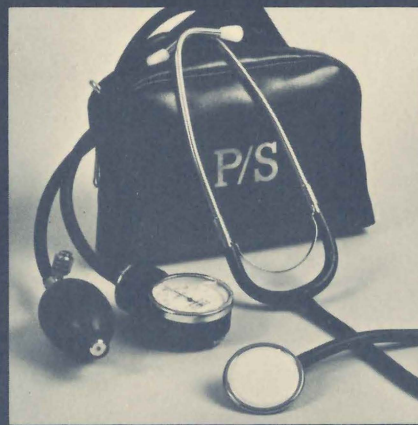
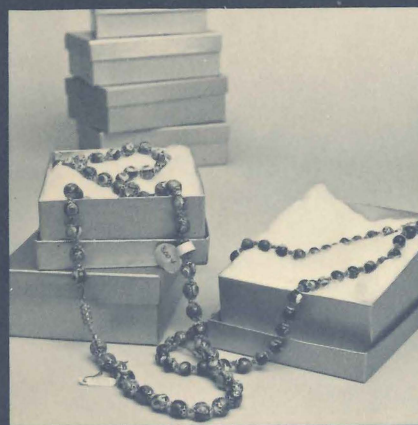
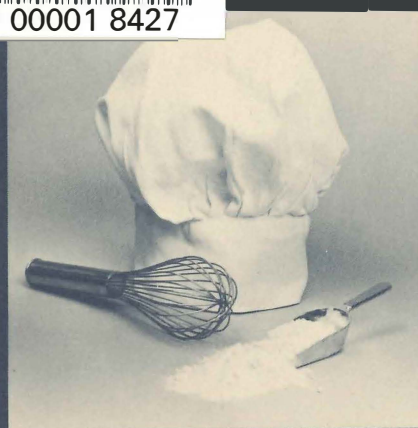
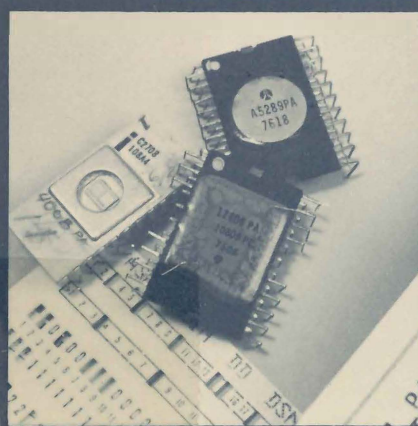




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No. 1 in a series
of reports
evaluating sex
equity in
vocational
education in
Minnesota.



VOCATIONAL EDUCATION

Program and staff

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

July, 1979

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In recent years, sex-segregated employment has been identified as a key factor contributing to the economically disadvantaged position of women. Men and women tend to be employed in different industries and in different jobs within each industry. Women are much more likely than men to be concentrated in only a few occupational groups -- according to the most recent data for Minnesota, women account for four of five clerical workers and more than two of three service workers, while less than one of twenty craft workers are women.

"Women's work" is almost always lower paying than "men's work," with fewer opportunities for promotion and less prestige. The average full-time female worker earns sixty cents for every dollar earned by her male counterpart.

Clearly vocational education, which is preparation for the world of work, has an effect on the composition of the labor force, and the vocational education system could play an important part in enabling women to participate more fully in the economy.

In response to a growing awareness of the need to provide equal opportunities in vocational preparation, two federal laws were passed -- Title IX of the Education Amendments Act of 1972 and Title II of the Education Amendments of 1976. Both laws recognize the vital role of education in changing these patterns.

Title IX requires that all public education institutions -- elementary, secondary, and higher education, including secondary and post-secondary vocational education -- eliminate sex discrimination in all federally assisted programs and activities. Title II is specifically directed toward vocational education. This law states that overcoming sex bias and sex role stereotyping is one of the purposes of vocational education, and requires that funds be spent for this purpose.

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. Specifically, the project objectives were to:

- + Gather, analyze, and disseminate data on the status of male and female students and employees in vocational education in the state;
- + Review the distribution of grants and contracts by the State Board of Education to assure that the interests and needs of women are addressed;
- + Review vocational education programs in the state for evidence of sex bias, sex discrimination, and sex stereotyping;

- + Monitor the implementation of laws prohibiting sex discrimination in vocational education, including a review of Title IX evaluations;
- + Publish and make available to government agencies and interested persons information developed by the Council.

In accordance with the first of these objectives, this report analyzes data with respect to sex equity. No attempt has been made to evaluate the system's efforts to date or to explain current patterns. The data presented should serve as a baseline for developing measureable objectives in accordance with equity plans required by the State Board of Education. In future years it will be possible to assess progress in the elimination of sex bias and sex stereotyping.

Several specific measures of sex equity are used in this report: student enrollments, budget expenditures, student/staff ratios, and program duration. This information is currently available for Area Vocational-Technical Institutes (AVTIs), the post-secondary component of the system. Similar information on secondary schools and secondary centers will be available for the 1978-79 school year, and these data will be included in a later report. This report also shows employment, availability, salaries and tenure of professional staff by sex for both secondary and post-secondary systems. Unless otherwise noted, all data are for the 1977-78 school year.

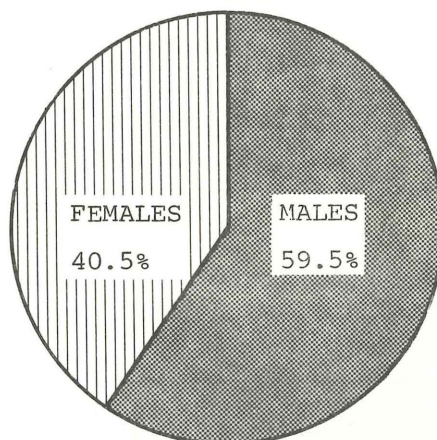
Male students account for the majority of AVTI enrollments. In 1977-78, the total statewide enrollment of 42,623 consisted of 17,258 female students and 25,365 male students.

Except where otherwise noted, all enrollment data in this report refers to an actual student headcount, a count of all students enrolled in a program at some time during the school year. The usual measure of enrollment, average daily membership (ADM), is not reported by sex. A comparison of headcounts to other enrollment figures can be found in the appendix.

The vocational education system has the lowest proportion of female students of all Minnesota's post-secondary systems. Information from the Higher Education Coordinating Board shows that in the fall of 1977 women accounted for more than half of Community College and State University students, 43 percent of students at the University of Minnesota, and 41 percent of AVTI students.

Women are the majority of students at only three AVTIs: Rochester, Bemidji, and Eveleth, three schools which have a large proportion of students in traditionally female programs -- health care and office occupations. The other thirty institutions have female enrollments ranging from 15 percent at Staples to 50 percent at Granite Falls.

AVTI HEADCOUNTS, 1977-78



42,623 STUDENTS

Note: See Tables 1 and 2, pages 20-21.

ENROLLMENTS BY CURRICULUM AREA

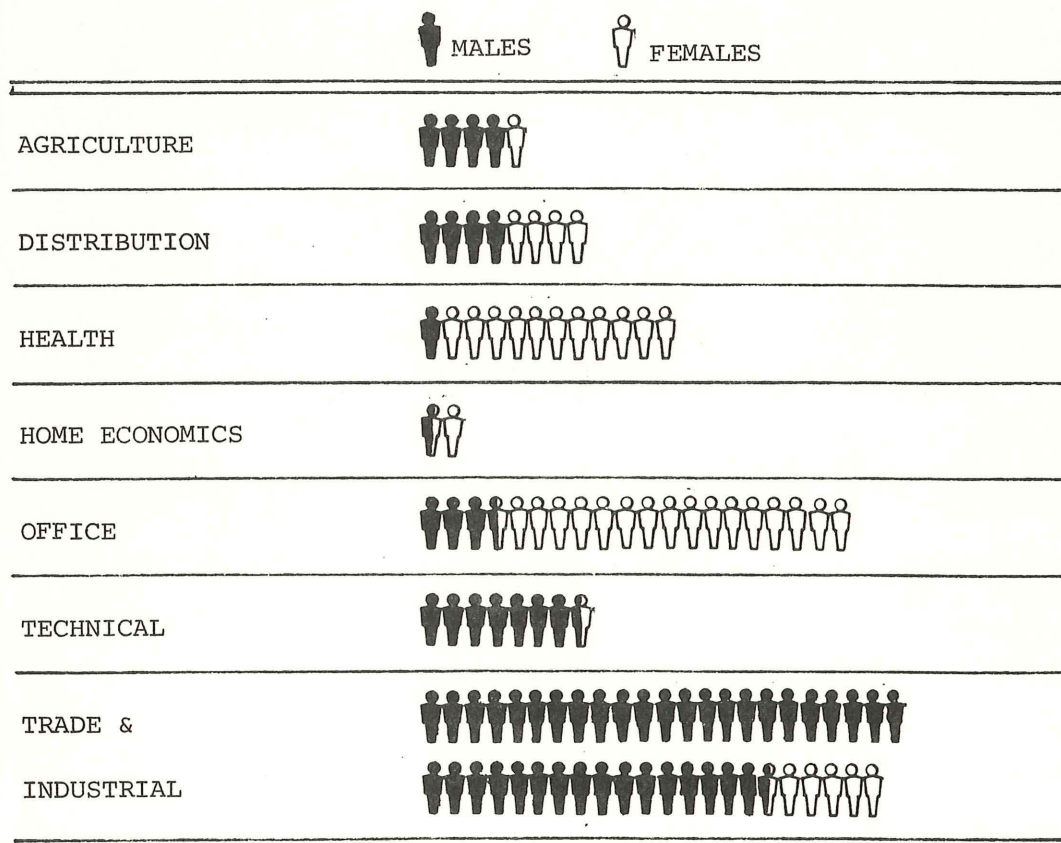
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The chart below shows the distribution of male and female students in the seven AVTI curriculum areas or program clusters. Almost half of all students are enrolled in the trade-industrial cluster, while less than two percent are participating in home economics programs.

Equal numbers of male and female students are found only in the distribution curriculum area. More than two-thirds of female students are enrolled in programs leading to health care and office occupations. More than three-fourths of all male students are enrolled in the technical and trade-industrial clusters.

The pattern of disproportionate representation by sex as shown below is even more extensive at the level of specific programs. For example, while statewide enrollments in the distribution cluster are evenly balanced by sex, almost one half of the 60 specific programs in this cluster have a disproportionate number of students of one sex. In the office occupations cluster, almost half of all male students are enrolled in Accounting programs. In the trade-industrial cluster, almost half of all female students are enrolled in Cosmetology or Food Preparation programs.

AVTI HEADCOUNT BY CURRICULUM AREA, 1977-78



Each figure represents 1% of total enrollment, or 426 students.
See Table 3, page 21.

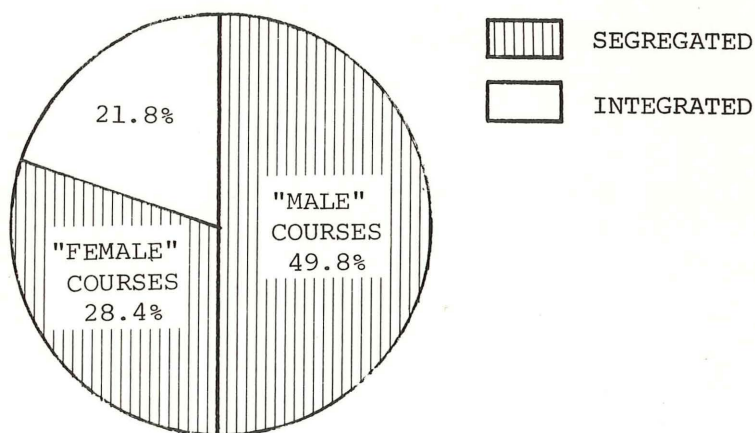
A total of 757 programs are offered statewide in Minnesota AVTIs. The number of programs available at each school ranges from nine at Pine City AVTI to 53 at Suburban Hennepin AVTI. The median number of programs offered is 20.

AVTI programs are very likely to be "segregated." This term is not meant to imply that such segregation is the result of explicit policies or that it has occurred by design. For the purposes of this report, a segregated program is defined as one in which more than 80 percent of the students are of one sex. Segregated programs which are composed of more than 80 percent male students are defined as "male" programs, and those with more than 80 percent female students are defined as "female" programs. All other programs are considered "integrated."

Fashion Merchandising, for example, is a segregated "female" program in eight of the nine AVTIs where it is offered, with enrollments ranging from 94 percent to 100 percent female. The exception is the Pipestone program where 77 percent of students are female so that the program is considered integrated. In the trade-industrial cluster, Welding programs offered in 24 AVTIs are segregated "male" programs in every case, with enrollments ranging from 91 percent male students in one school to 100 percent male students in 15 schools.

Of the 757 programs offered, 377 are "male" programs and 215 are "female" programs. In fact, more than one of three programs are totally segregated -- 169 have no female students and 122 have no male students.

AVTI PROGRAMS, 1977-78



757 PROGRAMS

Note: See Table 4, page 22.

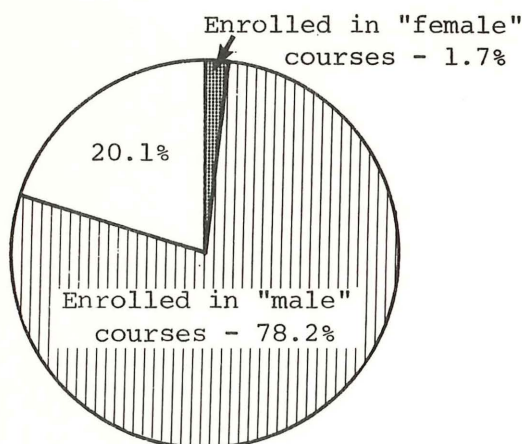
The number of students enrolled in a particular program varies widely, from a low of three students each in Electrical and Plumbing programs at Staples to a high of 509 in the Business and Office Clerk program at Suburban Hennepin AVTI. For this reason, an analysis of the number of students enrolled in segregated programs may provide another perspective on the extent of segregation by sex in the system.

As the charts below indicate, both male and female students are very likely to be enrolled in programs which are segregated by sex. Of the 17,258 female students enrolled in all AVTIs, only 4,092 are in integrated programs. Of the 25,365 male students enrolled in all AVTIs, only 5,110 are enrolled in integrated programs. In other words, less than one of four female students and only slightly more than one of five male students are enrolled in integrated programs.

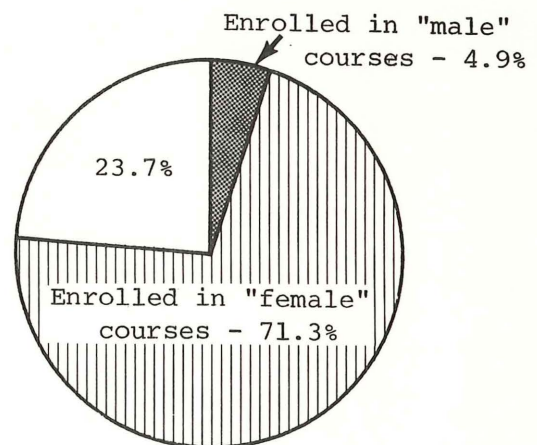
Non-traditional students, those enrolled in segregated programs dominated by students of the other sex, account for an even smaller proportion of all enrollments. Fewer than one of twenty female students participate in "male" programs, and fewer than one of fifty male students participate in "female" programs.

AVTI ENROLLMENT BY COURSE TYPE, 1977-78

■ "NON-TRADITIONAL" ▨ "TRADITIONAL" □ INTEGRATED



25,365 MALE STUDENTS



17,258 FEMALE STUDENTS

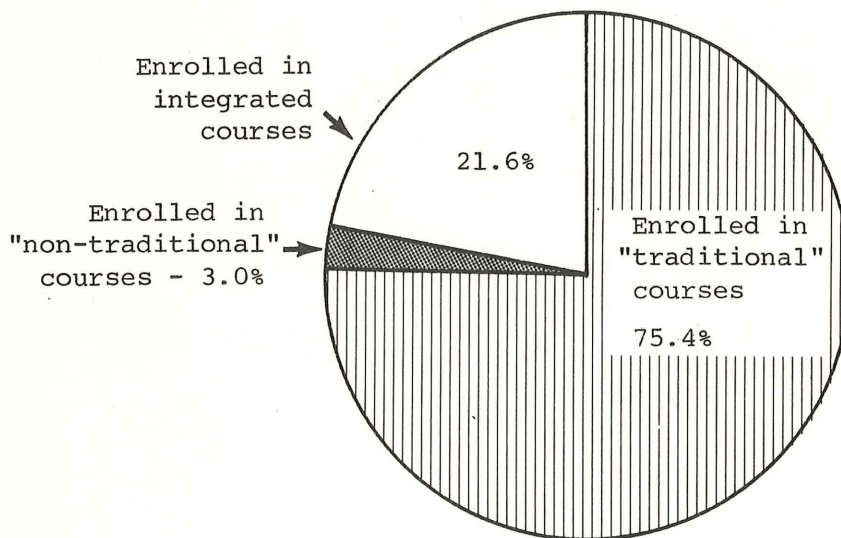
Note: See Tables 5 and 6, pages 23-24.

The chart below shows total student enrollments statewide. Fewer than one of four students, either male or female, enrolled in Minnesota AVTIs are participating in programs which are integrated by sex, while the remaining three-fourths are enrolled in segregated programs.

The proportion of students in segregated programs which are non-traditional for their sex is very small. In addition, 94 of these students are the only member of their sex in the program -- 68 women in programs such as Auto Mechanics, Welding, or Agricultural Production and 26 men in programs such as Cosmetology, Business and Office Clerk, or Nurse Aide. Another 126 students -- 88 women and 38 men -- are one of only two members of their sex in a particular program.

Segregation by sex in AVTIs reflects the pattern found in the labor market. More than one of three employed women in Minnesota are clerical workers and more than one of five are service workers, a group which includes many non-professional health care jobs. Male workers are more evenly distributed throughout the job market, but are not likely to be employed in clerical or service jobs which are associated with lower salaries and fewer opportunities for promotion than other jobs.

AVTI ENROLLMENT BY COURSE TYPE, 1977-78



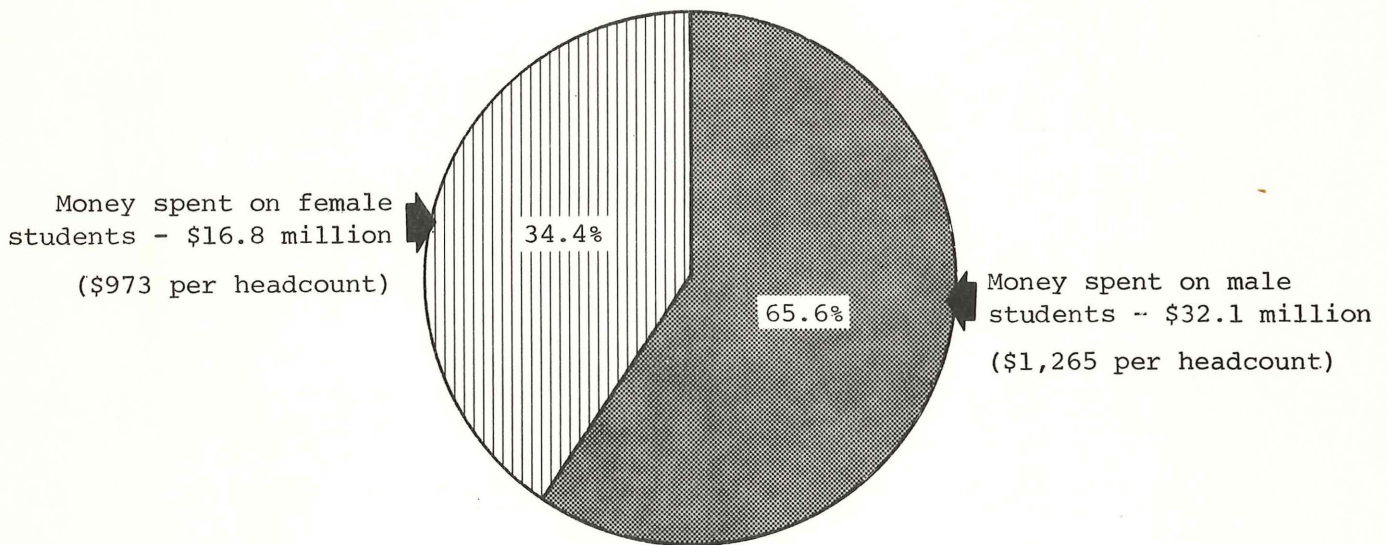
42,623 STUDENTS

Note: See Tables 7 and 8, pages 25-26.

Program expenditures provide another method of measuring sex equity. The program budget of the AVTI system totals \$48.9 million, a figure which includes instructors' salaries and all other program costs, but which does not include general administration and costs associated with support programs. Of this amount, \$32.1 million is spent on male students and \$16.8 million is spent on female students, a ratio of two to one.

These determinations are 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 and 10 female students is allocated as \$90,000 for males and \$10,000 for females.

AVTI PROGRAM COSTS APPORTIONED BY SEX OF STUDENT



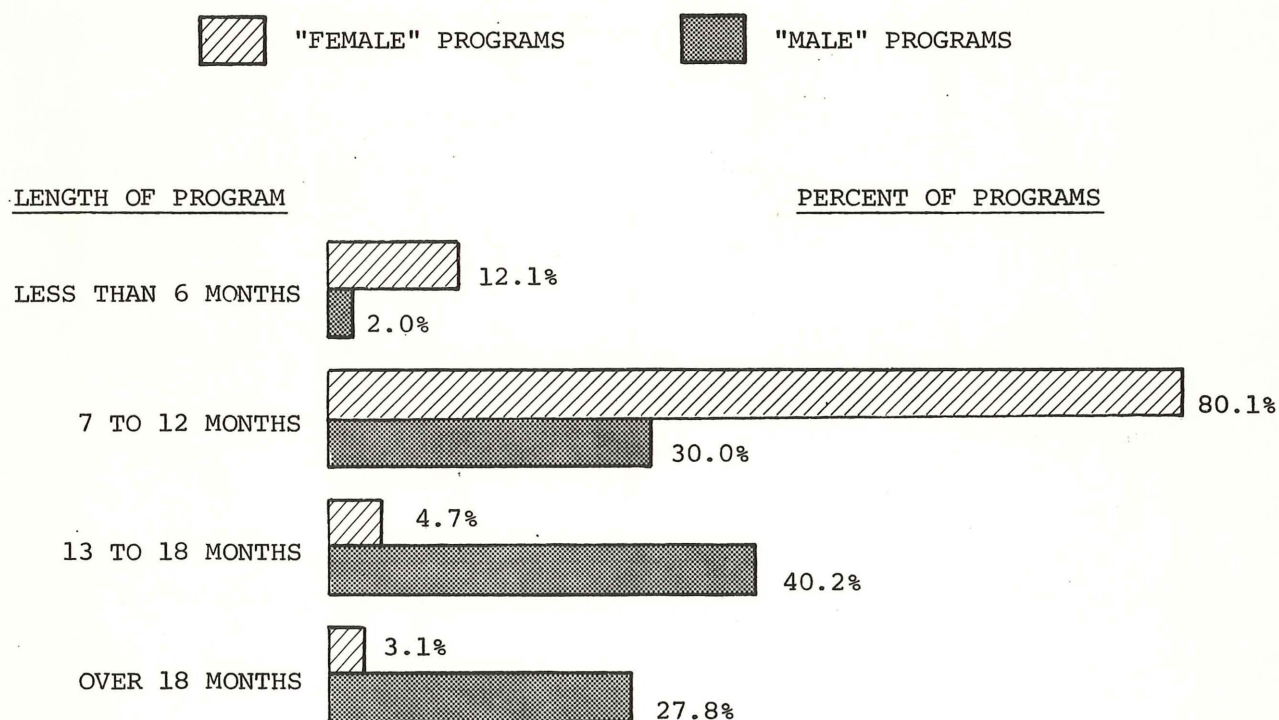
1977-78 PROGRAM BUDGET - \$48.9 MILLION

Although women account for 40 percent of AVTI enrollments, they receive a lesser share of financial resources. Only five schools -- Albert Lea, Brainerd, Canby, East Grand Forks, and St. Cloud -- have "female" budgets which are in excess of female enrollments. In the remaining 28 AVTIs, financial resources apportioned to male students exceed their representation in the student population. (Note: See Tables 9 and 10, pages 27-28.)

Length of program provides an index of the level and extent of training received by male and female vocational students. AVTI programs vary in length from three weeks for programs such as Nurse Aide and Key punch Operator to two years for programs such as Agricultural Production and Civil and Highway Technology.

The chart below, based on a sample of more than 90% of all segregated programs offered statewide, shows the median months required for completion of such programs. These comparisons show significant differences in the length of "male" as compared with "female" programs. Only one of ten "female" programs last longer than a year whereas two-thirds of "male" programs offer this extensive training. It appears that, for the most part, men receive training for more highly paid jobs while women are being trained for less skilled positions.

MEDIAN LENGTH OF AVTI PROGRAMS, 1977-78

















Although student enrollments, program expenditures and length of training all show a pattern of differences between male and female students, student/staff ratios are not consistent with this pattern. The median student/staff ratio for "male" programs is 14.5 to one compared to a ratio of 13.1 to one for "female" programs, which represents a slight advantage for female students.

The chart below shows AVTI student/staff ratios based on average daily membership for students and full time equivalents for licensed staff. While there is little variation in median ratios among the seven program clusters, curriculum areas with a large proportion of female students are found at both ends of the scale. The office occupations cluster has the second largest number of students in relation to the number of teachers, and the health cluster has the lowest student/staff ratio. Predominantly male areas range from 12.6 students per staff in agriculture to 15.7 students per staff in technical occupations.

AVTI STAFF RATIOS BY CURRICULUM AREA, 1977-78

LICENSED STAFF : AVERAGE DAILY MEMBERSHIP

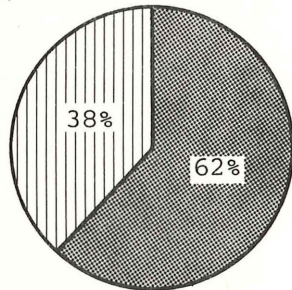
AGRICULTURE	 : 	12.6
DISTRIBUTION	 : 	14.4
HEALTH OCCUPATIONS	 : 	9.7
HOME ECONOMICS	 : 	12.1
BUSINESS & OFFICE	 : 	15.4
TECHNICAL	 : 	15.7
TRADE & INDUSTRIAL	 : 	14.7

An analysis of professional staff by sex provides another measure of sex equity in vocational education. Information on this and on the following pages refers to instructors and administrators in secondary as well as post-secondary and adult vocational education in Minnesota. All data refer to full-time equivalents for staff and staff salaries.

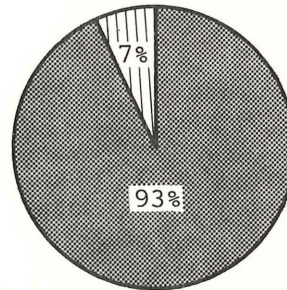
At both secondary and post-secondary levels men are the majority of staff in vocational education. Women account for a larger proportion of teachers than of administrators in both systems. Between one in three and one in four teachers are female, while women represent only about one in ten supervisors and administrators.

VOCATIONAL PROFESSIONAL STAFF, FULL-TIME EQUIVALENT, 1977-78

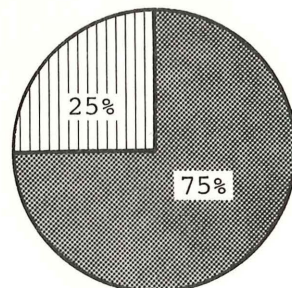
 FEMALE  MALE



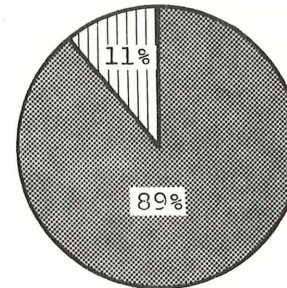
4,059 SECONDARY TEACHERS



93 SECONDARY ADMINISTRATORS



2,264 POST-SECONDARY TEACHERS



100 POST-SECONDARY ADMINISTRATORS

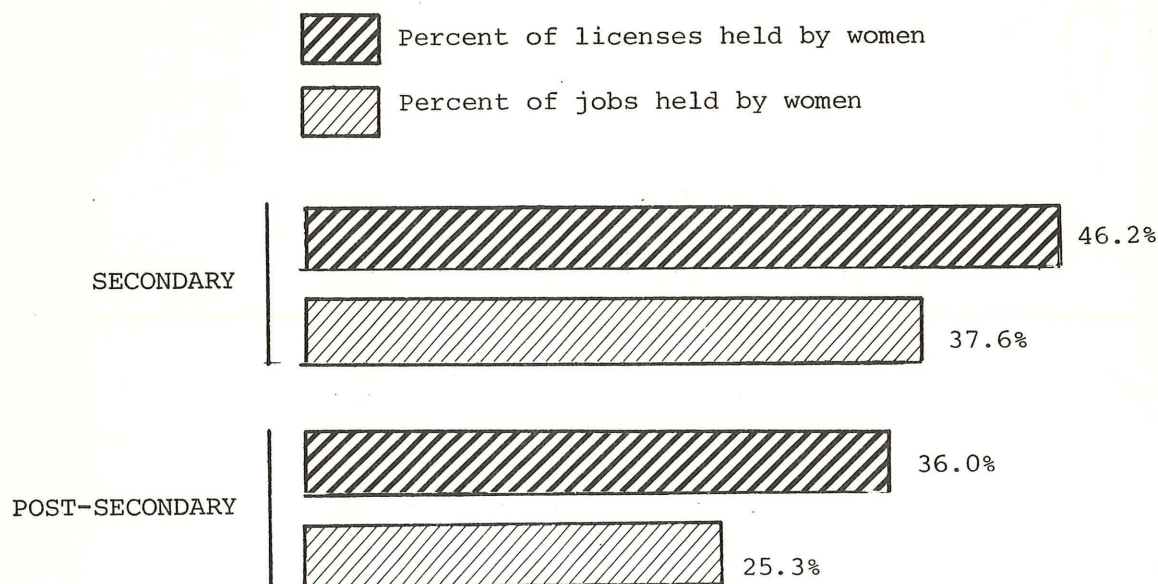
Note: See Table 11, page 29.

Licensure data provide a measure of the availability of professional staff, and can be used to determine whether the under-representation of women can be attributed to a lack of women qualified in vocational education. Since most persons in vocational education hold more than one license, the number of licenses is approximately double the number of persons.

The chart below presents a comparison of percent of licenses held by women to percent of jobs held by women. The data shown on secondary licenses combine both vocational and non-vocational certification. Vocational licenses permit staff to teach in vocationally-reimbursed programs, while the non-vocational licenses include those for some home economics, industrial arts, and business education programs.

While fewer vocational licenses are held by women than by men, women are not currently employed in proportion to the number of licenses they hold. In addition, both licensure and employment reflect the pattern of stereotyping found in student enrollments. Few women are either licensed or employed in industrial arts, agriculture, technical, or trade-industrial education. On the other hand, few men are licensed or employed in home economics or health occupations. Distributive education and business-office occupations show a more balanced representation of men and women.

COMPARISON OF LICENSES AND JOBS HELD BY WOMEN IN VOCATIONAL EDUCATION



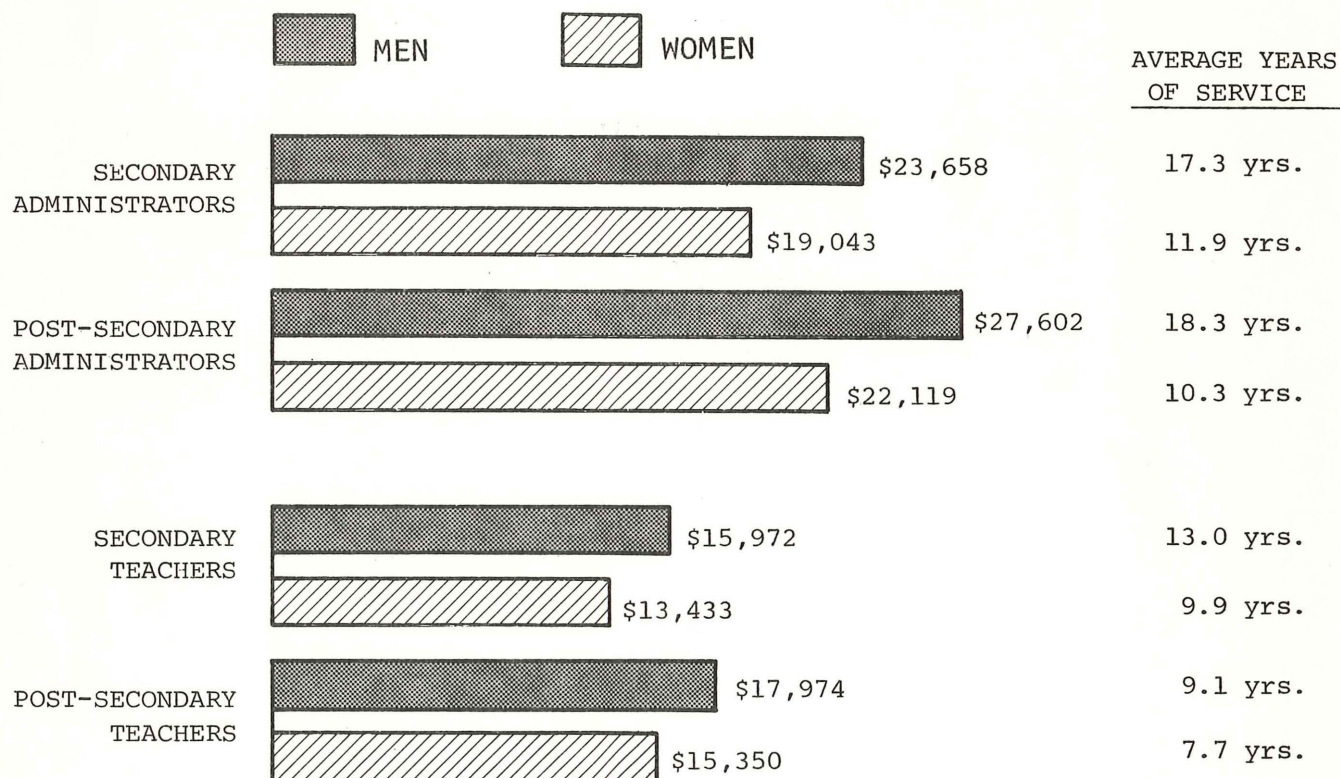
Note: See Table 12, page 30.

In vocational education at the secondary level, average salaries range from \$12,290 for female agriculture teachers to \$24,451 for male administrators. Average years of service range from 3.7 years for female agriculture teachers to 18.0 years for male administrators. In general, male teachers and administrators have more years of service and earn higher salaries than their female counterparts. State-wide averages are shown below.

At the post-secondary level, average salaries range from \$14,848 for female home economics teachers to \$28,508 for male administrators, and average years of service range from 4.1 for male health teachers to 20.1 for male supervisors. Unlike secondary teachers, female post-secondary teachers have more average years of service than males in several curriculum areas: distributive education, health, and home economics. Yet even when this is the case, male staff earn more. In eight of the 33 AVTIs, female teachers have longer average tenure, but in only one case is the average salary higher. Again, statewide data are shown below.

In order to see if salary disparities can be accounted for by differences in years of service, a statistical analysis of statewide averages was made. When controlling for years of service, differences in salary become statistically insignificant for all groups except post-secondary teachers. The salary disparity for post-secondary teachers is significant at the one percent level; that is, the probability that this could occur by chance is less than one in a hundred.

AVERAGE YEARLY SALARIES, VOCATIONAL EDUCATION 1977-78



Note: See Tables 13, 14, 15 on pages 31-33.

The purpose of this report is to provide indices for the measurement of sex bias and sex stereotyping in the Minnesota vocational education system. Baseline data presented here should serve as a resource for setting sex equity goals required by the State Board of Education.

Information about the AVTI system in this report shows that:

- Male students account for the majority of enrollments. The AVTI system has the lowest proportion of female students of all Minnesota's post-secondary systems;
- More than two-thirds of female students are enrolled in programs leading to health care and office occupations, while more than three-fourths of male students are enrolled in the technical and trade-industrial clusters;
- AVTI programs are very likely to be segregated by sex. Of the 757 programs offered statewide, 592 are segregated. More than one of three programs have either all male students or all female students;
- Most AVTI students are enrolled in programs which are not only segregated but also traditional for their sex. Less than five percent of female students are enrolled in "male" programs and less than two percent of male students are enrolled in "female" programs;
- Female students receive a smaller share of financial resources than do males. The ratio of "male" to "female" budgets is two to one;
- Students in "male" programs receive more extensive training than students in "female" programs. Nine of ten "female" programs are one year or less in length, while two of three "male" programs last more than one year;
- Student/staff ratios are not consistent with the pattern of differences between male and female students. Students in "female" programs have an advantage in this respect, although differences by program cluster are slight.

An analysis of staffing patterns for both secondary and post-secondary systems shows that:

- Men are the majority of professional staff. Between one of three and one of four teachers are women, while women represent only about one of ten administrators;
- Fewer vocational licenses are held by women than by men, but women are not currently employed in proportion to the number of licenses they hold. Few women are licensed or employed in

industrial arts, agriculture, technical, or trade-industrial education. Few men are licensed or employed in home economics or health occupations;

● In the secondary system in general, male teachers and administrators have more years of service and earn higher salaries than their female counterparts. In the post-secondary system, female teachers have more average years of service than males in three curriculum areas, but still earn less on the average. The salary disparity between male and female post-secondary teachers cannot be accounted for by differences in length of service.

The general pattern of these findings reflects realities of the current labor market, which also tends to be segregated by sex and in which women earn less than men on the average. This situation is illustrated by median salary figures from the Labor Market Information Survey conducted in March 1978. Median yearly salaries for licensed practical nurses, legal secretaries, medical records secretaries, and medical laboratory assistants range from \$7,932 to \$10,752. Statewide enrollment in each of the AVTI programs leading to these occupations is at least 97 percent female. Median yearly salaries for auto body, auto mechanics, carpenters, and welders range from \$13,200 to \$17,508. Statewide enrollment in each of the AVTI programs leading to these occupations is at least 97 percent male.

* * * * *

Future reports of the Council will provide more information about various components of the Minnesota vocational system, as well as measure trends using the baseline information in this report. Additional reports will include:

- + A statistical supplement to this report, with more extensive data on student enrollments and staff patterns for each AVTI;
- + Program analysis and staff patterns in secondary schools and secondary vocational centers, including follow-up data on former high school students;
- + Student information for the AVTIs including biographical data on enrollees, summary of terminations, and one-year follow-up of graduates;
- + Review of the implementation of laws prohibiting sex bias in vocational education, including an analysis of the implementation of Title IX;
- + Review of the distribution of grants and contracts by the State Board of Education to assure that the interests and needs of women are addressed.

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. Data are for the period July 1, 1977 to June 30, 1978.

Information on length of programs comes from a poster entitled "Minnesota's Area Vocational-Technical Institutes, 1977-78," of 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. Data are for the school year 1977-78 as reported on October 1, 1977. Information on number of professional licenses on file is from the same source and covers the number of licenses as of March, 1979.

In this report, the following definitions are used:

Headcount. The annual headcount includes every student enrolled in an AVTI during the year, and does not control for the amount of time a student is enrolled.

Average Daily Membership (ADM). The ADM counts enrollments on a full time equivalence basis where 1 ADM equals 175 days, 6 hours per day, for a total of 1,050 hours.

Completions. A student is counted as a completion if he or she has successfully achieved their 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 seven areas: Agriculture, Distribution, Health, Home Economics, Business and Office, Technical Occupations, and Trade and Industry.

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.

Vocational license. A license to work in a program or area which is vocationally reimbursed. All post-secondary licenses are vocational, but some secondary programs do not require a vocational license.

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.

In Minnesota, vocational education is available to persons of high school age and older in a variety of institutional settings. Efforts are made at every level to provide students with opportunities for on-the-job training as well as classroom instruction. Public vocational education is funded by a combination of federal, state, and local monies. In fiscal year 1978 alone, a total of \$102.5 million in state funds and a total of \$12.2 million in federal funds were spent on Minnesota vocational education programs.

Secondary level or high school vocational education may be taught in the regular high school facility or in one of 60 secondary vocational centers funded and operated by a consortium of local school districts. Some school districts and consortia contract with an Area Vocational-Technical Institute (AVTI) for these services.

Approximately two-thirds of Minnesota's high school students are taking advantage of secondary-level vocational programs. These programs have three purposes: career exploration, development of skills needed for post-secondary vocational education, and basic jobs skills training for a variety of occupations.

Post-secondary level programs are available in 33 AVTIs in Minnesota. Students participate in classes and/or on-the-job training for about six hours per day. Particular programs range in length from three weeks to two years.

Programs offered lead to employment in a number of fields: agriculture, distribution-marketing, health care, home economics, business-office, technical, and trade-industrial occupations. In addition, supportive services such as counseling and remedial skills development are available.

The state's commitment to vocational education is demonstrated by the nominal tuition at AVTIs, estimated at only 11 percent of total operating costs for 1979. Comparable figures for other higher education systems are 19 percent for the University of Minnesota, 21 percent for State Universities, and 21 percent for Community Colleges. In fact, AVTI programs were tuition-free for Minnesota residents under age 21 and for certain veterans until July 1978.

Adult vocational education programs are offered in many of the facilities described above. Most adult students participate part-time. Their involvement ranges from taking one class for the purpose of personal enrichment to a planned series of activities designed to upgrade skills, learn new skills, and/or obtain certification in a particular field.

TABLE 1. ENROLLMENT COMPARISONS 1977-78:
HEADCOUNTS, COMPLETIONS, & AVERAGE DAILY MEMBERSHIP

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AVTI	HEADCOUNTS			COMPLETIONS			AVERAGE DAILY MEMBERSHIP
	Male	Female	Total	Male	Female	Total	Total
Albert Lea	382	174	556	190	70	260	509
Alexandria	912	733	1,645	372	336	708	1,374
Anoka	1,802	1,397	3,199	688	723	1,411	2,114
Austin	465	263	728	173	103	276	546
Bemidji	139	200	339	80	123	203	391
Brainerd	423	407	830	303	309	612	745
Canby	324	147	471	257	106	363	488
Dakota County	1,416	873	2,289	740	442	1,182	1,551
Detroit Lakes	488	253	741	235	154	389	620
Duluth	1,123	1,111	2,234	422	461	883	1,269
East Grand Forks	401	293	694	173	144	317	461
Eveleth	162	163	325	81	103	184	282
Faribault	293	207	500	131	111	242	404
Granite Falls	245	245	490	107	167	274	390
Hibbing	309	202	511	102	120	222	379
Hutchinson	471	283	754	284	71	355	591
Jackson	679	360	1,039	261	195	456	651
Mankato	1,059	757	1,816	410	498	908	1,192
Minneapolis	1,238	1,040	2,278	354	461	815	1,287
Moorhead	643	450	1,093	232	202	434	958
916	957	807	1,764	444	591	1,035	2,078
Pine City	217	103	320	76	54	130	206
Pipestone	584	282	866	220	93	313	583
Red Wing	395	215	610	183	124	307	395
Rochester	405	964	1,369	310	859	1,169	852
St. Cloud	1,208	532	1,740	540	266	806	1,524
St. Paul	1,965	1,351	3,316	711	695	1,406	2,338
Staples	676	122	798	247	58	305	657
Suburban Hennepin	3,805	1,850	5,655	1,862	1,007	2,869	3,467
Thief River Falls	466	225	691	121	154	275	465
Wadena	421	265	686	189	123	312	497
Willmar	826	636	1,462	366	424	790	1,456
Winona	466	348	814	206	256	462	660
TOTAL	25,365	17,258	42,623	11,070	9,603	20,673	31,379*

*numbers do not add to total due to rounding

TABLE 2. STUDENT HEADCOUNT 1977-78

<u>AVTI</u>	<u>Male Students</u>	<u>Female Students</u>	<u>Total Students</u>	<u>Percent Female</u>
Albert Lea	382	174	556	31.3%
Alexandria	912	733	1,645	44.6%
Anoka	1,802	1,397	3,199	43.7%
Austin	465	263	728	36.1%
Bemidji	139	200	339	59.0%
Brainerd	423	407	830	49.0%
Canby	324	147	471	31.2%
Dakota County	1,416	873	2,289	38.1%
Detroit Lakes	488	253	741	34.1%
Duluth	1,123	1,111	2,234	49.7%
East Grand Forks	401	293	694	42.2%
Eveleth	162	163	325	50.2%
Faribault	293	207	500	41.4%
Granite Falls	245	245	490	50.0%
Hibbing	309	202	511	39.5%
Hutchinson	471	283	754	37.5%
Jackson	679	360	1,039	34.6%
Mankato	1,059	757	1,816	41.7%
Minneapolis	1,238	1,040	2,278	45.7%
Moorhead	643	450	1,093	41.2%
916	957	807	1,764	45.7%
Pine City	217	103	320	32.2%
Pipestone	584	282	866	32.6%
Red Wing	395	215	610	35.2%
Rochester	405	964	1,369	70.4%
St. Cloud	1,208	532	1,740	30.6%
St. Paul	1,965	1,351	3,316	40.7%
Staples	676	122	798	15.3%
Suburban Hennepin	3,805	1,850	5,655	32.7%
Thief River Falls	466	225	691	32.6%
Wadena	421	265	686	38.6%
Willmar	826	636	1,462	43.5%
Winona	466	348	814	42.8%
TOTAL	25,365	17,258	42,623	40.5%

TABLE 3.

NUMBER AND PERCENT OF FEMALE ENROLLMENTS (HEADCOUNT 1977-78)

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AVTI	Female Students Enrolled In:													
	Agriculture		Distribution		Health		Home Economics		Office Occupations		Technical		Trade and Industrial	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Albert Lea	--	--	36	44.4%	--	--	20	57.1%	88	87.1%	21	52.5%	9	3.0%
Alexandria	1	1.2%	205	64.1%	94	100.0%	35	100.0%	338	77.5%	0	0.0%	60	10.5%
Anoka	55	29.6%	153	58.8%	692	92.9%	74	96.1%	304	99.0%	26	11.1%	93	6.7%
Austin	0	0.0%	--	--	59	100.0%	--	--	116	86.6%	11	9.9%	77	20.3%
Bemidji	--	--	5	29.4%	39	100.0%	--	--	155	85.6%	--	--	1	1.0%
Brainerd	48	37.8%	51	39.5%	83	98.8%	--	--	192	82.8%	--	--	33	12.8%
Canby	4	3.2%	--	--	47	100.0%	16	72.7%	66	85.7%	2	10.0%	12	6.7%
Dakota County	30	26.8%	373	62.5%	55	94.8%	28	30.8%	306	77.3%	8	7.0%	73	7.9%
Detroit Lakes	2	9.5%	45	60.0%	29	93.5%	--	--	110	91.7%	--	--	67	13.6%
Duluth	19	29.2%	97	52.4%	397	91.3%	11	32.4%	518	85.2%	21	8.3%	48	7.4%
East Grand Forks	0	0.0%	44	72.1%	121	93.8%	13	100.0%	93	98.9%	--	--	22	6.9%
Eveleth	--	--	--	--	44	100.0%	--	--	93	98.9%	3	8.8%	23	15.0%
Faribault	0	0.0%	14	50.0%	94	95.9%	--	--	77	82.8%	5	15.6%	17	8.8%
Granite Falls	0	0.0%	2	10.5%	33	100.0%	--	--	201	95.3%	5	4.8%	4	4.3%
Hibbing	--	--	9	30.0%	103	98.1%	13	100.0%	58	89.2%	1	2.9%	18	6.8%
Hutchinson	1	1.3%	19	41.3%	--	--	--	--	244	90.0%	4	2.9%	15	6.7%
Jackson	4	4.6%	24	58.5%	138	97.2%	--	--	178	89.4%	2	5.3%	14	2.6%
Mankato	2	1.4%	72	45.9%	239	98.0%	10	100.0%	311	72.8%	25	9.3%	98	17.2%
Minneapolis	--	--	23	32.4%	286	93.8%	63	91.3%	346	81.0%	10	9.3%	312	24.0%
Moorhead	0	0.0%	89	56.7%	18	100.0%	--	--	301	77.2%	0	0.0%	42	9.1%
916	8	36.4%	51	81.0%	258	77.5%	88	92.6%	214	65.0%	13	9.8%	175	22.2%
Pine City	3	5.8%	--	--	--	--	18	100.0%	80	84.2%	--	--	2	1.3%
Pipestone	--	--	113	42.0%	--	--	--	--	115	55.8%	--	--	54	13.8%
Red Wing	0	0.0%	32	94.1%	63	100.0%	33	58.9%	70	53.0%	4	11.1%	13	4.7%
Rochester	17	73.9%	--	--	458	94.2%	37	100.0%	425	93.8%	14	22.2%	13	4.2%
St. Cloud	1	4.2%	83	41.3%	91	95.8%	36	100.0%	263	79.5%	6	2.9%	52	6.1%
St. Paul	--	--	--	--	573	95.2%	30	83.3%	384	79.0%	58	10.0%	306	19.0%
Staples	2	2.8%	--	--	53	96.4%	4	100.0%	--	--	--	--	63	9.4%
Suburban Hennepin	137	40.5%	127	46.4%	406	79.9%	73	98.6%	679	80.8%	42	7.3%	386	12.7%
Thief River Falls	0	0.0%	14	32.6%	23	100.0%	--	--	86	59.7%	22	30.1%	80	20.8%
Wadena	--	--	22	84.6%	--	--	--	--	142	84.0%	4	4.0%	97	24.9%
Willmar	2	1.1%	40	57.1%	186	99.5%	--	--	293	92.4%	4	5.1%	111	17.9%
Winona	1	2.7%	13	28.9%	113	100.0%	--	--	141	91.6%	3	4.5%	77	19.3%
TOTAL	337	16.4%	1,756	53.2%	4,795	92.7%	602	79.7%	6,987	82.0%	314	8.8%	2,467	12.8%

DISTRIBUTION OF STUDENTS BY CLUSTER

	Females	Males	Total
Agriculture	0.8 %	4.0 %	4.8 %
Distribution	4.1 %	3.6 %	7.7 %
Health	11.2 %	0.9 %	12.1 %
Home Economics	1.4 %	0.4 %	1.8 %
Office Occupations	16.4 %	3.6 %	20.0 %
Technical	0.7 %	7.7 %	8.4 %
Trade & Industrial	5.8 %	39.4 %	45.2 %
TOTAL	40.4 %	59.6 %	100.0 %

TABLE 4. NUMBER OF PROGRAMS BY PROGRAM TYPE, 1977-78

AVTI	Total # Programs	# Programs Segregated			# Programs Integrated
		"Male"	"Female"	Total	
Albert Lea	14	6	2	8	6
Alexandria	31	16	9	25	6
Anoka	38	13	16	29	9
Austin	14	9	3	12	2
Bemidji	11	3	5	8	3
Brainerd	22	9	9	18	4
Canby	13	7	2	9	4
Dakota County	36	17	8	25	11
Detroit Lakes	20	9	5	14	6
Duluth	31	14	10	24	7
East Grand Forks	17	6	8	14	3
Eveleth	11	5	4	9	2
Faribault	17	10	4	14	3
Granite Falls	14	7	6	13	1
Hibbing	14	6	6	12	2
Hutchinson	17	9	5	14	3
Jackson	23	14	7	21	2
Mankato	23	9	5	14	9
Minneapolis	32	15	6	21	11
Moorhead	22	11	7	18	4
916	48	22	13	35	13
Pine City	9	5	3	8	1
Pipestone	12	7	2	9	3
Red Wing	17	11	3	14	3
Rochester	24	8	10	18	6
St. Cloud	34	20	7	27	7
St. Paul	40	21	12	33	7
Staples	20	15	2	17	3
Suburban Hennepin	53	33	10	43	10
Thief River Falls	16	7	5	12	4
Wadena	15	10	4	14	1
Willmar	28	13	9	22	6
Winona	21	10	8	18	3
TOTAL	757	377	215	592	165

TABLE 5. NUMBER AND PERCENT OF FEMALE ENROLLMENTS BY PROGRAM TYPE

AVTI	Total Female Students		Enrolled in Segregated Programs						Enrolled in Integrated Programs	
			In "Male" Programs		In "Female" Programs		Total			
	#	%	#	%	#	%	#	%	#	%
Albert Lea	174	100.0%	1	0.6%	57	32.8%	58	33.3%	116	66.7%
Alexandria	733	100.0%	31	4.2%	567	77.4%	598	81.6%	135	18.4%
Anoka	1,397	100.0%	54	3.9%	1,097	78.5%	1,151	82.4%	246	17.6%
Austin	263	100.0%	20	7.6%	171	65.0%	191	72.6%	72	27.4%
Bemidji	200	100.0%	1	0.5%	153	76.5%	154	77.0%	46	23.0%
Brainerd	407	100.0%	26	6.4%	259	63.6%	285	70.0%	122	30.0%
Canby	147	100.0%	7	4.8%	86	58.5%	93	63.3%	54	36.7%
Dakota County	873	100.0%	54	6.2%	587	67.2%	641	73.4%	232	26.6%
Detroit Lakes	253	100.0%	18	7.1%	147	58.1%	165	65.2%	88	34.8%
Duluth	1,111	100.0%	46	4.1%	905	81.5%	951	85.6%	160	14.4%
East Grand Forks	293	100.0%	17	5.8%	236	80.5%	253	86.3%	40	13.7%
Eveleth	163	100.0%	5	3.1%	137	84.0%	142	87.1%	21	12.9%
Faribault	207	100.0%	11	5.3%	149	72.0%	160	77.3%	47	22.7%
Granite Falls	245	100.0%	11	4.5%	201	82.0%	212	86.5%	33	13.5%
Hibbing	202	100.0%	12	5.9%	174	86.1%	186	92.1%	16	7.9%
Hutchinson	283	100.0%	15	5.3%	196	69.3%	211	74.6%	72	25.4%
Jackson	360	100.0%	20	5.6%	290	80.6%	310	86.1%	50	13.9%
Mankato	757	100.0%	18	2.4%	407	53.8%	425	56.1%	332	43.9%
Minneapolis	1,040	100.0%	37	3.6%	682	65.6%	719	69.1%	321	30.9%
Moorhead	450	100.0%	18	4.0%	321	71.3%	339	75.3%	111	24.7%
916	807	100.0%	59	7.3%	546	67.7%	605	75.0%	202	25.0%
Pine City	103	100.0%	5	4.9%	69	67.0%	74	71.8%	29	28.2%
Pipestone	282	100.0%	29	10.3%	127	45.0%	156	55.3%	126	44.7%
Red Wing	215	100.0%	16	7.4%	143	66.5%	159	74.0%	56	26.0%
Rochester	964	100.0%	1	0.1%	858	89.0%	859	89.1%	105	10.9%
St. Cloud	532	100.0%	29	5.5%	285	53.6%	314	59.0%	218	41.0%
St. Paul	1,351	100.0%	84	6.2%	1,085	80.3%	1,169	86.5%	182	13.5%
Staples	122	100.0%	11	9.0%	57	46.7%	68	55.7%	54	44.3%
Suburban Hennepin	1,850	100.0%	158	8.5%	1,147	62.0%	1,305	70.5%	545	29.5%
Thief River Falls	225	100.0%	4	1.8%	161	71.6%	165	73.3%	60	26.7%
Wadena	265	100.0%	16	6.0%	212	80.0%	228	86.0%	37	14.0%
Willmar	636	100.0%	14	2.2%	495	77.8%	509	80.0%	127	20.0%
Winona	348	100.0%	6	1.7%	305	87.6%	311	89.4%	37	10.6%
TOTAL	17,258	100.0%	854	4.9%	12,312	71.3%	13,166	76.3%	4,092	23.7%

Note: data based on headcounts, 1977-78

TABLE 6. NUMBER AND PERCENT OF MALE ENROLLMENTS BY PROGRAM TYPE

AVTI	Total Male Students		Enrolled in Segregated Programs						Enrolled in Integrated Programs	
			In "Female" Programs		In "Male" Programs		Total			
	#	%	#	%	#	%	#	%	#	%
Albert Lea	382	100.0%	0	0.0%	262	68.6%	262	68.6%	120	31.4%
Alexandria	912	100.0%	2	0.2%	687	75.3%	689	75.5%	223	24.5%
Anoka	1,802	100.0%	38	2.1%	1,393	77.3%	1,431	79.4%	371	20.6%
Austin	465	100.0%	3	0.6%	421	90.5%	424	91.2%	41	8.8%
Bemidji	139	100.0%	0	0.0%	101	72.7%	101	72.7%	38	27.3%
Brainerd	423	100.0%	2	0.5%	330	78.0%	332	78.5%	91	21.5%
Canby	324	100.0%	0	0.0%	284	87.7%	284	87.7%	40	12.3%
Dakota County	1,416	100.0%	25	1.8%	949	67.0%	974	68.8%	442	31.2%
Detroit Lakes	488	100.0%	5	1.0%	367	75.2%	372	76.2%	116	23.8%
Duluth	1,123	100.0%	52	4.6%	817	72.8%	869	77.4%	254	22.6%
East Grand Forks	401	100.0%	5	1.2%	368	91.8%	373	93.0%	28	7.0%
Eveleth	162	100.0%	1	0.6%	148	91.4%	149	92.0%	13	8.0%
Faribault	293	100.0%	4	1.4%	253	86.3%	257	87.7%	36	12.3%
Granite Falls	245	100.0%	2	0.8%	235	95.9%	237	96.7%	8	3.3%
Hibbing	309	100.0%	9	2.9%	257	83.2%	266	86.1%	43	13.9%
Hutchinson	471	100.0%	0	0.0%	402	85.4%	402	85.4%	69	14.6%
Jackson	679	100.0%	12	1.8%	637	93.8%	649	95.6%	30	4.4%
Mankato	1,059	100.0%	5	0.5%	700	66.1%	705	66.6%	354	33.4%
Minneapolis	1,238	100.0%	52	4.2%	837	67.6%	889	71.8%	349	28.2%
Moorhead	643	100.0%	2	0.3%	496	77.1%	498	77.4%	145	22.6%
916	957	100.0%	15	1.6%	709	74.1%	724	75.7%	233	24.3%
Pine City	217	100.0%	1	0.5%	202	93.1%	203	93.6%	14	6.5%
Pipestone	584	100.0%	5	0.9%	521	89.2%	526	90.1%	58	9.9%
Red Wing	395	100.0%	2	0.5%	335	84.8%	337	85.3%	58	14.7%
Rochester	405	100.0%	22	5.4%	326	80.5%	348	85.9%	57	14.1%
St. Cloud	1,208	100.0%	4	0.3%	985	81.5%	989	81.9%	219	18.1%
St. Paul	1,965	100.0%	55	2.8%	1,628	82.8%	1,683	85.6%	282	14.4%
Staples	676	100.0%	2	0.3%	566	83.7%	568	84.0%	108	16.0%
Suburban Hennepin	3,805	100.0%	92	2.4%	2,786	73.2%	2,878	75.6%	927	24.4%
Thief River Falls	466	100.0%	0	0.0%	340	73.0%	340	73.0%	126	27.0%
Wadena	421	100.0%	4	1.0%	390	92.6%	394	93.6%	27	6.4%
Willmar	826	100.0%	1	0.1%	697	84.4%	698	84.5%	128	15.5%
Winona	466	100.0%	2	0.4%	402	86.3%	404	86.7%	62	13.3%
TOTAL	25,365	100.0%	424	1.7%	19,831	78.2%	20,255	79.9%	5,110	20.1%

Note: data based on headcounts, 1977-78

TABLE 7. NUMBER OF STUDENTS BY PROGRAM TYPE

AVTI	Number of Students in programs which are:				Total Students
	Seg/Trad (1)	Seg/N-Trad (2)	Total Seg (3)	Total Integ (4)	
Albert Lea	319	1	320	236	556
Alexandria	1,254	33	1,287	358	1,645
Anoka	2,490	92	2,582	617	3,199
Austin	592	23	615	113	728
Bemidji	254	1	255	84	339
Brainerd	589	28	617	213	830
Canby	370	7	377	94	471
Dakota County	1,536	79	1,615	674	2,289
Detroit Lakes	514	23	537	204	741
Duluth	1,722	98	1,820	414	2,234
East Grand Forks	604	22	626	68	694
Eveleth	285	6	291	34	325
Faribault	402	15	417	83	500
Granite Falls	436	13	449	41	490
Hibbing	431	21	452	59	511
Hutchinson	598	15	613	141	754
Jackson	927	32	959	80	1,039
Mankato	1,107	23	1,130	686	1,816
Minneapolis	1,519	89	1,608	670	2,278
Moorhead	817	20	837	256	1,093
916	1,255	74	1,329	435	1,764
Pine City	271	6	277	43	320
Pipestone	648	34	682	184	866
Red Wing	478	18	496	114	610
Rochester	1,184	23	1,207	162	1,369
St. Cloud	1,270	33	1,303	437	1,740
St. Paul	2,713	139	2,852	464	3,316
Staples	623	13	636	162	798
Suburban Hennepin	3,933	250	4,183	1,472	5,655
Thief River Falls	501	4	505	186	691
Wadena	602	20	622	64	686
Willmar	1,192	15	1,207	255	1,462
Winona	707	8	715	99	814
TOTAL	32,143	1,278	33,421	9,202	42,623

(1) segregated traditional programs

(2) segregated non-traditional programs

(3) total of segregated programs; sum of traditional and non-traditional

(4) integrated programs

Note: data based on headcounts, 1977-78

TABLE 8. PERCENT OF STUDENTS BY PROGRAM TYPE

AVTI	Percent of All Students in programs which are:				Total Students
	Seg/Trad (1)	Seg/N-Trad (2)	Total Seg (3)	Total Integ (4)	
Albert Lea	57.4 %	0.2 %	57.6 %	42.4 %	100.0 %
Alexandria	76.2	2.0	78.2	21.8	100.0
Anoka	77.8	2.9	80.7	19.3	100.0
Austin	81.3	3.2	84.5	15.5	100.0
Bemidji	74.9	0.3	75.2	24.8	100.0
Brainerd	71.0	3.3	74.3	25.7	100.0
Canby	78.6	1.4	80.0	20.0	100.0
Dakota County	67.1	3.5	70.6	29.4	100.0
Detroit Lakes	69.4	3.1	72.5	27.5	100.0
Duluth	77.1	4.4	81.5	18.5	100.0
East Grand Forks	87.0	3.2	90.2	9.8	100.0
Eveleth	87.7	1.8	89.5	10.5	100.0
Faribault	80.4	3.0	83.4	16.6	100.0
Granite Falls	89.0	2.6	91.6	8.4	100.0
Hibbing	84.3	4.2	88.5	11.5	100.0
Hutchinson	79.3	2.0	81.3	18.7	100.0
Jackson	89.2	3.1	92.3	7.7	100.0
Mankato	61.0	1.2	62.2	37.8	100.0
Minneapolis	66.7	3.9	70.6	29.4	100.0
Moorhead	74.7	1.9	76.6	23.4	100.0
916	71.1	4.2	75.3	24.7	100.0
Pine City	84.7	1.9	86.6	13.4	100.0
Pipestone	74.8	4.0	78.8	21.2	100.0
Red Wing	78.4	2.9	81.3	18.7	100.0
Rochester	86.5	1.7	88.2	11.8	100.0
St. Cloud	73.0	1.9	74.9	25.1	100.0
St. Paul	81.8	4.2	86.0	14.0	100.0
Staples	78.1	1.6	79.7	20.3	100.0
Suburban Hennepin	69.5	4.5	74.0	26.0	100.0
Thief River Falls	72.5	0.6	73.1	26.9	100.0
Wadena	87.8	2.9	90.7	9.3	100.0
Willmar	81.5	1.1	82.6	17.4	100.0
Winona	86.9	0.9	87.8	12.2	100.0
TOTAL	75.4 %	3.0 %	78.4 %	21.6 %	100.0 %

(1) segregated traditional programs

(2) segregated non-traditional programs

(3) total of segregated programs; sum of traditional and non-traditional

(4) integrated programs

Note: data based on headcounts, 1977-78

TABLE 9.

PROGRAM BUDGETS APPORTIONED BY MALE/FEMALE HEADCOUNTS, 1977-78

27

AVTI	Net Budget			Budget- Percent Female	Percent Female Students
	Total	Male Students	Female Students		
Albert Lea	\$ 778,136	\$ 523,653	\$ 254,483	32.7 %	31.3 %
Alexandria	2,504,321	1,606,332	897,989	35.9	44.6
Anoka	3,057,652	2,007,498	1,050,154	34.3	43.7
Austin	923,202	652,775	270,427	29.3	36.1
Bemidji	633,088	273,278	359,810	56.8	59.0
Brainerd	1,154,571	562,807	591,764	51.3	49.0
Canby	804,593	533,217	271,376	33.7	31.2
Dakota County	3,133,156	2,269,365	863,791	27.6	38.1
Detroit Lakes	911,805	627,044	284,761	31.2	34.1
Duluth	2,008,911	1,244,923	763,988	38.0	49.7
East Grand Forks	889,232	484,071	405,161	45.6	42.2
Eveleth	492,351	257,612	234,739	47.7	50.2
Faribault	920,971	562,917	358,054	38.9	41.4
Granite Falls	647,321	385,726	261,595	40.4	50.0
Hibbing	638,663	412,037	226,626	35.5	39.5
Hutchinson	1,416,663	1,008,934	407,729	28.8	37.5
Jackson	1,077,693	770,427	307,266	28.5	34.6
Mankato	1,833,458	1,078,489	754,969	41.2	41.7
Minneapolis	2,039,518	1,198,386	841,132	41.2	45.7
Moorhead	1,287,886	834,508	453,378	35.2	41.2
916	2,778,891	1,673,890	1,105,001	39.8	45.7
Pine City	360,096	272,521	87,575	24.3	32.2
Pipestone	1,116,493	813,147	303,346	27.2	32.6
Red Wing	780,917	588,833	192,084	24.6	35.2
Rochester	1,502,773	608,008	894,765	59.5	70.4
St. Cloud	2,149,365	1,472,037	677,328	31.5	30.6
St. Paul	2,828,561	1,846,078	982,483	34.7	40.7
Staples	1,729,332	1,567,733	161,599	9.3	15.3
Suburban Hennepin	3,882,463	2,868,530	1,013,933	26.1	32.7
Thief River Falls	802,183	568,298	233,885	29.2	32.6
Wadena	800,589	583,509	217,080	27.1	38.6
Willmar	2,127,324	1,360,565	766,759	36.0	43.5
Winona	862,973	565,364	297,609	34.5	42.8
TOTAL	\$ 48,875,151	\$ 32,082,512	\$ 16,792,639	34.4 %	40.5 %

Note: A "male" budget is calculated by apportioning the net budget for a program in the same ratio as there are male students. A "female" budget is calculated by apportioning the budget for a program according to the percentage of female students.

TABLE 10. PROGRAM COST PER STUDENT HEADCOUNT, 1977-78

AVTI	Cost per Student			Female/Male Cost Ratio
	Male Students	Female Students	All Students	
Albert Lea	\$ 1,371	\$ 1,463	\$ 1,400	106.7 %
Alexandria	1,761	1,225	1,522	69.6
Anoka	1,114	752	956	67.5
Austin	1,404	1,028	1,268	73.2
Bemidji	1,966	1,799	1,868	91.5
Brainerd	1,331	1,454	1,391	109.2
Canby	1,646	1,846	1,708	112.2
Dakota County	1,603	989	1,369	61.7
Detroit Lakes	1,285	1,126	1,231	87.6
Duluth	1,109	688	899	62.0
East Grand Forks	1,207	1,383	1,281	114.6
Eveleth	1,590	1,440	1,515	90.6
Faribault	1,921	1,730	1,842	90.1
Granite Falls	1,574	1,068	1,321	67.9
Hibbing	1,333	1,122	1,250	84.2
Hutchinson	2,142	1,441	1,879	67.3
Jackson	1,135	854	1,037	75.2
Mankato	1,018	997	1,010	97.9
Minneapolis	968	809	895	83.6
Moorhead	1,298	1,008	1,178	77.7
916	1,749	1,369	1,575	78.3
Pine City	1,256	850	1,125	67.7
Pipestone	1,392	1,076	1,289	77.3
Red Wing	1,491	893	1,280	59.9
Rochester	1,501	928	1,098	61.8
St. Cloud	1,219	1,273	1,235	104.4
St. Paul	939	727	853	77.4
Staples	2,319	1,325	2,167	57.1
Suburban Hennepin	754	548	687	72.7
Thief River Falls	1,220	1,039	1,161	85.2
Wadena	1,386	819	1,167	59.1
Willmar	1,647	1,206	1,455	73.2
Winona	1,213	855	1,060	70.5
TOTAL	\$ 1,265	\$ 973	\$ 1,147	76.9 %

TABLE 11. NUMBER OF TEACHERS AND ADMINISTRATORS, 1977-78

	NUMBER OF FTE* LICENSED STAFF			Percent
	Male	Female	Total	Female
<u>SECONDARY TEACHERS</u>				
Vocational-related	250.7	54.6	305.3	17.9%
Agriculture	330.9	15.9	346.8	4.6
Distributive	115.0	22.3	137.3	16.2
Health	2.0	50.4	52.4	96.2
Home Economics	10.4	1,213.4	1,223.8	99.2
Industrial Arts	1,467.8	5.5	1,473.3	0.4
Business & Office	633.3	524.7	1,158.0	45.3
Technical	5.1	0.2	5.3	3.8
Trade & Industrial	335.3	10.8	346.1	3.1
TOTAL	3,150.5	1,897.8	5,048.3	37.6%
<u>SECONDARY ADMINISTRATORS</u>				
Vocational Administrators	71.9	4.0	75.9	5.3
Vocational Supervisors	14.2	2.7	16.9	16.0
TOTAL	86.1	6.7	92.8	7.2%
<u>POST-SECONDARY TEACHERS</u>				
Vocational-related	190.2	94.1	284.3	33.1
Agriculture	240.5	5.2	245.7	2.1
Distributive	112.9	33.5	146.4	22.9
Health	24.8	208.9	233.7	89.4
Home Economics	12.0	26.2	38.2	68.6
Business & Office	181.4	168.1	349.5	48.1
Technical	181.2	0.7	181.9	0.4
Trade & Industrial	746.9	36.8	783.7	4.7
TOTAL	1,689.9	573.5	2,263.4	25.3%
<u>POST-SECONDARY ADMINISTRATORS</u>				
Vocational Administrators	65.4	6.0	71.4	8.4
Vocational Supervisors	23.5	5.1	28.6	17.8
TOTAL	88.9	11.1	100.0	11.1%

*Full-time equivalent

TABLE 12. COMPARISON OF LICENSES TO JOBS HELD BY WOMEN

	NUMBER LICENSES HELD BY:			% of Licenses	% of Jobs
	Men	Women	Total	Held by Women	Held by Women
<u>SECONDARY*</u>					
Vocational-related	1,330	413	1,743	23.7 %	**
Agriculture	982	24	1,006	2.4	4.6 %
Distributive	311	59	370	15.9	16.2
Health	18	423	441	95.9	96.2
Home Economics	65	5,372	5,437	98.8	99.2
Industrial Arts	2,948	11	2,959	0.4	0.4
Business & Office	2,791	2,658	5,449	48.8	45.3
Technical	113	0	113	0.0	3.8
Trade & Industrial	1,923	44	1,967	2.2	3.1
TOTAL	10,481	9,004	19,485	46.2 %	37.6 %
<u>POST-SECONDARY</u>					
Vocational-related	798	403	1,201	33.6 %	**
Agriculture	224	9	233	3.9	2.1 %
Distributive	273	114	387	29.5	22.9
Health	40	598	638	93.7	89.4
Home Economics	67	245	312	78.5	68.6
Business & Office	539	841	1,380	60.9	48.1
Technical	431	4	435	0.9	0.4
Trade & Industrial	1,711	81	1,792	4.5	4.7
TOTAL	4,083	2,295	6,378	36.0 %	25.3 %
<u>SECONDARY AND</u>					
<u>POST-SECONDARY</u>					
Vocational-related	2,128	816	2,944	27.7 %	**
Agriculture	1,206	33	1,239	2.7	3.6 %
Distributive	584	173	757	22.9	19.7
Health	58	1,021	1,079	94.6	90.6
Home Economics	132	5,617	5,749	97.7	98.2
Industrial Arts	2,948	11	2,959	0.4	0.4
Business & Office	3,330	3,499	6,829	51.2	46.0
Technical	544	4	548	0.7	0.5
Trade & Industrial	3,634	125	3,759	3.3	4.2
TOTAL	14,564	11,299	25,863	43.7 %	33.8 %

*Includes both vocational and non-vocational certification

**Not available

Note: Licenses as of March 1979; staff data for 1977-78.

TABLE 13.

PROFESSIONAL STAFF SALARIES AND YEARS OF SERVICE 1977-78

31

	NUMBER OF FTE*		AVERAGE SALARY		AVERAGE YEARS OF SERVICE	
	Male Staff	Female Staff	Male Staff	Female Staff	Male Staff	Female Staff
<u>SECONDARY TEACHERS</u>						
Vocational-related	250.7	54.6	\$ 18,435	\$ 15,004	13.6 yrs	8.5 yrs
Agriculture	330.9	15.9	15,024	12,479	11.1	3.7
Distributive	115.0	22.3	16,657	13,882	10.9	6.8
Health	2.0	50.4	17,616	14,755	14.1	6.0
Home Economics	10.4	1,213.4	16,121	13,200	11.1	9.8
Industrial Arts	1,467.8	5.5	15,373	12,291	13.3	11.2
Business & Office	633.3	524.7	16,144	13,695	14.4	10.9
Technical	5.1	0.2	16,627	19,032	7.4	14.0
Trade & Industrial	335.3	10.8	17,105	13,749	11.0	5.3
TOTAL	3,150.5	1,897.8	\$ 15,972	\$ 13,433	13.0 yrs	9.9 yrs
<u>SECONDARY ADMINISTRATORS</u>						
Vocational Administrators	71.9	4.0	\$ 24,451	\$ 20,610	18.0 yrs	13.0 yrs
Vocational Supervisors	14.2	2.7	19,642	16,721	14.0	10.2
TOTAL	86.1	6.7	\$ 23,658	\$ 19,043	17.3 yrs	11.9 yrs
<u>POST-SECONDARY TEACHERS</u>						
Vocational-related	190.2	94.1	\$ 20,356	\$ 15,082	13.2 yrs	8.8 yrs
Agriculture	240.5	5.2	16,842	12,829	11.2	4.9
Distributive	112.9	33.5	17,187	15,530	6.0	6.5
Health	24.8	208.9	16,376	15,575	4.1	7.0
Home Economics	12.0	26.2	15,315	14,848	6.6	6.9
Business & Office	181.4	168.1	17,712	15,321	9.1	8.6
Technical	181.2	0.7	18,808	19,032	9.6	14.0
Trade & Industrial	746.9	36.8	17,815	15,375	7.9	7.3
TOTAL	1,689.9	573.5	\$ 17,974	\$ 15,350	9.1 yrs	7.7 yrs
<u>POST-SECONDARY ADMINISTRATORS</u>						
Vocational Administrators	65.4	6.0	\$ 28,508	\$ 20,634	17.6 yrs	8.7 yrs
Vocational Supervisors	23.5	5.1	25,079	23,865	20.1	12.2
TOTAL	88.9	11.1	\$ 27,602	\$ 22,119	18.3 yrs	10.3 yrs

*Full-time equivalent

TABLE 14.

ADMINISTRATORS' SALARIES AND YEARS OF SERVICE 1977-78

32

AVTI	AVERAGE YEARLY SALARY		AVERAGE YEARS OF SERVICE	
	Male Staff	Female Staff	Male Staff	Female Staff
Albert Lea	\$ 28,050	--	26.0 yrs	--
Alexandria	25,174	--	22.0	--
Anoka	*	\$ 25,495	14.4	11.0 yrs
Austin	27,600	*	32.0	9.0
Bemidji	25,000	--	12.0	--
Brainerd	27,917	--	14.0	--
Canby	25,257	--	15.5	--
Dakota County	27,347	17,000	6.5	1.0
Detroit Lakes	27,278	--	21.0	--
Duluth	31,450	--	27.0	--
East Grand Forks	26,250	--	21.5	--
Eveleth	22,850	--	14.5	--
Faribault	27,500	--	11.0	--
Granite Falls	22,117	--	23.7	--
Hibbing	23,414	--	29.0	--
Hutchinson	23,820	--	21.3	--
Jackson	22,767	--	22.0	--
Mankato	25,423	11,500	6.8	1.0
Minneapolis	30,228	13,025	24.9	8.0
Moorhead	26,091	--	15.7	--
916	27,778	--	6.8	--
Pine City	27,000	--	20.0	--
Pipestone	26,000	12,200	31.0	6.0
Red Wing	28,115	23,787	18.0	28.0
Rochester	27,584	25,947	22.0	11.0
St. Cloud	23,581	23,882	16.2	11.0
St. Paul	26,642	24,492	23.1	24.0
Staples	27,450	--	6.0	--
Suburban Hennepin	29,358	--	13.0	--
Thief River Falls	23,318	--	27.7	--
Wadena	25,397	--	17.7	--
Willmar	26,283	--	26.5	--
Winona	24,654	--	17.3	--

-- No female administrators.

*Because of what appears to be a reporting or computer error, these data are not reported here.