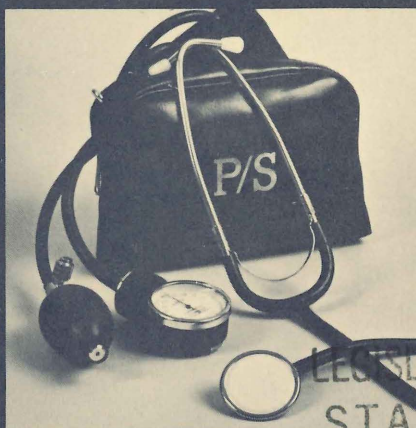
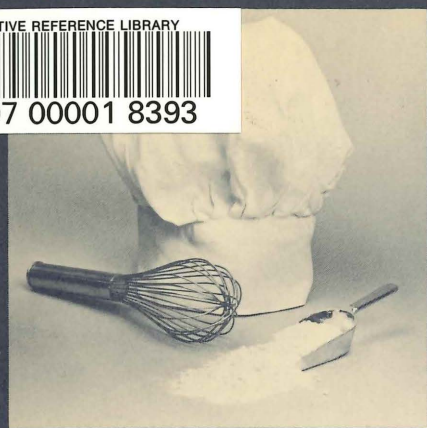


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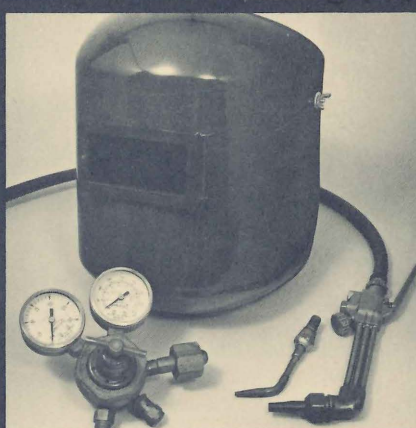
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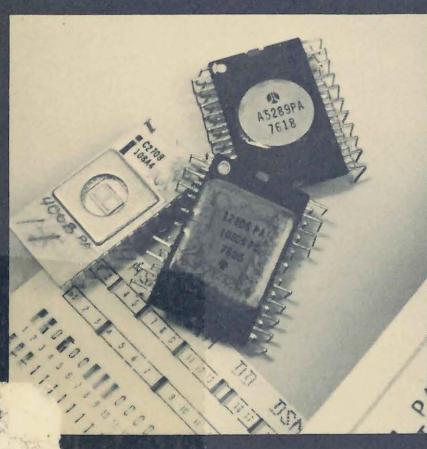
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STATE OF MINNESOTA



No. 4 in a series
of reports
evaluating sex
equity in
vocational
education in
Minnesota.



VOCATIONAL EDUCATION

SUMMARY REPORT, 1978-79

Council on the Economic Status of Women
400 S.W. State Office Building, St. Paul, MN 55155

September, 1980

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Introduction

In 1978, the Council on the Economic Status of Women contracted with the Minnesota Department of Education to monitor and evaluate progress toward the elimination of sex bias and sex stereotyping in state vocational education programs. The contract provided for gathering data on the status of students and staff, reviewing grants and contracts, monitoring the implementation of laws prohibiting sex discrimination, and publishing the results of these studies.

In accordance with these objectives, a report entitled "Vocational Education: Program and Staff" was published in July 1979. That report included information about vocational programs which was available for the 1977-78 school year, to be used as a baseline for future assessments of progress toward the goal of sex equity. This year's summary report provides an analysis of change over a one year period and includes additional areas of evaluation not covered in the original report.

This report documents changes in student, staff, and budget patterns from the 1977-78 school year to the 1978-79 school year. It also provides data available now for the first time on secondary programs generally, on student characteristics before and after completion of vocational programs, on evaluations and compliance reviews conducted at a number of schools, and on grants awarded by the Department of Education. This information in turn can serve as a basis for comparison in future years.

The process of measuring progress toward sex equity is a difficult one, especially in a system as large and complex as Minnesota's vocational education system. Statistics, of course, cannot always show the hard work of individuals and institutions committed to change. Enrollment figures cannot perfectly reflect changes in the ways students make decisions, and cannot show whether those decisions are based on individual interests and aspirations rather than on stereotyped notions of what is appropriate. No single measure of sex equity is definitive.

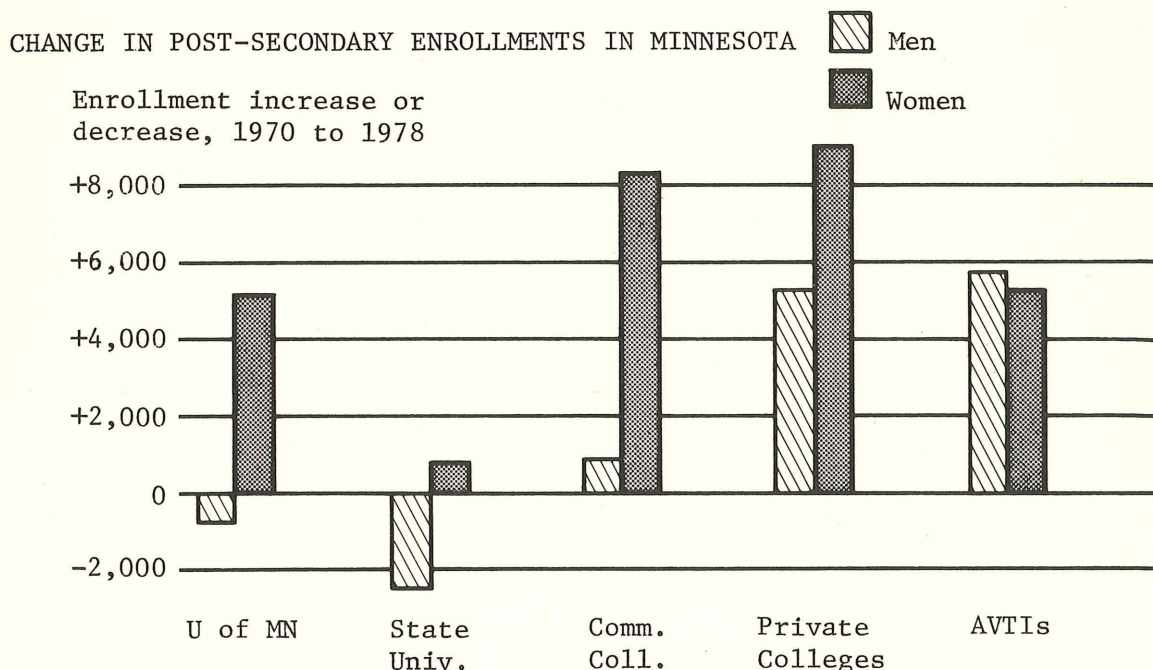
However, true system-wide change cannot occur without concrete information describing the current state of affairs, and effective planning cannot take place without assessing the results of previous efforts. Therefore, this report presents a variety of specific, objective measures of sex equity as an essential part of the process of effective planning and system-wide change.

In recent years, there has been a dramatic increase in the number of women in the workforce. In Minnesota in 1977, fully 61 percent of all women age ¹⁶61 to 64 were employed or actively seeking employment. While women of all age groups under 65 have shown an increase in labor force participation, what is most striking is the number of women 25 to 34 who work outside the home. The percentage of women in this age group who were in the labor force more than doubled between 1960 and 1977 -- a remarkable increase because the majority of these women are married and have children at home. Traditionally, these factors have tended to keep women out of the labor force.

Concurrent with changes in women's labor force activity have come changes in educational patterns. In past years, women were more likely than men to be high school graduates, but were less likely to be enrolled in post-secondary schools. Women are now entering post-secondary institutions in Minnesota in large numbers, and are the majority of students in several of the systems.

Rigid separation by sex in high school vocational programs was accepted as a matter of course in the past, with boys required to take industrial arts programs and girls required to take home economics. Although change has been slow and in many cases extensive separation continues, laws now prohibit explicit sex segregation in such programs.

It is now public policy that vocational programs should serve the interests and abilities of all students, regardless of their sex, and vocational preparation at the post-high school level is attracting increased numbers of both female and male students. Between 1970 and 1978, the area vocational-technical institutes attracted the largest share of total enrollment increases of any of the public post-secondary systems in Minnesota.



Programs & Enrollments

AVTI ENROLLMENTS

The period of increasing post-secondary enrollments, however, appears to be nearing an end as most of the post-war "baby-boom" generation reaches adulthood and as declining birth rates result in a smaller student population in Minnesota. Total enrollment at area vocational-technical institutes declined slightly in the one-year period from 1977-78 to 1978-79. Although the decline in the number of women was substantially less than the decline of men, female students remain the minority at most of the institutes. The total statewide enrollment of 41,425 in 1978-79 included 17,080 women -- or 41 percent.

<u>AVTI HEADCOUNT ENROLLMENT</u>	<u>1977-78</u>	<u>1978-79</u>	<u>CHANGE IN NUMBER OF STUDENTS</u>
Total enrollment	42,623	41,425	- 1,198
Percent distribution	100.0%	100.0%	--
Male students	59.5	58.8	- 1,020
Female students	40.5	41.2	- 178

In 1977-78, women were the majority of students at only three of the 33 AVTIs. In 1978-79, this number had increased to five: Brainerd, Duluth, Eveleth, Rochester, and Willmar. At 22 of the AVTIs, female enrollments accounted for between one-third and one-half of all students, while six AVTIs had less than one-third female enrollment.

AVTI PROGRAMS

For the purposes of this report, an AVTI program consists of a course of study related to an occupation such as Health Aide or Auto Mechanic. Special needs programs and other support programs have not been included except where specially noted. In counting the number of programs statewide, a similar course offered at two different institutions is counted as two programs.

In order to measure enrollment characteristics, programs are defined as either segregated or integrated. A "segregated" program is simply defined as one in which more than 80 percent of the students are of one sex. Segregated programs in which more than 80 percent of the students are male are defined as "male" programs, and those in which more than 80 percent of the students are

female are defined as "female" programs. All other programs are considered "integrated." This strictly numerical definition enables an objective comparison of change from one year to the next; it does not imply that segregation has occurred by design or intent.

The total number of programs offered statewide in Minnesota's AVTIs increased from 757 in 1977-78 to 773 in 1978-79. In that period of time, the number of programs which were integrated by sex increased by the same amount as the total increase, while the number which were segregated by sex remained the same. Therefore, the proportion of programs which were segregated by sex decreased slightly. Among the segregated programs, there was an increase in the number of female programs and a corresponding decline in the number of male programs. Despite these changes, segregated male programs continue to represent almost half of all programs in the AVTIs.

<u>AVTI PROGRAMS</u>	<u>1977-78</u>	<u>1978-79</u>	<u>CHANGE IN NUMBER OF PROGRAMS</u>
Total programs	757	773	+ 16
Percent distribution	100.0%	100.0%	--
Integrated programs	21.8	23.4	+ 16
Segregated programs	78.2	76.6	0
Male programs	49.8	47.6	- 9
Female programs	28.4	29.0	+ 9

AVTI ENROLLMENT BY PROGRAM TYPE

A "non-traditional" student is defined as one enrolled in a segregated program dominated by students of the other sex. For example, if a female is enrolled in a program in which over 80 percent of the students are male -- a "male" program -- she is listed as a non-traditional student. Similarly, if she is enrolled in a program in which over 80 percent of the students are female, she is listed as a traditional student.

In the period from 1977-78 to 1978-79, there was an increase in both the number of students enrolled in non-traditional programs and in the number of students enrolled in integrated programs. Correspondingly, there was a decline in the number of students enrolled in segregated and in traditional programs.

Women accounted for most of these changes: there was an increase of 459 female students in integrated courses compared to only 70 additional male students in such programs, and an increase of 90 female students in non-

traditional programs compared to a male increase of 42 students. The majority of students, however, remain concentrated in programs which are segregated as well as traditional for their sex. Non-traditional students account for fewer than 2 percent of all male students and less than 6 percent of all female students.

AVTI HEADCOUNT ENROLLMENT	1977-78	1978-79	CHANGE IN NUMBER OF STUDENTS
Total students	42,623	41,425	- 1,198
Percent distribution	100.0%	100.0%	--
In integrated programs	21.6	23.5	+ 529
In segregated programs	78.4	76.5	- 1,727
Traditional	75.4	73.1	- 1,859
Non-traditional	3.0	3.4	+ 132
Male students	25,365	24,345	- 1,020
Percent distribution	100.0%	100.0%	--
In integrated programs	20.1	21.3	+ 70
In segregated programs	79.9	78.7	- 1,090
Traditional	78.2	76.8	- 1,132
Non-traditional	1.7	1.9	+ 42
Female students	17,258	17,080	- 178
Percent distribution	100.0%	100.0%	--
In integrated programs	23.7	26.6	+ 459
In segregated programs	76.3	73.4	- 637
Traditional	71.3	67.8	- 727
Non-traditional	4.9	5.5	+ 90

AVTI PROGRAM BUDGETS

Program expenditures provide another method of measuring sex equity in vocational education. The total program budget for the AVTI system was \$53.0 million in 1978-79, up \$4.1 million from 1977-78. This total includes instructors' salaries and all other program costs, but does not include general administration and costs associated with support services. Of this program budget, \$19.3 million was spent on female students and \$33.7 million on male students -- a determination made by apportioning net budgets for specific programs in the same ratio as student enrollments. For example, a budget of \$100,000 for a program with 90 male students and 10 female students is allocated as \$90,000 for males and \$10,000 for females.

Between 1977-78 and 1978-79, female students increased their share of the program budget. Of the \$4.1 million increase in that year, females received an additional \$2.5 million compared to a \$1.6 million increase for male students.

<u>PROGRAM BUDGET</u>	<u>1977-78</u>	<u>1978-79</u>	<u>CHANGE IN DOLLAR AMOUNT (IN THOUSANDS)</u>
Total, in thousands	\$48,875	\$52,988	+ \$4,113
Percent distribution	100.0%	100.0%	--
Allocated to:			
Male students	65.6	63.5	+ \$1,574
Female students	34.4	36.5	+ \$2,539

Similarly, an overall increase in cost per student resulted in a narrowing of the gap between resources allocated to male and female students. The increase in the budget per female student was \$159, compared with \$117 for males.

<u>PROGRAM COST PER STUDENT</u>	<u>1977-78</u>	<u>1978-79</u>	<u>CHANGE IN COST PER STUDENT</u>
Total students	\$1,147	\$1,279	+ \$132
Male students	\$1,265	\$1,382	+ \$117
Female students	\$ 973	\$1,132	+ \$159
Female as a percent of male	76.9%	81.9%	--

Statewide, female students now account for 41 percent of all students, and their share of financial resources is 37 percent. In the 1977-78 school year, female students were 40 percent of all students and received 34 percent of financial resources.

SECONDARY SCHOOL VOCATIONAL PROGRAM ENROLLMENTS

Unlike the AVTI system, little information is available on programs and enrollments in secondary school vocational education. Since no data were available for the 1977-78 school year, information presented here will not reflect trends over a period of time. In addition, the information presented is from a sampling of districts, and therefore does not provide a comprehensive view of secondary programs.

The sample results are from on-site visits to six high schools and nine secondary cooperative vocational centers in the state during the 1978-79 school

year. The visits were part of an ongoing process of program evaluation of secondary programs conducted by the Minnesota Department of Education. Information available from this evaluation consists of a simple headcount of students enrolled in each of the seven vocational curriculum areas and in each of several special programs unrelated to specific occupations.

The sample consisted of 10,062 students, of whom 4,174 were male and 5,888 were female. These students were most likely to be enrolled in courses related to homemaking occupations, industrial occupations, or business and office occupations. The other four curriculum areas accounted for only 16 percent of all students in the sample.

Like students in the AVTIs, the secondary students were concentrated in programs characterized by a disproportionate representation of one sex or the other. Female students were heavily concentrated in homemaking and office occupations; male students were concentrated in industrial occupations. More than half of all the male students in the sample were enrolled in industrial courses, where they outnumbered female students by about eight to one.

SECONDARY VOCATIONAL ENROLLMENT
BY CURRICULUM AREA, 1978-79



MALES



FEMALES

AGRICULTURE



OFFICE
OCCUPATIONS



HEALTH
OCCUPATIONS



HOMEMAKING



INDUSTRIAL
OCCUPATIONS



DISTRIBUTIVE
OCCUPATIONS



SERVICE
OCCUPATIONS



Each figure represents 1% of vocational enrollment.

Enrollments were somewhat more evenly balanced by sex in special programs not related to specific curriculum areas: community-based programs were 56 percent female; special needs programs for disabled and handicapped students were 40 percent female; cooperative programs were 61 percent female; and the work experience career exploration programs (WE/CEP) were 39 percent female. These programs combined accounted for 2,877 students in the sample -- 1,437 women and 1,440 men -- who may or may not have been also enrolled in specific curriculum areas.

Staff Patterns

STATEWIDE VOCATIONAL PROFESSIONAL STAFF

Quite apart from the concept of equal opportunity in employment, teachers and administrators often serve as role models for their students. Patterns of staffing, therefore, provide another measure of sex equity -- from the perspective of services to students as well as the perspective of staff members themselves.

For purposes of this report, all staff data have been reported as full-time equivalents (FTE) and fractional numbers of staff have been rounded up to whole numbers. Because of this rounding, some sums may not add to the total as shown.

In the 1978-79 school year, there were 7,558 FTE positions in vocational education in Minnesota, a figure which includes all types of institutions and all educational levels. Of these, 7,368 were vocational instructors or related staff, and 190 were vocational administrators or supervisors. Overall, women accounted for about one-third of the instructors and about one-tenth of the administrators.

The number of teachers in 1978-79 represented an overall increase of 55 teachers from the previous school year, despite the fact that the number of female teachers declined by 11. An increase of 67 male teachers accounted for the difference. Because the change in numbers was relatively small, the proportion of all teachers who were women or men did not change significantly over the one-year period.

The total number of administrators, unlike teachers, declined over the year -- from 193 to 190. There were four fewer male administrators, and one additional female administrator. Therefore, the proportion of female administrators increased slightly in this one-year period, to slightly over 10 percent.

MINNESOTA VOCATIONAL STAFF	1977-78	1978-79	CHANGE IN NUMBER OF STAFF
Total teachers	7,311.7	7,367.4	+ 55.7
Percent distribution	100.0%	100.0%	--
Male teachers	66.2	66.6	+ 67.1
Female teachers	33.8	33.4	- 11.4
Total administrators	192.8	190.0	- 2.8
Percent distribution	100.0%	100.0%	--
Male administrators	90.8	89.8	- 4.3
Female administrators	9.2	10.2	+ 1.5

Staffing patterns in vocational education by curriculum area closely follow traditional patterns of occupation by sex as well as traditional patterns of student enrollment. Nearly three-fourths of all instructors teach business and office occupations, industrial arts, home economics, or trade and industrial occupations, while the other five curriculum areas account for only one-fourth of instructional staff statewide.

Male teachers tend to be concentrated in industrial arts, agriculture, technical occupations, and trade and industrial occupations. About half of all male vocational staff are either industrial arts or trade and industry teachers, and in these areas they account for 96 to 99 percent of all teachers.

Female teachers are concentrated in home economics, office occupations and health occupations. About half of all female vocational professional staff are home economics teachers, an area where 98 percent of all teachers are women. Although a large proportion of female instructors teach business and office occupations, the majority of instructors in this area are men.

There were few changes in these patterns between 1977-78 and 1978-79. Although trade and industrial programs had the largest increase in total number of teachers, the number of women in this area declined, so that men accounted for the entire increase. The largest decrease in total number of teachers occurred in industrial arts programs, followed by home economics. Industrial arts is exclusively a secondary-level program and home economics is primarily a secondary-level program; the reduction in number of teachers is related to declining enrollments at that level. There were slight increases in vocational-related staff and in health occupations teachers, but in general the number of teachers in each curriculum area remained fairly stable within the one-year period.

VOCATIONAL TEACHERS	1977-78			1978-79		
	TOTAL	PERCT OF TOTAL		TOTAL	PERCT OF TOTAL	
	NUMBER	MALE	FEMALE	NUMBER	MALE	FEMALE
Vocational-related	590	74.8	25.2	617	75.8	24.2
Agriculture	593	96.4	3.6	586	96.7	3.3
Distributive	284	80.3	19.7	288	79.0	21.0
Health occupations	286	9.4	90.6	303	9.9	90.1
Home Economics	1,262	1.8	98.2	1,238	2.1	97.9
Industrial arts	1,473	99.6	0.4	1,432	99.7	0.3
Business & office	1,508	54.0	46.0	1,505	53.8	46.2
Technical	187	99.5	0.5	196	99.0	1.0
Trade & industrial	1,130	95.8	4.2	1,201	96.4	3.6

YEARS OF SERVICE

On the average, male professional staff in vocational education have more years of service than their female counterparts. Male secondary teachers statewide have an average of three more years of service than female teachers, and male post-secondary teachers average a year and a half more than the women. The differences in years of service are wider for administrators, particularly those at the post-secondary level. There is more than a seven-year gap between female and male post-secondary school administrators.

MINNESOTA VOCATIONAL STAFF	AVERAGE YEARS OF SERVICE			
	1977-78		1978-79	
	MEN	WOMEN	MEN	WOMEN
Teachers				
Secondary	13.0	9.9	13.6	10.4
Post-secondary	9.1	7.7	9.7	8.3
All teachers	11.6	9.4	12.3	9.9
Administrators				
Secondary	17.3	11.9	16.8	14.6
Post-secondary	18.3	10.3	19.4	11.9
All administrators	17.8	10.9	18.1	12.7

STAFF SALARIES

Consistent with the difference in work experience, average salaries for male professional staff are higher than for female staff. Overall, there is about a \$3,000 per year difference for teachers, and a \$5,000 per year difference for administrators.

MINNESOTA VOCATIONAL STAFF	AVERAGE SALARIES			
	1977-78		1978-79	
	MEN	WOMEN	MEN	WOMEN
Teachers				
Secondary	\$15,972	\$13,433	\$17,251	\$14,477
Post-secondary	\$17,974	\$15,350	\$19,463	\$16,401
All teachers	\$16,671	\$13,878	\$18,031	\$14,939
Administrators				
Secondary	\$23,658	\$19,043	\$25,802	\$18,330
Post-secondary	\$27,602	\$22,119	\$27,995	\$23,036
All administrators	\$25,662	\$20,961	\$26,862	\$21,622

Although average salaries at all staff levels rose between 1977-78 and 1978-79, apparent disparities by curriculum area have not yet been eliminated. Statewide, female teachers in health occupations, home economics, and technical occupations have more years of service than their male counterparts, but their average salaries remain well below those of men.

1978-79 VOCATIONAL TEACHERS	AVERAGE YEARS OF SERVICE		AVERAGE SALARY	
	MEN	WOMEN	MEN	WOMEN
Vocational-related	14.2	8.9	\$20,745	\$16,076
Agriculture	11.4	5.0	\$16,882	\$13,799
Distributive	9.4	5.4	\$18,421	\$14,057
Health occupations	5.5	7.6	\$17,773	\$16,086
Home Economics	7.6	10.4	\$16,236	\$14,410
Industrial arts	14.1	12.4	\$16,814	\$14,278
Business & office	14.2	10.8	\$17,809	\$15,149
Technical	9.7	10.0	\$20,084	\$18,969
Trade & industrial	9.6	7.6	\$18,784	\$16,832

VOCATIONAL STAFF BY TYPE OF INSTITUTION

The prior information on professional staff was based on a complete statewide count for both 1977-78 and 1978-79. Information is now available on professional staff by type of institution: secondary schools, secondary vocational centers, and area vocational-technical institutes. These data exclude some post-secondary and adult staff employed by secondary schools and some secondary-level staff employed by AVTIIs, and are therefore not strictly comparable with the more complete data. Shown below are the number of teachers and administrators, average years of service, and average annual salary for each type of institution in 1978-79.

1978-79 VOCATIONAL STAFF, BY SYSTEM	NUMBER		AVERAGE YRS OF SERVICE		AVERAGE SALARY	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Secondary schools						
Teachers	2,657	1,544	14.1	10.7	\$17,787	\$14,901
Administrators	23	3	17.2	9.1	\$25,615	\$18,627
Secondary centers						
Teachers	223	113	9.2	7.5	\$15,372	\$13,741
Administrators	40	1	17.6	17.0	\$24,180	*
AVTIIs						
Teachers	1,614	588	9.4	8.3	\$19,624	\$16,412
Administrators	81	14	19.7	11.8	\$27,975	\$23,036

*Because of an apparent computer error, this information is not reported.

Student Characteristics

AVTI STUDENT ENROLLEES AND GRADUATES

Information about AVTI student characteristics is available from three reports compiled yearly by the Minnesota Vocational Follow-up System: an enrollee report with biographical information on the students; a termination report; and a one-year follow-up of graduates. Although these reports do not customarily give characteristics by sex of student, a special computer run for 1978 was made available. These reports contained information on students enrolled in full-time day programs between July 1, 1977 and June 30, 1978 as well as one-year follow-up information on students who were graduated the previous year.

Overall, there are few differences between the female and male students. The females are likely to be slightly younger -- one-half are age 18 or below compared to a median age of 19 for males -- but there are no other differences in marital status, region of the state, parents' occupation, household income, prior vocational training, or handicapping condition. The women were slightly more likely than the men to be high school graduates, but there were no differences in the proportions of those with post-secondary school experience. The men, however, were more likely to have been employed the year prior to enrollment, and they tended to have had longer periods of work experience.

<u>AMOUNT OF PRIOR WORK EXPERIENCE</u>	<u>MALE ENROLLEES</u>	<u>FEMALE ENROLLEES</u>
Total students with work experience in prior year	18,212	14,129
Percent distribution	100.0%	100.0%
1 - 6 months	20.9	25.0
7 - 12 months	21.9	22.8
13 - 24 months	24.4	26.4
25 - 36 months	14.2	12.7
36 months or more	18.5	13.0

There were no differences, however, between the males and females in whether they worked part-time or full-time or whether or not the work experience was related to their vocational training.

The termination report for the same year gives the number of AVTI enrollees who graduate, the number who otherwise complete training objectives, and the number who withdraw. In general, female students are more likely than males to graduate from a program, while male students are more likely to withdraw.

Overall, about two-thirds of all students either graduate or otherwise attain their vocational objectives. Of the students who do withdraw, the males are more likely to cite economic reasons while the females more often list personal problems.

<u>TERMINATION STATUS</u>	<u>MEN</u>	<u>WOMEN</u>
Number of students	14,248	11,765
Percent distribution	100.0%	100.0%
Graduates	51.9	60.9
Complete training objective	12.2	9.8
Withdrawal (drop)	35.9	29.3

The follow-up system provides information on what happens to students within the first year after they complete their training program. Each student is contacted one year after graduation and is asked to report on her/his employment experience, further education, job satisfaction, and salary. The following table shows areas of difference in employment and training for the 5,511 males and 4,341 females included in the follow-up report.

<u>EMPLOYMENT/TRAINING CHARACTER- ISTICS OF GRADUATES</u>	<u>PERCENT OF MEN</u>	<u>PERCENT OF WOMEN</u>
First job after graduation closely related to vocational training	58.6%	37.2%
First job after graduation was part-time	6.9%	18.0%
Employed at time of follow-up	90.3%	84.6%
Job closely related to vocational training	49.6%	31.0%
Job broadly related to vocational training	14.7%	28.9%
Job is related to training, but part-time	4.3%	13.2%
Unavailable for employment at time of follow-up	4.8%	10.8%
Have had further education or job training	43.9%	34.3%
Have had formal job advancement	31.5%	22.6%

For graduates in jobs related to their vocational training, the females report a higher rate of satisfaction; 67 percent are "very satisfied" compared to 59 percent for men. In general, males are more satisfied with their salary and advancement potential while females are more satisfied on fringe benefits, supervision, company policies, facilities, working conditions, job security, and safety conditions. There were no differences in job satisfaction for

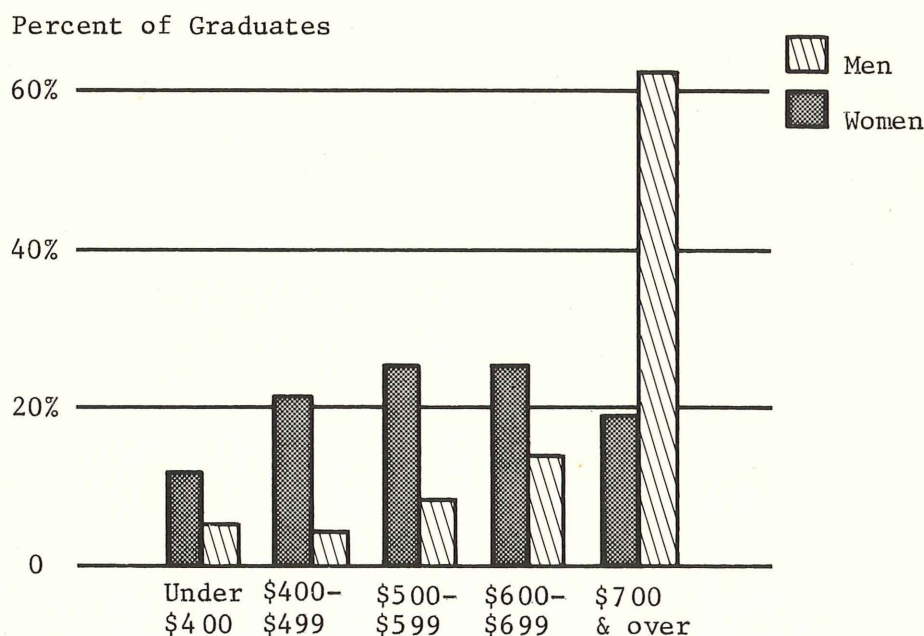
persons in jobs unrelated to their vocational training.

The most striking difference between the male and female graduates was in salary -- over half the male students earned over \$650 per month in their first job after graduation whereas only 15 percent of women made that much. A substantial majority of women earned less than \$550 per month in their first job compared to only a quarter of the men.

MONTHLY SALARY, FIRST JOB AFTER GRADUATION	MEN	WOMEN
Number of students, full-time in related job	2,764	1,868
Percent distribution	100.0%	100.0%
Under \$350	7.8	12.7
\$350 - \$449	8.5	20.0
\$450 - \$549	11.3	28.9
\$550 - \$649	18.3	23.9
\$650 and over	54.1	14.5

These salary differentials were maintained and in some cases widened by the time of the follow-up. While the women's salaries maintained a standard distribution, almost two-thirds of the men were earning \$700 per month or more. Shown below are salary distributions for AVTI graduates employed full-time in jobs related to their training one year after graduation:

MONTHLY WAGES ONE YEAR AFTER GRADUATION, AVTI GRADUATES
EMPLOYED FULL-TIME IN JOBS RELATED TO TRAINING



TRADITIONAL AND NON-TRADITIONAL AVTI STUDENT SURVEYS

In order to obtain more detailed information about student experiences at the AVTIs, the Council conducted two student surveys: one of women enrolled in non-traditional AVTI programs and one of women enrolled in traditional programs. Ten AVTIs were selected for this study, and the same schools were used in each survey. Similar questionnaires were distributed by teaching staff at each of the schools, completed and returned by 176 women enrolled in non-traditional courses and 214 women enrolled in traditional courses.

Differences were found in age and marital status of the two groups. Traditional students tended to be younger, with almost two-thirds age 21 or under. Fewer than half of the non-traditional students were in this age group. About one-third of non-traditional students were over age 25, compared with only one-fourth of the traditional students. The range in ages of responding students, however, was similar for the two groups: from 16 to 56 for traditional students, and from 17 to 59 for non-traditional students.

Marital status patterns were consistent with the tendency for non-traditional students to be older. Slightly more than one-third of women in both groups were married or had been married. However, a larger proportion of non-traditional students were divorced, 17 percent compared to traditional students at 8 percent. The majority of women in both groups -- 58 percent of non-traditional students and 63 percent of traditional students -- were single.

Students in each group were asked how they became interested in their area of study and where they heard about the specific course in which they were enrolled. Generally, personal contacts and course catalogs were most frequently reported as sources of interest and information. "Job experience in course area" accounted for 19 percent of responses given by the traditional women and only 9 percent of those from the non-traditional women. Job experience was more important for all students over age 25, but older traditional students were more likely than older non-traditional students to report employment as their reason for being interested.

One quarter of the traditional women, but only 12 percent of the non-traditional women, received information from high school counselors or teachers. Conversely, 17 percent of non-traditional women but only 8 percent of traditional women attributed their interest to AVTI staff. This pattern is consistent even when excluding all students over age 25, who are unlikely to have had recent contacts with high school staff.

The large majority of students received positive reactions to their enrollment, but more positive responses were reported by the traditional students. Less than 5 percent of women in either group said they received negative responses from teachers, counselors, friends, or other students. However, there was a difference in reactions from family and other relatives -- 10 percent of the non-traditional women but only 3 percent of the traditional women said this group responded negatively.

REACTIONS OF OTHERS TO STUDENTS' ENROLLMENT	TRADITIONAL STUDENTS		NON-TRAD'L STUDENTS	
	25 & UNDER	OVER 25	25 & UNDER	OVER 25
Total responses reported	873	290	754	362
Percent distribution	100.0%	100.0%	100.0%	100.0%
Positive	75.3	84.1	66.7	65.2
Indifferent	22.3	12.8	28.8	17.4
Negative	2.4	3.1	4.5	17.4

The older students, especially older non-traditional students, were more likely to receive negative responses. Non-traditional women over age 25 said that students in classes other than their own, family, and friends were more likely than others to respond negatively to them.

Traditional students were asked why they didn't consider or pursue a non-traditional career, while non-traditional students were asked what they thought kept other women from entering non-traditional fields. For both groups, "never heard of it," "didn't know enough about it," and "lack of previous experience" accounted for the majority of responses. The traditional women also saw lack of financial resources (13 percent of responses) and attitudes of family and friends (10 percent) as somewhat important, while relatively few reported attitudes of counselors and teachers or family responsibilities as barriers. Traditional students over age 25 were much more likely than their younger counterparts to see family responsibilities as a problem in pursuing non-traditional coursework, while non-traditional students in both age groups felt family responsibilities were a barrier.

The traditional women are enrolled in courses which are non-traditional for men, and these women were asked what they think keeps men from enrolling in such fields. They perceived attitudes of family and friends as more significant deterrents for men interested in "men's work" than for themselves being interested in "men's work." However, lack of previous experience was thought to be a much more important obstacle for women than for men. About one-fourth of the women said that men do not enter fields such as their own because the pay is low.

"I like being around people, doing something helpful and necessary."

"I felt I would be able to get a job easily and was always interested in working with children."

"It is going to take a lot of time and patience to advance myself."

"Too much responsibility for too little pay."

-- traditional students

"My kids think I'm the greatest, and I am more confident than ever."

"My mom figured it was a men's course and didn't like the idea at first -- now she has changed her mind and is very proud of me."

"The job and placement office does not encourage women in this field."

"We girls never had shop class so we get left behind."

-- non-traditional students

These typical comments by survey respondents show that traditional and non-traditional students are similar in many ways. They are on the whole satisfied with their choices, but they sometimes worry about the future.

The traditional women seem to live in "the realm of the possible" -- although they are by and large satisfied, their expectations are low. Nearly one-fourth say that men do not enter their field because the pay is low, and two-thirds expect that they themselves will earn less than \$5 an hour. One woman said, "I'm not going to say what the wages are because I know what it is and it's nothing to brag about." Similarly, almost one-fifth of the women say they will not have opportunities for advancement in the future.

In the past, it was often assumed that women were willing to accept low wages and little career mobility because they planned to leave the workforce when they could be supported by their husbands. Yet fully three-fourths of these traditional women expect to be in the labor force for more than ten years, and almost half expect to be employed for more than 20 years. Two-thirds expect their income will be necessary for the support of their families. A more likely explanation for their satisfaction lies in their perception of what is possible "for a woman" in today's society.

The non-traditional women are very much aware that they are unusual. Many express a sense of confidence in overcoming barriers, or a need for more support: "One compliment can carry me a whole week." Older non-traditional students, in particular, referred to higher wages in their field as an influencing factor in their career choice. Their comments frequently include more concrete reasons for their choices, and higher expectations, than those of the traditional women.

Institutional Reviews

AVTI EVALUATIONS

In fiscal year 1979, the State Department of Education conducted on-site evaluations at six Minnesota AVTIs, as part of an on-going program evaluation for recertification. Progress toward the goal of sex equity represents one component of this evaluation process. For each AVTI evaluated, a summary of strengths and weaknesses and a list of recommendations related to sex equity were made to the State Board of Education Subcommittee on Vocational Education.

Although these reports are not always strictly comparable, it appears that at least four of the six schools could not be favorably evaluated with respect to one or more basic provisions of Title IX. At two schools, students and staff did not seem to be adequately informed about Title IX requirements. Three of the schools had not prepared or were unable to locate copies of required self-evaluation documents and/or remedial plans. In one of the remaining schools, the existing self-evaluation was found inadequate.

In one school, the report indicated that no permanently-assigned Title IX compliance officer had been named. Reports for two other schools did not indicate whether evaluators had located a compliance officer, and in one of these cases a lack of information about the law suggests that the officer, if present, had not been active.

The evaluations were generally much more favorable in finding widely-known information about the availability of a grievance procedure which could be used by students or staff in cases of suspected discrimination. Only one of the six schools visited did not have a posted and well-understood grievance procedure.

A written affirmative action plan governing hiring, promotion, and salaries of staff was found in only one of the six visits, and that plan contained a questionable reference implying that sex might in some cases be a bona fide occupational qualification. In two AVTIs, evaluators indicated that there was no affirmative action plan or that the existing plan did not contain strategies and timetables for change. Evaluation reports for the three remaining schools do not indicate whether an affirmative action plan existed.

Generally, the evaluations indicate that publications and visual displays at these AVTIs were sex-fair, representing the interests, aptitudes, and abilities of both women and men. Counselors were aware of the changing needs

of women in vocational education, and little evidence of sex-role stereotyping in counseling procedures was found. However, increased counselor attention to student enrollment in non-traditional areas was frequently recommended.

Summary evaluation statements were made for four of the schools visited. One indicated "very limited concern for sex-fair education and equal opportunity," while another stated that "sex discrimination is systematically and deliberately practiced in this institution." However, another stated that "the institution is aware of sex-fair policies ... and shows evidence that the school is complying with regulations ..." and the fourth summary statement indicated that "this AVTI has made significant efforts to promote sex-fair treatment of students ... the foundation has been laid for the next stage."

In all, 66 recommendations were made for the six schools. Half of these involved administrative action: identifying compliance responsibilities and preparing or revising required documents; changing hiring or other personnel policies; and improving representation by sex on advisory committees. Eighteen recommendations addressed a need for staff training in ways to recognize and overcome sex bias, and for screening of curriculum materials and other publications. Fifteen recommendations involved services to students: expanding career choices, analyzing recruitment channels, or providing support for women and men enrolled in non-traditional programs.

SCHOOL DISTRICT COMPLIANCE REVIEWS

On-site reviews of compliance with federal and state laws prohibiting discrimination in education were conducted by the Equal Educational Opportunity Section of the State Department of Education for 20 Minnesota school districts in fiscal year 1979.

The reviews covered both vocational and non-vocational functions of the school district, including secondary vocational centers and AVTIs if any were located in the district. For each review, a report was written identifying the scope of the review, procedures used, and a list of findings. Where a specific finding was not favorable, it included a recommendation for change. Each district reviewed then receives a letter of notification from the Commissioner of Education, identifying any areas of non-compliance and indicating action required to prevent the loss of federal or state financial assistance to the district.

Of the 20 reviews conducted in fiscal year 1979, eight were for districts with an AVTI component. These eight reviews and notification letters were made available to the Council and form the basis for the following summary.

A total of 52 findings were listed for these eight districts, and a total of 15 specific compliance requirements were listed in notification letters. Of the 15 requirements, five related to athletics or physical education programs and therefore were not applicable to vocational education.

The remaining ten requirements were in some cases specifically related to vocational education and in some cases non-specific but possibly related. Three districts were required to prepare a self-evaluation document outlining the district's proposal for remedial action. Although the lack of a self-evaluation document is not specifically reported for vocational programs, where such documents exist they generally cover all programs in a given district.

Three districts were found out of compliance because they offered sex-segregated or sex-restricted courses. In one of these cases the AVTI alone was cited, in one case AVTI programs as well as vocational and non-vocational high school programs were cited, and in the third case the restrictive courses were not specifically identified.

The remaining four compliance requirements were: notification to staff, students, and others of the existence of a district non-discrimination policy; similar notification of the existence of a Title IX compliance officer; development and publication of a grievance procedure for cases of suspected discrimination; and availability in each school building of all non-discrimination laws and rules. Although none of the findings which led to these requirements specified that vocational programs had these deficiencies, it is possible that the problems applied to both vocational and non-vocational programs in each district.

Some findings referred directly to vocational education, but did not necessarily lead to formal compliance requirements. One favorable finding noted that an AVTI Student Book, unlike other student handbooks in the district, did contain a Title IX policy statement and an explanation of grievance procedures. In other AVTI-related findings, one cited a lack of female role models among the school's administrators, instructors, and custodians; and one indicated a need for better coordination among the AVTI, the vocational center, and the high school with respect to non-traditional career education opportunities.

Findings related to secondary vocational programs included: possibly inappropriate interest assessment instruments at a vocational center; an inappropriate title for a senior high course, "Home Maintenance for Women"; a failure of the home economics curriculum in one district to appeal to boys; and difficulty in another school in enrolling males in home economics and females in industrial arts.

Grant Reviews

Minnesota receives federal funds for assistance in conducting vocational education programs. From these monies, the Minnesota Department of Education awards grants for three basic purposes: basic grants and grants for program improvement and supportive services; grants for special programs for the disadvantaged; and grants for consumer and homemaking education.

In the 1978-79 fiscal year, the Minnesota Department of Education awarded 88 grants related to vocational education, with a total grant amount of \$1,300,558. Of this amount, 34 grants with a total dollar amount of \$455,413 were made for consumer and homemaking education, and 16 grants with a total dollar amount of \$82,958 were made for special programs for the disadvantaged.

The "disadvantaged" grants are in most cases awarded for a specific course at a specific school, so that some additional analysis of the population served can be made. Segregated male courses accounted for 56 percent of the total dollar amount of \$82,958 and for nine of the total of 16 grants awarded. Four grants to segregated female courses accounted for 4 percent of the total dollar amount. The remaining three grants, with 40 percent of the total amount awarded for this purpose, were for a handicapped counselor and for two programs for which the composition of enrollees could not be determined.

The Council on the Economic Status of Women received abstracts for 38 awards made for basic grants, program improvement and supportive services grants, in fiscal year 1978-79, with a total dollar amount of \$762,187. For each of these grants, the abstract includes a project title, amount and source of funds, objectives, procedures, expected contribution to vocational education, and products to be delivered. These abstracts were reviewed by the Council and form the basis for the following summary.

The grants can be assigned to two functional categories: research and planning, which generally serve the needs of the system as a whole; and curriculum development/support services, which includes a variety of services to students as well as teacher training and public relations activities. Sixteen grants for research and planning amount to \$457,991, or 60 percent of the total dollars granted. The remaining 22 grants amount to \$304,196, or 40 percent of total dollars granted.

Each grant abstract was reviewed to determine compliance with sex-fair criteria. Generally, the language used in all grant abstracts was sex-neutral and avoided stereotyped or biased references. With the exception of grants awarded in the original "sex bias" category, grants do not specify sex equity policies or indicate evidence of special services to ensure equal access or over-

come the results of previous discriminatory programming. However, none of these grants indicate that activities are restricted to women or to men, and several indicate availability to both men and women.

In many cases, the project itself may well have included services which enhance sex equity, but this information is not included in the grant abstract. For example, some projects contain objectives such as "helping individual students achieve productive, satisfying work roles," but do not specify that efforts will be made to include equal numbers of female and male students in the pilot group.

Among all grants awarded, some directly or indirectly serve a specific student population while others serve the needs of the vocational system as a whole. Fifteen "special populations" grants account for \$216,320 or 28 percent of all grant dollars.

Of these grants, only two appear to be limited to women -- one is for women who are displaced homemakers and one is for female non-traditional students. Three additional grants address the needs of displaced homemakers, one in combination with single mothers and older women and one in combination with women in non-traditional programs. It may be assumed that few men would qualify for the displaced homemaker projects of project components. One additional grant, to assess students' needs for child care services, may affect female students disproportionately. Overall, these six grants comprise the "female or predominantly female" component of the following table.

Of the remaining nine special populations grants, three are directed toward non-traditional students, presumably both men and women, while six address the needs of other special populations: handicapped students, chemically dependent students, and racial minorities.

<u>BASIC, PROGRAM IMPROVEMENT, & SUPPORT SERVICES GRANTS</u>	<u>AMOUNT AWARDED</u>	<u>PERCENT DISTRIBUTION</u>
Total grants	\$762,187	100.0%
Special populations grants	\$216,320	28.4%
Female or predominantly female	\$ 27,741	3.6%
Non-traditional students (m+f)	\$ 46,828	6.1%
Other special populations	\$141,751	18.6%
Other grants	\$545,867	71.6%

Summary

PROGRAMS & ENROLLMENTS

The following changes in the status of female students at AVTIs occurred in the one-year period from 1977-78 to 1978-79:

- The proportion of all students who are women increased from 40.5 percent in 1977-78 to 41.2 percent in 1978-79.
- The proportion of all programs which are integrated by sex increased, and the proportion which are segregated by sex decreased in this period. Currently, about one-fourth of all courses are integrated. Segregated male courses, however, continue to outnumber segregated female courses by a substantial margin.
- There were increases in the numbers of non-traditional students among both females and males, with women showing the greater increase. Non-traditional students presently represent 3.4 percent of all AVTI students, up from 3.0 percent in the previous year.
- The proportion of the statewide program budget allocated to female students increased, and the gap between cost per student for male and female students narrowed. In 1978-79, average cost per student was \$973 for females and \$1,132 for males.
- A sample of secondary-level vocational course enrollments shows that about half of all female students are enrolled in homemaking courses while over half the male students are enrolled in industrial occupations courses. Male students outnumber female students in industrial occupations courses by about eight to one.

STAFF PATTERNS

There were generally few changes in the composition of vocational professional staff by sex in this one-year period:

- In 1978-79, women represented about one-third of the instructors and one-tenth of the administrators in vocational programs statewide. This represents a slight decrease in the proportion of teachers who are women, and a slight increase in the proportion of administrators who are women.
- There were few changes in patterns of teacher representation by sex in the vocational curriculum areas. The proportion of women teaching technical courses increased, but remained at only 1 percent. There were slight decreases in the proportion of female teachers in agriculture, industrial arts, and trade and industrial courses. The proportion of male teachers in health occupations increased to 10 percent, and in home economics to 2 percent.

- Male teachers and administrators are likely to have more years of service and higher average salaries than their female counterparts. However, when female teachers have more average years of service -- in health occupations, home economics, and technical courses -- their average salaries are lower than men's.

STUDENT CHARACTERISTICS

Follow-up studies and student surveys show the following characteristics of students during and after AVTI enrollment:

- Female AVTI students tend to be slightly younger than male students, and the women are less likely to have relatively long periods of pre-enrollment work experience.
- Female students are less likely than males to withdraw from (drop) a program before completion of the program.
- Although female AVTI graduates are more likely than their male counterparts to say they are "very satisfied" with their employment one year later, they are less likely to have obtained jobs closely related to their training.
- The major difference between male and female AVTI graduates is in their earnings: more than half of male students, but only 15 percent of female students, were earning more than \$650 per month in their first job after graduation.
- Women in traditional courses at AVTIs are generally younger than women in non-traditional courses. When asked how they became interested in their fields, traditional women were more likely to refer to high school teachers and counselors, while non-traditional women were more likely to refer to AVTI staff. For both groups, personal contact and course catalogs were most important.
- Non-traditional students, especially if they were older women, were more likely than traditional students to experience negative reactions from family, other relatives, and students enrolled in classes other than their own.
- Lack of information was the major reason given by both traditional and non-traditional students when asked why more women do not consider non-traditional training and career options.

INSTITUTIONAL REVIEWS

Both evaluation visits and formal compliance reviews for a sample of schools suggest that positive efforts to enhance sex equity are being made, but that increased attention to legal requirements and sex equity policies is needed:

- Four of six schools evaluated with respect to sex equity could not be

favorably evaluated with respect to one or more basic legal requirements. Copies of required self-evaluation plans indicating planned remedial action were not available or were inadequate.

- The lack of a required self-evaluation document was also cited in three of eight school districts during compliance reviews. In some schools, sex-restrictive course titles were found; in others, greater efforts to inform students and staff about the existence of sex equity policies were needed.

GRANT REVIEWS

Currently available information about grants awarded by the State Department of Education for vocational education indicates:

- Of special funds awarded for projects for disadvantaged students, the majority are awarded to segregated male programs.
- The majority of other grant dollars are awarded for research and planning, although reporting results of these activities does not indicate that information by sex will be provided.
- Although grant abstracts use sex-fair language, the large majority do not specify sex equity goals or policies, so that the effect on sex equity of most projects cannot be determined.
- Grants designed to address the needs of female students or other groups of students which are likely to be predominantly female represent 13 percent of all grants directed toward special student populations, and 4 percent of the total grant dollars.

BASIC GRANTS, GRANTS FOR PROGRAM IMPROVEMENT & SUPPORTIVE SERVICESA. RESEARCH AND PLANNING GRANTS

DEPT. ED. CATEGORY	PROJECT TITLE	GRANT AMOUNT
Research 1-R-79	Minnesota Research and Development Center - Basic Grant, Vocational Education Research	\$ 143,000
Research 2-R-79	A Study of the Post-Secondary Levy	2,250
Research 3-R-79	Feasibility Test of Post-Secondary Distributive Education Program Evaluation Standard and Criteria	1,436
Research 4-R-79	A Study of the Variability in Diagnostic Data Usage and Educational Prescription for Vocational Special Needs Students with Handicaps	2,387
Research 5-R-79	Establishment of an Occupational Competency Testing Program in Minnesota	4,998
Research 6-R-79	An Evaluation of a Classroom Instructional Unit on Supervised Occupational Experience for Beginning Vocational Agricultural Students in Minnesota	1,860
Research 7-R-79	Policy Studies in Vocational Education	13,052
Other 38406	Division of Vocational-Technical Education Organization Study	14,000
Other 42555	Conduct a Series of Tasks Germane to a Monitoring/Feedback System for the Secondary Placement Specialist Program	2,000
Other 36820	Minnesota Vocational Follow-Up Systems -Post Secondary	207,296
Placemt/ Follow-up 2-PF-79	Project Predict	1,454
Placemt/ Follow-up 3-PF-79	Continuation of Minnesota Secondary School Follow-Up Project	51,014
Placemt/ Follow-up 7-PF-79	Improving Career Planning - A Cooperative Approach, Phase I	2,890
Sex Bias 3-SB-79	Minnesota AVTI Child Care Needs Assessment	4,760
Sex Bias 7-SB-79	Displaced Homemaker Recruitment Plan	3,500
Sex Bias 9-SB-79	Phase I - Planning Project to Expand Career Options for Secondary Students	2,094
TOTAL RESEARCH AND PLANNING GRANTS: 16 grants		\$ 457,991

B. CURRICULUM DEVELOPMENT & SUPPORT SERVICES GRANTS

DEPT. ED. CATEGORY	PROJECT TITLE	GRANT AMOUNT
Curr Dev 1-CD-79	Adult Consumer Energy Curriculum Development	\$ 44,000
Curr Dev 2-CD-79	Adult Vocational Energy Curriculum	27,000
Curr Dev 3-CD-79	Agricultural Energy Curriculum	2,000
Curr Dev 4-CD-79	Registered Nurse Refresher Course/Dental Assistant Course	1,700
Curr Dev 5-CD-79	Identified Curriculum Areas for Health Occupations	2,490
Curr Dev 6-CD-79	Low and High Pressure Steam Engineering Curriculum	2,500
Curr Dev 7-CD-79	Revise Electrical Code Curriculum	2,500
Curr Dev 8-CD-79	Curriculum Proposal for Consumer Education Materials	2,427
Curr Dev 9-CD-79	New Adult Vocational Education Teachers Cookbook	2,500
Exem/Inn 1-E-79	PLATO - Phase III	24,864
EconDevAd 1-EDA-79	Grand Portage Career Education Center	65,500
Plac/Fol 1-PF-79	Project LOVE - Lots of Vocational Education	10,000
Plac/Fol 4-PF-79	Provision of Occupational and Student Program Consultant Services for Chemical Dependency in Minnesota AVTIs	29,000
Plac/Fol 5-PF-79	Grand Portage Career Education Center	16,500
Plac/Fol 6-PF-79	Design and Develop a Regional Adult Vocational Education Periodical	3,500
Sex Bias 1-SB-79	Expanding Career Choices for Students in Rural Schools	27,644
Sex Bias 2-SB-79	New Alternatives at Work	17,090
Sex Bias 4-SB-79	Expanded Career Choices	14,196
Sex Bias 5-SB-79	Career Awareness Program	2,780
Sex Bias 6-SB-79	Project HELP - Human Employment and Life Planning	3,500

CURRICULUM DEVELOPMENT & SUPPORT SERVICES GRANTS, continued

<u>DEPT. ED.</u> <u>CATEGORY</u>	<u>PROJECT TITLE</u>	<u>GRANT</u> <u>AMOUNT</u>
Sex Bias 8-SB-79	Displaced Homemaker Sound/Slide Presentation	\$ 1,755
Sex Bias 10-SB-79	An Analysis of the Movement of Women into the World of Work	750
TOTAL CURRICULUM DEVELOPMENT/SUPPORT SERVICES: 22 grants		<hr/> \$304,196
TOTAL GRANTS (excludes consumer homemaking education and special programs for the disadvantaged) RELATED TO VOCATIONAL EDUCATION: 38 grants		<hr/> \$762,187

SOURCES & DEFINITIONS

Information on student enrollments, student/teacher ratios, programs and program costs for the area vocational-technical institutes comes from the Vocational Program Budget/Financial Report of the Office of Program Planning and Development, Division of Vocational-Technical Education, Minnesota Department of Education.

Secondary school enrollment data comes from data collected during the on-site visitation process for statewide evaluation of secondary education programs, available through the Evaluation Unit, Special Programs and Services Section, Division of Vocational-Technical Education, Minnesota Department of Education.

Follow-up information on AVTI students comes from the Minnesota Vocational Follow-Up System, in the following publications: 1978 Enrollee Report, 1978 Follow-Up Report, and 1978 Termination Report. Other information on student characteristics was gathered in two surveys of traditional and non-traditional female AVTI students, conducted by the Council on the Economic Status of Women in 1979 and 1980.

AVTI evaluation data are from the Evaluation Unit, Special Programs and Services Section, Division of Vocational-Technical Education, Minnesota Department of Education. Compliance review information comes from the Equal Educational Opportunities Section, Special Services Division, Minnesota Department of Education.

Grant abstracts information comes from the Minnesota Research Coordinating Unit, Program Improvement and Information Section, Division of Vocational-Technical Education, Minnesota Department of Education. Other grant data is from the Special Needs Unit, Special Programs and Services Section, and from the Adult Programs Unit, Program Operations Section, both in the Division of Vocational-Technical Education, Minnesota Department of Education.

Information on licensed staff and salaries is from a special computer run of the Teacher Licensing and Placement Section, Division of Instruction, Minnesota Department of Education.

In this report, the following definitions are used:

Headcount. The annual headcount for AVTIs includes every student enrolled in an AVTI during the year, and does not control for the amount of time a student is enrolled. Secondary headcounts refer to students enrolled in vocational programs at the time on-site evaluation visits were conducted.

Completions. A student is counted as a completion if s/he has successfully achieved her/his vocational goals either through completing a total program or through employment.

Program. For the purposes of this report, programs have been limited to courses of study related to an occupation such as Health Aide or Welding. Special needs programs and other administrative and support programs have not been included. In counting the number of programs statewide, a similar course offered at two different AVTIs is considered two programs.

Curriculum Area or Cluster. Curriculum areas or clusters are groupings of programs into similar occupational areas. For AVTIs, the seven clusters are: Agriculture, Distribution, Health, Home Economics, Business and Office, Technical Occupations, and Trade and Industry. For secondary vocational programs, the clusters are: Agriculture, Office Occupations, Health Occupations, Homemaking, Industrial Occupations, Distributive Occupations, and Service Occupations.

Segregated. Programs are considered segregated if over 80 percent of their enrollments are of one sex.

Integrated. A program which is not segregated is considered integrated.

"Male" Programs. A segregated program is considered a "male" program if over 80 percent of the enrollment is male. Since this definition is based on actual enrollments, a program may be a "male" program in one AVTI, but an integrated program in another.

"Female" Programs. A segregated program is considered a "female" program if over 80 percent of the enrollment is female.

Traditional Program. If a female is enrolled in a program in which over 80 percent of enrollees are female, she is considered enrolled in a traditional program. Similarly a male who is enrolled in a program which is over 80 percent male is considered to be in a traditional program.

Non-traditional Program. If a male or female is enrolled in a program in which over 80 percent of the enrollment is of the other sex, that person is considered enrolled in a non-traditional program.

Net Budget. The program budgets in this report give expenditures for an instructional program which include all salaries, fringes, supplies and materials, purchased services, and other expenses connected with the program, but does not include general administration and general support services in that AVTI. Program revenues have been subtracted.

"Male" Budget. A "male" budget is calculated by apportioning the net budget for a program in the same ratio as there are male students. For example, a net budget of \$100,000 in a program with 75 percent male enrollments would have a male budget of \$75,000.

"Female" Budget. A "female" budget is calculated by apportioning the budget for a program according to the percentage of female students. In the example above, the female budget would be \$25,000.

Cost per headcount. The cost per headcount is calculated by dividing the net budget for a program or an AVTI by the headcount for that program or AVTI. The cost per headcount for females is calculated by dividing the female budget by the female headcount for that program or AVTI; and similarly for the male cost per headcount.

Professional staff. Professional staff includes all positions, whether instructional or not, for which a license is required.

Vocational-related staff. Included in this category are positions for which a license is required but which are not necessarily instructional such as counselors, media specialists, social workers, and special needs teachers. Such persons must be working in vocationally-reimbursed programs.

Average yearly salary. This salary is the total contracted salary based on full-time equivalence, and therefore controls for number of weeks worked and for part-time employment.

Average years of service. Years of service refers to total years as a licensed teacher or administrator, not simply as an employee of a particular institution.

Title IX. This federal law applies to public and private educational institutions at every level which receive federal financial assistance.

It prohibits discrimination in:

- treatment of students: admission and recruitment, educational programs and activities, housing and facilities, courses, counseling, financial assistance, health and insurance benefits and services, marital or parental status, and athletics; and in
- employment: recruitment, compensation, job classification and structure, fringe benefits, marital or parental status.

It requires each institution to:

- evaluate its policies and practices and keep results on file;
- file an assurance of compliance statement with every application for federal financial assistance;
- designate an employee to coordinate compliance efforts and tell students and employees how to contact him or her;
- adopt and publish a grievance procedure;
- notify students, employees, and others of the non-discrimination policy.

A series of detailed tables provides more data about topics presented in this report. The tables, as listed below, are available upon request from the Council on the Economic Status of Women.

DETAILED TABLES

Programs & Enrollments

- Table 1. Student Headcounts by AVTI by Sex and Percent Female: 1977-78 and 1978-79
- Table 2. Number of Programs by Program Type: Segregated "Male," Segregated "Female," and Integrated, and Total Programs, by AVTI: 1977-78 and 1978-79
- Table 3. Number and Percent of Female Enrollments by Program Type by AVTI: 1977-78 and 1978-79
- Table 4. Number and Percent of Male Enrollments by Program Type by AVTI: 1977-78 and 1978-79
- Table 5. Number of Students by Program Type: Segregated Traditional, Segregated Non-Traditional, and Integrated, by AVTI: 1977-78 and 1978-79
- Table 6. Percent of All Students Enrolled by Program Type by AVTI: 1977-78 and 1978-79
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