; Dr. Ellen Bowers, Research Associate, Oklahoma State Department of Vocational Education; Dr. Bill Stevenson, Assistant State Director, Oklahoma State Department of Vocational Education; and Joyce Bates, Doctoral Student, Oklahoma State University. Five national leaders were selected from each group. The group selected consisted of thirteen men and twelve women. The participants were selected based upon their reputation and expertise in their respective fields. The scope of the study was confined to sex bias and sex stereotyping as it relates to problems dealing with equal access to programs of vocational education.

Assumptions

The basic assumption of this study is that the selected national leaders representative of business and industry, public and private agencies, vocational education, government, and other educational disciplines possessed a reputation which would cause them to be listened to and that they had developed the expertise needed to provide input into the investigation.

It was also assumed that the responses are based upon the participants' awareness of sex bias and sex stereotyping and knowledge of the function of vocational education.

It was assumed the responses were based upon the participants' true feelings and attitudes and honest expressions.

Limitations

The internal validity is limited to the Delphi Technique and to the responses as they have been synthesized and reworded. The external validity of the study is limited to the size of the sample.

CHAPTER II

REVIEW OF LITERATURE

In this review of literature, an attempt has been made to uncover writings and research as they apply to women and employment relative to sex bias, sex stereotyping and sex discrimination. While considerable material is available concerning the general condition of women, there was not found to be an abundance of writings and research relative to women, work and vocational education. The search, therefore, was an attempt to assemble information concerned with the literature relative to studies dealing with (1) women in the labor force, (2) vocational education for women, (3) development of legislation, and (4) vocational education as change agent. In addition a discussion of literature relative to the Delphi Technique is presented in Chapter III.

Women in the Labor Force

In recent years so much has been written on the position of women in the economy that a complete analysis would comprise several volumes. An analysis of the composition of the nation's labor force indeed becomes a complex task. A preponderance of information exists to be analyzed. First it must be pointed out that the civilian labor force is generally defined as the total of those who have jobs and those who are unemployed but are actively seeking work. Information dealing with

the composition of the labor force includes such elements as its size, the age, sex, and marital status of the workers, the workers' income levels, the occupational distribution, the educational levels of the workers, and the contributions to family incomes. Any investigation of the composition of the labor force must address the extraordinary and unforeseen number of women entering the labor force (Reider, 1977).

An historical overview of the labor force participation of women in the country has shown a steady increase particularly since the turn of the century. The Women's Bureau of the Employment Standards Administration, Department of Labor, indicates the rate increased from approximately 20 percent in the early 1900's to 29 percent by 1940. The 1940's and the 1950's saw a fluctuation of the labor force participation of women. After World War II, the number of women declined by more than two million between 1944 and 1946 despite the fact that most women wanted to continue employment after the end of the War (Trey, 1972).

In looking at the labor force participation of women since the 1950's, Ginzberg (1977) states:

Between 1950 and 1976 the labor force increased from 62 million to about 95 million, an increase of 33 million. Of the total increase men accounted for 12.6 million and women for more than 20 million, a simple demonstration of the greatly increased role of women in the labor force. In terms of participation rates [the proportion of each sex in the labor force] the male rate declined from 86.8 percent to 78.1 as the female rate increased from 33.9 percent to 47.4 (p. 45).

We find then that women accounted for over 60 percent of the total increase in the size of the labor force between 1950 and 1976. Ginzberg, Chairman of the National Commission for Manpower Policy, calls this increase "the single most outstanding phenomenon of our century"

(p. 49). This evidence clearly documents the extraordinary participation rate increase.

It may be of interest to point out some of the factors which have influenced the increase in the rate of participation of women in the labor force. As the production of food and clothing shifted from the home to the industrial sector, women went to the factories to operate the machines which were used. The demand for their services increased as the new industries increased their activities (Mixer, 1974).

As men went off to fight during World War II many jobs were vacated in the heavy industries. Women served their country by working in the heavy industries which provided the much needed products for the War. Scientific and technological advances and the electronic revolution have done much to free the woman to work outside the home. The reduction of household chores due to these advances has eased the load thus enabling women to work outside the home. New and emerging fields such as data processing, health fields, and new government services have increased the availability of jobs. With more jobs available women have taken the opportunities to increase total family incomes either to eliminate poverty or to maintain family living standards by accepting these available jobs (Steele, 1974).

Presently the increased rate of participation may be attributed to a rise in consciousness. For a woman to be employed outside the home is now more socially acceptable. Family life and female are no longer viewed as identical. Career and family roles, it is finally recognized, can and are being combined. Marriage is occurring later in life as more women are attuned to the fact that there are indeed other options and they can create alternative or additional lifestyles. Growing

control over women's own fertility and altered attitudes toward their own sexuality have contributed to a declining birth rate. This too has been an influence on the increased rate of participation of women in the labor force (Green, 1976).

Educational attainment is rising for women. Women are now choosing to become professionals and entering occupations traditionally reserved for males. This is evidenced by increasing enrollments in such fields as the skilled trades, engineering, law and medicine. Further the number of female degree recipients as well as the degrees earned by women in certain fields of study indicate the change in attainment. The 1976 Edition of the Digest of Education Statistics published by the National Center for Education Statistics states:

In 1974-75 women received about 45 percent of all bachelor's and master's degrees and nearly double the proportion of doctor's degrees they earned a decade earlier. Over this same period, female first-professional degree (M.D., D.D.S., LL.B. and the like) recipients more than tripled their percentage of the total number (p. 110).

The National Center for Educational Statistics indicates in its Projection of Educational Statistics to 1980-81 that the first year enrollment for master's and doctor's degrees by sex shifted from 41 percent women in 1960 to 67 percent women in 1970 (p. 161).

The rise in divorce rates has made a substantial impact upon the increased rate of participation of women in the labor force. Some 62 percent of all women who are divorced or separated are now in the labor force.

Despite the extraordinary increase of women participating in the labor force, the pattern of job segregation remains. Women remain concentrated in low-end jobs. Low-end jobs are those generally

defined as those with low earnings, few fringe benefits, little opportunity for promotion, poor working conditions and little or no job security; the most significant of these indicators being low wages (Ginzberg, 1977). Women are frequently underutilized in relation to the educational attainment as well. Women workers are equally qualified with men workers in educational attainment and yet women's earnings are only 60 percent of those of men. Even with this equality of educational attainment, women are segregated in such low-end occupations as waitress, housekeeper, secretary, teacher, retail clerk, nurse, seamstress and cashier (Steele, 1974).

Vocational Education for Women

What affect then has federally aided vocational education had upon preparing workers for the labor market? An historical overview of these vocational education programs reveals that little has been done to prepare women for participation in the labor force and specifically for jobs other than low-end jobs. Most of the programs have not been designed for developing wage earning skills. The 1976 Edition of the Digest of Educational Statistics from the National Center for Education Statistics indicate that women have traditionally been enrolled in vocational home economics programs which prepared women to participate in the "homemaking force." From 1920 until 1940 home economics was the primary federally aided vocational program offered for women while men enrolled in agriculture and trade and industrial programs which prepared them for participation in the labor force.

In the 1940's distributive occupations were included in the federally aided program offerings in vocational education. While this

provided offerings for both men and women, women employed in distribution were and are to date employed in those distributive occupations offering lower salaries and fewer commissions. Enrollment patterns, however, are more similar for men and women in distributive occupations than any of the federally aided vocational education programs.

By the beginning of the 1960's health occupations, held traditionally for women students and technical education held traditionally for men students had been added. Mid-1960 saw federally aided vocational office education come into being. While training for health occupations and office occupations provided increasing opportunities for women, the training has done little to remove limits for earnings for women employed in these fields.

Data indicating enrollment patterns by sex was found to be scarce. The enrollment patterns found did not indicate a shift in male/female enrollment in all programs; however, it was found that some shift has occurred in individual program enrollment patterns of federally aided vocational education programs. A sex distribution chart of secondary vocational education student enrollment by program compiled by the National Center for Educational Statistics in 1969 indicated:

<u>Program</u>	<u>Percent Male</u>	<u>Percent Female</u>
All Programs	49.4	50.6
Agriculture	99.3	.7
Distributive Education	49.5	50.5
Health Occupations	4.3	95.7
Home Economics	3.3	96.7
Office Occupations	12.0	88.0
Technical Education	91.8	8.2
Trade and Industry	85.5	14.5

By 1972 summary data for vocational education enrollments provided by the United States Office of Education indicated:

<u>Program</u>	<u>Percent Male</u>	<u>Percent Female</u>
All programs	49.4	50.6
Agriculture	94.6	5.4
Distributive Education	54.7	45.3
Health Occupations	15.3	84.7
Home Economics	8.4	91.6
Office Occupations	23.6	76.4
Technical Education	90.2	9.8
Trade and Industry	88.3	11.7

Even with this slight shifting in some individual programs, recent summarized statistics supplied by the United States Office of Education reveal that 49 percent of the female enrollments in vocational education are in home economics, 85 percent of the enrollment in health programs is female and 76 percent of the enrollment in office occupations is female. Men continue to have three times the options of girls in federally aided vocational education.

Dr. William F. Pierce, Deputy Commissioner for Occupational and Adult Education, United States Office of Education, stated before the Subcommittee on Elementary, Secondary, and Vocational Education, Committee on Education and Labor, U.S. House of Representatives, Monday, April 21, 1975:

We are aware of many existing problems concerning enrollment of females in vocational programs. Some of these problems are:

--The concentration of women in four occupational areas--health, consumer and homemaking, gainful home economics, and office occupations--and generally in the low paying segments of these occupations.

--The lack of flexible scheduling of programs which would offer women, particularly those who are heads of households and/or have pre-school or school aged children, the opportunity to enroll in higher level skill training programs.

--Guidance counselors and guidance materials which promote sex stereotyping.

--The traditional attitudes in our society, which are often reflected in our schools, that it is neither appropriate, important or necessary for women to

participate in traditionally male-dominated education programs (p. 1).

Concerning the status of female vocational faculty in comprehensive high schools, Basualdo (1975) indicates that almost half (47.2 percent) of the faculty teach home economics, more than two-fifths (41.0 percent) teach business education, and fewer than one out of ten teach in the following four areas: health education (3.4 percent), distributive education (2.2 percent), trade and industrial education (1.8 percent), and agriculture education (.2 percent). Not one female teaches in technical education. He further indicates that a profile of vocational education administrators shows that the average vocational education administrator in a comprehensive high school is a male 43 years of age.

Development of the Legislation

Over the past fifteen years, Congress has passed several anti-discrimination measures, the President has issued Executive Orders, and several Federal agencies have promulgated regulations all of which prohibit discrimination on the basis of sex. In a 1977 commencement address at the Ohio State University, Willard Wirtz, former Secretary of Labor alludes to these laws. He states:

Add to those in your class and mine the millions of American women for whom the equal employment opportunities accorded them by law ten years ago have proved counterfeit so far because of the bars that are still in the way of combining career-motherhood with career--anything else--just little things like employer's understandable preference of full-time over part-time employment.

According to the U.S. Commission on Civil Rights (1974), many states now have restrictive laws or regulations with respect to the employment of females. Among these are the employment of females in

certain occupations, jobs requiring the lifting or carrying of weights of certain limits, working certain hours of the night and for more than a specified number of hours in a day or week, and certain periods of time before and after childbirth. Although these laws are not considered a defense against charges of sex discrimination they must be contested through legal action and continue to constitute barriers for women in the labor force.

Affirmative action plans which develop a specific program to remedy the effects of past discrimination and prevent its reoccurrence have been formulated by institutions, organizations and agencies. Under these plans employers are required to make a good faith effort to meet the goals established by the plan within the time allotted by the plan. According to the U.S. Commission on Civil Rights (1974), a comprehensive national survey confirms what many suspected is true--that after years of verbal commitment to affirmative action, relative few women and minorities hold top jobs in higher education administration, except at women's colleges and minority institutions (Van Alstyne, Withers and Elliott, 1977).

A project called "The Women in Wisconsin Apprenticeships" conducted in 1972 found that of 8,547 apprentices only 393 were women; 325 of those were in Cosmetology. Another 45 were apprentice cooks, 10 were apprentice barbers and the rest were scattered among seven occupations.

Although the government has designed legislation to encourage equal opportunities in employment, complying with these laws is primarily a reactive response and the resultant reaction has done little or nothing to change the development or utilization of our boundless human resource: our nation's women workers.

Vocational education has provided a basis for meeting future labor force needs since the passage of the Smith Hughes Act in 1917. The Panel of Consultants on Vocational Education appointed in 1961 was assigned to review, evaluate, improve and redirect vocational education. In their report, they estimated that three million women would switch from housework to jobs by 1970 and it recognized that these women would need marketable skills. They recommended that vocational and technical education brush up old skills and teach new ones needed for the world of work.

The American Vocational Association in 1972 expressed a concern for the status and role of professional women in vocational education. A resolution was passed by the house of delegates at its Chicago Convention that year. The resolution read as follows:

BE IT RESOLVED, that the American Vocational Association Board of Directors authorize a study of professional employment in Vocational Education with regard to the number of males and females at every level of the profession, the salaries paid to each category of employee, and identify any restriction in promotional opportunities because of sex.

As a result of the resolution a study supported by federal-state funds allocated by the Bureau of Vocational Education of the Pennsylvania Department and the Department of Vocational Education of the Pennsylvania State University was conducted. The study included a series of four sub-studies concerning the status and roles of professional women in vocational education in randomly selected public community-junior colleges, area vocational-technical schools, comprehensive high schools, and post-secondary proprietary schools.

Since that time there has been a preponderance of evidence to show that vocational education may be the "real" force in overcoming sex

bias, sex stereotyping and sex discrimination. Simpson (1977)

states:

Vocational educators can take the initiative in at least two ways--by developing and implementing affirmative action programs and encouraging consciousness raising activities (p. 36).

She further states:

Vocational education can lead in raising the public's consciousness regarding the very real discrimination against women that still exists and women's feelings about this discrimination (p. 37).

Stevenson (1977) in an attempt to predict the future implications of the 1976 Vocational Education Amendments forecasts:

In the final analysis the battle will not be won in the legislatures (although this can be supportive), but the victory will be recorded in the hiring halls and in the market place. Equal employment and work opportunities and equity of pay is where the gains must be made to be meaningful. The long-range implications for this part of the Act, it seems to this author, is that rather than judging the potential of individuals on some preconceived concept of how people in certain categories may perform, we begin to view each other in the light of our ability to contribute to the mission of vocational education (p. 14).

In testimony before the Sub-Committee on Education of the Committee on Labor and Public Welfare, United States Senate, many leaders in vocational education pointed out the needs of women relative to vocational education. The National Advisory Council on Vocational Education specified that technical assistance should be provided by the United States Office of Education to State Directors of Vocational Education to eliminate sex stereotyping charging that they do have the responsibility as leaders in our communities to take the lead.

The American Association of Women in Community Colleges suggested modifications to the legislation which would focus on the

needs of women in vocational education. They testified:

In this statement we hope to encourage the Congress to recognize that the needs of women are not fully served by the American vocational education system, as numerous studies and our own direct experience show. Therefore, just as it remains necessary to provide set-asides for the disadvantaged and the handicapped in the Vocational Education Act in order to ensure that their needs will receive an adequate program focus, we believe that it has become appropriate for the law to suggest some ways in which vocational education opportunities should be targeted for women (p. 911).

Other leaders from State Departments of Vocational Education, State Advisory Councils on Vocational Education, Personnel and Guidance Associations and the National Association of State Universities and Land Grant Colleges alluded in testimony to the needs of women and vocational education's responsibility in serving their needs.

This testimony provided a bottom line rationale for the development of the Declaration of Purpose of the Education Amendments of 1976. In the Conference Report submitted on September 27, 1976, Section 101, (3), states:

. . . to develop and carry out such programs of vocational education within each State so as to overcome sex discrimination and sex stereotyping in vocational education programs (including programs of homemaking), and thereby furnish equal educational opportunities in vocational education to persons of both sexes (p. 96).

Subsequently the Education Amendments of 1976 were signed into law on October 12, 1976. This legislation provides a major thrust for the elimination of sex bias and sex stereotyping in vocational education.

With this development of legislation, what is vocational education's role in assuming the leadership for meeting the needs of women preparing for and participating in the nation's labor force and changing traditional societal patterns?

Vocational Education as Change Agent

In light of this forward reaching legislation, how can vocational education assume the leadership for change? There has always been a need for change and innovations in vocational education. Seemingly, vocational education is regarded as the principal means available to develop training for new kinds of skills, new kinds of people, and new kinds of adjustments. Change that comes about as a result of pressure is not always an adequate response but, moreover, just a reaction to pressure. Much of the change can be an adequate response to "real" needs if systematic planning takes place. If we in vocational education fail to plan well, many of the critical choices needed to produce quality change may be left to chance or the well intended.

According to Dr. Dorothy Lawrence, Deputy Director, Colorado State Board for Community Colleges and Occupational Education, in a speech delivered at the American Vocational Association Convention in December, 1977:

Vocational education has done an excellent job with technical competencies. Social changes are necessitating inclusion of the occupational adjustment and career development competencies. Traditional life styles continue to change--from rural to suburban and the more recent urban and suburban return to rural leisure, avocational pursuits. Changes from the solid family unit to multiple family units and configurations, which alter the economic responsibilities, affect changes in the prior male breadwinner concept. Changes from the majority of single-income to multiple-income families--where two incomes are essential for the majority of families--again place more members of the family into income-producing roles. Changes in sex roles and expectations effect person and educational needs for students.

While women's consciousness and men's awareness are having some impact upon all our society there are some important disagreements among change advocates. This is a result of an examination of our

individual values and attitudes concerning sex roles. The critical issue will be whether the advocates of human liberation can resolve these disagreements without either subordination or domination. One disagreement that surfaces is the maleness of vocational education that is not viewed as a problem by most men and by far too many women. It seems to be difficult to reach a general agreement that maleness constitutes a problem in vocational education (Harrison, 1977).

While Basualdo (1975) pointed out that the average vocational education administrator is a male 43 years of age, the instrument used to obtain this conclusion did not ask whether the vocational education administrator was male or female. Sites (1975) indicated that, in her study of the area school directors asked, "men were found to make up 90.29 percent of the schools' directors while women held only 6 percent of the positions" (p. 44). She further reports in an analysis of the views of area school directors regarding professional women vocational faculty in terms of advancement possibilities:

There were apparent inconsistencies in the administrators' perception of the advancement possibilities of female vocational faculty. For example, nearly 50 percent of the administrators expressed the belief that in their respective institutions women were not as likely as men to achieve positions of leadership. In contrast, over 70 percent of these same administrators agreed that women faculty successfully compete with men at their respective institutions (p. 59).

This evidence of maleness in vocational education administration may or may not be agreed upon as constituting a problem by vocational educators.

Vocational Education provides an excellent framework within which to demonstrate both immediate and future inequities which result from

sex role stereotyping. Early in life the female learns the games she should play and the role models she should follow. The education process reinforces these stereotyped images and the result is that she enters a female oriented industry or marries without anticipating future employment, or does both. The realities of her economic situation becomes clear; as the myths of women's participation in the labor force are dispelled, the inadequacies of her education surface as do the positive features of her vocational education. Vocational education can offer women marketable skills. While such skills are desired by the labor force, they are particularly valuable to women with family responsibilities. If the family has to relocate when the higher paid male wage earner takes a new position a woman with specific skills will more readily find new employment. For the female head of household, skilled employment offers not only better wages, but a greater opportunity to secure flexible hours particularly necessary if there are small children in the family. Finally, vocational education can train women for jobs which have not been stereotyped and where women are less likely to encounter job discrimination.

There exists an mountainous task facing vocational education in an effort to eliminate the sex bias, sex stereotyping and the sex discrimination now prohibiting full participation of women in vocational education. Some actions are necessary. Some individual commitments must be made. The task includes making changes required by the law. Steps must be taken in a number of other areas. Implementing the law may not complete the task, there must be a consideration of advisory committees, recruitment and admission policies, hiring practices, guidance and counseling efforts, curriculum materials and

teaching practices, research and placement of graduates of vocational programs. The task will be difficult to complete.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to identify and prioritize the actions necessary to overcome and eliminate sex bias and sex stereotyping in vocational education. Actions identified could be helpful in determining the direction in which personnel assigned to assist State Boards in providing educational equity should proceed.

In this chapter the population selected, the Delphi technique, the instrumentation, and the procedure of data collection and analysis will be discussed.

Identification of the Participants

The study has as its participants a group of selected national leaders representative of business and industry, private and public agencies, vocational education, government, and other educational disciplines. The participants were selected based upon their reputation and expertise in their respective fields. It was assumed that their reputation and expertise has retained a high regard in their respective fields.

The participants were selected by an initial advisory panel to the study. The panel consisted of Dr. Fern Green, Director of Educational Equity, Oklahoma State Department of Vocational Education; Dr.

Ellen Bowers, Research Associate, Oklahoma State Department of Vocational Education; Dr. Bill Stevenson, Assistant State Director, Oklahoma State Department of Vocational Education and Joyce Bates, Doctoral Student, Oklahoma State University. The selected participants were then verified by members of the investigator's doctoral advisory committee.

The groups and the distribution of the participants selected were: (1) five participants representative of business and industry; (2) five participants representative of private and public agencies; (3) five participants representative of vocational education; (4) five participants representative of government; and (5) five participants representative of other educational disciplines. The total group of selected participants was composed of thirteen men and twelve women.

The women who were selected included a governor, a mayor of a large city, a manpower specialist for a federal agency, an education director from our nation's largest city, a member of the International Women's Year Commission, a state director of a pilot project dealing with sex bias and sex stereotyping, a director of women's activities for a labor union, a corporate automotive training center director, a president of a research corporation, a member of the National Advisory Council on Vocational Education, a state director of vocational education and a director of vocational education in one of our nation's largest metropolitan areas.

The men who were selected included a dean of occupational education in a community college, a director of a center for career studies at a major university, a corporate president, a public relations director for a labor union, a director of a division of human resources for a major oil company, an alderman from one of our nation's largest cities,

a director of personnel development for a federal agency, a former secretary of labor, a professor of public affairs from a major university, a director of a children's research center at a major university, and a professor of history and philosophy of education at a teachers college.

The Delphi Method

The Delphi method was designed in order to obtain individual opinions of experts without an assemblage of the panel. Carefully designed opinionnaires are used to elicit responses through successive rounds until a consensus is reached by the group of experts. It was used in this study in order to gain unobstructed opinions in a systematic way. Bowers (1976) reports in her discussion of the Delphi method that:

When in search of a solution to a problem whether that problem relates to current or futuristic eras, the process traditionally focuses on inquiry made of an expert in the field to provide insight into a potential solution. As other equally knowledgeable persons are queried it is not uncommon to discover that opinions and judgments differ. The dilemma of direction faces the inquirer. Unless one is willing to unquestionably follow a single opinion, an alternative must be found (p. 24).

The Delphi method provides such an alternative. Written communications provide an environment whereby experts with differing opinions and judgments can thoughtfully respond with insight, and yet, without the obstacles faced in convening. Often face-to-face discussion when opinions are involved result in a group opinion that is less accurate than a single average of individual opinions that have had no discussion (Dalkey, 1968).

The Delphi method originally used by Rand Corporation for scientific and technological forecasting, may be used to develop priorities for solutions by members of an organization (Weaver, 1972). The Delphi method is conducive to independent thought by experts as they gradually reach consensus.

There has been severe criticism, however, as the Delphi method has become more widely used. Hope and desirability interfere and influence judgments and it is difficult to determine if hope or rational probability influence the Delphi statements (Weaver, 1972). Further, in personal letters, Dr. Marvin Cetron, President of Forecasting International, Ltd., says, "Delphi has done more harm than it has good. You can't just ask people what they think; if you have nothing to back by subjective opinion, you end up with garbage." Dr. David Gottleib, Dean of Social Sciences, University of Houston says, "I've never been particularly taken with the Delphi technique."

The Delphi method has been adopted for use in educational situations and particularly in educational planning. Educational decision makers have used the modified and improved Delphi techniques in a variety of ways (Helmer, 1958).

In general the Delphi method centers around some problem which a selected group of participants is asked to answer in statement form. An investigator collects the statements, combines and rewords the statements for clarity and presents the condensed statements for ranking by the participants. It is a communicative process which elicits individually brainstormed ideas from constituents and has as its goals the reaching of a convergence of opinions (Bowers, 1976).

Instrumentation

The Delphi technique was used to collect the data. Three correspondence sheets were mailed to each of the participants. On Correspondence Sheet 1 participants were asked to identify actions which they felt would be necessary to overcome and eliminate sex bias and sex stereotyping in vocational education.

The statements were then combined and reworded by the investigator to eliminate duplicate statements and clarify the statements. Correspondence Sheet 2 was derived and mailed to the participants asking them to rank the statements on an eleven-point continuum.

A mean response for each statement was computed and the statements were ranked as to their necessity according to the participants' ratings. Correspondence Sheet 3 included the ranked statements. The participants were asked to examine the rankings and if they felt it necessary to place any item significantly higher or lower to do so and justify the change.

No further rounds were carried out as Scanvell (1972) and Cyphert and Grant (1971) have indicated that most changes in rankings come before the fourth questionnaire.

Correspondence Sheet 1

The first mailing included a letter explaining the study in which the selected national leaders were asked to participate, the procedures to follow and Correspondence Sheet 1 (Appendix A). Correspondence Sheet 1 asked the participants to identify, in no particular order of necessity, up to ten possible actions they felt necessary to overcome sex bias and sex stereotyping in such things as enrollment, recruitment, scheduling, facilities, etc., in all course offerings in vocational

education. Participants were asked to construct the responses in the form of specific actions which could be taken. A self-addressed, stamped envelope was included.

In order to obtain a count on the number of responses from each group and yet maintain anonymity, correspondence sheets were coded as follows: business and industry = B, agencies = A, government = G, vocational education = V, and other educational disciplines = O. In addition, to obtain a count of the number of responses from males and females, and M for males or an F for female was added to the group code. The code appeared in the lower right hand corner of each of the correspondence sheets.

The first mailing was sent to the 25 selected national leaders. It was decided that regardless of the return rate from Correspondence Sheet 1, that the remaining mailings would be sent to all participants in the study. This was decided not only to maintain anonymity, but it was felt that those who did not respond to the first mailing might be concerned enough to respond to the action statements.

Correspondence Sheet 2

From the responses from Correspondence Sheet 1, a list of action statements was compiled (Appendix B). The action statements were combined and reworded to eliminate redundancy and ambiguity. Duplicate statements were eliminated. Correspondence Sheet 2 included each of the 75 combined statements with an 11-point continuum provided for rating each of the action statements. On the continuum, one (1) was to indicate most necessary and eleven (11) was to indicate least necessary. In order to establish a priority on the actions more necessary,

the participants were asked to rate each action statement. They were also asked to indicate if they felt their action statement had not been adequately expressed. Space for this indication appeared at the end of Correspondence Sheet 2. The second mailing to all participants included an explanatory letter, Correspondence Sheet 2 and a self-addressed, stamped envelope.

Based upon the responses to Correspondence Sheet 2, a mean response was computed for each of the 75 action statements. A mean response was also computed for each action statement by individual group as well as by sex. The 75 action statements were then ranked as to their necessity according to the overall ratings of the participants.

Correspondence Sheet 3

For Correspondence Sheet 3 each action statement along with a histogram indicating the response frequency and the computed group mean was presented. Those action statements with the lowest group averages appeared first in the rank order as the action statements were rated on an 11-point continuum ranging from one (1) most necessary to eleven (11) least necessary. Participants were asked to examine the ranked action statements and, if they felt it necessary, to rank the action statements significantly higher or lower along with a justification as to why it should be placed higher or lower. Space was provided at the end of the Correspondence Sheet 3 for the participants to indicate any change. The responses were tabulated and any changes in the rankings were noted. The third mailing included an explanatory letter, Correspondence Sheet 3 and a self-addressed, stamped envelope (Appendix C).

Treatment of the Data

The objectives of the study formed the basis for gathering the information. Correspondence Sheet 1 elicited action statements necessary to overcome sex bias and sex stereotyping in such things as enrollment, recruitment, scheduling, facilities, etc., in all course offerings in vocational education.

The action statements were combined, edited and duplications eliminated. The 75 combined statements which were considered by the participants formed Correspondence Sheet 2.

The ratings of the 75 action statements were tabulated to compute the mean for the overall group, the individual groups and the males and females. The computed means of the statements from the overall group were used to rank the action statements in order.

The responses to Correspondence Sheet 3 were tabulated and any change in the rankings was noted.

Reporting of the ranked statements was limited to the upper quartile of the group rankings.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE FINDINGS

Introduction

The purpose of this study was to identify and prioritize actions necessary to overcome sex bias and sex stereotyping in vocational education. The Delphi technique was used to ask 25 selected national leaders to identify and prioritize what actions they felt would be necessary to overcome sex bias and sex stereotyping in such things as enrollment, recruitment, facilities and scheduling in all course offerings in vocational education. The presentation and analysis of the findings includes a brief discussion of the return rates and an analysis of the findings from Correspondence Sheets No. 1, 2, and 3.

The Participants' Return Rates

The study involved 25 national leaders who were selected by an initial advisory panel to the study. They were selected based upon their individual reputation and expertise in their respective fields.

As shown in Table I the participants' return rate included, from Correspondence Sheet 1, 13 responses for a 52 percent return rate. It was decided that regardless of the return rate from Correspondence Sheet 1 that the remaining mailings would be sent to all the participants in the study. This was decided not only to maintain anonymity, but it was felt that those who did not respond to the first mailing

might be concerned enough to respond to subsequent mailings. Only one of the selected national leaders indicated regret for being unable to participate in the study. The subsequent mailings involved 24 participants.

TABLE I
PARTICIPANTS' RETURN RATE BY GROUP TO
CORRESPONDENCE SHEET NO. 1, 2, AND 3

Group	Total	First Response	Second Response	Third Response
Business and Industry	5	2	3	3
Agencies	5	2	3	4
Government	5	2	2	2
Vocational Education	5	4	4	4
Other Educational Disciplines	5	3	3	3
Total	25	13	15	16
Percent Return		52	60	64

The returns for Correspondence Sheet 2 reached a 60 percent return rate. One of the responses arrived after the cut-off date thus it was not included in the computed means.

For Correspondence Sheet 3 the total response reached 64 percent an increase over both Correspondence Sheets 1 and 2. One of the responses was returned indicating that the participant had moved and

was not included in the count for the responses.

The participants' return rate was not only analyzed by Correspondence Sheet by groups, but was analyzed by Correspondence Sheet by sex as well.

As indicated in Table II, 53.8 percent of the responses came from males while 46.2 percent of the responses came from females for Correspondence Sheet 1. The response rate for Correspondence Sheet 2 included 53.3 percent from males and 46.7 percent from females. For Correspondence Sheet 3, half (50 percent) of the responses came from males and half (50 percent) came from females. Originally the group consisted of 52 percent male and 48 percent female; however, as one male participant dropped out, the composition of the participants consisted of 50 percent male and 50 percent female.

TABLE II
PARTICIPANTS' RETURN RATE BY SEX TO CORRESPONDENCE
SHEET NO. 1, 2, AND 3

Sex	First Response	Second Response	Third Response
Male	7	8	8
Female	6	7	8
Total Response	13	15	16
Percent Male	53.8	53.3	50.0
Percent Female	46.2	46.7	50.0

Presentation of the Findings

The findings presented in this section were analyzed so as to satisfy the following objectives:

1. To identify actions necessary to overcome sex bias and sex stereotyping in vocational education.
2. To determine if actions other than open access to programs are necessary.

Originally, the responses to Correspondence Sheet 1 generated 120 action statements (Appendix E). The statements were analyzed to determine any actions other than those necessary to assure open access to programs and were grouped into general categories. The analysis revealed that of the 120 original action statements, nine (9) statements related to job placement of graduates of vocational programs; eleven (11) statements related to vocational teacher education; seven (7) statements related to research and development; eleven (11) related to awareness of sex discrimination, sex bias and sex stereotyping; one (1) related to classroom conduct; sixteen (16) related to curriculum materials and textbooks; twenty-one (21) related to visibility and role modeling; ten (10) related to guidance and counseling; three (3) related to field trips; five (5) related to scheduling; eight (8) related to facilities; six (6) related to affirmative action; four (4) related to enrollment and admissions; and eight (8) related to recruitment.

The original 120 action statements were combined and reworded to eliminate redundancy and ambiguity. This process generated 75 action statements which became the basis for Correspondence Sheet 2. It was then mailed to all the participants asking them to indicate which action statements they felt would be most necessary by rating each

statement on an 11-point continuum (see Appendix C).

Participants were also asked to indicate whether or not the action statements appearing on Correspondence Sheet 2 had adequately expressed the feelings of the participants' original response. They were also asked to make comments and did so on the following statements.

48. Schedule both males and females together in all subjects, especially home economics and industrial arts.
70. Make instruction co-educational using the same classroom facility.
53. Design physical facilities which indicate that presence of women does not represent deviance or institutional strain.
52. Eliminate programs in home economics traditionally reserved for females.
41. Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.
38. Make funding and/or accreditation of vocational programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping.
5. Give priorities to grants and contracts designed to develop models to overcome sex bias and sex stereotyping in vocational education programs.

The comments included:

Focus on bias (attitudes) not discrimination (law).

Many of the items are already covered by law and they are jobs of compliance officers.

Comments to statement 14, "Review all curriculum materials at all levels of vocational education to see that language and illustration are free from sex bias," indicated that "to review all curriculum materials is presently impossible and it is more important to develop strategies for creative use of biased materials." Further comments revealed that "having teachers brainstorm positive ways to teach out

of biased books is a crucial step--many aware people will choose to use a biased book because it has other good qualities, and they can use its bias as a springboard for good discussion," should be rated (1) on the 11 point continuum.

Statement 35, "Develop and implement awareness training for sexual preference to remove barriers related to asexuality, bisexuality, and homosexuality, etc." and statement 55, "Decriminalize homosexuality and eliminate all academic penalties for living within this lifestyle, received the following comments:

Demonstrate that job choice is irrelevant to sexual preference.

It is our job to demonstrate that job choice is irrelevant to sexual preference. The acceptability of homosexuality is not the point--the point is that being a hairdresser does not make a man one.

I believe that to associate the idea of acceptance of women and men working in non-traditional areas with the idea of social acceptability of homosexuality is 1) an illogical connection of the two movements and 2) sure failure of any attempt to change attitudes regarding equal educational, vocational, and occupational opportunity for both males and females.

One general comment to the statements was, "The questions have covered the field of sex stereotyping very well. I believe we should eliminate bias where obviously evident. However, we should also do it judiciously not blatantly."

From the information contained in Table III the objective of determining the ranking of the action statements submitted by the participants was met. The responses from Correspondence Sheet 2 were tabulated and a mean response was computed for each of the action statements. A mean response was also computed for each action statement by individual group as well as by sex (see Appendix D).

TABLE III

OVERALL RANKINGS, INDIVIDUAL GROUP RANKINGS AND
RANKING BY SEX OF ACTION STATEMENT NECESSARY
TO OVERCOME SEX BIAS AND SEX STEREOTYPING
IN VOCATIONAL EDUCATION

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
33.	Equalize salaries of women with those of men in vocational education.	16	2.5	11.5	6	2.5	1	4	1
2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.	6.5	18	2	18	11	2.5	13	2
4.	Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers.	16	6	31.5	2.5	39	20.5	2	5
11.	Utilize resource persons from business, industry and professions as non-traditional role models for students.	16	37	11.5	6	11	2.5	18.5	5

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
16.	Re-educate counselors who make referrals to vocational education about myths in vocational education.	25.5	6	11.5	2.5	25	11	4	5
31.	Create class discussions on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.	38	11.5	23.5	9.5	11	5.5	9.5	5
71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.	6.5	6	11.5	23.5	19	11	6.5	5
18.	Develop, disperse and implement an up-to-date affirmative action plan.	16	11.5	31.5	2.5	33	29.5	1	8

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
22.	Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.	6.5	26.5	62.5	29	2.5	7.5	15.5	10
25.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs.	32	23	11.5	18	7	11	15.5	10
43.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.	16	2.5	11.5	29	25	11	13	10
7.	Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish.	25.5	37	23.5	2.5	33	11	23.5	13.5
29.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.	6.5	23	2	47.5	15.5	15.5	18.5	13.5
50.	Conduct workshops for guidance counselors on non-traditional careers for women.	16	11.5	11.5	23.5	39	24	9.5	13.5

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
54.	Develop and implement in-service programs for professors of vocational teacher preparation programs to create awareness of sex bias and sex stereotyping.	25.5	23	23.5	13.5	33	24	9.5	13.5
41.	Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.	6.5	48	11.5	9.5	25	5.5	38	16.5
64.	Where adding rest room facilities for girls in shop areas is not feasible, make provisions for both sexes to use the same facility as is done on commercial transportation vehicles (airplanes).	44.5	30.5	45.5	47.5	2.5	7.5	45	16.5
10.	Hire more women in administrative and supervisory positions.	16	18	65.5	36.5	7	18.5	23.5	18.5
67.	Make no assignments and assign no tasks on the basis of sex of faculty or student.	25.5	11.5	31.5	9.5	52.5	41	4	18.5
28.	Work with community employers to reduce their bias in hiring.	38	55.5	2	6	25	29.5	18.5	20

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
24.	Strive for job placement of women graduates stressing their right to have an opportunity for employment in non-traditional occupations.	16	26.5	45.5	36.5	15.5	32.5	13	21.5
47.	Provide natural setting for the exposure of young children to men and women in non-traditional vocations.	38	55.5	11.5	13.5	7	15.5	32.5	21.5
12.	Place concern upon sex bias and sex stereotyping in early counseling.	25.5	2.5	31.5	47.5	33	24	23.5	24
32.	Place work experience and cooperative education students in non-traditional work experiences.	25.5	30.5	23.5	36.5	11	4	41.5	24
70.	Make instruction co-educational using the same classroom facilities.	6.5	61	23.5	13.5	19	15.5	38	24
26.	Develop and implement strategies to up-date junior high and high school curriculum to make it more relevant to vocational education.	6.5	18	58	36.5	63	24	32.5	27.5

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
60.	Provide high visibility of women who have benefited from vocational education, women in supervisory and administrative positions and men and women succeeding in non-traditional occupations as role models.	25.5	42	45.5	9.5	52.5	29.5	28	27.5
72.	Create more settings where women are task leaders and make them visible.	48.5	23	31.5	36.5	19	27	32.5	27.5
14.	Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias.	38	48	11.5	29	15.5	18.5	45	30
15.	Add representatives from women's groups to local education advisory committee.	48.5	11.5	31.5	63	52.5	24	59.5	30
37.	Implement USOE guidelines for Title IX.	16	37	58	36.5	25	36.5	18.5	30
56.	Testify before state legislatures and the Congress in support of sex-fair vocational education.	1	69.5	72	18	63	41	57.5	32

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
68.	Conduct workshop or rap sessions for female students on non-traditional careers for women.	32	11.5	11.5	47.5	63	15.5	32.5	33
38.	Make funding and/or accreditation of vocational education programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping.	56.5	11.5	58	29	2.5	41	9.5	34
19.	Institute practical experiences where students perform publically for periods of time in non-traditional jobs.	44.5	37	23.5	36.5	33	29.5	45	37.5
21.	Assign both sexes to all advisors and major professors.	6.5	55.5	74.5	53	5	34.5	45	37.5
42.	Arrange field trips to sites that demonstrate the employment and performance of persons of the opposite sex in traditionally stereotyped roles.	52.5	30.5	11.5	23.5	43.5	48	23.5	37.5
46.	Develop and implement an in-service program for school administrators to improve their attitudes toward women as decision makers.	6.5	30.5	39	42.5	71.5	50	28	37.5

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
51.	Develop and implement orientation sessions and provide materials for parents to reduce the bias they pass on to children.	25.5	61	11.5	13.5	58	41	38	37.5
6.	After recruiting students into non-traditionally enrolled courses by a particular sex, use students as a part of a recruitment/information team.	44.5	37	45.5	36.5	45.5	34.5	49.5	37.5
48.	Schedule both males and females together in all subjects, especially home economics and industrial arts.	56.5	30.5	36.5	23.5	52.5	51	23.5	42
57.	Make day care centers available for students in vocational education.	48.5	48	58	42.5	25	32.5	52	42
73.	Develop recruitment materials--brochures, films, etc.--that encourage students to enter non-traditional "sex role" occupational training.	6.5	42	31.5	36.5	66.5	48	32.5	44

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
39.	Assess and meet the needs of adult vocational students to create awareness of job possibilities, problems on the job, and ways to handle job problems in non-traditional occupations.	25.5	23	23.5	63	25	20.5	53.5	44
30.	Up-date vocational curriculum such as converting home economics to more commercial operations such as restaurant cooks and include male students.	44.5	48	52.5	29	45.5	41	49.5	45.5
75.	Make provisions for both sexes in vocational education facilities including rest rooms, properly sized safety gear, non-sexist posters, signs, pictures, etc.	72	18	11.5	18	39	69.5	6.5	45.5
58.	Provide vocational educators information on the problem of sex bias and sex stereotyping and train key individuals to function as the local resource person on the subject.	38	42	45.5	47.5	58	45.5	49.5	47

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
69.	Show visuals of women actually working in skilled occupations especially where heavy work is involved.	38	11.5	45.5	63	63	53.5	38	48.5
74.	Give technical assistance to individual schools in recognizing and resolving sex bias and sex stereotyping situations that may exist.	25.5	48	52.5	36.5	69	60.5	28	48.5
23.	Designate responsible person for overseeing progress within each local educational agency and post-secondary institution.	59	2.5	65.5	47.5	25	53.5	23.5	50
59.	Develop a redefinition in meaning of work, i.e., more couples sharing a job--this does not necessarily mean the work is less crucial.	63.5	63	11.5	18	45.5	57.5	49.5	51.5
62.	Conduct an on-going series of in-service training sessions dealing with awareness of overt and subtle sex bias and sex stereotyping practices and attitudes involving state staffs, administrators, teachers and counselors.	56.5	48	45.5	23.5	58	66.5	32.5	51.5

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
45.	Coordinate efforts with other agencies and persons interested in the elimination of sex bias and sex stereotyping.	52.5	48	62.5	59	45.5	36.5	62.5	54
20.	Design and implement counseling strategies that would meet students where they are and use "traditional" activities to bridge to the "non-traditional" activities such as metal sculpture to metal-working and welding, working with clay, stone and wood to brick and mortar or carpentry.	32	30.5	23.5	59	73.5	63	41.5	54
8.	Offer mini-courses of non-traditional "sex role subjects" as a part of career exploration to the opposite sex.	48.5	48	39	53	58	41	61	54
5.	Give priorities to grants and contracts designed to develop models to overcome sex bias and sex stereotyping in vocational education programs.	38	59	31.5	53	73.5	66.5	45	56

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
9.	Develop and implement procedures for on-going statistical review and evaluation of all programs as it pertains to changes by sex in enrollment, drop-out rates, placement, salaries, job advancement, etc.	60	55.5	52.5	47.5	45.5	60.5	55	57.5
34.	Implement vocational programs whereby vocational students assist in developing sex-bias free materials for use in elementary schools where attitudes are formed.	61.5	18	45.5	68.5	33	57.5	56	57.5
40.	Become knowledgeable of projects conducted by unions and their push to change attitudes concerning sex bias and sex stereotyping.	56.5	37	39	59	63	63	53.5	59
27.	Develop and implement a statewide publicity campaign to influence students, their parents, and the public in general.	61.5	37	45.5	23.5	75	72.5	38	60
1.	Support studies that would investigate innovative projects to overcome sex bias and sex stereotyping in vocational education.	52.5	66	74.5	56	66.5	69.5	57.5	62

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
17.	Develop a method to investigate the change or non-change of males and females enrolling and completing "traditional" programs.	67.5	48	36.5	65.5	52.5	63	62.5	62
36.	Supply trainers in local business to work with supervisors who have doubts/fears about men or women in non-traditional job roles.	38	55.5	45.5	67	39	41	66.5	62
44.	Re-evaluate worth of courses of instruction which tend to attract only one sex.	69.5	61	58	55	33	53.5	66.5	64.5
63.	Publish articles in leading journals of examples of needless sex bias and examples of programs and people who have succeeded in traditionally sex-biased occupations.	38	64.5	58	59	69	53.5	64.5	64.5
61.	Eliminate group office space utilized by only one sex.	72	55.5	65.5	68.5	25	66.5	64.5	66
66.	Re-evaluate worth of faculty who seem to work more or less exclusively with only one sex.	65.5	64.5	52.5	70	58	66.5	68	67

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
53.	Design physical facilities which indicate that presence of women does not represent deviance or institutional strain.	63.5	69.5	11.5	65.5	39	57.5	70	68
3.	Eliminate the "Eve Syndrome"--the first woman attitude toward women who have gone into non-traditional roles and vice-versa.	72	67.5	69.5	47.5	69	74	59.5	69
65.	Conduct workshop to teach current federal and state non-discrimination laws.	52.5	73.5	58	59	52.5	57.5	69	70
35.	Develop and implement awareness training for sexual preference to remove barriers related to asexuality, bisexuality, homosexuality, etc.	65.5	71	73	71	15.5	48	72	71
55.	Decriminalize homosexuality and eliminate all academic penalties for living within this life style.	67.5	75	65.5	73	11	45.5	74	72
13.	Acquire, evaluate, and disseminate current literature from feminist movement.	75	67.5	69.5	72	45.5	71	71	73

TABLE III (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
52.	Eliminate programs in home economics traditionally reserved for females.	69.5	72	69.5	74	71.5	75	73	74
49.	Eliminate all dress code requirements.	74	73.5	69.5	75	45.5	72.5	75	75

The 75 action statements were then ranked as to their necessity according to the overall ratings of the participants. They were also ranked as to their necessity according to individual groups and sex. Those action statements with the lowest group averages appeared first in the rank order as the action statements were rated on an 11 point continuum ranging from one (1) most necessary to eleven (11) least necessary. Tied ranks were computed by giving each tied score the arithmetic mean of the scores that would have been received had there been no ties (Blalock, 1972).

The upper quartile rankings of action statements necessary to overcome sex bias and sex stereotyping in vocational education appear in Table IV. In Table V the upper quartile rankings of action statements by female participants appear while Table VI presents the upper quartile rankings of action statements by male participants. Tables VII, VIII, IX, X, and XI present the upper quartile rankings of action statements from individual groups.

An analysis of the upper quartile rankings of the action statements reveals two action statements in the upper quartile rankings from the overall participants' ratings, from individual groups and from males and females. Those two statements are:

33. Equalize the salaries of women with those of men in vocational education.
2. Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.

Statement 33 was ranked highest (1) by all participants and by males while it was ranked lowest (16) by business and industry. Statement 2 was ranked highest (2) by all participants and by government while it was ranked lowest (18) by both agencies and vocational education.

TABLE IV

UPPER QUARTILE RANKED ACTION STATEMENTS
NECESSARY TO OVERCOME SEX BIAS AND
SEX STEREOTYPING IN VOCATIONAL
EDUCATION

Rank	Statement Number	Action Statement
1	33.	Equalize salaries of women with those of men in vocational education.
2	2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
5	4.	Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers.
5	11.	Utilize resource persons from business, industry and professions as non-traditional role models for students.
5	16.	Re-educate counselors who make referrals to vocational education about myths in vocational education.
5	31.	Create class discussions on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.
5	71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.
8	18.	Develop, disperse and implement an up-to-date affirmative action plan.
10	22.	Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.
10	25.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs.

TABLE IV (Continued)

Rank	Statement Number	Action Statement
10	43.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.
13.5	7.	Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish.
13.5	29.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.
13.5	50.	Conduct workshops for guidance counselors on non-traditional careers for women.
13.5	54.	Develop and implement in-service programs for professors of vocational teacher preparation programs to create awareness of sex bias and sex stereotyping.
16.5	41.	Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.
16.5	64.	Where adding rest room facilities for girls in shop areas is not feasible make provisions for both sexes to use the same facility as is done on commercial transportation vehicles (airplanes).
18.5	10.	Hire more women in administrative and supervisory positions.
18.5	67.	Make no assignments and assign no tasks on the basis of sex of faculty or student.

TABLE V
UPPER QUARTILE RANKED ACTION STATEMENTS
NECESSARY TO OVERCOME SEX BIAS AND
SEX STEREOTYPING IN VOCATIONAL
EDUCATION IDENTIFIED BY FEMALE
PARTICIPANTS

Rank	Statement Number	Action Statement
1	18.	Develop, disperse and implement an up-to-date affirmative action plan.
2	4.	Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers.
4	16.	Re-educate counselors who make referrals to vocational education about myths in vocational education.
4	33.	Equalize salaries of women with those of men in vocational education.
4	67.	Make no assignments and assign no tasks on the basis of sex of faculty or student.
6.5	75.	Make provisions for both sexes in vocational education facilities including rest rooms, properly sized safety gear, non-sexist posters, signs, pictures, etc.
6.5	71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.
9.5	31.	Create class discussions on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.
9.5	38.	Make funding and/or accreditation of vocational education programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping.

TABLE V (Continued)

Rank	Statement Number	Action Statement
9.5	50.	Conduct workshops for guidance counselors on non-traditional careers for women.
9.5	54.	Develop and implement in-service programs for professors of vocational teacher preparation programs to create awareness of sex bias and sex stereotyping.
13	2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
13	24.	Strive for job placement of women graduates stressing their right to have an opportunity for employment in non-traditional occupations.
13	43.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.
15.5	25.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs.
15.5	22.	Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.
18.5	11.	Utilize resource persons from business, industry and professions as non-traditional role models for student.
18.5	28.	Work with community employers to reduce their bias in hiring.
18.5	37.	Implement USOE guidelines for Title IX.
18.5	29.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.

TABLE VI

UPPER QUARTILE RANKED ACTION STATEMENTS
NECESSARY TO OVERCOME SEX BIAS AND
SEX STEREOTYPING IN VOCATIONAL
EDUCATION IDENTIFIED BY MALE
PARTICIPANTS

Rank	Statement Number	Action Statement
1	33.	Equalize salaries of women with those of men in vocational education.
2.5	2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
2.5	11.	Utilize resource persons from business, industry and professions as non-traditional role models for students.
4	32.	Place work experience and cooperative education students in non-traditional work experiences.
5.5	31.	Create class discussions on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.
5.5	41.	Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.
7.5	64.	Where adding rest room facilities for girls in shop areas is not feasible make provisions for both sexes to use the same facility as is done on commercial transportation vehicles (airplanes).
7.5	22.	Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.
11	7.	Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish.
11	16.	Re-educate counselors who make referrals to vocational education about myths in vocational education.

TABLE VI (Continued)

Rank	Statement Number	Action Statement
11	25.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs.
11	43.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.
11	71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.
15.5	70.	Make instruction co-educational using the same classroom facilities.
15.5	68.	Conduct workshop or rap sessions for female students on non-traditional careers for women.
15.5	47.	Provide natural setting for the exposure of young children to men and women in non-traditional vocations.
15.5	29.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed amendments.
18.5	10.	Hire more women in administrative and supervisory positions.
18.5	14.	Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias.

TABLE VII

UPPER QUARTILE RANKED ACTION STATEMENTS NECESSARY
TO OVERCOME SEX BIAS AND SEX STEREOTYPING IN
VOCATIONAL EDUCATION IDENTIFIED BY
PARTICIPANTS FROM BUSINESS
AND INDUSTRY

Rank	Statement Number	Action Statement
1	56.	Testify before state legislatures and the Congress in support of sex-fair vocational education.
6.5	2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
6.5	21.	Assign both sexes to all advisors and major professors.
6.5	22.	Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.
6.5	26.	Develop and implement strategies to up-date junior high and high school curriculum to make it more relevant to vocational education.
6.5	29.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.
6.5	41.	Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.
6.5	46.	Develop and implement an in-service program for school administrators to improve their attitudes toward women as decision makers.
6.5	70.	Make instruction co-educational using the same classroom facilities.
6.5	71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.

TABLE VII (Continued)

Rank	Statement Number	Action Statement
6.5	73.	Develop recruitment materials--brochures, films, etc.--that encourage students to enter non-traditional "sex role" occupational training.
16	4.	Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers.
16	10.	Hire more women in administrative and supervisory positions.
16	11.	Utilize resource persons from business, industry and professions as non-traditional role models for students.
16	18.	Develop, disperse and implement an up-to-date affirmative action plan.
16	24.	Strive for job placement of women graduates stressing their right to have an opportunity for employment in non-traditional occupations.
16	33.	Equalize salaries of women with those of men in vocational education.
16	37.	Implement USOE guidelines for Title IX.
16	43.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.
16	50.	Conduct workshops for guidance counselors on non-traditional careers for women.

TABLE VIII

UPPER QUARTILE RANKED ACTION STATEMENTS NECESSARY
TO OVERCOME SEX BIAS AND SEX STEREOTYPING IN
VOCATIONAL EDUCATION IDENTIFIED BY
PARTICIPANTS FROM PUBLIC AND
PRIVATE AGENCIES

Rank	Statement Number	Action Statement
2.5	12.	Place concern upon sex bias and sex stereotyping in early counseling.
2.5	23.	Designate responsible person for overseeing progress within each local educational agency and post-secondary institution.
2.5	33.	Equalize salaries of women with those of men in vocational education.
2.5	43.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.
6	4.	Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers.
6	16.	Re-educate counselors who make referrals to vocational education about myths in vocational education.
6	71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.
11.5	15.	Add representatives from women's groups to local education advisory committee.
11.5	18.	Develop, disperse and implement an up-to-date affirmative action plan.
11.5	31.	Create class discussion on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.

TABLE VIII (Continued)

Rank	Statement Number	Action Statement
11.5	38	Make funding and/or accreditation of vocational education programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping.
11.5	50.	Conduct workshops for guidance counselors on non-traditional careers for women.
11.5	67	Make no assignments and assign no tasks on the basis of sex of faculty or student.
11.5	68.	Conduct workshop or rap sessions for female students on non-traditional careers for women.
11.5	69.	Show visuals of women actually working in skilled occupations especially where heavy work is involved.
18	2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
18	10.	Hire more women in administrative and supervisory positions.
18.	26.	Develop and implement strategies to up-date junior high and high school curriculum to make it more relevant to vocational education.
18.	34.	Implement vocational programs whereby vocational students assist in developing sex bias free materials for use in elementary schools where attitudes are formed.
18	75.	Make provisions for both sexes in vocational education facilities including rest rooms, properly sized safety gear, non-sexist posters, signs, pictures, etc.

TABLE IX

UPPER QUARTILE RANKED ACTION STATEMENTS NECESSARY
TO OVERCOME SEX BIAS AND SEX STEREOTYPING IN
VOCATIONAL EDUCATION IDENTIFIED BY
PARTICIPANTS FROM GOVERNMENT

Rank	Statement Number	Action Statement
2	2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
2	28.	Work with community employers to reduce their bias in hiring.
2	29.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.
11.5	33.	Equalize salaries of women with those of men in vocational education.
11.5	11.	Utilize resource persons from business, industry and professions as non-traditional role models for students.
11.5	14.	Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias.
11.5	16.	Re-educate counselors who make referrals to vocational education about myths in vocational education.
11.5	25.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs.
11.5	41.	Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.
11.5	42.	Arrange field trips to sites that demonstrate the employment and performance of persons of the opposite sex in traditionally stereotyped roles.
11.5	43.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.

TABLE IX (Continued)

Rank	Statement Number	Action Statement
11.5	47.	Provide natural setting for the exposure of young children to men and women in non-traditional vocations.
11.5	50.	Conduct workshops for guidance counselors on non-traditional careers for women.
11.5	51.	Develop and implement orientation sessions and provide materials for parents to reduce the bias they pass on to children.
11.5	53.	Design physical facilities which indicate that presence of women does not represent deviance or institutional strain.
11.5	59.	Develop a redefinition in meaning of work, i.e., more couples sharing a job--this does not necessarily mean the work is less crucial.
11.5	68.	Conduct workshop or rap sessions for female students on non-traditional careers for women.
11.5	71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.
11.5	75.	Make provisions for both sexes in vocational education facilities including rest rooms, properly sized safety gear, non-sexist posters, signs, pictures, etc.

TABLE X

UPPER QUARTILE RANKED ACTION STATEMENTS NECESSARY
TO OVERCOME SEX BIAS AND SEX STEREOTYPING IN
VOCATIONAL EDUCATION IDENTIFIED BY
PARTICIPANTS FROM VOCATIONAL
EDUCATION

Rank	Statement Number	Action Statement
2.5	4.	Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers.
2.5	7.	Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish.
2.5	16.	Re-educate counselors who make referrals to vocational education about myths in vocational education.
2.5	18.	Develop, disperse and implement an up-to-date affirmative action plan.
6	11.	Utilize resource persons from business, industry and professions as non-traditional role models for students.
6	28.	Work with community employers to reduce their bias in hiring.
6	33.	Equalize salaries of women with those of men in vocational education
9.5	31.	Create class discussions on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.
9.5	41.	Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.
9.5	60.	Provide high visibility of women who have benefited from vocational education, women in supervisory and administrative positions and men and women succeeding non-traditional occupations as role models.

TABLE X (Continued)

Rank	Statement Number	Action Statement
9.5	67.	Make no assignments and assign no tasks on the basis of sex of faculty or student.
13.5	47.	Provide natural setting for the exposure of young children to men and women in non-traditional vocations.
13.5	51.	Develop and implement orientation sessions and provide materials for parents to reduce the bias they pass on to children.
13.5	54.	Develop and implement in-service programs for professors of vocational teacher preparation programs to create awareness of sex bias and sex stereotyping.
13.5	70.	Make instruction co-educational using the same classroom facilities.
18	2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
18	25.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs.
18	56.	Testify before state legislatures and the Congress in support of sex-fair vocational education.
18	59.	Develop a redefinition in meaning of work, i.e., more couples sharing a job--this does not necessarily mean the work is less crucial.
18	75.	Make provisions for both sexes in vocational education facilities including rest rooms, properly sized safety gear, non-sexist posters, signs, pictures, etc.

TABLE XI

UPPER QUARTILE RANKED ACTION STATEMENTS NECESSARY
TO OVERCOME SEX BIAS AND SEX STEREOTYPING IN
VOCATIONAL EDUCATION IDENTIFIED BY
PARTICIPANTS FROM OTHER
EDUCATIONAL DISCIPLINES

Rank	Statement Number	Action Statement
2.5	33.	Equalize salaries of women with those of men in vocational education.
2.5	22.	Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.
2.5	38.	Make funding and/or accreditation of vocational education programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping.
2.5	64.	Where adding rest room facilities for girls in shop areas is not feasible make provisions for both sexes to use the same facility as is done on commercial transportation vehicles (airplanes).
5	21.	Assign both sexes to all advisors and major professors.
7	10.	Hire more women in administrative and supervisory positions.
7	25.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs.
7	47.	Provide natural setting for the exposure of young children to men and women in non-traditional vocations.
11	2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
11	11.	Utilize resource persons from business, industry and professions as non-traditional role models for students.

TABLE XI (Continued)

Rank	Statement Number	Action Statement
11	31.	Create class discussions on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.
11	32.	Place work experience and cooperative education students in non-traditional work experiences.
11	55.	Decriminalize homosexuality and eliminate all academic penalties for living within this life style.
15.5	14.	Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias.
15.5	24.	Strive for job placement of women graduates stressing their right to have an opportunity for employment in non-traditional occupations.
15.5	29.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.
15.5	35.	Develop and implement awareness training for sexual preference to remove barriers related to asexuality, bisexuality, homosexuality, etc.
19	72.	Create more settings where women are task leaders and make them visible.
19	71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.
19	70.	Make instruction co-educational using the same classroom facilities.

All participants, males and females and all individual groups with the exception of agencies ranked statement 11, "Utilize resource persons from business, industry and professions as non-traditional role models for students," in the upper quartile rankings. The rankings ranged from 2.5 by males to 18.5 by females.

Vocational education was the only group which did not rank statement 71, "Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike; for example, similar aptitude test result would elicit like counseling for males and females," in the upper quartile rankings. All participants, males and females and business and industry, government, public and private agencies, and other educational disciplines ranked the statement from 5 to 19.

Statement 16, "Re-educate counselors who make referrals to vocational education about myths in vocational education," was ranked in the upper quartile rankings by all participants, males and females, and vocational education, public and private agencies, and government. The vocational education group ranked it highest (2.5) while it was ranked lowest by government (11.5).

"Create class discussions on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions," statement 31, was ranked in the upper quartile by all participants, males and females, vocational education, public and private agencies, and other educational disciplines. All participants ranked the statement highest (5) and it was ranked lowest (11.5) by public and private agencies.

All participants, males and females, and vocational education, government, and other educational disciplines ranked the statement 25, "Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs," in the upper quartile rankings. The statement was ranked highest (7) by other educational disciplines and lowest (18) by vocational education.

Vocational education and other educational disciplines were the individual groups who did not rank statement 43, "Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks," in the upper quartile rankings. Ranking statement 43 highest (2.5) was public and private agencies, lowest (16) was assigned by business and industry, while all participants ranked it 10, males ranked it 11, females ranked it 13 and government ranked it 11.5.

Government assigned the highest (2) rank and females assigned the lowest (18.5) rank to statement 29, "Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments," while all participants, males and business and industry and other educational disciplines ranked it in the upper quartile rankings.

Three statements, 4, 18, and 50, were included in the upper quartile rankings by all participants, females, and three different individual groups. Statement 4, "Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers," was ranked in the upper quartile rankings by all participants, females, vocational education and public and private agencies, and business and industry; as well as statement 18, "Develop, disperse and implement an up-to-date

affirmative action plan. Statement 50, "Conduct workshops for guidance counselors on non-traditional careers for women," was ranked in the upper quartile rankings by all participants, females, business and industry, government, and public and private agencies.

Two statements, 41 and 10, were included in the upper quartile rankings by all participants, males, and three different individual groups. Statement 41, "Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study," was ranked in the upper quartile rankings by all participants, males, business and industry, government, and vocational education. Statement 10, "Hire more women in administrative and supervisory positions, was ranked in the upper quartile rankings by all participants, males and business and industry, public and private agencies and other educational disciplines.

All participants, males and females, business and industry and other educational disciplines ranked statement 22, "Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping," in the upper quartile rankings.

Females, vocational education, public and private agencies, and government ranked statement 75, "Make provisions for both sexes in vocational education facilities including restrooms, properly sized safety gear, non-sexist posters, signs, pictures, etc.," in the upper quartile rankings.

Males and three different individual groups ranked two statements, 70 and 47, in the upper quartile rankings. Statement 70, "Make instruction co-educational using the same classroom facilities," was ranked so

by males, vocational education, business and industry, and other educational disciplines; while statement 47, "Provide natural settings for the exposure of young children to men and women in non-traditional vocations," was ranked so by males, vocational education, government, and other educational disciplines.

Additionally, the following seven statements were ranked in the upper quartile by three of the groups:

7. Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish.
64. Where adding rest room facilities for girls in shop areas is not feasible make provisions for both sexes to use the same facility as is done on commercial transportation vehicles (airplanes).
24. Strive for job placement of women graduates stressing their right to have an opportunity for employment in non-traditional occupations.
38. Make funding and/or accreditation of vocational education programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping.
14. Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias.
68. Conduct workshop or rap sessions for female students on non-traditional careers for women.
28. Work with community employers to reduce their bias in hiring.

Statements 32, 37, 56, 21, 26, 46, and 59 were assigned rankings by two groups such that they would fall in the upper quartile rankings and they read as follows:

32. Place work experience and cooperative education students in non-traditional work experiences.
37. Implement USOE guidelines for Title IX.

56. Testify before state legislatures and the Congress in support of sex fair vocational education.
21. Assign both sexes to all advisors and major professors.
26. Develop and implement strategies to up-date junior high and high school curriculum to make it more relevant to vocational education.
46. Develop and implement an in-service program for school administrators to improve their attitudes toward women as decision makers.
59. Develop a redefinition of meaning of work, i.e., more couples sharing a job--this does not necessarily mean the work is less crucial.

Thirteen statements appeared in the upper quartile ranking as a result of the ranking of one group. They include:

72. Create more settings where women are task leaders and make them visible.
35. Develop and implement awareness training for sexual preference to remove barriers related to asexuality, bisexuality, homosexuality, etc.
55. Decriminalize homosexuality and eliminate all academic penalties for living within this life style.
51. Develop and implement orientation sessions and provide materials for parents to reduce the bias they pass on to children.
60. Provide high visibility of women who have benefited from vocational education, women in supervisory and administrative positions and men and women succeeding in non-traditional occupations as role models.
53. Design physical facilities which indicate that presence of women does not represent deviance or institutional strain.
42. Arrange field trips to sites that demonstrate the employment and performance of persons of the opposite sex in traditionally stereotyped roles.
34. Implement vocational programs whereby vocational students assist in developing sex bias free materials for use in elementary schools where attitudes are formed.

69. Show visuals of women actually working in skilled occupations especially where heavy work is involved.
15. Add representatives from women's groups to local education advisory committee.
23. Designate responsible person for overseeing progress within each local educational agency and post secondary institution.
12. Place concern upon sex bias and sex stereotyping in early counseling.
73. Develop recruitment materials--brochures, films, etc., that encourage students to enter non-traditional sex role occupational training.

The analysis of the upper quartile rankings indicated that among all participants, by individual groups, and by sex, that 48 of the statements appear in the upper quartile rankings relative to necessity in eliminating and overcoming sex bias and sex stereotyping in vocational education. A review of Table III best shows the overall rankings of the statements by all participants, by individual groups, and by sex.

For Correspondence Sheet 3 the ranked statements were included. The participants were asked to examine the rankings and, if they felt it necessary, to place any action statement significantly higher or lower, they were to do so and to justify the change. This section is a report of those changes and justifications for the changes. Table XII has been organized to report the changes by the overall ranked statement number.

In addition, there were some general comments to the action statements which were determined necessary to report. They included:

"I feel many items lack any awareness of the basic fact that you cannot change women's lives if you do not change men's lives. A program on how bias hurts men is of top importance."

TABLE XII

PARTICIPANTS' REASONS FOR RANKING CHANGE
FROM CORRESPONDENCE SHEET 3

Ranked Statement Number	Rank Change	Statement and Reason
4		Utilize resource persons from business, industry and professions as non-traditional role models for students.
	Lower	"If you had a female 'shop' instructor, a practicing female carpenter would possibly not be needed--the instructor would be role model enough. Showing people who have been successful 'out there in the market place' is still important though."
	Lower	"Not likely to locate non-traditional models from business and industry and professions."
8		Develop, disperse and implement an up-to-date affirmative action plan.
	Lower	"Plans subject to revision on recent or future legislation."
	Lower	"Can come later in importance. Most knowledgeable people view AAP's as so much paper. The only ones which work are those monitored by the courts as a result of legal action."
12		Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish.
	Higher	"I would transpose 4 and 12; if you had a female 'shop' instructor, a practicing female carpenter would possibly not be needed--the instructor would be role model enough. Showing people who have been successful 'out there in the market place' is still important though."

TABLE XII (Continued)

Ranked Statement Number	Rank Change	Statement and Reason
13		Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.
	Lower	"Federal laws concerning vocational education should not be an enforcer--only a catalyst."
15		Develop and implement in-service programs for professors of vocational teacher preparation programs to create awareness of sex bias and sex stereotyping.
	Higher	"Most important on those coming into the field."
16		Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.
	Higher	"The showing of and reference to stereotypical roles, i.e. "her" in reference to machinists, etc., has the most profound impact in turning people away from seeking training or careers in a given field."
17		Where adding rest room facilities for girls in shop areas is not feasible, make provisions for both sexes to use the same facility as is done on commercial vehicles (airplanes).
	Lower	"Merely technical."
20		Work with community employers to reduce their bias in hiring.
	Lower	"Task requires not attitude change but behavior change based on legal requirements."

TABLE XII (Continued)

Ranked Statement Number	Rank Change	Statement and Reason
23		Place concern upon sex bias and sex stereotyping in early counseling.
	Higher	"To within top 15. Early awareness for the individual must be coupled with re-organized thinking of educational leaders, counselors, in-service programs, etc."
25		Make instruction co-educational using same classroom facilities.
	Lower	"Non co-educational institutions' rights are well established legally."
27		Provide high visibility of women who have benefited from vocational education, women in supervisory and administrative positions and men and women succeeding in non-traditional occupations as role models.
	Higher	"Possibly in place of No. 4. More women are in non-traditional occupations and should be used as examples that it can be done. This is proof and should have top priority."
29		Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias.
	Higher	"Materials have a major positive effect (or negative) on attitude."
31		Implement USOE guidelines for Title IX.
	Higher	"Guidelines worked out carefully through wide participation in developing Title IX."
	Lower	"Why lean on the Feds?"

TABLE XII (Continued)

Ranked Statement Number	Rank Change	Statement and Reason
37		Arrange field trips to sites that demonstrate the employment and performance of persons of the opposite sex in traditionally stereotyped roles.
	Higher	"Should precede #35 since 37 is an exploratory type activity and not training as in #35."
	Higher	"Should be moved up and could be a means of accomplishing providing role models."
38		Develop and implement an in-service program for school administrators to improve their attitudes toward women as decision makers.
	Lower	"Change of attitudes far more difficult than change of behavior due to compliance of guidelines and law."
39		Develop and implement orientation sessions and provide materials for parents to reduce the bias they pass on the children.
	Higher	"I believe this should be ranked higher because sex roles and biases are usually learned, or at least observed, even before children reach school age and can impact their own aspirations."
		"Early awareness for the individual must be coupled with re-organized thinking of educational leaders, counselors, in-service programs, etc."
42		Make day care centers available for students in vocational education.
	Higher	"Day care centers are basic to progress in vocational education for non-sexist practices."

TABLE XII (Continued)

Ranked Statement Number	Rank Change	Statement and Reason
45		Up-date vocational curriculum such as converting home economics to more commercial operations such as restaurant cooks and include male students.
	Lower	"Not convert but add to."
47		Provide vocational educators information on the problems of sex bias and sex stereotyping and train key individuals to function as the local resource person on the subject.
	Higher	"A basic strategy which could lead to many other changes. In-depth sensitivity is the most important goal--equal pay becomes obvious then."
51		Develop a re-definition in meaning of work, i.e., more couples sharing a job--this does not necessarily mean the work is less crucial.
	Higher	"Concepts and values and understandings provide bases for innovation and improvement--they give rationale."
	Higher	"I believe this, too, is a basic in the eventual reduction of sex bias and should be rated higher. Just as children notice sex roles and biases before they ever reach school age, they also notice whose work and what type of work is considered important (usually the one leaving the house). A re-definition in the meaning of work would help in keeping children's minds open and unbiased in choosing the type of work they would like to pursue."

TABLE XII (Continued)

Ranked Statement Number	Rank Change	Statement and Reason
52		Conduct an on-going series of in-service training sessions dealing with awareness of overt and subtle sex bias and sex stereotyping practices and attitudes involving state staffs, administrators, teachers and counselors.
	Higher	"I would rank much higher, as basic strategy which could lead to many other changes. In-depth sensitivity is the most important goal--equal pay becomes obvious then."
62		Develop a method to investigate the change or non-change of males and females enrolling and completing "traditional" programs.
	Higher	"A constant check should be made to determine if programs are paying off and change is occurring."
64		Re-evaluate worth of courses of instruction which tend to attract only one sex.
	Lower	"Don't tilt with windmills--the "attraction" probably reflects an honest cultural need (e.g. wrestling).
	Higher	"Isn't this the <u>real</u> problem; one-sex courses cause sex stereotyping."
66		Eliminate group office space utilized by only one sex.
	Higher	"Territorial sense very strong and influential."
67		Re-evaluate worth of faculty who seem to work more or less exclusively with only one sex.
	Lower	"People are people...go with the winner and leave the tenured losers alone."

TABLE XII (Continued)

Ranked Statement Number	Rank Change	Statement and Reason
	Higher	"Faculty should change quickly and if they don't the whole program will be retarded. If they refuse to change they should be dismissed or transferred where they will not become road blocks."
70		Conduct workshop to teach current federal and state non-discrimination laws.
	Higher	"Compliance of legalities stronger than appeals to emotion."
	Lower	"Federal laws concerning vocational education should not be an enforcer--only a catalyst."
72		Decriminalize homosexuality, and eliminate all academic penalties for living within this lifestyle.
	Higher	"One prejudice re-inforces others."
73		Acquire, evaluate, and disseminate current literature from feminist movement.
	Lower	"Feminist movement isn't all that clear on sex biases; they seem to have lots of kooks in their ranks."
74		Eliminate programs in Home Economics traditionally reserved for females.
	Lower	"This is also a prejudice. Add to, not eliminate."
75		Eliminate all dress code requirements.
	Higher	"Much higher--this should be for <u>humanity</u> not just sexuality."

"The subtle 'brainwashing' of everyone--faculty, students, parents, counselors, etc.,--to forget stereotypical roles through experience in revising women in traditional male roles and vice-versa has to go hand in hand with the overt, (workshops, institutes, etc.) efforts at changing peoples attitudes."

"I am in general agreement with the rankings herein outlined. My suggestions have significance only from the standpoint that many areas of concern must be approached and developed concurrently. Educational leaders cannot bring about change in sex employment without early preparation and receptiveness by recipients. Change is slowly wrought."

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study has been to identify and prioritize actions necessary to overcome and eliminate sex bias and sex stereotyping in vocational education. These actions could be helpful in determining the direction in which personnel assigned to assist State Boards for Vocational Education should proceed in providing educational equity. The Delphi technique was utilized to solicit action statements from selected national leaders relative to the elimination of sex bias and sex stereotyping in vocational education and to acquire their perceived rankings as to the necessity of these actions. The specific objectives addressed were:

1. To identify persons from vocational education, agencies, business and industry, government, and other educational disciplines.

An initial advisory panel to the study selected 25 national leaders from the identified groups. Five participants were selected from each individual group. The participants selected consisted of 13 men and 12 women. The selected participants were then verified by the investigator's doctoral advisory committee.

2. To identify actions necessary to overcome sex bias and sex stereotyping in vocational education.

Correspondence Sheet 1 was designed and mailed to the participants. They were asked to identify in no particular order of necessity, up to ten possible actions which they felt would be necessary to overcome sex bias and sex stereotyping in such things as enrollment, facilities, recruitment, and scheduling. Participants were asked to construct the responses in the form of specific actions which could be taken. The statements were then combined and reworded by the investigator to eliminate duplicate statements. One hundred and twenty action statements were generated. Combined statements numbered seventy-five.

3. To determine if actions other than open access to programs are necessary.

Originally, the responses to Correspondence Sheet 1 generated 120 action statements which were grouped into fourteen (14) general categories. After rewording and eliminating duplicate statements, the analysis revealed 75 action statements which were then grouped into the general categories. After rewording and eliminating duplicate statements, the analysis revealed 75 action statements, 5 statements related to job placement, 6 related to teacher education, 5 related to research and development, 8 related to awareness, 1 related to classroom conduct, 7 related to curriculum and textbooks, 13 related to visibility and role modeling, 7 related to guidance and counseling, 1 related to field trips, 3 related to scheduling, 7 related to facilities, 4 related to recruitment, 6 related to affirmative action, and 2 related to enrollment. This analysis identified actions other than open access to programs and it was determined that they are necessary.

4. To determine the rankings of action statements submitted by the participants.

Correspondence Sheet 2 asked the participants to indicate which actions they felt would be most necessary by rating each statement on an 11 point continuum. The ratings for each statement were tabulated and the mean for each statement was computed. The action statements were ranked according to the mean. The ranked action statements based upon the mean were returned to the participants for re-evaluation. Recommendations for changes in rankings were noted. The ranking ranges from 1 to 75.

5. To determine the comparative rankings of recommendations by persons from vocational education, agencies, business and industry, government, and other educational disciplines.

Determination of the rankings by individual groups was accomplished in the same manner in which the rankings for all participants were determined. Rank order surfaced from the computed mean resulting from responses on Correspondence Sheet 2 and verified by responses on Correspondence Sheet 3. Table III shows the rank order of all 75 statements, while Table IV through Table XI show the upper quartile rankings by all participants by individual groups and by sex.

6. To determine the comparative rankings of recommendations from males and females.

Ranking by sex was determined by the mean responses being computed from ratings from Correspondence Sheet 2 and verified by responses to rankings on Correspondence Sheet 3. The rank order for each statement appears for comparison in Table III. Table V shows the upper quartile rankings by males, while Table VI shows the upper quartile rankings

by females.

The comparison of the overall rankings, the rankings by individual groups and the rankings by sex revealed that 48 of the 75 action statements appeared in one or more of the groups upper quartile rankings. Two of the action statements, 33, "Equalize the salaries of women with those of men in vocational education," and statement 2, "Set realistic goals and actively recruit persons in all course offerings to create equal opportunities for persons of both sexes," appeared most often among the upper quartile rankings. This included the overall rankings, the rankings by male participants, the rankings by female participants, and the rankings by representatives from business and industry, government, vocational education, public and private agencies, and other educational disciplines.

Of the remaining 48 action statements which appeared among the upper quartile rankings, two of the action statements were ranked such by all participants, by males and females, and by four individual groups; five of the action statements were ranked such by all participants, males and females, and by three individual groups; three of the action statements were ranked such by all participants, by females, and by three individual groups; two of the action statements were ranked such by all participants, males and by three individual groups; one of the action statements was ranked such by all participants, by males and females and by two individual groups; one of the action statements was ranked such by all participants, females, and by two individual groups; one of the action statements was ranked such by females and by three individual groups; two of the action statements were ranked such by males and by three individual groups. In addition, seven

more were ranked among the upper quartile rankings by two groups, while thirteen of the action statements were ranked among the upper quartile rankings by one group.

Conclusions

The following broad general conclusions were based upon the action statements generated by the selected national leaders through the Delphi technique.

1. In the analysis of the action statements perceived to be necessary by the participants, a significantly large number (48) of the action statements were ranked in the upper quartile rankings by the groups.
2. An analysis of the action statements revealed that open access to programs is not the only consideration in overcoming sex bias and sex stereotyping in vocational education. Actions in such general categories as job placement, teacher education, research and development, awareness, classroom conduct, curriculum and textbooks, visibility and role modeling, guidance and counseling, field trips, scheduling, facilities, recruitment, and affirmative action were ranked as necessary to assure full participation of both sexes in vocational education.
3. Many of the responses suggested that some of the participants lacked awareness of state and federal mandates relative to sex bias, sex stereotyping, and sex discrimination. Although this study did not attempt to discover or measure the participants' awareness of these elements, this observation cannot be overlooked.

4. A conclusion based upon the analysis of the action statements is many of the actions deal with simple technicalities (laws, workshops, etc.) and few actions deal with strategies to change attitudes.
5. The rankings of the action statements indicated that vocational education must broaden its scope (provide for needs of women, design new courses, lift time restrictions, improve counseling techniques, etc.) if there is to be an elimination of sex bias, sex stereotyping, and sex discrimination.
6. Another conclusion based upon an analysis of the ranking of the action statements indicated that personnel assigned to assist State Boards for Vocational Education must be expert in the letter of anti-discrimination legislation and attuned to the job of enforcing the legislative mandate. All legislation affecting women in education should be coordinated with affirmative action plans. These plans should be disseminated and implemented and all compliance regulations should be enforced.
7. Action statements relating to the elimination of sexist instructional and curriculum materials, textbooks, counseling procedures, hiring practices, admission policies and facilities were ranked high.
8. Support for the contention that there is a "gap" between the salaries of women and men in vocational education was evidenced in that statement 33, "Equalize the salaries of women with those of men in vocational education," was ranked in the upper quartile by all participants.

9. The analysis of the rankings of action statements revealed that the female group did not rank statement 10, "Hire more women in administrative and supervisory positions," in the upper quartile rankings. The analysis revealed however, that statement 18, "Develop, disperse and implement an up-to-date affirmative action plan," was ranked number one by the female group. The researcher concluded that there may be a lack of congruency in some attitudes and awareness dealing with sex bias, sex stereotyping and sex discrimination.

Recommendations

The following recommendations were based upon the findings and conclusions of the study.

1. It is recommended that the findings and conclusions of this study be used as a foundation for developing an action guide for personnel assigned to assist State Boards for Vocational Education in providing educational equity to use in overcoming sex bias, sex stereotyping and sex discrimination in vocational education.
2. It is recommended that the results of this study be distributed to persons responsible for providing sex-fair vocational education, including counselors, teachers, decision makers, planners, compliance officers, and teacher educators in vocational education.
3. It is recommended that further research be conducted to identify and prioritize actions necessary to overcome sex bias and sex stereotyping in vocational education in such specific areas as:

- . Staffing
- . Teacher Education
- . Job Placement
- . Visibility and Role Modeling
- . Awareness
- . Research and Development
- . Guidance and Counseling
- . Facilities
- . Affirmative Action

4. It is recommended that research be conducted to determine the salary scales of men and women in vocational education.
5. It is recommended a model be developed to measure the awareness of persons in vocational education relative to sex bias, sex stereotyping and sex discrimination.

Finally, it is recommended that personnel assigned to assist State Boards for Vocational Education be cognizant of the prevailing bias existent in vocational education. Traditionally the attitude of vocational education is that women work at home, men work in the workshop! Homemaking is not recognized as employment. Thus work is generally viewed as happening in the workshop away from home. One becomes superior to the other in the eyes of vocational education. Personnel assigned to assist State Boards for Vocational Education must charge ahead full speed to change this attitude. Further, it is recommended that personnel assigned to assist State Boards be ever mindful of the damage done to both males and females when humans are stereotyped according to traits and roles. These damages must be openly and honestly disclosed if any elimination of sex stereotyping is to occur.

Vocational education cannot perpetuate the damage any longer. Further, it is recommended that personnel assigned to assist State Boards face the blatant discrimination existing in vocational education. The gross under-representation of one sex in an area is the most obvious and insidious of the discriminations. Personnel must be sensitive to the composition of sex discrimination and endeavor to rectify all cases of known sex discrimination. First, the cases must be identified. Discrimination not only exists in enrollment patterns but in such areas as hiring practices, staffing patterns, job placement, etc. Sound and realistic goals must be set to eliminate the identified discrimination. Time tables must be charted and the goals must be actively achieved.

Personnel assigned to assist State Boards must be cautious when working with various groups. The focus must remain on the elimination of sex bias and sex stereotyping. The endeavor is not a popular one. What one group may stand to gain, another may stand to lose. Turfs may be uprooted. The mandate is clear, however; it is recommended that the mandate to overcome sex bias and sex stereotyping in vocational education be met.

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APPENDIX A

2404 W. 8th Street
Stillwater, Oklahoma 74074

April 13, 1977

The purpose of this letter is to ask you to participate in a research study I am currently conducting. The study is to identify actions necessary to overcome sex bias and sex stereotyping in vocational education. We are surveying a selected group of national leaders from Vocational Education, Business and Industry, Government, Agencies, and Other Educational Disciplines.

Due to your reputation and expertise as a national leader, you have been selected to represent one of these groups. Your input will be of great value in determining the direction vocational education should take in overcoming sex bias and sex stereotyping.

The Delphi Technique, which is built on the strength of informed intuitive judgment, will be used to obtain opinions of the group of leaders without bringing them together. This study will require only a few minutes of your time to respond to each instrument as follows:

- | | |
|-------------------------|--|
| Correspondence
No. 1 | Requests that you list ten statements of actions you feel necessary to overcome sex bias and sex stereotyping in vocational education |
| Correspondence
No. 2 | A list of action statements will be compiled from the responses to Correspondence #1 and mailed back to you. You will then be asked to rank the necessity of each item. |
| Correspondence
No. 3 | The ranking of each response will be compiled from the responses to Correspondence #2. You will be asked to agree with the order or reverse the order and list the reason for making any change. |

From the responses obtained in step 3, a summary of the final actions necessary to overcome sex bias and sex stereotyping will be used to determine the direction vocational education should take in planning for future vocational education programs.

We hope you will agree to participate with us in this effort to determine actions necessary to overcome sex bias and sex stereotyping in vocational education. Please use the attached instrument and return it in the enclosed self-addressed envelope. Thank you very much for your assistance.

Sincerely,

Joyce Bates, Researcher

CORRESPONDENCE SHEET NO. I

(To be returned immediately in enclosed envelope)

Please identify, in no particular order of necessity, up to ten possible actions you feel necessary to overcome sex bias and sex stereotyping in such things as enrollment, recruitment, scheduling, facilities, etc., in all course offerings in vocational education. I hope that your responses will be in the form of specific actions which could be taken.

LIST YOUR STATEMENTS BELOW

ACTION NUMBER ONE

ACTION NUMBER TWO

ACTION NUMBER THREE

ACTION NUMBER FOUR

ACTION NUMBER FIVE

ACTION NUMBER SIX

ACTION NUMBER SEVEN

ACTION NUMBER EIGHT

ACTION NUMBER NINE

ACTION NUMBER TEN

APPENDIX B

(OKLAHOMA STATE UNIVERSITY LETTERHEAD)

June 30, 1977

Dear

Thank you for completing correspondence questionnaire #1 that we are analyzing to determine what actions are necessary to overcome and eliminate sex bias and sex stereotyping in vocational education. Your response was excellent and the results are promising. We hope you will continue your assistance by completing Correspondence Sheet #2.

It contains the major actions that were identified from the suggestions in response to the first questionnaire. As anticipated, we came up with a number of important statements concerning actions necessary to overcome and eliminate sex bias and sex stereotyping in vocational education. In order to determine those actions that the group feels most necessary, we are asking you to rate them on an 11-point continuum.

The action statements will be analyzed according to the way you rate them, and from these rankings, we hope to gain some insight as to which actions the group feels are most necessary and least necessary. These action statements will be ranked from your ratings in the order of most necessary to least necessary. Therefore, consider carefully all action statements and give each one some thought as to how you feel their necessity is to you.

Please complete the enclosed questionnaire and return it in the enclosed, self-addressed, postage-paid envelope as soon as possible. Again, let me thank you for your time and attention. Your response is greatly appreciated and very important to this research study.

Sincerely,

Joyce Bates
Doctoral Student

CORRESPONDENCE SHEET NO. 2

(To be returned immediately in enclosed envelope)

Below are the combined action statements that you and others suggested as necessary to overcome and eliminate sex bias in vocational education. In order to establish a priority on the actions most necessary, we would ask that you rate each action statement on an 11-point continuum, ranging from most necessary (1) to least necessary (11).

Please be selective in choosing the rating of each action statement. If your action statements are not adequately expressed by those below, please write them in on the last page.

EXAMPLE:

Place (X) in appropriate section

Most
NecessaryLeast
Necessary

1. "Discontinue the use of sexist language."

/ / X / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11

1. Support studies that would investigate innovative projects to overcome sex bias and sex stereotyping in vocational education. / / / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
2. Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes. / / / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
3. Eliminate the "Eve Syndrome"--the first woman attitude toward women who have gone into non-traditional roles and vice versa. / / / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
4. Hold career orientation sessions for parents as well as rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers. / / / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
5. Give priorities to grants and contracts designed to develop models to overcome sex bias and sex stereotyping in vocational education. / / / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
6. After recruiting students into non-traditionally enrolled courses by a particular sex, use students as a part of a recruitment/information team. / / / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11

- | | |
|---|---|
| 7. Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 8. Offer mini-courses of non-traditional "sex role subjects" as a part of career exploration to the opposite sex. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 9. Develop and implement procedures for on-going statistical review and evaluation of all programs as it pertains to changes by sex in enrollment, drop-out rates, placement, salaries, job advancement, etc. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 10. Hire more women in administrative and supervisory positions. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 11. Utilize resource persons from business, industry and professions as non-traditional role models for students. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 12. Place concern upon sex bias and sex stereotyping in early counseling. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 13. Acquire, evaluate, and disseminate current literature from feminist movement. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 14. Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 15. Add representatives from women's groups to local education advisory committee. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 16. Re-educate counselors who make referrals to vocational education about myths in vocational education. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 17. Develop a method to investigate the change or non-change of males and females enrolling and completing "traditional" programs. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 18. Develop, disperse and implement an up-to-date affirmative action plan. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 19. Institute practical experiences where students perform publically for periods of time in non-traditional jobs. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |

- | | |
|---|---|
| 31. Create class discussion on the dysfunction of sex-role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 32. Place work experience and cooperative education students in non-traditional work experiences. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 33. Equalize salaries of women with those of men in vocational education. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 34. Implement vocational programs whereby vocational students assist in developing sex-bias free materials for use in elementary schools where attitudes are formed. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 35. Develop and implement awareness training for sexual preference to remove barriers related to asexuality, bisexuality, homosexuality, etc. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 36. Supply trainers in local business to work with supervisors who have doubts/fears about men or women in non-traditional job roles | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 37. Implement USOE guidelines for Title IX. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 38. Make funding and/or accreditation of vocational education programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 39. Assess and meet the needs of adult vocational students to create awareness of job possibilities, problems on the job, and ways to handle job problems in non-traditional occupations. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 40. Become knowledgeable of projects conducted by unions and their push to change attitudes concerning sex bias and sex stereotyping. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 41. Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |

42. Arrange field trips to sites that demonstrate the employment and performance of persons of the opposite sex in traditionally stereotyped roles. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
43. Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
44. Re-evaluate worth of courses of instruction which tend to attract only one sex. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
45. Coordinate efforts with other agencies and persons interested in the elimination of sex bias and sex stereotyping. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
46. Develop and implement an in-service program for school administrators to improve their attitudes toward women as decision makers. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
47. Provide natural setting for the exposure of young children to men and women in non-traditional vocations. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
48. Schedule both males and females together in all subjects, especially home economics and industrial arts. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
49. Eliminate all dress code requirements. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
50. Conduct workshops for guidance counselors on non-traditional careers for women. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
51. Develop and implement orientation sessions and provide materials for parents to reduce the bias they pass on to children. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
52. Eliminate programs in home economics traditionally reserved for females. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
53. Design physical facilities which indicate that presence of women does not represent deviance or institutional strain. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11
54. Develop and implement in-service programs for professors of vocational teacher preparation programs to create awareness of sex bias and sex stereotyping. / / / / / / / / / / / /
1 2 3 4 5 6 7 8 9 10 11

- | | |
|---|---|
| 66. Re-evaluate worth of faculty who seem to work more or less exclusively with only one sex. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 67. Make no assignments and assign no tasks on the basis of sex of faculty or student. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 68. Conduct workshop or rap sessions for female students on non-traditional careers for women. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 69. Show visuals of women actually working in skilled occupations especially where heavy work is involved. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 70. Make instruction co-educational using the same classroom facilities. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 71. Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 72. Create more settings where women are task leaders and make them visible. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 73. Develop recruitment materials--brochures, films, etc.--that encourage students to enter non-traditional "sex-role" occupational training. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 74. Give technical assistance to individual schools in recognizing and resolving sex bias and sex stereotyping situations that may exist. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
| 75. Make provisions for both sexes in vocational education facilities including rest rooms, properly sized safety gear, non-sexist posters, signs, pictures, etc. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |

If we have somehow not adequately expressed your action statement, please write below the action statement, its ranking, and your reason for expressing the action statement.

- | | |
|----|---|
| 1. | <u>/ / / / / / / / / / / /</u>
1 2 3 4 5 6 7 8 9 10 11 |
|----|---|

Reason:

2.

/	/	/	/	/	/	/	/	/	/	/	/
1	2	3	4	5	6	7	8	9	10	11	

Reason:

Comments:

APPENDIX C

(OKLAHOMA STATE UNIVERSITY LETTERHEAD)

January 30, 1978

The Delphi Technique has been very successful in identifying actions necessary to overcome and eliminate sex bias and sex stereotyping in vocational education. Your cooperation was excellent and has been instrumental in this success.

A ranking of the action statements is presented in Correspondence Sheet No. 3 as the final step to complete your participation in the study. If it is possible, we would like to have your comments by February 15.

Please examine the enclosed correspondence sheet and return it in the self-addressed, postage-paid envelope as soon as possible. Again, let me extend my appreciation for your time and attention shown in the study.

Sincerely,

Joyce Bates
Doctoral Student

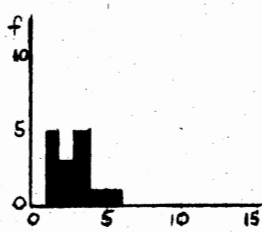
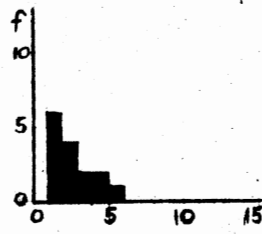
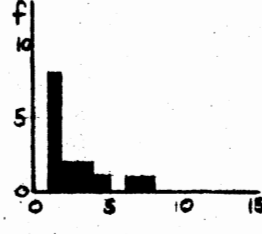
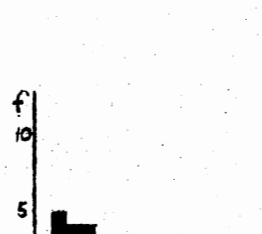
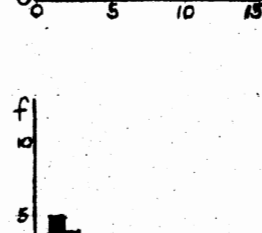
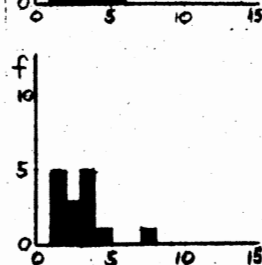
CORRESPONDENCE SHEET NO. 3

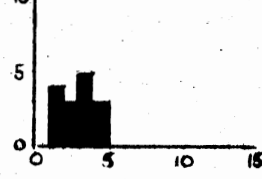
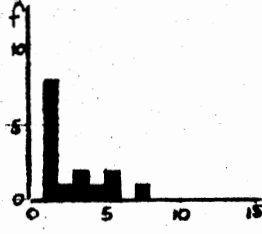
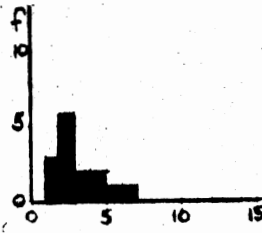
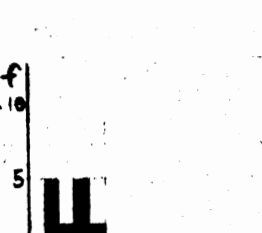
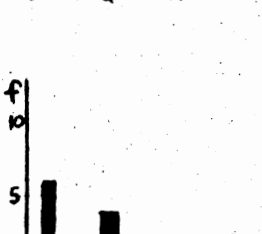
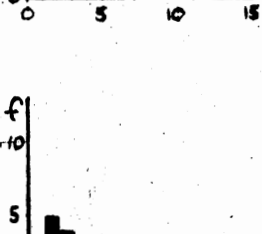
(To be returned immediately in enclosed envelope)

Below are the combined action statements that you and others ranked in respect to their necessity for overcoming and eliminating sex bias and sex stereotyping in vocational education. Since each action statement was ranked on an 11-point continuum ranging from most necessary (1) to least necessary (11) those action statements with the lowest group averages are considered most necessary and appear first in the ranked order.

Examine these ranked action statements and, if you feel they should be placed significantly higher or lower, use the space provided at the end of Correspondence Sheet No. 3 to indicate which action statement and your justification as to why it should be placed higher or lower.

Rank No.			Group Average
1.	Equalize salaries of women with those of men in vocational education.		1.67
2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.		2.20
3.	Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers.		2.33

4.	Utilize resource persons from business, industry and professions as non-traditional role models for students.		2.33
5.	Re-educate counselors who make referrals to vocational education about myths in vocational education.		2.33
6.	Create class discussions on the disfunction of sex role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.		2.33
7.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.		2.33
8.	Develop, disperse and implement an up-to-date affirmative action plan.		2.40
9.	Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.		2.47

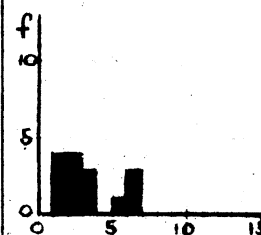
10.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational education programs.		2.47
11.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.		2.47
12.	Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish.		2.67
13.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.		2.67
14.	Conduct workshops for guidance counselors on non-traditional careers for women.		2.67
15.	Develop and implement in-service programs for professors of vocational teacher preparation programs to create awareness of sex bias and sex stereotyping.		2.67

16. Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.



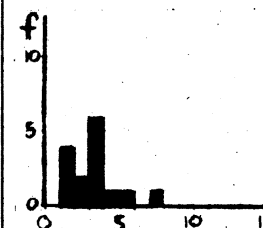
2.73

17. Where adding rest room facilities for girls in shop areas is not feasible make provisions for both sexes to use the same facility as is done on commercial transportation vehicles (airplanes).



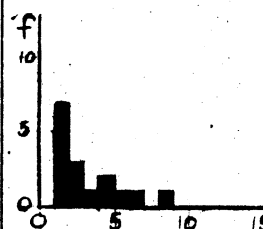
2.73

18. Hire more women in administrative and supervisory positions.



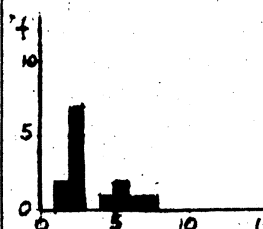
2.80

19. Make no assignments and assign no tasks on the basis of sex of faculty or student.



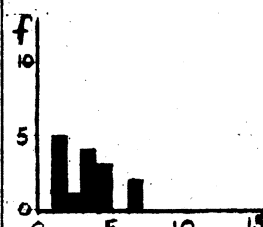
2.80

20. Work with community employers to reduce their bias in hiring.



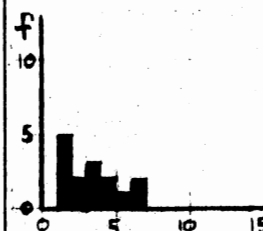
2.83

21. Strive for job placement of women graduates stressing their right to have an opportunity for employment in non-traditional occupations.



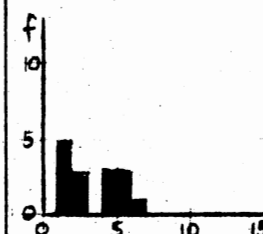
2.87

22. Provide natural setting for the exposure of young children to men and women in non-traditional vocations.



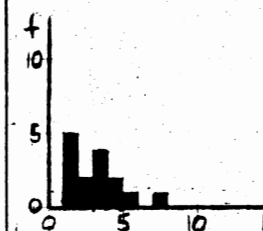
2.87

23. Place concern upon sex bias and sex stereotyping in early counseling.



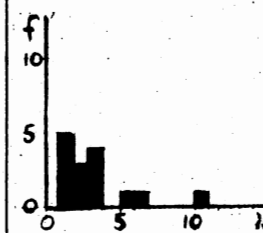
2.93

24. Place work experience and cooperative education students in non-traditional work experience.



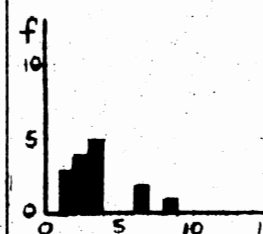
2.93

25. Make instruction co-educational using the same classroom facilities.



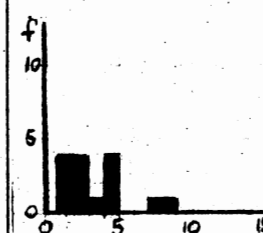
2.93

26. Develop and implement strategies to up-date junior high and high school curriculum to make it more relevant to vocational education.



3.07

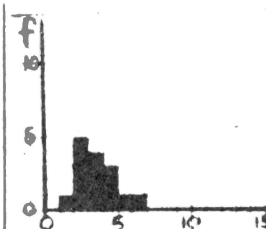
27. Provide high visibility of women who have benefited from vocational education, women in supervisory and administrative positions and men and women succeeding in non-traditional occupations as role models.



3.07

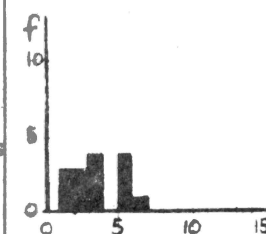
28. Create more settings where women are task leaders and make them visible.

3.07



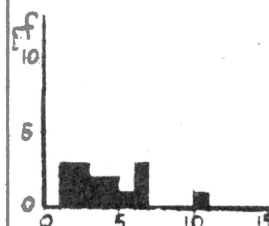
29. Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias.

3.13



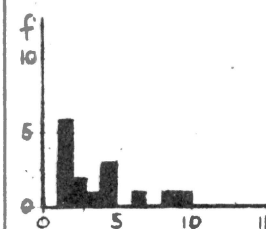
30. Add representatives from women's groups to local education advisory committees.

3.13



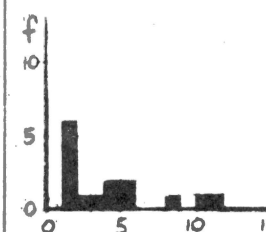
31. Implement USOE guidelines for Title IX.

3.13



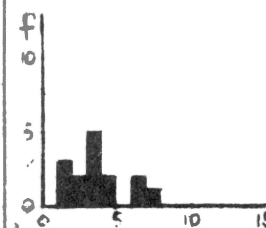
32. Testify before state legislatures and the Congress in support of sex-fair vocational education.

3.20

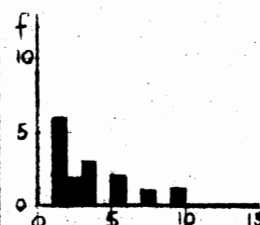


33. Conduct workshop or rap sessions for female students on non-traditional careers for women.

3.27

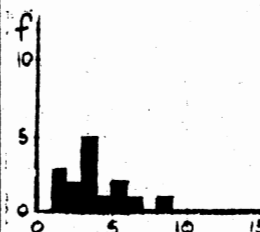


34. Make funding and/or accreditation of vocational education programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping.



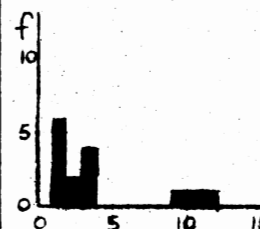
3.40

35. Institute practical experiences where students perform publically for periods of time in non-traditional jobs.



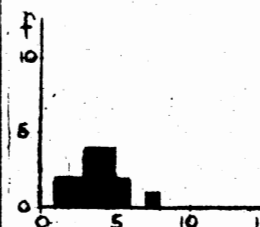
3.47

36. Assign both sexes to all advisors and major professors.



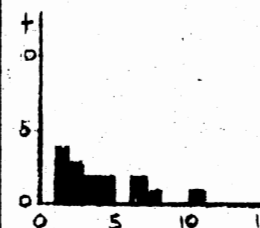
3.47

37. Arrange field trips to sites that demonstrate the employment and performance of persons of the opposite sex in traditionally stereotyped roles.



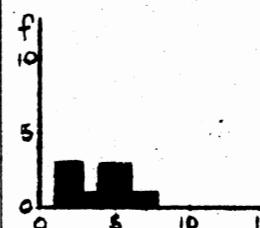
3.47

38. Develop and implement an in-service program for school administrators to improve their attitudes toward women as decision makers.



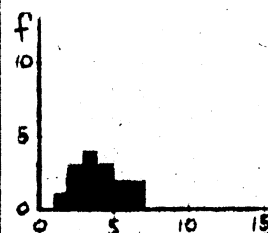
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39. Develop and implement orientation sessions and provide materials for parents to reduce the bias they pass on to children.



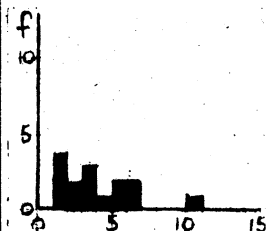
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40. After recruiting students into non-traditionally enrolled courses by a particular sex, use students as a part of a recruitment/information team.



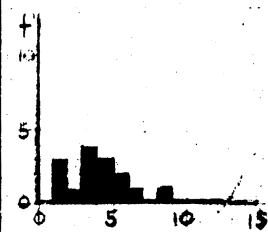
3.53

41. Schedule both males and females together in all subjects, especially home economics and industrial arts.



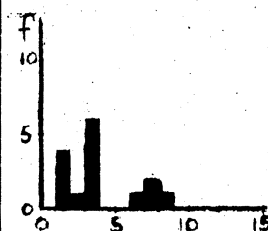
3.53

42. Make day care centers available for students in vocational education.



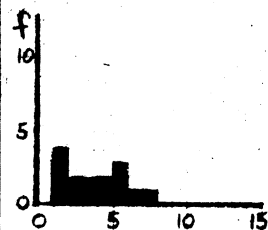
3.53

43. Develop recruitment materials--brochures, films, etc.--that encourage students to enter non-traditional "sex role" occupational training.



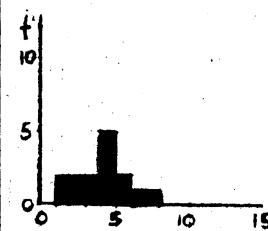
3.53

44. Assess and meet the needs of adult vocational students to create awareness of job possibilities, problems on the job, and ways to handle job problems in non-traditional occupations.



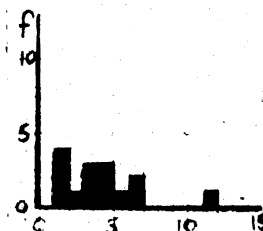
3.60

45. Up-date vocational curriculum such as converting home economics to more commercial operations such as restaurant cooks and include male students.



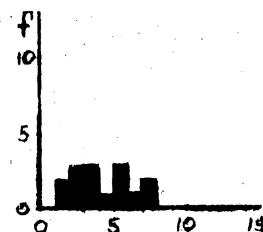
3.67

46. Make provisions for both sexes in vocational education facilities including rest rooms, properly sized safety gear, non-sexist posters, signs, pictures, etc.



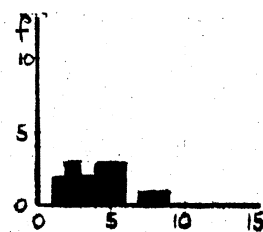
3.67

47. Provide vocational educators information on the problem of sex bias and sex stereotyping and train key individuals to function as the local resource person on the subject.



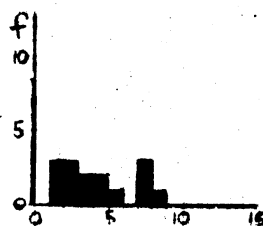
3.73

48. Show visuals of women actually working in skilled occupations especially where heavy work is involved.



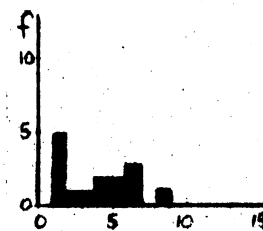
3.80

49. Give technical assistance to individual schools in recognizing and resolving sex bias and sex stereotyping situations that may exist.



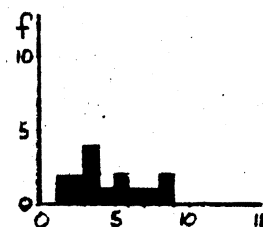
3.80

50. Designate responsible person for overseeing progress within each local educational agency and post-secondary institution.

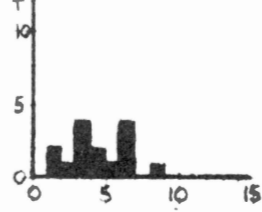
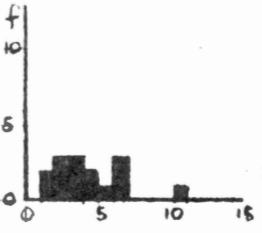
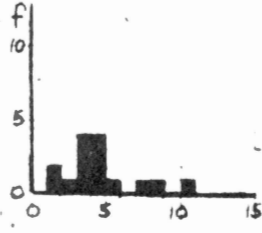
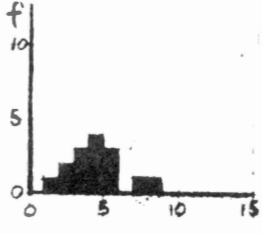
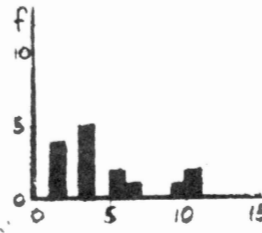
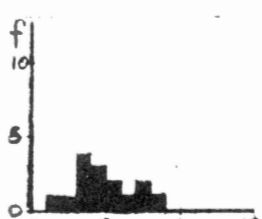


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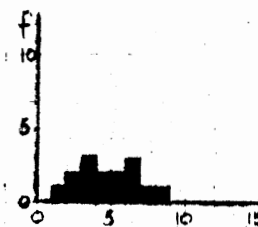
51. Develop a redefinition in meaning of work, i.e., more couples sharing a job--this does not necessarily mean the work is less crucial.



4.07

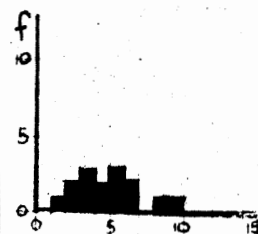
52.	Conduct an on-going series of in-service training sessions dealing with awareness of overt and subtle sex bias and sex stereotyping practices and attitudes involving state staff, administrators, teachers and counselors.		4.07
53.	Coordinate efforts with other agencies and persons interested in elimination of sex bias and sex stereotyping.		4.13
54.	Design and implement counseling strategies that would meet students where they are and use "traditional" activities to bridge to the "non-traditional" activities such as metal sculpture to metal-working and welding, working with clay, stone and wood to brick and mortar or carpentry.		4.13
55.	Offer mini-courses of non-traditional "sex-role subjects" as a part of career exploration to the opposite sex.		4.13
56.	Give priorities to grants and contracts designed to develop models to overcome sex bias and sex stereotyping in vocational education programs.		4.27
57.	Develop and implement procedures for on-going statistical review and evaluation of all programs as it pertains to changes by sex in enrollment, drop-out rates, placement, salaries, job advancement, etc.		4.33

58. Implement vocational programs whereby vocational students assist in developing sex-bias free materials for use in elementary schools where attitudes are formed.



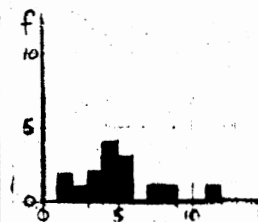
4.33

59. Become knowledgeable of projects conducted by unions and their push to change attitudes concerning sex bias and sex stereotyping.



4.40

60. Develop and implement a statewide publicity campaign to influence students, their parents, and the public in general.



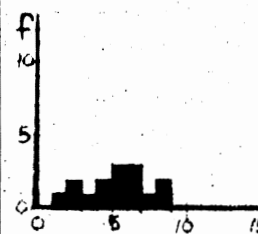
4.47

61. Support studies that would investigate innovative projects to overcome sex bias and sex stereotyping in vocational education.



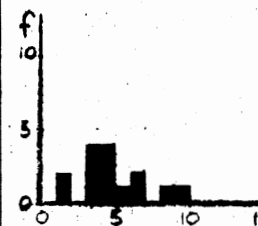
4.53

62. Develop a method to investigate the change or non-change of males and females enrolling and completing "traditional" programs.



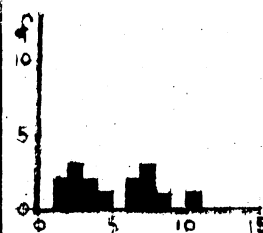
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63. Supply trainers in local business to work with supervisors who have doubts/fears about men or women in non-traditional job roles.



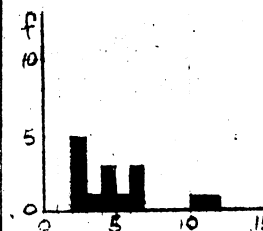
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64. Re-evaluate worth of courses of instruction which tend to attract only one sex.



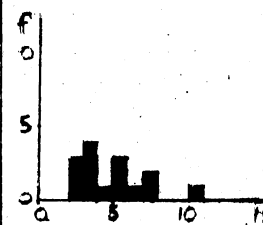
4.60

65. Publish articles in leading journals of examples of needless sex bias and examples of programs and people who have succeeded in traditionally sex-biased occupations.



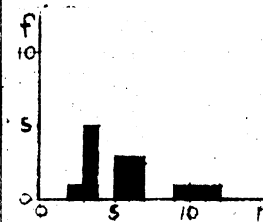
4.60

66. Eliminate group office space utilized by only one sex.



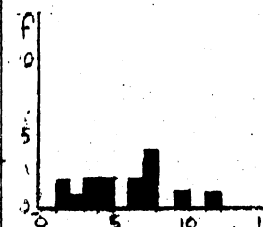
4.93

67. Re-evaluate worth of faculty who seem to work more or less exclusively with only one sex.



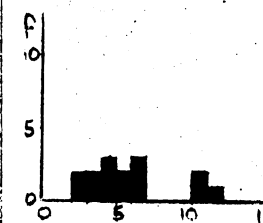
5.00

68. Design physical facilities which indicate that presence of women does not represent deviance or institutional strain.

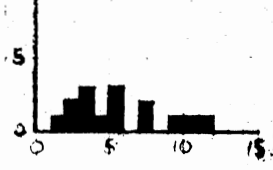
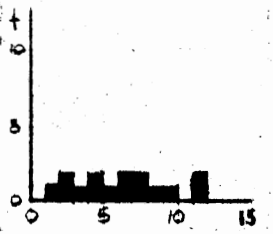
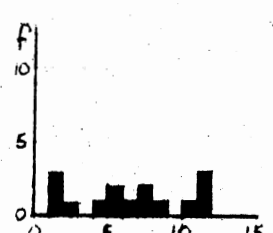
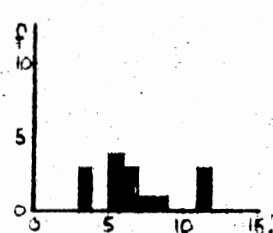
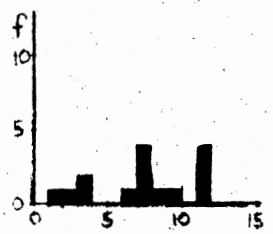



5.20

69. Eliminate the "Eve Syndrome"---the first woman attitude toward women who have gone into non-traditional roles and vice-versa.



5.40

70.	Conduct workshop to teach current federal and state non-discrimination laws.		5.47
71.	Develop and implement awareness training for sexual preference to remove barriers related to asexuality, bisexuality, homosexuality, etc.		5.73
72.	Decriminalize homosexuality and eliminate all academic penalties for living within this life style.		6.00
73.	Acquire, evaluate, and disseminate current literature from feminist movement.		6.07
74.	Eliminate programs in home economics traditionally reserved for females.		6.93
75.	Eliminate all dress code requirements.		7.26

Use the back of the page to write the rank number and the justification as to why you feel this action statement should receive a lower or higher ranking.

RANK NO. _____
REASON FOR RANKING CHANGE

RANK NO. _____
REASON FOR RANKING CHANGE

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REASON FOR RANKING CHANGE

APPENDIX D

TABLE XIII

OVERALL MEAN, INDIVIDUAL GROUP MEAN AND MEAN BY SEX OF
ACTION STATEMENTS NECESSARY TO OVERCOME SEX BIAS
AND SEX STEREOTYPING IN VOCATIONAL EDUCATION

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
1.	Support studies that would investigate innovative projects to overcome sex bias and sex stereotyping in vocational education	4.0	6.0	8.0	4.2	6.0	5.1	4.3	4.5
2.	Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.	1.6	2.0	1.0	2.6	2.6	2.1	2.3	2.2
3.	Eliminate the "Eve Syndrome"--the first woman attitude toward women who have gone into non-traditional roles and vice-versa.	7.0	6.3	6.5	3.6	6.3	6.3	4.4	5.4
4.	Hold career orientation sessions for parents as well as for rostermakers, counselors, teachers, and administrative staff focusing upon equal access to careers.	2.0	1.3	2.5	1.8	4.3	3.0	1.5	2.3

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
5.	Give priorities to grants and contracts designed to develop models to overcome sex bias and sex stereotyping in vocational education programs.	3.0	4.6	2.5	3.8	7.0	5.0	3.4	4.3
6.	After recruiting students into non-traditionally enrolled courses by a particular sex, use students as a part of a recruitment/information team.	3.3	3.3	4.0	3.2	4.6	3.5	3.6	3.5
7.	Recruit staff as role models for teaching non-traditional sex role subject areas and make them visible without flourish.	2.3	3.3	2.0	1.8	4.0	2.6	2.7	2.7
8.	Offer mini-courses of non-traditional "sex role subjects" as a part of career exploration to the opposite sex.	3.6	4.0	3.5	3.8	5.3	3.8	4.5	4.1

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
9.	Develop and implement procedures for on-going statistical review and evaluation of all programs as it pertains to changes by sex in enrollment, drop-out rates, placement, salaries, job advancement, etc.	5.0	4.3	4.5	3.6	4.6	4.6	4.0	4.3
10.	Hire more women in administrative and supervisory positions.	2.0	2.0	6.0	3.2	2.3	2.9	2.7	2.8
11.	Utilize resource persons from business, industry and professions as non-traditional role models for students.	2.0	3.0	1.5	2.0	2.6	2.1	2.6	2.3
12.	Place concern upon sex bias and sex stereotyping in early counseling.	2.3	1.0	2.5	3.6	4.0	3.1	2.7	2.9
13.	Acquire, evaluate and disseminate current literature from feminist movement.	8.0	6.3	6.5	7.0	4.6	5.3	7.5	6.1
14.	Review all curriculum materials at all levels of vocational education to see that language and illustrations are free from sex bias.	3.0	4.0	1.5	3.0	3.0	2.9	3.4	3.1

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
15.	Add representatives from women's groups to local education advisory committee.	3.6	1.6	2.5	4.6	5.0	3.1	4.4	3.1
16.	Re-educate counselors who make referrals to vocational education about myths in vocational education.	2.3	1.3	1.5	1.8	3.6	2.6	1.7	2.3
17.	Develop a method to investigate the change or non-change of males and females enrolling and completing "traditional" programs.	6.3	4.0	3.0	4.8	5.0	4.9	4.7	4.5
18.	Develop, disperse and implement an up-to-date affirmative action plan.	2.0	1.6	2.5	1.8	4.0	3.3	1.4	2.4
19.	Institute practical experiences where students perform publically for periods of time in non-traditional jobs.	3.3	3.3	2.0	3.2	4.0	3.3	3.4	3.5

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
20.	Design and implement counseling strategies that would meet students where they are and use "traditional" activities to bridge to the "non-traditional" activities such as metal sculpture to metal-working, and welding, working with clay, stone and wood to brick and mortar or carpentry.	2.6	3.0	2.0	4.4	7.0	4.9	3.3	4.1
21.	Assign both sexes to all advisors and major professors.	1.6	4.3	8.0	3.8	2.0	3.5	3.4	3.5
22.	Develop and implement strategies to up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.	1.6	2.6	5.5	3.0	1.6	2.5	2.4	2.5
23.	Designate responsible person for overseeing progress within each local educational agency and post-secondary institution.	4.6	1.0	6.0	3.6	3.6	4.4	2.7	3.9

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
24.	Strive for job placement of women graduates stressing their right to have an opportunity for employment in non-traditional occupations.	2.0	2.6	4.0	3.2	3.0	3.4	2.3	2.9
25.	Review for sex discrimination all evaluation procedures for applicants and all admission criteria for all vocational programs.	2.6	2.5	1.5	2.6	2.3	2.6	2.4	2.5
26.	Develop and implement strategies to update junior high and high school curriculum to make it more relevant to vocational education.	1.6	2.0	5.0	3.2	5.6	3.1	3.0	3.1
27.	Develop and implement a statewide publicity campaign to influence students, their parents, and the public in general.	5.3	3.3	4.0	2.8	8.3	5.6	3.1	4.5
28.	Work with community employers to reduce their bias in hiring.	3.0	4.3	1.0	2.0	3.6	3.3	2.6	2.8

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
29.	Publicize and enforce the new anti-bias provisions of the 1976 Vo-Ed Amendments.	1.6	2.5	1.0	3.6	3.0	2.8	2.6	2.7
30.	Up-date vocational curriculum such as converting home economics to more commercial operations such as restaurant cooks and include male students.	3.3	4.0	4.5	3.0	4.6	3.8	3.6	3.7
31.	Create class discussions on the disfunction of sex-role stereotyping to unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.	3.0	1.6	2.0	2.2	2.6	2.4	2.1	2.3
32.	Place work experience and cooperative education students in non-traditional work experiences.	2.3	3.0	2.0	3.2	2.6	2.2	3.3	2.9
33.	Equalize salaries of women with those of men in vocational education.	2.0	1.0	1.5	2.0	1.6	1.6	1.7	1.7

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
34.	Implement vocational programs whereby vocational students assist in developing sex bias free materials for use in elementary schools where attitudes are formed.	5.3	2.0	4.0	5.2	4.0	4.5	4.1	4.3
35.	Develop and implement awareness training for sexual preference to remove barriers related to asexuality, bisexuality, homosexuality, etc.	6.0	7.6	7.5	6.4	3.0	4.0	7.7	5.7
36.	Supply trainers in local business to work with supervisors who have doubts/fears about men or women in non-traditional job roles.	3.0	4.3	4.0	5.0	4.3	3.8	4.9	4.5
37.	Implement USOE guidelines for Title IX.	2.0	3.3	5.0	3.2	3.6	3.6	2.6	3.1
38.	Make funding and/or accreditation of vocational education programs contingent upon documentation that efforts have been made to remove sex bias and sex stereotyping.	4.3	1.6	5.0	3.0	1.6	3.8	2.1	3.4

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
39.	Assess and meet the needs of adult vocational students to create awareness of job possibilities, problems on the job, and ways to handle job problems in non-traditional occupations.	2.3	2.5	2.0	4.6	3.6	3.0	3.9	3.6
40.	Become knowledgeable of projects conducted by unions and their push to change attitudes concerning sex bias and sex stereotyping.	4.3	3.3	3.5	4.4	5.6	4.9	3.9	4.4
41.	Develop non-sexist curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.	1.6	4.0	1.5	2.2	3.6	2.4	3.1	2.7
42.	Arrange field trips to sites that demonstrate the employment and performance of persons of the opposite sex in traditionally stereotyped roles.	4.0	3.0	1.5	2.8	4.6	4.0	2.7	3.5

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
43.	Sensitize elementary teachers to eliminate sex stereotyping in their everyday contact with students, including expectations of performance in various subjects and tasks.	2.0	1.0	1.5	3.0	3.6	2.6	2.3	2.5
44.	Re-evaluate worth of courses of instruction which tend to attract only one sex.	6.6	5.0	5.0	4.0	4.0	4.4	4.9	4.6
45.	Coordinate efforts with other agencies and persons interested in the elimination of sex bias and sex stereotyping.	4.0	4.0	5.5	4.4	4.6	3.6	4.7	4.1
46.	Develop and implement an in-service program for school administrators to improve their attitudes toward women as decision makers.	1.6	3.0	3.5	3.4	6.6	4.1	2.9	3.5
47.	Provide natural setting for the exposure of young children to men and women in non-traditional vocations.	3.0	4.3	1.5	2.4	2.3	2.8	3.0	2.9
48.	Schedule both males and females together in all subjects, especially home economics and industrial arts.	4.3	3.0	3.0	2.8	5.0	4.3	2.7	3.5

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
49.	Eliminate all dress code requirements.	7.3	8.3	6.5	9.2	4.6	5.6	9.1	7.3
50.	Conduct workshops for guidance counselors on non-traditional careers for women.	2.0	1.6	1.5	2.8	4.3	3.1	2.1	2.7
51.	Develop and implement orientation sessions and provide materials for parents to reduce the bias they pass on to children.	2.3	5.0	1.5	2.4	5.3	3.8	3.1	3.5
52.	Eliminate programs in home economics traditionally reserved for females.	6.6	8.0	6.5	7.4	6.6	6.0	8.0	6.9
53.	Design physical facilities which indicate that presence of women does not represent deviance or institutional strain.	5.6	7.3	1.5	4.8	4.3	4.5	6.0	5.2
54.	Develop and implement in-service programs for professors of vocational teacher preparation programs to create awareness of sex bias and sex stereotyping.	2.3	2.5	2.0	2.4	4.0	3.1	2.1	2.7

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
55.	Decriminalize homosexuality and eliminate all academic penalties for living within this life style.	6.3	8.6	6.0	7.2	2.6	3.9	8.4	6.0
56.	Testify before state legislatures and the Congress in support of sex-fair vocational education.	1.0	7.3	7.0	2.6	5.6	3.8	4.3	3.2
57.	Make day care centers available for students in vocational education.	3.6	4.0	5.0	3.4	3.6	3.4	3.7	3.5
58.	Provide vocational educators information on the problem of sex bias and sex stereotyping and train key individuals to function as the local resource person on the subject.	3.0	3.6	4.0	3.6	5.3	3.9	3.6	3.7
59.	Develop a redefinition in meaning of work, i.e., more couples sharing a job--this does not necessarily mean the work is less crucial.	5.6	5.3	1.5	2.6	4.6	4.5	3.6	4.1

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
60.	Provide high visibility of women who have benefited from vocational education, women in supervisory and administrative positions and men and women succeeding in non-traditional occupations as role models.	2.3	3.6	4.0	2.2	5.0	3.3	2.9	3.1
61.	Eliminate group office space utilized by only one sex.	7.0	4.3	6.0	5.2	3.6	5.0	4.8	4.9
62.	Conduct an on-going series of in-service training sessions dealing with awareness of overt and subtle sex bias and sex stereotyping practices and attitudes involving state staffs, administrators, teachers and counselors.	4.3	4.0	4.0	4.0	2.8	5.3	5.0	4.1
63.	Publish articles in leading journals of examples of needless sex bias and examples of programs and people who have succeeded in traditionally sex-biased occupations.	3.0	5.6	5.0	4.4	6.3	4.4	4.8	4.6

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
64.	Where adding rest room facilities for girls in shop areas is not feasible make provisions for both sexes to use the same facility as is done on commercial transportation vehicles (airplanes).	3.3	3.0	4.0	3.6	1.6	2.5	3.4	2.7
65.	Conduct workshop to teach current federal and state non-discrimination laws.	4.0	8.3	5.0	4.4	5.0	4.5	5.8	5.5
66.	Re-evaluate worth of faculty who seem to work more or less exclusively with only one sex.	6.0	5.6	4.5	5.4	5.3	5.0	5.7	5.0
67.	Make no assignments and assign no tasks on the basis of sex of faculty or student.	2.3	1.6	2.5	2.2	5.0	3.8	1.7	2.8
68.	Conduct workshop or rap sessions for female students on non-traditional careers for women.	2.6	1.6	1.5	3.6	5.6	2.8	3.0	3.3
69.	Show visuals of women actually working in skilled occupations especially where heavy work is involved.	3.0	1.6	4.0	4.6	5.6	4.4	3.1	3.8

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
70.	Make instruction co-educational using the same classroom facilities.	1.6	5.0	2.0	2.4	3.3	2.8	3.1	2.9
71.	Develop and implement programs that would sensitize counselors to provide sound and parallel career guidance for men and women alike. For example, similar aptitude test results should elicit like counseling for males and females.	1.6	1.3	1.5	2.8	3.3	2.6	2.0	2.3
72.	Create more settings where women are task leaders and make them visible.	3.6	2.5	2.5	3.2	3.3	3.2	3.0	3.1
73.	Develop recruitment materials--brochures, films, etc.--that encourage students to enter non-traditional "sex role" occupational training.	1.6	3.6	2.5	3.2	6.0	4.0	3.0	3.5
74.	Give technical assistance to individual schools in recognizing and resolving sex bias and sex stereotyping situations that may exist.	2.3	4.0	4.5	3.2	6.3	4.6	2.9	3.8

TABLE XIII (Continued)

State- ment No.	Action Statement	Business and Industry N = 3	Agencies N = 4	Government N = 2	Vocational Education N = 4	Other Educational Disciplines N = 3	Males N = 8	Females N = 8	Overall N = 16
75.	Make provisions for both sexes in vocational education facilities including rest rooms, properly sized safety gear, non-sexist posters, signs, pictures, etc.	7.0	2.0	1.5	2.6	4.3	5.1	2.0	3.7

APPENDIX E

ORIGINAL STATEMENTS GENERATED BY CORRESPONDENCE SHEET 1

- . Testify before state legislatures and the Congress in support of sex-fair vocational education.
- . Publish articles in leading journals showing examples of programs and people who have succeeded in traditionally sex-biased occupations.
- . Re-evaluate worth of faculty who seem to work more or less exclusively with only one sex.
- . Publicity (at all levels of problems).
- . Show visuals of women actually working in skilled occupations especially where heavy work is involved.
- . Provide high visibility of women in non-traditional vocations as role models for girls, but WITHOUT the emphasis on the uniqueness of their situations.
- . Create more settings where women are task leaders.
- . Eliminate the "Eve Syndrome"--the first woman attitude toward women who have gone into non-traditional roles and vice-versa. Where women are integrated into a class or program in a voc-ed facility make it as natural as possible.
- . Statewide publicity campaign to influence the students, their parents, the public in general.
- . Evidence of female role models who have benefited from voc-ed.
- . Include females in top administrative staff of voc-ed facilities and make them visible to the community.
- . Have at least one female teaching in a "non-traditional" subject at each voc-ed facility, and make her visible without flourish.
- . Publish articles in leading journals of examples of needless sex bias in voc-ed.
- . Use resource persons from business, industry and professions as non-traditional role models for students.
- . Add women's organizations to local vocational education advisory councils.
- . Utilization of female instructors, counselors, etc.
- . Recruit staff as role models for teaching non-traditional sex role subject areas, i.e., men for home economics and females for vocational areas such as auto mechanics, electrical/electronics areas, etc.

- . Identify and publicize examples of males and females succeeding in jobs thought of as for the other.
- . Institute practical experiences where students perform for periods of time, publicly in opposite sex-stereotyped jobs.
- . Greater visibility of women in supervisory and administrative positions.
- . Designate responsible person for overseeing progress within each local education agency and post secondary institution.
- . Class discussion on the disfunction of sex role stereotyping.
- . Decriminalize homosexuality and eliminate all academic penalties for living within this lifestyle.
- . Unlock women's own thinking so they can psychologically prepare for administrative and managerial positions.
- . Assess and meet the needs of adult vocational students to create awareness of job possibilities, problems on the job and ways to handle job problems in non-traditional occupations.
- . Provide materials, education to parents to reduce the bias they pass on to the children.
- . Orientation for parents in widening horizons.
- . Provide natural settings for exposure of young children to men and women in non-traditional vocations. For example, female carpenters, electricians, plumbers, etc., and male secretaries could be assigned to work at elementary and junior high schools; on field trips arrangements could be made to assure that children see men and women working side-by-side doing the same job--brick-laying, welding, repairing autos, etc.
- . Create awareness for sexual preference, that is to remove barriers related to asexuality, homosexuality, bisexuality, etc.
- . Redefinition in meaning of work--i.e., more couples sharing a job--the work does not necessarily mean the work is less crucial.
- . Sensitize primary and elementary teachers to eliminate sex stereotyping in their everyday contact with boys and girls, including expectations of performance in various subjects and tasks.
- . Strive for job placement of women graduates stressing their right to have an opportunity for employment in non-traditional occupations.
- . Actively re-examine jobs that have been thought of as for one sex only.

- . Consider women's role in the economy and their right to be employed in non-traditional occupations.
- . Education sessions - employers.
- . Work with community employers to reduce their bias in hiring.
- . Place work experience and cooperative education students in non-traditional work experiences.
- . Supply trainers in local businesses to work with supervisors who have doubts/fears about men or women in non-traditional job roles.
- . Union push to change attitudes.
- . Emphasize job development, job placement and follow-up responsibility of the school.
- . Re-evaluate worth of courses of instruction which tend to attract only one sex.
- . Schedule (roster) both boys and girls together in all subjects, especially home economics and industrial arts.
- . Eliminate programs in home economics traditionally reserved for females.
- . Combine home economics and industrial arts with both staffs team teaching "survival skills."
- . Meet students where they are and use "traditional" activities as bridges to the "non-traditional", such as metal sculpture to metal-working and welding, working with clay and sculpting in stone and wood to work with brick and mortar or carpentry (art where few excel to vocation where the pay is good), typing to typewriter and office equipment repair; music to piano tuning, organ making, instrument repair; home economics to appliance repair; etc., the possibilities are endless.
- . Conduct workshops for female students on non-traditional careers for women.
- . Sensitize counselors to provide sound and parallel career guidance for boys and girls alike. For example, similar aptitude test results should elicit like counseling for males and females; projected regional needs, i.e., for EDP mechanics should be made known to females as well as males.
- . Hold career orientation sessions for parents as well as for roster-makers, counselors, teachers and administrative staff focusing upon equal access to careers.
- . Offer mini-courses of non-traditional "sex role subjects" as a part of career exploration to the opposite sex.

- . Greatest need is in the education and awareness of women in the scope of career possibility.
- . Concern placed upon sex bias and sex stereotyping in early counseling and guidance.
- . Re-educate counselors who make referrals to vocational education courses.
- . Destroying myths about vocational education.
- . Develop and implement an in-service program for school administrators to improve their attitudes toward women as decision makers.
- . In-service education of professors of vocational teacher preparation programs (re sex bias being a no-no).
- . In-service education of vocational teachers (re sex bias being a no-no).
- . Conduct workshops for guidance counselors on non-traditional careers for women.
- . Provide vocational educators information on the problem of sex bias and sex role stereotyping and train key individuals to function as local resource person on the subject.
- . On-going series of in-service training sessions dealing with awareness of overt and subtle sex bias and sex stereotyping practices and attitudes, involving administrators, teachers and counselors.
- . Encourage sex fair concepts to be incorporated in pre-service teacher training programs.
- . Teacher training and in-service training regarding the subject.
- . Workshops for counselors.
- . Teach current federal and state non-discrimination laws.
- . Develop and implement workshops for vocational education personnel to create awareness of sex bias and sex stereotyping in vocational education.
- . In-service programs for educational administrators and business management personnel.
- . Develop and implement workshops for vocational guidance counselors to create awareness of sex bias and sex stereotyping in vocational education.
- . Arrange field trips to sites that demonstrate the employment and performance of persons of the opposite sex in traditionally stereotyped roles.

- . Field trips to places where women are performing as skilled tradesmen.
- . The greatest criticism I find is that women cannot do heavy manual labor. Field trips to where they are doing it to prove it can be done. An example I use is a supermarket where check-out girls lift heavy bags of groceries all day long.
- . Change in high school and junior high curriculum.
- . Have vocational schools assist in developing bias free materials for use in elementary schools where attitudes are formed.
- . Eliminate suggestions in pictures, curricula, and occupational descriptions that these are "men" and "women" jobs.
- . Revise textbooks.
- . Eliminate role stereotyping from textbooks, beginning with kindergarten pictures but continuing through the voc-ed literature especially in illustrations.
- . Review of curriculum materials, both at the state and local level.
- . Develop curriculum materials that encourage the enrollment of both men and women in non-traditional courses of study.
- . Develop non-sexist curriculum materials.
- . Review all departmental written materials for sex bias.
- . Make funding of programs contingent upon documentation that efforts have been made to remove sex bias.
- . Develop unbiased voc-ed materials for elementary school children.
- . Develop and implement strategies to review and up-date all vocational instructional materials to assure elimination of sex bias and sex stereotyping.
- . Incorporate this factor as one to be considered as part of the school's in-depth evaluation for continued accreditation.
- . Literature developed on the issue.
- . Conduct and report on studies of sexism in textbooks.
- . Convert home economics to more commercial operations such as restaurant cooks; enroll males in home ec as well as females.
- . Develop recruitment materials--brochures, films, etc.--that encourage students to enter "sex role" occupational training.

- . After recruiting students into non-traditionally enrolled courses by a particular sex, use students as a part of recruitment/information team.
- . Set realistic goals and actively recruit persons in all course offerings to create equal opportunity for persons of both sexes.
- . Positive recruiting of females for enrollment in vocational training courses in trades dominated by males.
- . Hire more women in administrative positions.
- . Encourage women to explore and prepare for non-traditional occupations (high male density occupations).
- . Identify and eliminate elements of sex bias and sex role stereotyping in recruitment and information materials used by vocational programs and institutions.
- . Use women and men in non-traditional models: women teaching auto mechanics, men teaching home economics.
- . Make no assignments and assign no tasks on the basis of sex of faculty or student.
- . Make instruction co-educational using the same classroom facilities.
- . Eliminate all dress code requirements.
- . Physical facilities which indicate that presence of women does not represent deviance or institutional strain.
- . Minimizing of sex segregation at all levels of vocational education.
- . May day care centers available.
- . The instruction should be co-educational using the same classroom facilities with separate restrooms.
- . Eliminate group office space utilized by only one sex.
- . Where adding lavatory facilities for girls in shop area is not feasible, have both sexes use same facility as is done on commercial transportation vehicles (airplanes).
- . Provisions for both sexes in voc-ed facilities--rest rooms; properly sized safety gear; non-sexist posters, signs, pictures, etc.
- . Publicize and enforce the new anti-bias provisions of the 1976 Voc Ed Amendments.
- . Implement USOE Guidelines for Title IX.

- . Develop affirmative action plan.
- . Give technical assistance to individual schools in recognizing and resolving sex bias and sex stereotyping situations that may exist.
- . Disperse and implement affirmative action plan.
- . Coordinate efforts with other agencies and persons interested in the elimination of sex bias.
- . Assign both sexes to all advisors and major professors.
- . Open all courses of study and in-service to both sexes.
- . Encourage by varied means, the usual disciplines of home ec and industrial arts to open their doors--not just figuratively but really.
- . Avoid reverse sex discrimination in reviewing and evaluating all applicants: admissions, jobs, etc.
- . Support studies of what others (such as the Israelies) have done to overcome sex bias.
- . Develop model programs designed to eliminate sex bias and sex stereotyping.
- . Acquire, disseminate and evaluate current literature from the feminist movement.
- . Give priorities to grants and contracts designed to reduce sex stereotyping in vocational education programs.
- . Develop and implement procedures to review all vocational education programs in the state for enrollment, drop-out rates, placement, salaries, job advancement to create equal opportunity for persons of both sexes and implement those procedures.
- . Ongoing statistical evaluation of each program at the local level, to determine if the ratio of males and females enrolling and completing "traditional" programs is changing. If not, investigate why, in each individual instance.
- . Equalization of salaries for women employed with salaries of men.

VITA 2

Joyce Evelyn Bates

Candidate for the Degree of

Doctor of Education

Thesis: ACTIONS NECESSARY TO OVERCOME SEX BIAS AND SEX STEREOTYPING
IN VOCATIONAL EDUCATION IDENTIFIED BY SELECTED NATIONAL
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