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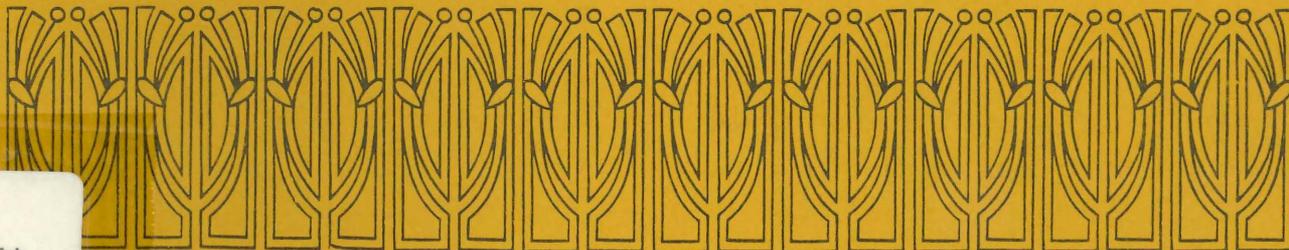


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# VOCATIONAL EDUCATION SEX EQUITY REPORT

## Post-Secondary 1982



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COUNCIL ON THE ECONOMIC STATUS OF WOMEN

# Vocational Education Sex Equity Report Post-Secondary 1982

Prepared for the Minnesota Department of Education  
under Contract No. 94-482/3-SB-MN82/130 by:

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# Introduction

Active efforts to achieve sex equity in Minnesota's post-secondary vocational education system have now been underway for more than five years. These efforts recognize the historical role of vocational education in providing skilled workers for a changing labor market, and an historical commitment to addressing the needs of all workers.

The most significant change in the labor market in the last two decades has been the increasing employment of women. Minnesota is well above the national average in labor force participation rates, and currently almost two-thirds of all working-age women in the state hold paid employment outside the home.

The goal of sex equity, as expressed in federal law and state policy, is to expand career options for both men and women and to eliminate sex bias and sex stereotyping which limit these options.

\* \* \* \*

This report is the sixth in a series presenting data on the status of men and women in Minnesota's AVTI system. The report was prepared by the Council on the Economic Status of Women under contract with the Vocational-Technical Division of the Minnesota Department of Education.

The format of this report is similar to that of last year's publication, "Vocational Education Sex Equity Report: Post-Secondary, 1981." Information is presented on statewide enrollment patterns by program type and by curriculum area, in addition to information on program budgets, AVTI graduates, and staff patterns. Data on trends over the last four years are presented following each summary of current statewide patterns. A detailed appendix provides information for each AVTI, a course-by-course listing of statewide enrollments by curriculum area, and definitions.

The four-year statewide analysis shows improvement in a number of areas. The enrollment of women in technical and trade-industrial occupations courses, and the enrollment of men in health occupations courses, have increased. A growing number of courses have almost equal numbers of male and female students. Although women still represent a small percentage of vocational instructors and administrators, improvement is evident in staff patterns as well.

Continued efforts are needed for continued improvement. The data presented in this report suggest that progress toward the goal of sex equity is being achieved in Minnesota's AVTI system.

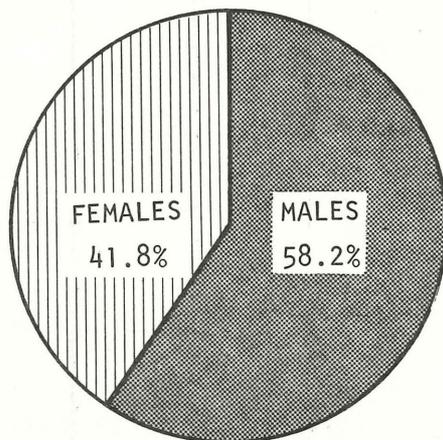
# AVTI Enrollments, 1980-81

Male students account for the majority of AVTI enrollments. In 1980-81, the total statewide enrollment of 48,050 consisted of 20,108 female students and 27,942 male students.

Except where otherwise noted, all enrollment data in this report refer to an actual student headcount, a count of all students enrolled in a program at a particular time during the school year. The usual measure of enrollment, average daily membership, is not reported by sex. Enrollment data also exclude students participating in special needs programs.

Like other public post-secondary educational systems in Minnesota, the AVTI system has experienced increases in total enrollments and increases in the percentage of students who are female. However, the AVTI system has a lower percentage of female students than all other public post-secondary systems -- the State University System (53 percent female), the Community College system (58 percent female), and the University of Minnesota (45 percent female).

AVTI HEADCOUNTS, 1980-81



48,050 STUDENTS

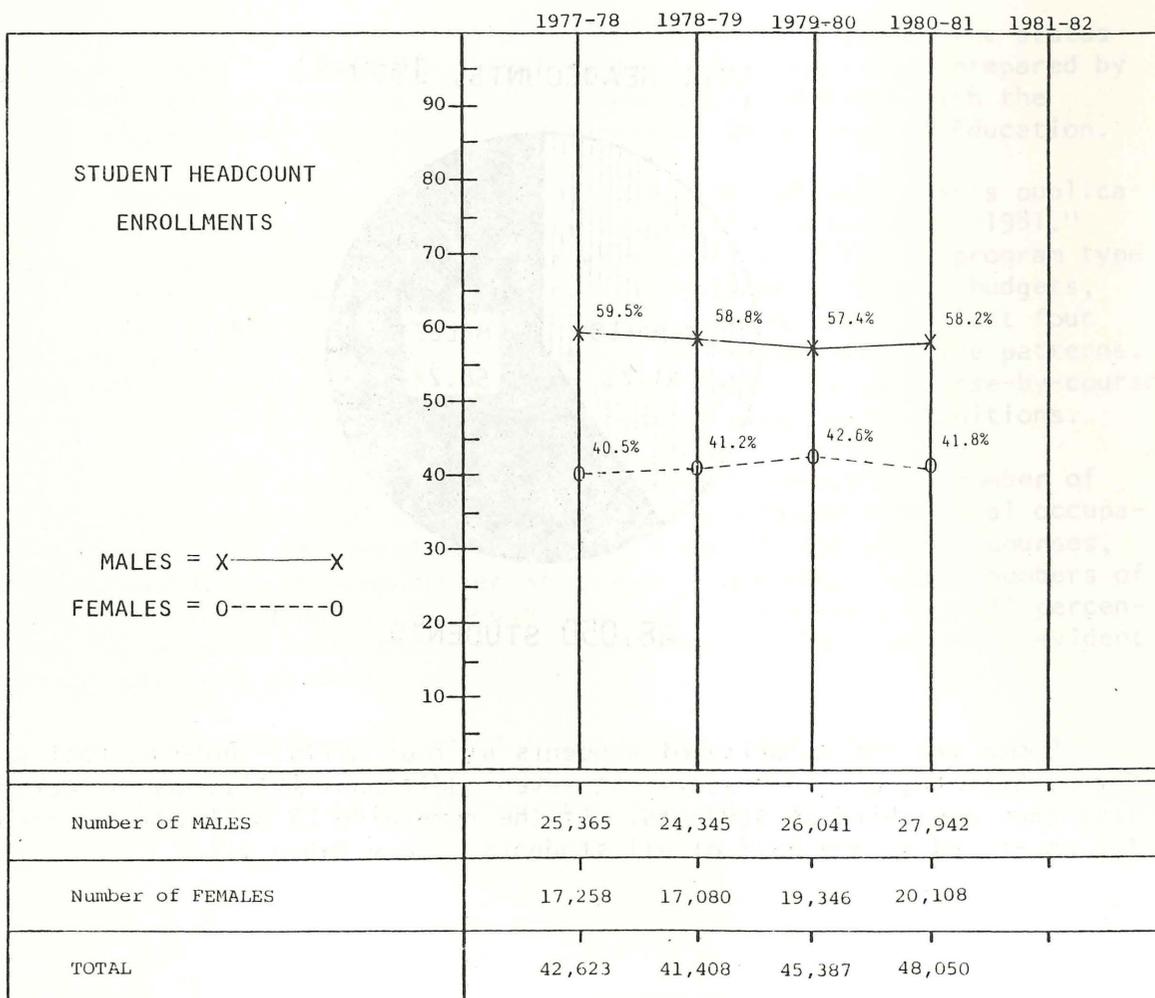
Women are the majority of students at four AVTIs: Duluth, East Grand Forks, Eveleth, and Rochester. At seven additional AVTIs, women represent less than one-third of students. At the remaining 22 AVTIs, women account for one-third to one-half of all students. (See Table 1.)

# AVTI Enrollment Trends

Total enrollment in Minnesota's AVTIs increased by 2,663 students between 1979-80 and 1980-81. In this one-year period, all but nine AVTIs experienced enrollment increases.

The percentage of all AVTI students who are women dropped slightly in the last year, after small but steady increases in the previous three-year period. Twenty AVTIs had a smaller percentage of female students in 1980-81 than in 1979-80. Of these, 14 schools experienced enrollment increases which were disproportionately male, while 6 had enrollment decreases which were disproportionately female.

Despite decreases in female enrollment in the past year, there has been a slight increase in overall enrollment of women over the past four years, from 41 percent to 42 percent of all students. Between 1977-78 and 1980-81, there has been a 17 percent increase in female students and a 10 percent increase in male students.



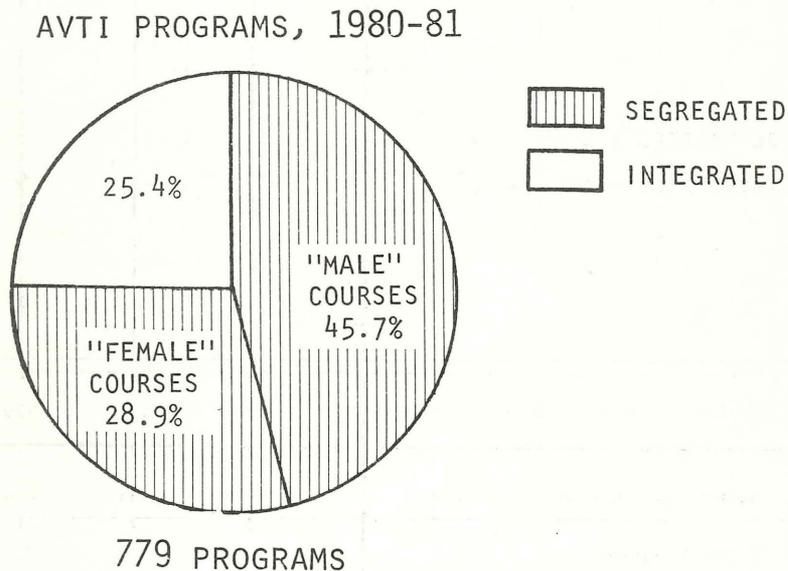
# Program Types, 1980-81

A total of 779 programs are offered at individual AVTIs in the state. The number of programs available at each school ranges from 10 at Pine City AVTI to 54 at the 916 AVTI. The median number of programs offered is 21.

AVTI programs are very likely to be "segregated." This term is not meant to imply that such segregation is the result of explicit policies, nor 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 in which more than 80 percent of students are men are defined as "male" programs, and those in which more than 80 percent of the students are women are defined as "female" programs. All other programs are considered "integrated."

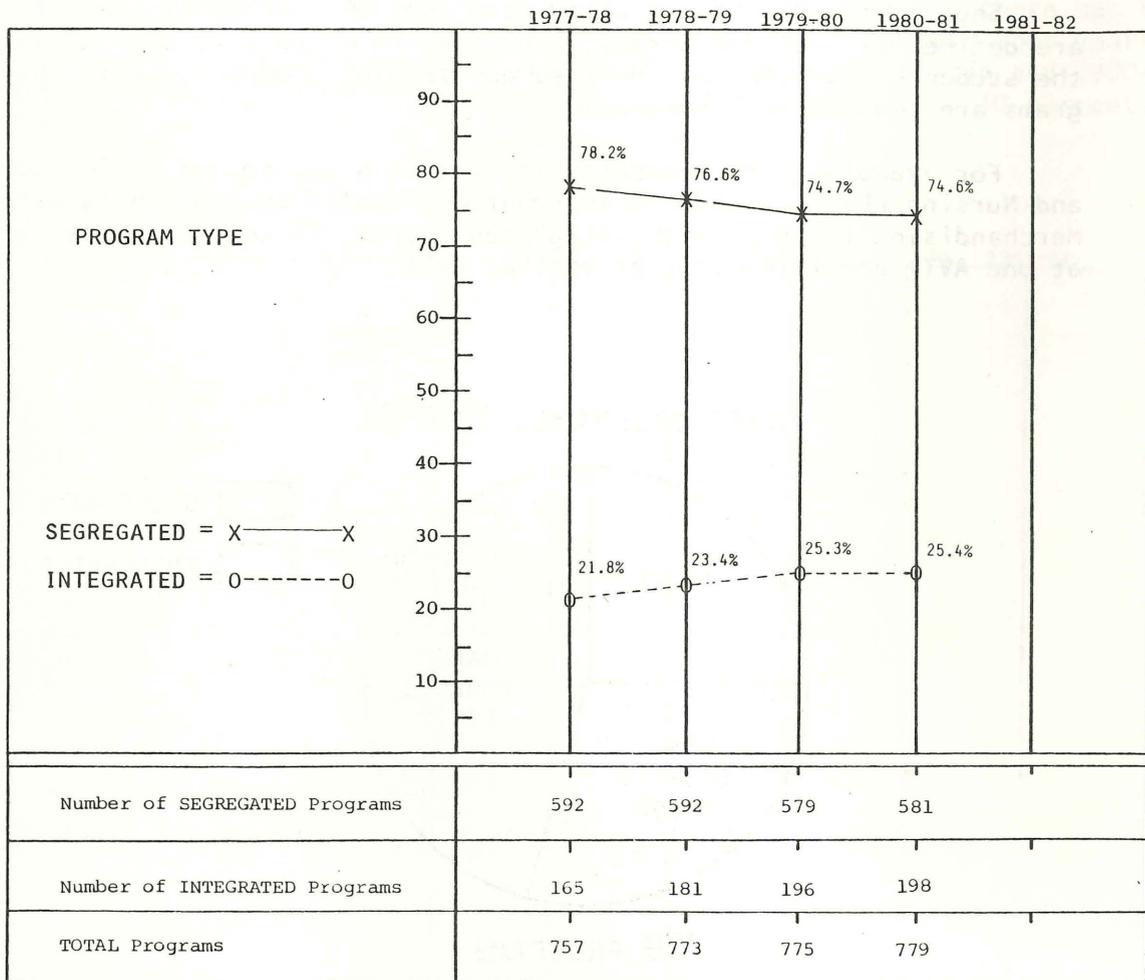
For example, Auto Mechanics is usually a segregated "male" course and Nursing LPN is usually a segregated "female" course, while General Merchandising is usually an integrated course. A course may be segregated at one AVTI and integrated at another AVTI.



Of the 779 programs offered at individual AVTIs, 356 are segregated "male" programs and 225 are segregated "female" programs. In fact, more than one in four programs are either all-male or all-female. (See Tables 2 and 3.)

# Program Types - Trends

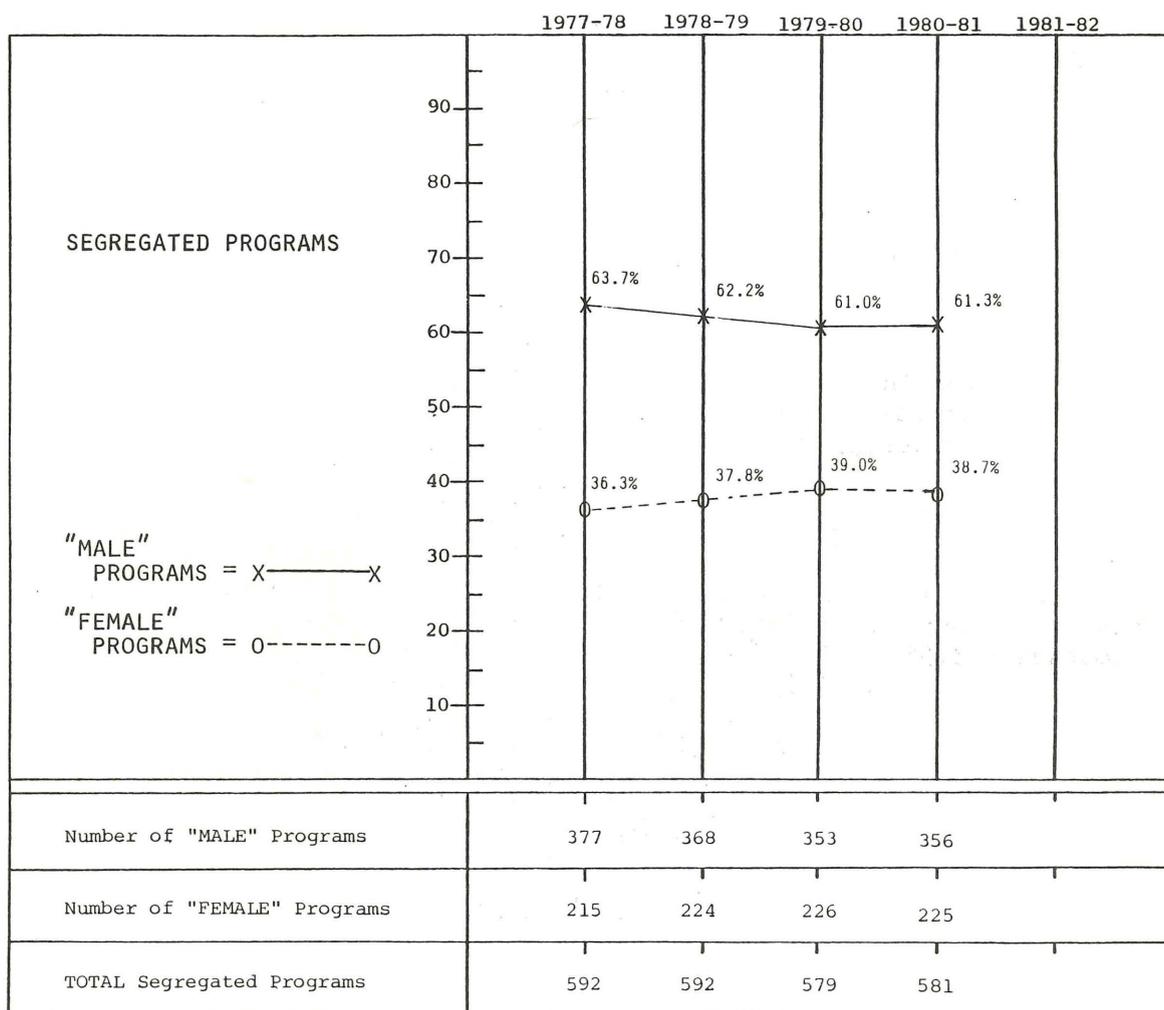
The proportion of AVTI programs which are integrated has increased steadily over the past four years, while the number of programs which are segregated has decreased accordingly. The total number of programs offered at individual AVTIs has increased by 3 percent in this period, while the number of integrated programs has increased by 20 percent. However, integrated programs still account for only one-quarter of all AVTI programs.



# Program Types - Trends, continued

Segregated programs have not been evenly divided into predominantly male courses and predominantly female courses. In all four years reported here, segregated "male" courses have outnumbered segregated "female" courses by a substantial margin.

Data for 1980-81 show a slight reversal of the trend toward equalizing numbers of "male" and "female" programs. However, there has been a net decrease in the number of "male" programs and a corresponding increase in the number of "female" programs over the past four years.

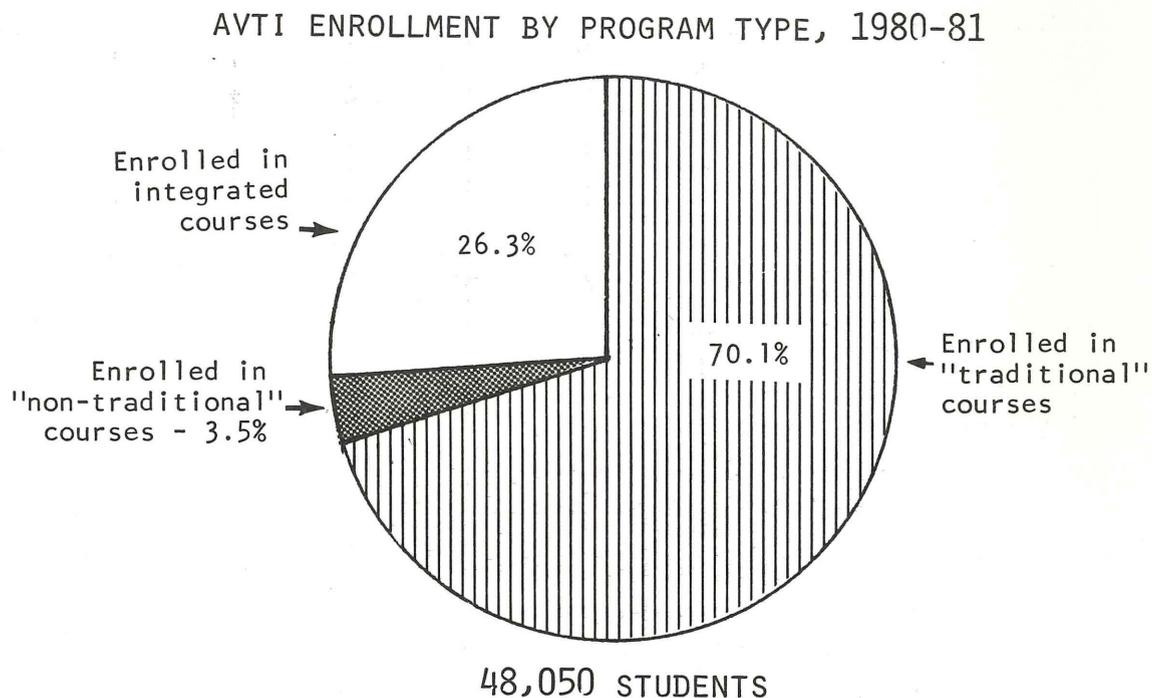


## Enrollments by Program Type, 1980-81

The number of students enrolled in a program varies widely, from 3 students in Agricultural Production at Staples AVTI to 470 students in the Clerk/Typist program at Suburban Hennepin AVTI. For this reason, it is helpful to compare the numbers of students in programs, as well as the numbers of programs, to determine enrollment patterns by sex.

An analysis of students enrolled in "traditional" as compared with "non-traditional" programs provides an additional measure of sex equity. A traditional student is one enrolled in a segregated program dominated by students of the same sex -- men in "male" courses and women in "female" courses. A non-traditional student is one enrolled in a course in which more than 80 percent of the students are of the other sex.

As shown in the chart below, the large majority of AVTI students are enrolled in traditional programs, while about 1 in 28 students are enrolled in programs which are non-traditional for their sex. Just over one-quarter of all AVTI students are enrolled in integrated programs.



At four AVTIs -- Albert Lea, Mankato, Moorhead, and Suburban Hennepin -- integrated programs account for more than one-third of all students. The AVTI with the largest proportion of students enrolled in nontraditional programs is East Grand Forks, where nontraditional enrollments account for 6 percent of all students. (See Table 6)

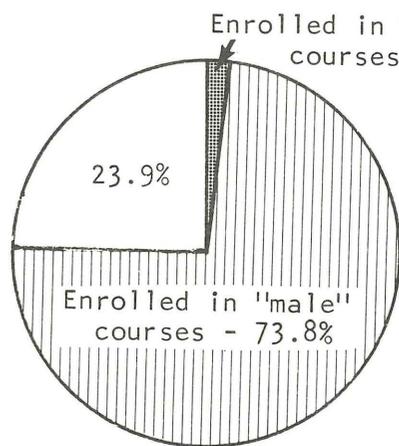
## Enrollments by Program Type, continued

Both male and female students are most likely to be enrolled in programs which are traditional for their sex, and least likely to be enrolled in non-traditional programs. However, there are differences in the enrollment patterns of men and women attending AVTIs.

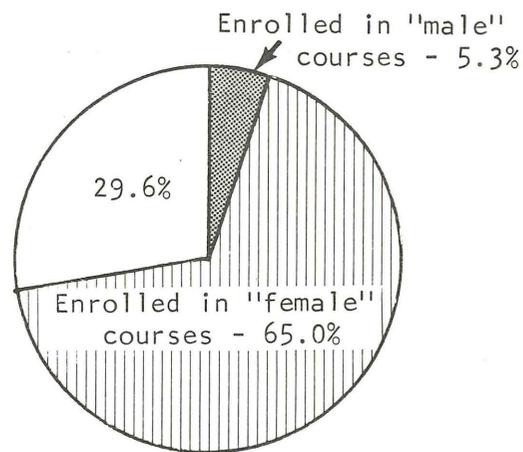
Female students are somewhat more likely than male students to be enrolled in integrated programs -- 30 percent of women compared with 24 percent of men. Female students are more than twice as likely as male students to be enrolled in non-traditional programs -- about 1 in 20 female students compared with about 1 in 50 male students. (See Tables 4 & 5)

AVTI ENROLLMENT BY PROGRAM TYPE, 1980-81


 "NON-TRADITIONAL"    
  "TRADITIONAL"    
  INTEGRATED



27,942 MALE STUDENTS



20,108 FEMALE STUDENTS

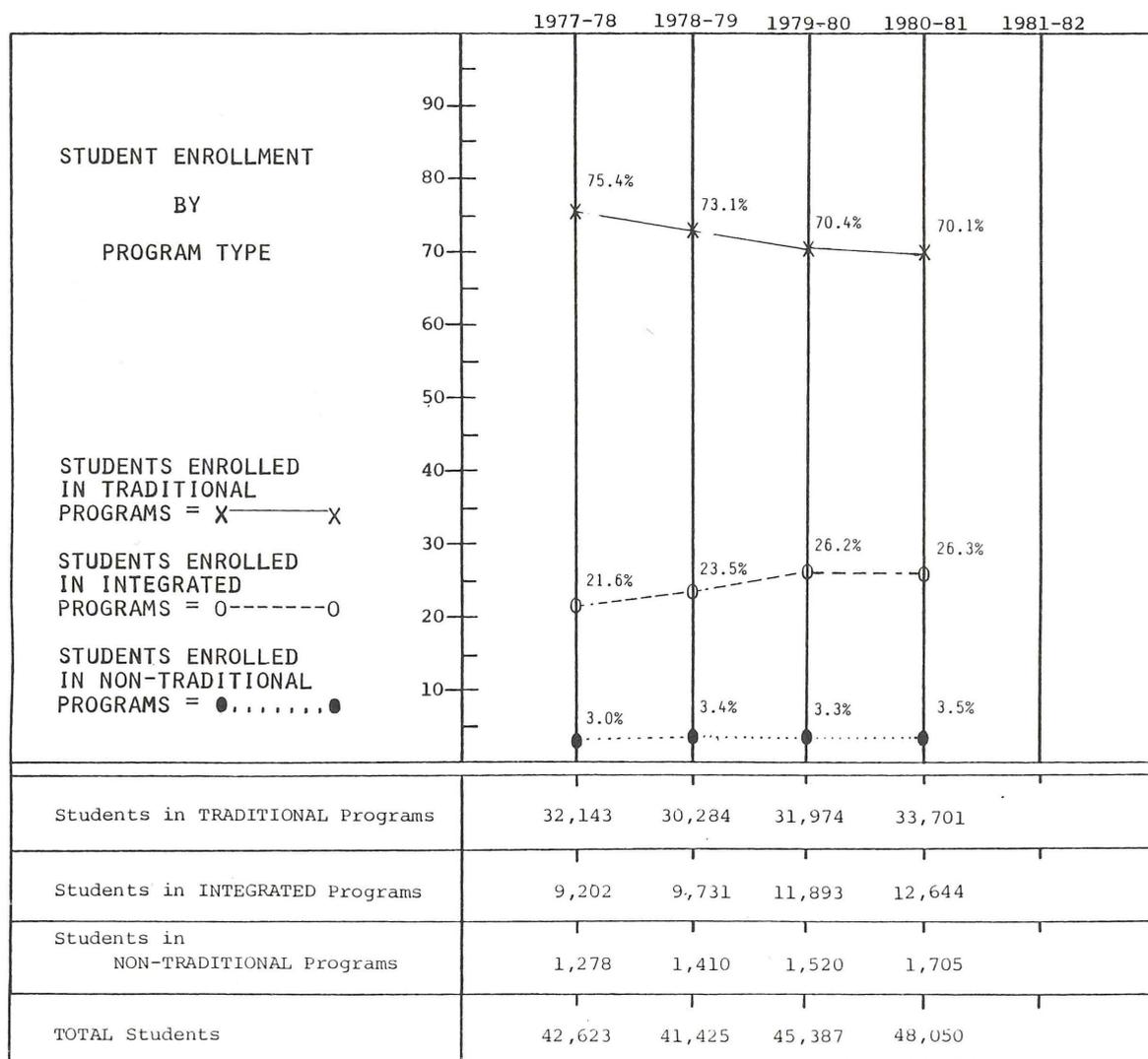
Statewide, almost one-fifth of AVTI students are enrolled in programs which are either all-male or all-female. There are 4,318 male students in programs with no women, and 4,201 female students in courses with no men. More than 100 programs at individual AVTIs have only one female student or only one male student, among an average of 40 students of the other sex. Sixty-nine women are in the position of being "the only woman" in classes such as Welding and Cutting, Sheet Metal, and Electronics Technology. Thirty-three men are "the only man" in classes such as Nursing LPN, General Secretarial, and Apparel & Accessories. (See Table 3.)

# Enrollments by Program Type - Trends

One of the most significant changes in numerical measures of sex equity in the past four years has been the increase in the number of students enrolled in integrated programs, from just over one-fifth of students to more than one-quarter of students. There have also been small but steady increases in the numbers of students enrolled in nontraditional programs. However, there is greater movement from segregated to integrated programs than from segregated traditional to segregated nontraditional courses.

In the past four years, the number of students enrolled in integrated programs has increased by 3,442, compared to increases of 1,558 in traditional enrollments and 427 in nontraditional enrollments.

Female students have been more likely than male students to enroll in either integrated programs or nontraditional programs throughout this period. Female integrated enrollments have increased from fewer than 1 in 4 to almost 1 in 3. Male enrollments in integrated programs have increased from about 1 in 5 to about 1 in 4.

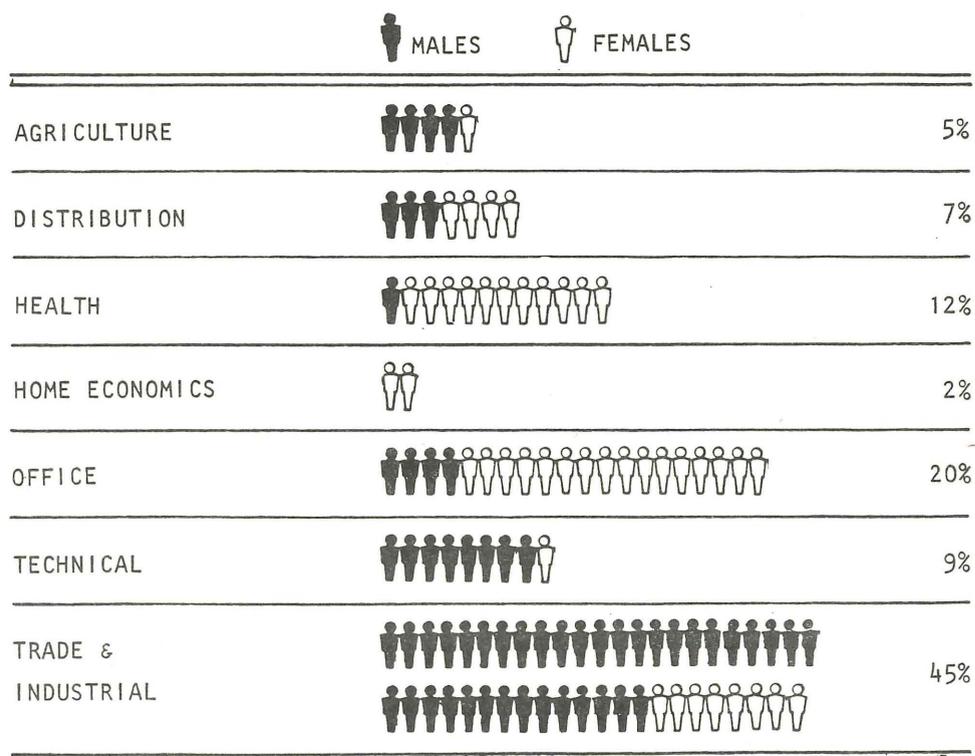


# Enrollment by Curriculum Area, 1980-81

The chart below shows the distribution of male and female students in the seven AVTI curriculum areas. Almost half of all students are enrolled in trade-industrial programs, while only 2 percent are participating in home economics programs.

Only the distributive education programs have approximately equal numbers of male and female students. About two-thirds of female students are enrolled in health or business-office programs, while more than three-fourths of male students are enrolled in technical or trade-industrial programs. (See Table 7.)

AVTI HEADCOUNT BY CURRICULUM AREA, 1980-81



Each figure represents approximately 1% of total enrollment, or 481 students.

Statewide patterns shown above do not illustrate the full extent of segregation by sex in program areas. For example, even the relatively few male students enrolled in office programs are concentrated in a few courses. Three-fourths of male office students are enrolled in Accounting, EDP & Programming/Computer Operations, or Data Processing II/Computer operations.

In the trade-industrial area, 61 percent of female students are enrolled in just four courses: Commercial Art, Graphic Arts, Cosmetology, or Food Preparation Cooking. These four programs account for only 9 percent of male trade-industrial students.

# Enrollment by Curriculum Area - Trends

Overall, there have been few changes in the patterns of male and female enrollment by program over the past four years. Male students continue to be concentrated in agriculture, technical, and trade-industrial courses; female students continue to be concentrated in health, home economics, and business-office courses.

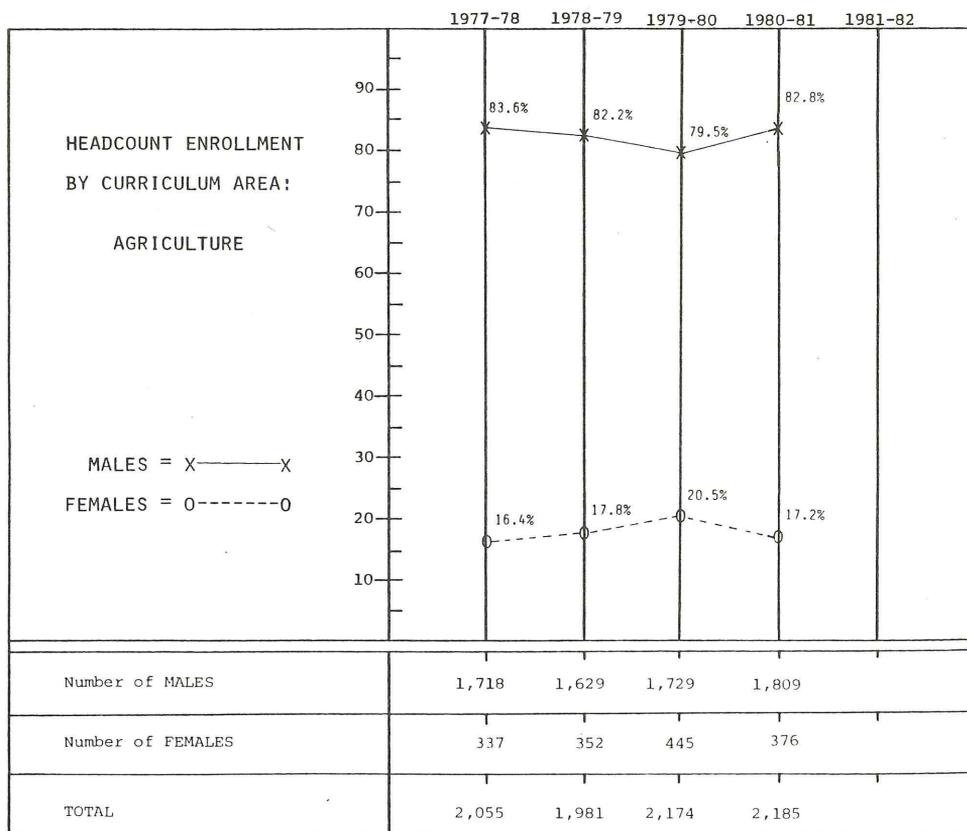
However, there have been increases in male enrollments in health courses, and in female enrollments in agriculture, technical, and trade-industrial enrollments over the four years -- though there were slight decreases in these female enrollments over the past year.

The charts below and on the following pages show changes in enrollment patterns by curriculum area. For more information on enrollment in specific courses in 1980-81, see Table 10 in the appendix to this report.

\* \* \* \* \*

Women represent about one in six agriculture students, and female enrollments as a percentage of all enrollments in this area dropped slightly in the last year. However, the rate of increase for female enrollments over the past four years has been 12 percent compared with a rate of 5 percent for males.

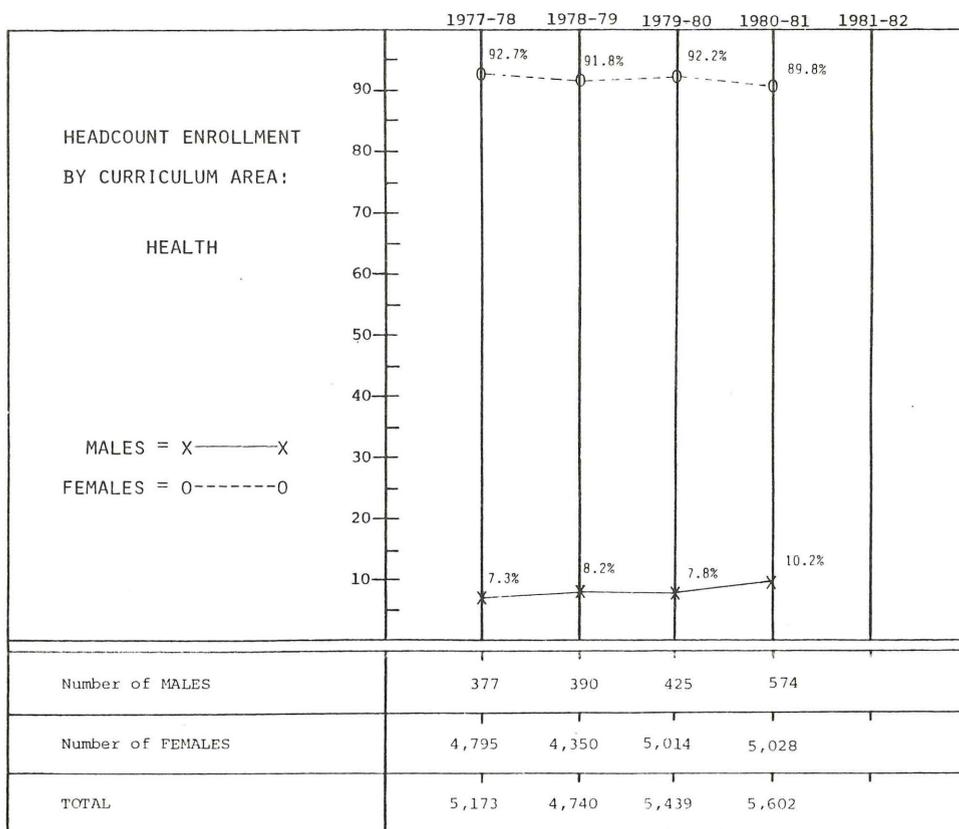
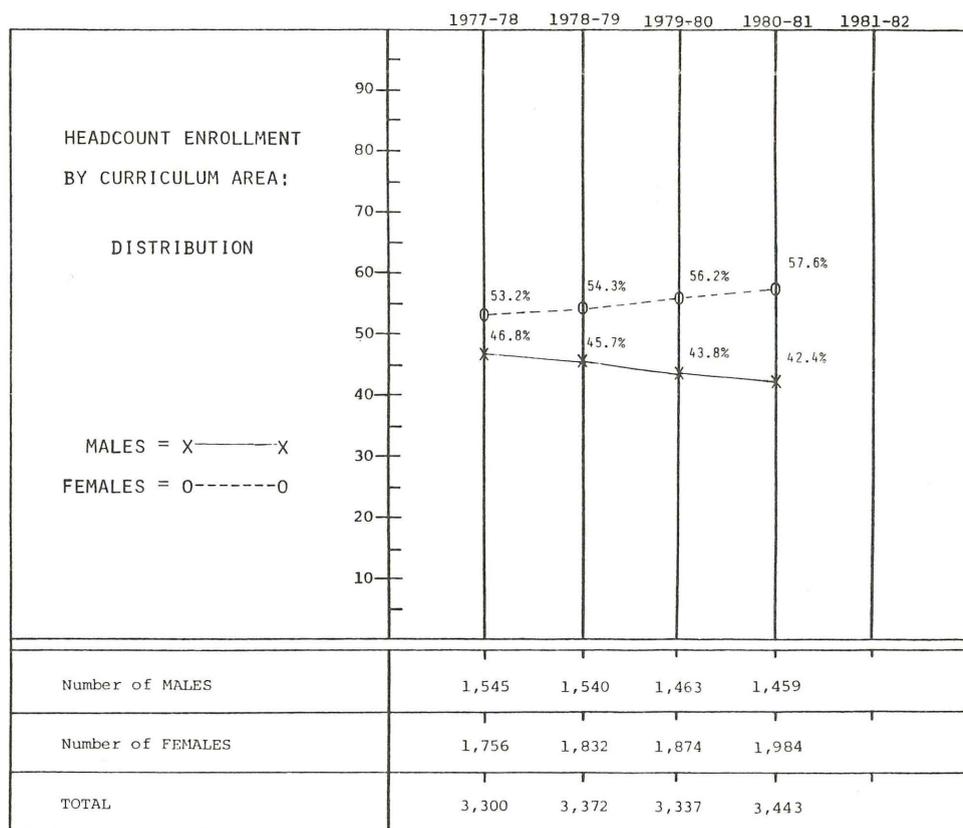
Of the 15 agriculture courses offered statewide, 8 are "male" courses and 7 are integrated courses. The "male" courses account for more than two-thirds of all agriculture students.



# Enrollment by Curriculum Area - Trends, continued

Distribution has been the most balanced by sex of the curriculum areas. In the past four years, however, this area has become more segregated. Female enrollments have increased at the rate of 13 percent, while male enrollments have decreased at the rate of 6 percent.

Of the 20 distribution courses offered statewide, 11 are integrated while 5 are "male" courses and 4 are "female" courses. Sixty-one percent of distribution students are enrolled in an integrated program.



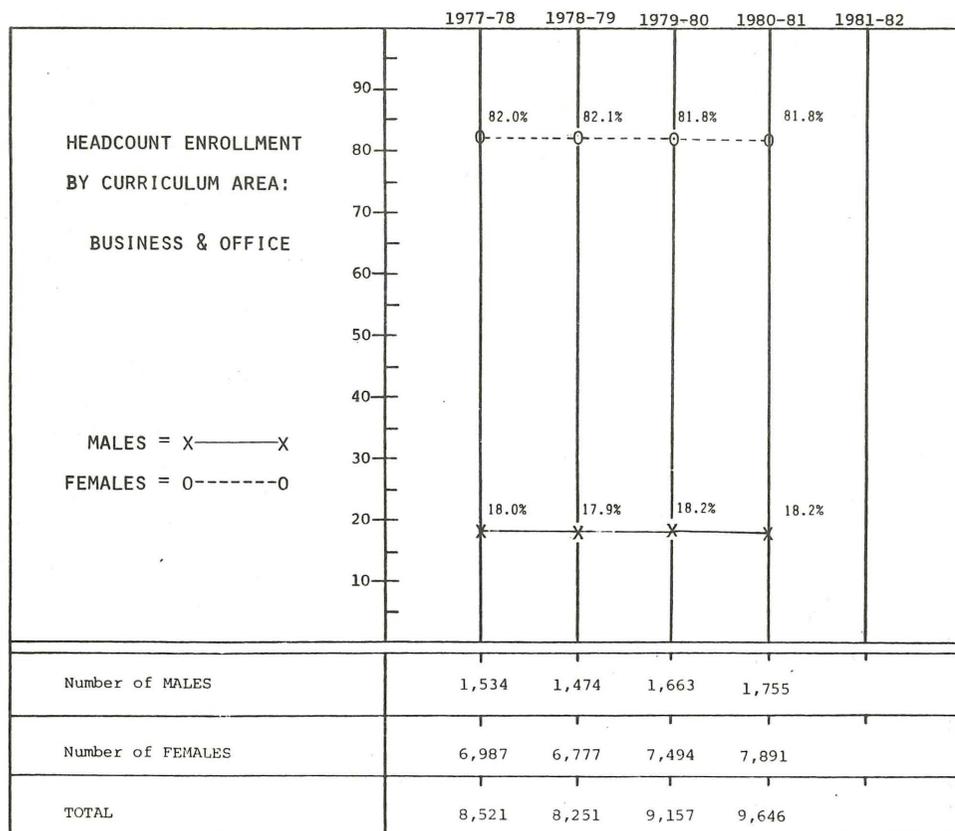
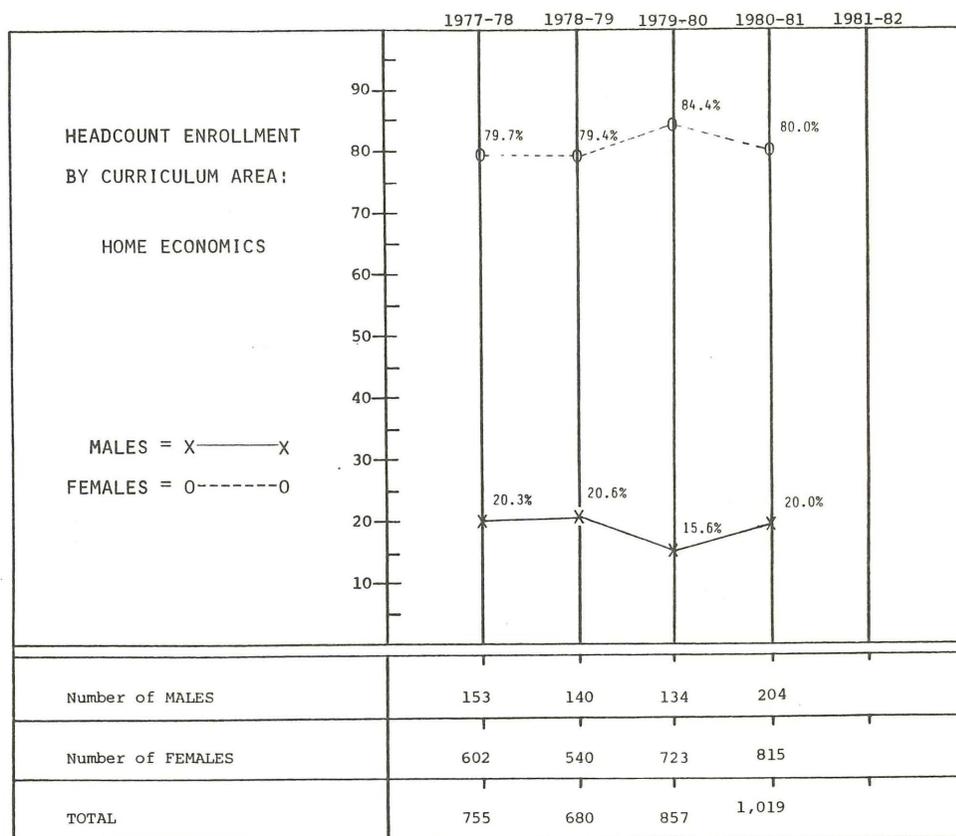
Men now represent about one in ten health students, and their enrollments have increased by 52 percent over the last four years compared to a 5 percent increase in female enrollments.

Of the 17 health courses offered statewide, 13 are "female" courses while 2 are "male" courses and 2 are integrated courses. Ninety-three percent of health students are enrolled in a "female" class.

# Enrollment by Curriculum Area - Trends, continued

Men represent one in five home economics students, a slightly smaller proportion than four years ago. Although this area has become more balanced in the past year, male representation remains below the level of four years ago.

Of the 8 home economics courses offered statewide, 4 are "female" and 4 are integrated. Almost three-fourths of the students are enrolled in the "female" courses.



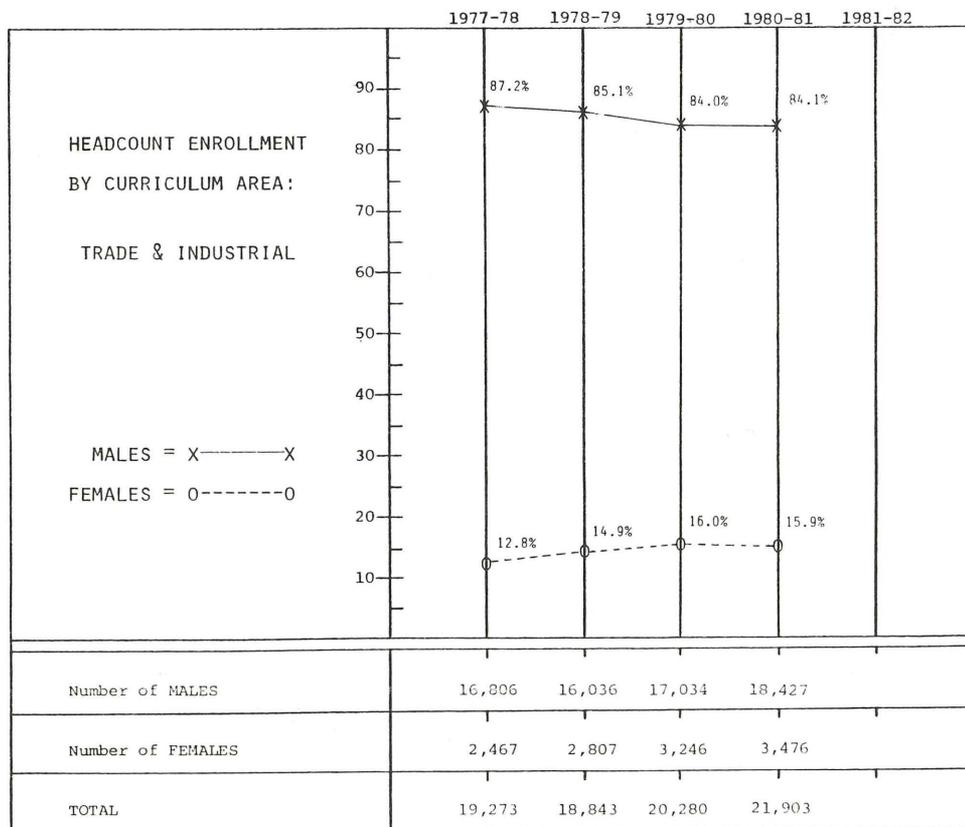
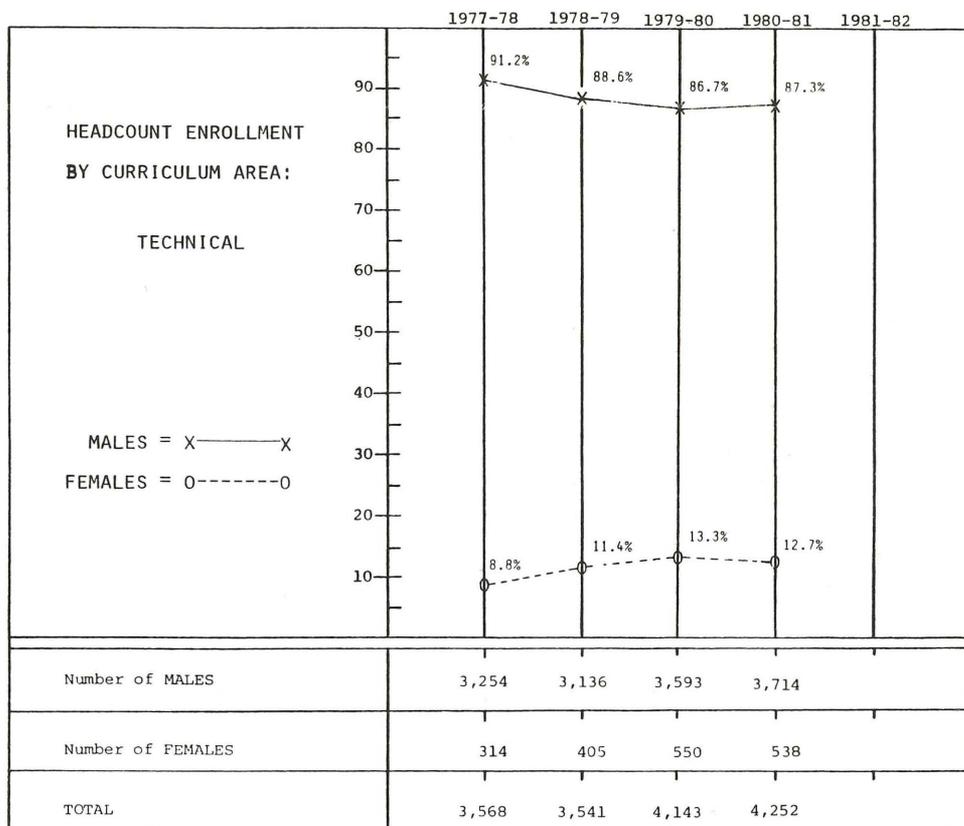
Men represent about one in six business-office students, and there has been virtually no change in this area in the past four years.

Of the 23 business-office courses offered statewide, 16 are "female" courses and 7 are integrated courses. However, 43 percent of students are enrolled in the integrated courses.

# Enrollment by Curriculum Area - Trends, continued

Women account for about one in eight technical students. Although their representation has dropped in the last year, it remains well above the level of four years ago.

Of the 21 technical courses offered statewide, 14 are "male" courses and 7 are integrated courses. The "male" courses account for 85 percent of students.



Women account for about one in six trade-industrial students. Although their representation decreased slightly in the last year, it remains well above the level of four years ago.

Of the 66 trade-industrial courses offered statewide, 47 are "male," 1 is "female," and 18 are integrated. The integrated courses account for 17 percent of students. There are seven statewide courses with no female students.

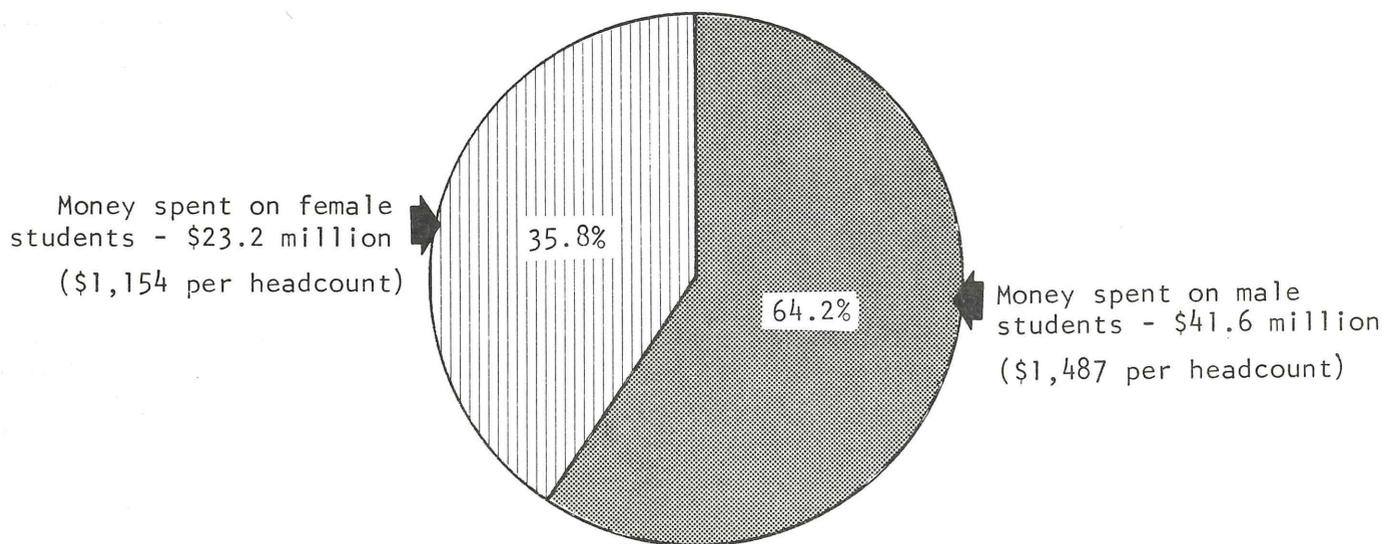
# Program Budgets, 1980-81

Program expenditures provide another method of measuring sex equity. The program budget of the AVTI system totals \$64.8 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, \$41.6 million is spent on male students and \$23.2 million is spent on female students, a ratio of almost two to one.

Program costs are apportioned by applying male and female enrollment ratios in each program to the net budget for that program. For example, a budget of \$100,000 for a program with 90 male and 10 female students is recorded as \$90,000 spent on male students and \$10,000 spent on female students. (See Tables 11 & 12)

AVTI PROGRAM COSTS APPORTIONED BY SEX OF STUDENT



1980-81 PROGRAM BUDGET - \$64.8 MILLION

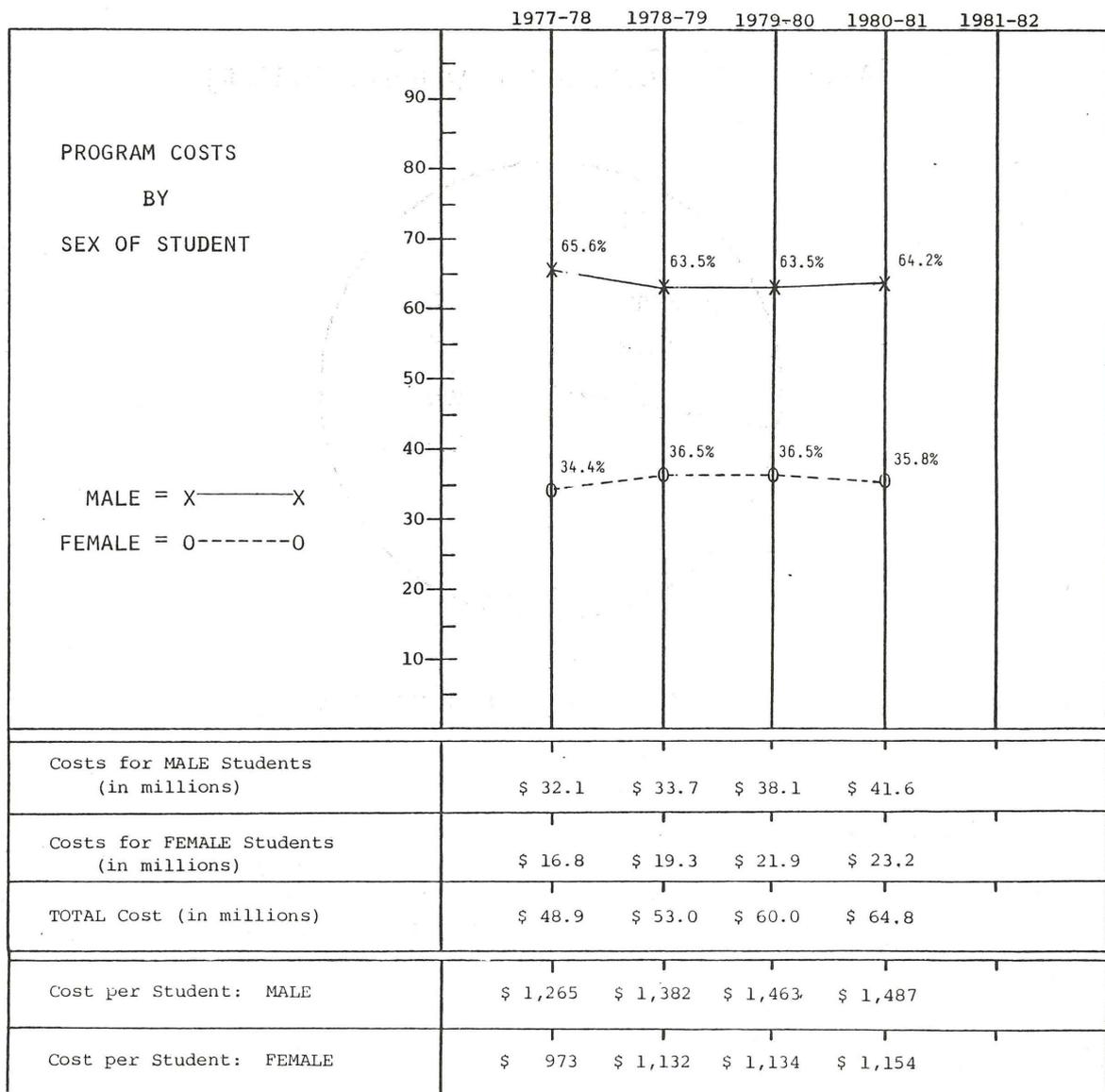
Women account for 42 percent of AVTI enrollments, but they receive only 36 percent of budgets statewide. Only five schools -- Brainerd, Canby, Detroit Lakes, Faribault, and Pipestone -- have "female" budgets which are in excess of female enrollments. At Jackson AVTI, the "female" budget equals female enrollments. In the remaining 27 AVTIs, financial resources apportioned to male students exceed their representation in the student population.

# Program Budgets - Trends

The proportion of AVTI budgets spent on female students remains above the level of four years ago, though it decreased in the last year. Total budgets statewide increased from \$48.9 million to \$64.8 million over the four-year period.

The net result of these changes was that male students received an additional \$9.5 million while female students received an additional \$6.4 million over that period.

Costs per student increased in the same period by \$222 for male students and by \$181 for female students.

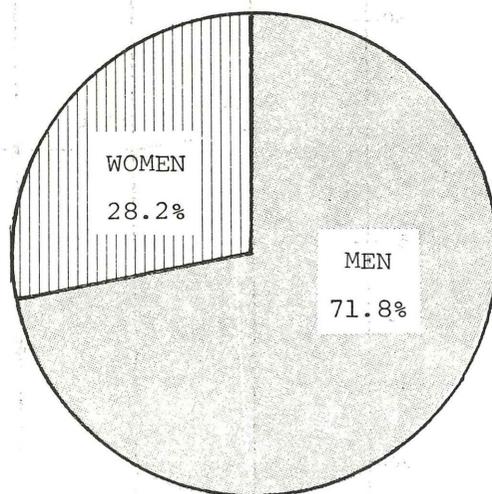


## Staff Patterns, 1980-81

Staffing patterns provide another measure of sex equity in vocational education. Female staff can serve as role models for female students, and provide tangible evidence of an institution's commitment to equal opportunity. Both numbers of staff and staff salaries in this report are expressed in full-time equivalents (FTEs).

A substantial majority of the 2,294 AVTI teachers are men. Women represent the minority of teachers, usually less than one-third, at all AVTIs except East Grand Forks (52.7 percent female) and Rochester (57.2 percent female) -- both schools where a majority of students are women. (See Table 13)

AVTI POST-SECONDARY TEACHERS, 1980-81



2,294 FTE TEACHERS

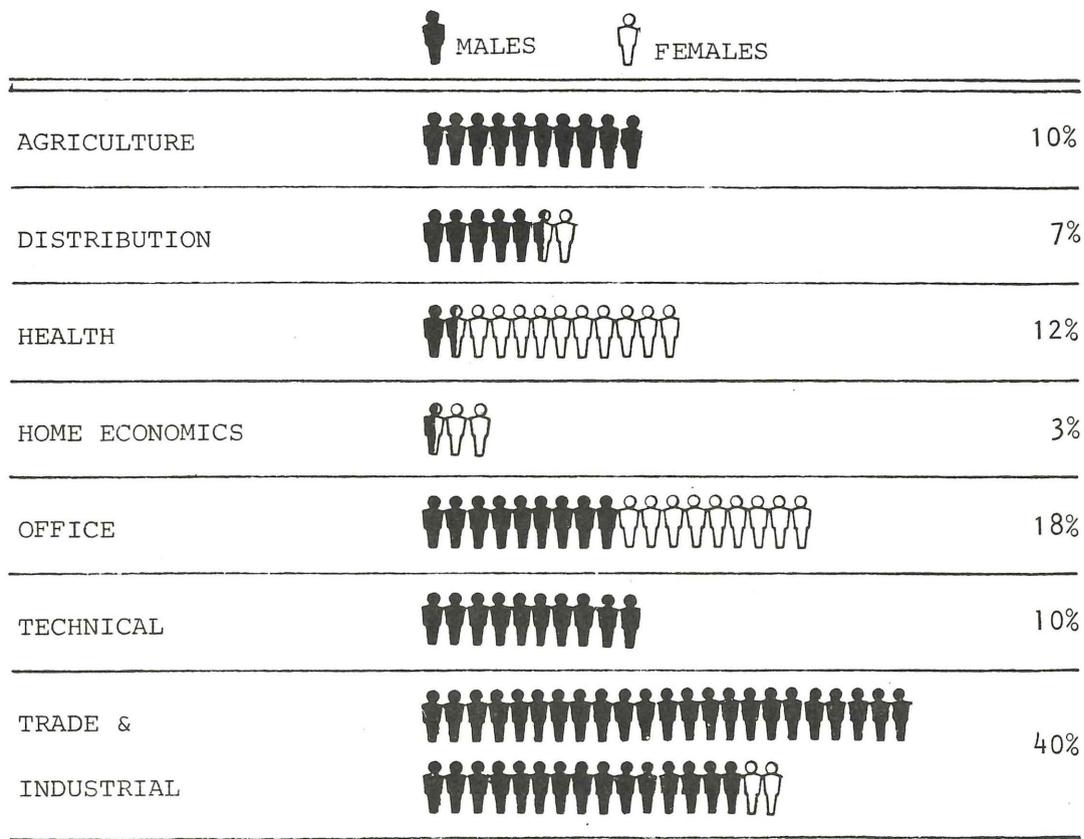
Although male and female teachers have the same average years of service statewide, female teachers have significantly lower average salaries. Male teachers have higher average salaries than female teachers at every AVTI but Hibbing, where men earn an average of \$21,049 and women earn an average of \$21,273. However, women have as many or more years of service, on the average, at six AVTIs. (See Table 14)

Among all post-secondary administrators, women now account for 14 percent, or about one in seven.

# Teachers by Curriculum Area, 1980-81

Women account for just over one in four vocational teachers at the post-secondary level statewide. More than half of female teachers are in health or business and office programs, "female" fields which also account for the majority of female AVTI students. More than half of male teachers are concentrated in technical or trade-industrial programs, which account for the majority of male enrollments and for the smallest numbers of female students.

AVTI TEACHERS BY CURRICULUM AREA, 1980-81



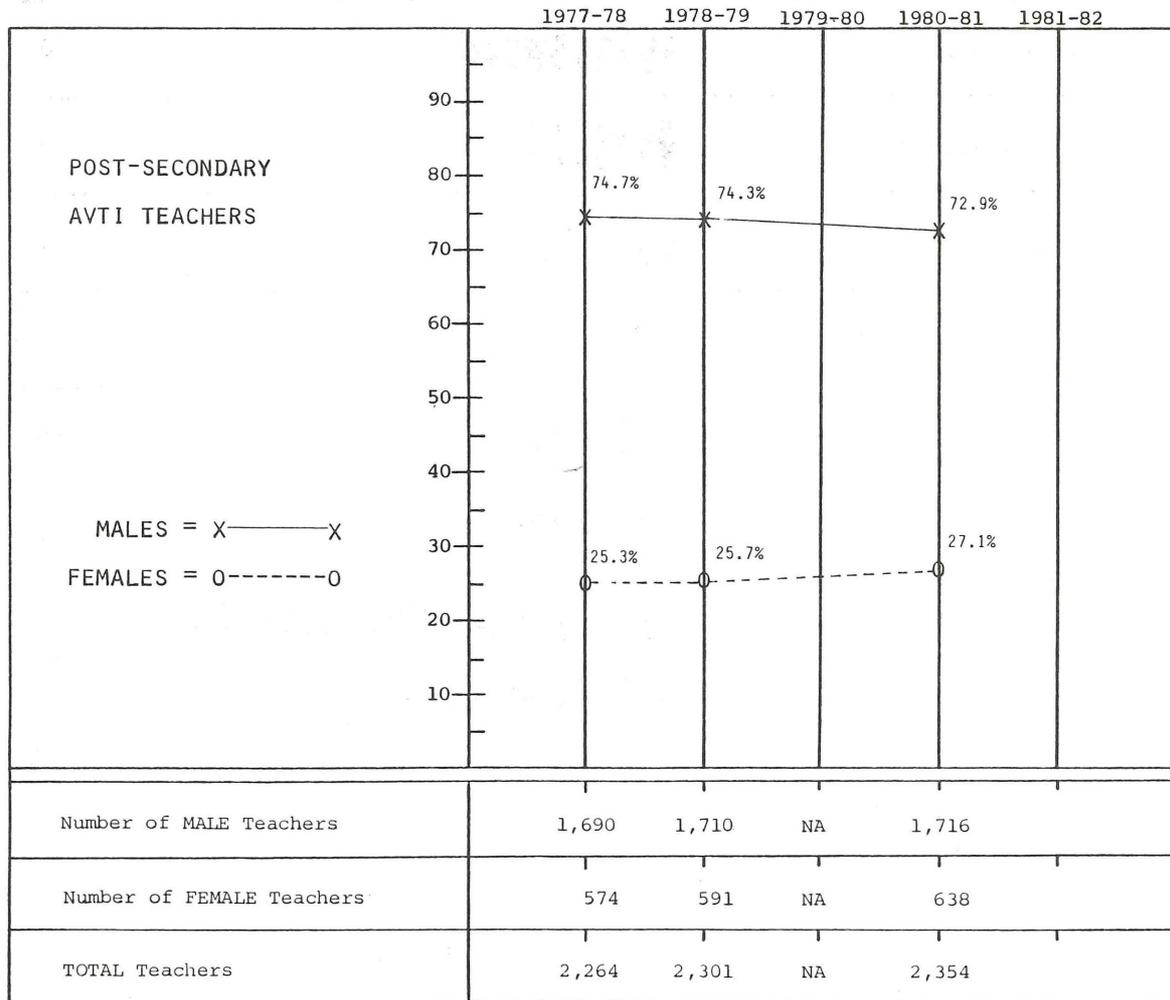
*Each figure represents 1% of total post-secondary AVTI teachers, or approximately 20 teachers.*

The proportion of teachers who are female is lower than the proportion of students who are female in every program area. Women are 89 percent of the teachers and 92 percent of the students in health programs; 82 percent of the teachers and 84 percent of the students in home economics programs; and 50 percent of the teachers and 82 percent of the students in business and office programs.

# Teacher Trends

From 1977-78 to 1980-81, the number of post-secondary vocational teachers increased from 2264 to 2354, a net increase of 91 FTE positions. Of this number, 26 were male teachers and 65 were female teachers. The statewide representation of female teachers increased over this period from 25 percent to 27 percent, with most of the increase occurring over the last two years of this four-year period.

Similar gains occurred in the representation of women among post-secondary vocational administrators, from 11 percent in 1977-78 to 14 percent in 1980-81.



# Student Follow-Up, 1981

Information about AVTI graduates is compiled yearly by the Minnesota Vocational Follow-Up System. The 1981 report presents information about 6,541 women and 6,743 men who graduated from an AVTI in fiscal year 1980.

In general, there are few differences between male and female graduates except in occupation and earnings. Eighty-five percent of the women and 87 percent of the men were employed one year later. Both male and female graduates were likely to work full-time, although more women than men worked part-time. About two-thirds of each group were employed in jobs related to their vocational training -- 62 percent of women and 64 percent of men.

Male graduates were somewhat more likely than female graduates to receive additional training in the year following graduation, 41 percent compared to 36 percent. Both men and women were likely to have received on-the-job training only, but this response was more common among women. Female graduates were more likely than their male counterparts to attend college; male graduates were more likely to receive additional training at a vocational school or through an apprenticeship program, and men were more likely to receive training from several different sources.

Female graduates expressed a higher level of satisfaction than male graduates in questions related to their present jobs and to their AVTI experience -- a typical pattern for women in most studies. In questions related to their present jobs, women expressed greatest satisfaction with co-workers and safety conditions, while men expressed greatest satisfaction with advancement potential and salary. Twenty-eight percent of male graduates and 22 percent of female graduates reported that they had received job advancement in the first year after graduation.

Since most graduates are employed in jobs related to their vocational training, it is not surprising that employment patterns closely parallel AVTI enrollments, and that there are significant differences between men and women in occupation and earnings. One year after graduation, 63 percent of male graduates are employed in trade-industrial occupations. These occupations, however, account for only 15 percent of female graduates.

Auto Mechanics was the most likely occupation for men employed in trade-industrial jobs, accounting for about 7 percent of these men, while cosmetology was the most frequent for women. About half of female AVTI graduates were employed in office occupations, primarily Business and Office Clerk or General Secretary. The office occupations cluster accounted for only 6 percent of male graduates, most of whom were employed in accounting or data processing.

Male graduates were least likely to be employed in health or home economics occupations, together accounting for less than 4 percent of the men. Female graduates were least likely to work in agricultural, home economics, or technical occupations, together accounting for less than 6 percent of the women.

# Student Follow-Up, continued

Salary data are obtained for the first job after graduation and for the job in which graduates are employed one year later, and women earn considerably less than men at both points. In their first jobs, women earned a median annualized salary of \$8,350, compared to \$10,820 for men. Within one year, the earnings gap had widened, with median salaries of \$9,050 for women and \$11,710 for men.

MONTHLY WAGES ONE YEAR AFTER GRADUATION,  
 AVTI GRADUATES EMPLOYED FULL-TIME IN JOBS RELATED TO TRAINING  
 (1981 REPORT)



The state minimum wage in 1981 was \$3.10 per hour, or \$537 per month for full-time workers. In their current jobs, most AVTI graduates had earnings over \$600 monthly. The women, however, were more likely than the men to have earnings at or near the minimum wage -- 20 percent of the female graduates had salaries of \$600 per month or less.

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TABLE 1. HEADCOUNT ENROLLMENTS BY SEX, 1980-81

<u>AVTI</u>	<u>Male Students</u>	<u>Female Students</u>	<u>Total Students</u>	<u>Percent Female</u>
Albert Lea	436	218	654	33.3 %
Alexandria	985	802	1,787	44.9 %
Anoka	1,646	1,197	2,843	42.1 %
Austin	502	269	771	34.9 %
Bemidji	287	252	539	46.8 %
Brainerd	437	390	827	47.2 %
Canby	339	146	485	30.1 %
Dakota County	1,141	836	1,977	42.3 %
Detroit Lakes	783	293	1,076	27.2 %
Duluth	1,136	1,143	2,279	50.2 %
East Grand Forks	471	541	1,012	53.5 %
Eveleth	208	244	452	54.0 %
Faribault	301	208	509	40.9 %
Granite Falls	263	263	526	50.0 %
Hibbing	403	242	645	37.5 %
Hutchinson	453	332	785	42.3 %
Jackson	627	255	882	28.9 %
Mankato	1,034	932	1,966	47.4 %
Minneapolis	1,576	1,335	2,911	45.9 %
Moorhead	595	485	1,080	44.9 %
916	2,601	2,439	5,040	48.4 %
Pine City	263	112	375	29.9 %
Pipestone	571	278	849	32.7 %
Red Wing	538	196	734	26.7 %
Rochester	498	872	1,370	63.6 %
St. Cloud	1,307	862	2,169	39.7 %
St. Paul	2,165	1,348	3,513	38.4 %
Staples	617	105	722	14.5 %
Suburban Hennepin	3,532	1,791	5,323	33.6 %
Thief River Falls	421	215	636	33.8 %
Wadena	423	273	696	39.2 %
Willmar	955	919	1,874	49.0 %
Winona	428	315	743	42.4 %
TOTAL	27,942	20,108	48,050	41.8 %

TABLE 2. SEGREGATED AND INTEGRATED PROGRAMS, 1980-81

AVTI	Total Programs	Segregated Programs		Total	Integrated Programs	Percent Integrated
		"Male" Programs	"Female" Programs			
Albert Lea	13	6	1	7	6	46.2 %
Alexandria	32	15	9	24	8	25.0 %
Anoka	38	10	15	25	13	34.2 %
Austin	16	7	4	11	5	31.3 %
Bemidji	13	6	4	10	3	23.1 %
Brainerd	22	7	9	16	6	27.3 %
Canby	13	7	2	9	4	30.8 %
Dakota County	35	20	7	27	8	22.9 %
Detroit Lakes	27	13	5	18	9	33.3 %
Duluth	31	13	9	22	9	29.0 %
East Grand Forks	20	7	13	20	0	0.0 %
Eveleth	12	5	5	10	2	16.7 %
Faribault	15	9	3	12	3	20.0 %
Granite Falls	14	5	6	11	3	21.4 %
Hibbing	14	6	6	12	2	14.3 %
Hutchinson	18	8	7	15	3	16.7 %
Jackson	22	12	6	18	4	18.2 %
Mankato	23	10	5	15	8	34.8 %
Minneapolis	34	15	7	22	12	35.3 %
Moorhead	24	10	8	18	6	25.0 %
916	54	21	17	38	16	29.6 %
Pine City	10	6	3	9	1	10.0 %
Pipestone	14	8	4	12	2	14.3 %
Red Wing	19	12	2	14	5	26.3 %
Rochester	25	8	13	21	4	16.0 %
St. Cloud	35	18	7	25	10	28.6 %
St. Paul	40	18	11	29	11	27.5 %
Staples	16	11	1	12	4	25.0 %
Suburban Hennepin	51	26	9	35	16	31.4 %
Thief River Falls	16	7	5	12	4	25.0 %
Wadena	15	8	4	12	3	20.0 %
Willmar	27	11	10	21	6	22.2 %
Winona	21	11	8	19	2	9.5 %
TOTAL	779	356	225	581	198	25.4 %

TABLE 3. SINGLE-SEX PROGRAMS & ENROLLMENTS, 1980-81

AVTI	# Programs		Total One-Sex Programs	# Students		Total Students in One- Sex Progs
	All- Female	All- Male		Female in All- F Progs	Male in All- M Progs	
Albert Lea	1	1	2	68	40	108
Alexandria	7	9	16	372	355	727
Anoka	8	1	9	364	64	428
Austin	1	4	5	42	170	212
Bemidji	3	3	6	142	87	229
Brainerd	5	2	7	125	100	225
Canby	2	5	7	80	186	266
Dakota County	2	9	11	194	313	507
Detroit Lakes	2	7	9	40	241	281
Duluth	2	0	2	76	0	76
East Grand Forks	5	2	7	194	104	298
Eveleth	1	1	2	45	43	88
Faribault	0	4	4	0	117	117
Granite Falls	6	2	8	190	77	267
Hibbing	2	0	2	45	0	45
Hutchinson	5	1	6	163	12	175
Jackson	4	4	8	59	204	263
Mankato	3	3	6	99	217	316
Minneapolis	1	0	1	31	0	31
Moorhead	5	2	7	186	83	269
916	4	2	6	469	86	555
Pine City	2	2	4	50	44	94
Pipestone	1	1	2	52	29	81
Red Wing	1	7	8	37	187	224
Rochester	5	3	8	217	152	369
St. Cloud	5	4	9	294	190	484
St. Paul	2	3	5	40	170	210
Staples	1	8	9	20	183	203
Suburban Hennepin	2	6	8	26	321	347
Thief River Falls	4	2	6	134	87	221
Wadena	2	2	4	90	41	131
Willmar	4	5	9	197	264	461
Winona	4	3	7	60	151	211
TOTAL	102	108	210	4,201	4,318	8,519
<i>Percent of all programs</i>			27.0 %			
<i>Percent of all students</i>						17.7 %

TABLE 4. ENROLLMENTS BY PROGRAM TYPE, 1980-81 - MALES

AVTI	Total Male Students	Enrolled in Segregated Programs			Enrolled in Integrated Programs
		In "Male" Programs	In "Female" Programs	Total	
Albert Lea	436	311	0	311	125
Alexandria	985	729	6	735	250
Anoka	1,646	1,213	29	1,242	404
Austin	502	378	7	385	117
Bemidji	287	252	1	253	34
Brainerd	437	306	10	316	121
Canby	339	293	0	293	46
Dakota County	1,141	871	26	897	244
Detroit Lakes	783	574	5	579	204
Duluth	1,136	804	51	855	281
East Grand Forks	471	435	36	471	0
Eveleth	208	180	11	191	17
Faribault	301	243	4	247	54
Granite Falls	263	211	0	211	52
Hibbing	403	360	7	367	36
Hutchinson	453	339	12	351	102
Jackson	627	564	4	568	59
Mankato	1,034	674	3	677	357
Minneapolis	1,576	1,038	75	1,113	463
Moorhead	595	398	4	402	193
916	2,601	1,693	99	1,792	809
Pine City	263	252	2	254	9
Pipestone	571	423	13	436	135
Red Wing	538	443	1	444	94
Rochester	498	408	52	460	38
St. Cloud	1,307	990	5	995	312
St. Paul	2,165	1,583	47	1,630	535
Staples	617	516	0	516	101
Suburban Hennepin	3,532	2,301	68	2,369	1,163
Thief River Falls	421	366	2	368	53
Wadena	423	356	4	360	63
Willmar	955	739	40	779	176
Winona	428	380	9	389	39
TOTAL	27,942	20,623	633	21,256	6,686

TABLE 5. ENROLLMENTS BY PROGRAM TYPE, 1980-81 - FEMALES

AVTI	Total Female Students	Enrolled in Segregated Programs			Enrolled in Integrated Programs
		In "Male" Programs	In "Female" Programs	Total	
Albert Lea	218	7	68	75	143
Alexandria	802	33	514	547	255
Anoka	1,197	54	908	962	235
Austin	269	8	180	188	81
Bemidji	252	4	174	178	74
Brainerd	390	18	249	267	123
Canby	146	7	80	87	59
Dakota County	836	51	555	606	230
Detroit Lakes	293	23	125	148	145
Duluth	1,143	58	840	898	245
East Grand Forks	541	29	512	541	0
Eveleth	244	10	213	223	21
Faribault	208	12	125	137	71
Granite Falls	263	6	190	196	67
Hibbing	242	31	181	212	30
Hutchinson	332	22	257	279	53
Jackson	255	16	180	196	59
Mankato	932	30	420	450	482
Minneapolis	1,335	73	765	838	497
Moorhead	485	11	301	312	173
916	2,439	136	1,533	1,669	770
Pine City	112	9	74	83	29
Pipestone	278	13	219	232	46
Red Wing	196	28	84	112	84
Rochester	872	13	795	808	64
St. Cloud	862	50	402	452	410
St. Paul	1,348	96	879	975	373
Staples	105	8	20	28	77
Suburban Hennepin	1,791	146	906	1,052	739
Thief River Falls	215	9	156	165	50
Wadena	273	17	199	216	57
Willmar	919	31	722	753	166
Winona	315	13	252	265	50
TOTAL	20,108	1,072	13,078	14,150	5,958

TABLE 6. ENROLLMENTS BY PROGRAM TYPE, 1980-81 - ALL STUDENTS

AVTI	Total Students		In Seg-Trad'l Programs		In Seg-Non-Trad'l Progs		In Integrated Programs	
	Number	%	Number	%	Number	%	Number	%
Albert Lea	654	100%*	379	58.0	7	1.1	268	41.0
Alexandria	1,787	100%	1,243	69.6	39	2.2	505	28.3
Anoka	2,843	100%	2,121	74.6	83	2.9	639	22.5
Austin	771	100%	558	72.4	15	1.9	198	25.7
Bemidji	539	100%	426	79.0	5	0.9	108	20.0
Brainerd	827	100%	555	67.1	28	3.4	244	29.5
Canby	485	100%	373	76.9	7	1.4	105	21.6
Dakota County	1,977	100%	1,426	72.1	77	3.9	474	24.0
Detroit Lakes	1,076	100%	699	65.0	28	2.6	349	32.4
Duluth	2,279	100%	1,644	72.1	109	4.8	526	23.1
East Grand Forks	1,012	100%	947	93.6	65	6.4	0	0.0
Eveleth	452	100%	393	86.9	21	4.6	38	8.4
Faribault	509	100%	368	72.3	16	3.1	125	24.6
Granite Falls	526	100%	401	76.2	6	1.1	119	22.6
Hibbing	645	100%	541	83.9	38	5.9	66	10.2
Hutchinson	785	100%	596	75.9	34	4.3	155	19.7
Jackson	882	100%	744	84.4	20	2.3	118	13.4
Mankato	1,966	100%	1,094	55.6	33	1.7	839	42.7
Minneapolis	2,911	100%	1,803	61.9	148	5.1	960	33.0
Moorhead	1,080	100%	699	64.7	15	1.4	366	33.9
916	5,040	100%	3,226	64.0	235	4.7	1,579	31.3
Pine City	375	100%	326	86.9	11	2.9	38	10.1
Pipestone	849	100%	642	75.6	26	3.1	181	21.3
Red Wing	734	100%	527	71.8	29	4.0	178	24.3
Rochester	1,370	100%	1,203	87.8	65	4.7	102	7.4
St. Cloud	2,169	100%	1,392	64.2	55	2.5	722	33.3
St. Paul	3,513	100%	2,462	70.1	143	4.1	908	25.8
Staples	722	100%	536	74.2	8	1.1	178	24.7
Suburban Hennepin	5,323	100%	3,207	60.2	214	4.0	1,902	35.7
Thief River Falls	636	100%	522	82.1	11	1.7	103	16.2
Wadena	696	100%	555	79.7	21	3.0	120	17.2
Willmar	1,874	100%	1,461	78.0	71	3.8	342	18.2
Winona	743	100%	632	85.1	22	3.0	89	12.0
TOTAL	48,050	100%	33,701	70.1	1,705	3.5	12,644	26.3

\*Percentages may add to 99.9 or 100.1, rather than 100.0, due to rounding.

TABLE 7. ENROLLMENTS BY CURRICULUM AREA, 1980-81

AVTI	Agriculture			Distribution			Health			Home Economics		
	#M	#F	%F	#M	#F	%F	#M	#F	%F	#M	#F	%F
Albert Lea	--	--	--	48	46	48.9%	--	--	--	22	22	50.0%
Alexandria	70	0	0.0%	117	267	69.5%	1	90	98.9%	0	42	100.0%
Anoka	109	33	23.2%	91	124	57.7%	49	612	92.6%	1	51	98.1%
Austin	42	0	0.0%	12	11	47.8%	2	45	95.7%	--	--	--
Bemidji	31	1	3.1%	10	14	58.3%	25	32	56.1%	--	--	--
Brainerd	79	46	36.8%	75	52	40.9%	4	91	95.8%	--	--	--
Canby	145	4	2.7%	--	--	--	0	40	100.0%	7	8	53.3%
Dakota County	66	31	32.0%	141	353	71.5%	2	49	96.1%	47	30	39.0%
Detroit Lakes	61	22	26.5%	38	45	54.2%	1	32	97.0%	--	--	--
Duluth	75	30	28.6%	72	91	55.8%	50	385	88.5%	30	12	28.6%
East Grand Forks	104	0	0.0%	0	14	100.0%	18	245	93.2%	0	4	100.0%
Eveleth	--	--	--	--	--	--	6	102	94.4%	--	--	--
Faribault	41	0	0.0%	13	27	67.5%	3	84	96.6%	--	--	--
Granite Falls	25	1	3.8%	10	6	37.5%	0	35	100.0%	--	--	--
Hibbing	--	--	--	20	16	44.4%	5	115	95.8%	1	21	95.5%
Hutchinson	76	4	5.0%	35	31	47.0%	--	--	--	--	--	--
Jackson	42	3	6.7%	9	11	55.0%	3	86	96.6%	--	--	--
Mankato	118	0	0.0%	79	93	54.1%	1	203	99.5%	0	27	100.0%
Minneapolis	--	--	--	62	35	36.1%	28	332	92.2%	13	64	83.1%
Moorhead	34	1	2.9%	65	88	57.5%	0	20	100.0%	--	--	--
916	17	34	66.7%	107	129	54.7%	221	596	72.9%	55	286	83.9%
Pine City	44	0	0.0%	--	--	--	--	--	--	0	13	100.0%
Pipestone	36	5	12.2%	107	128	54.5%	--	--	--	--	--	--
Red Wing	16	0	0.0%	9	18	66.7%	1	47	97.9%	20	27	57.4%
Rochester	4	24	85.7%	--	--	--	45	550	92.4%	0	36	100.0%
St. Cloud	39	1	2.5%	149	113	43.1%	11	185	94.4%	2	48	96.0%
St. Paul	--	--	--	--	--	--	34	426	92.6%	3	36	92.3%
Staples	53	0	0.0%	--	--	--	--	--	--	--	--	--
Suburban Hennepin	187	113	37.7%	103	119	53.6%	50	310	86.1%	3	88	96.7%
Thief River Falls	26	0	0.0%	9	14	60.9%	2	22	91.7%	--	--	--
Wadena	--	--	--	3	21	87.5%	--	--	--	--	--	--
Willmar	236	22	8.5%	52	95	64.6%	6	191	97.0%	--	--	--
Winona	33	1	2.9%	23	23	50.0%	6	103	94.5%	--	--	--
TOTAL	1,809	376	17.2%	1,459	1,984	57.6%	574	5,028	89.8%	204	815	80.0%

(TABLE 7, CONTINUED)

Office			Technical			Trade-Industrial			TOTAL			AVTI
#M	#F	%F	#M	#F	%F	#M	#F	%F	#M	#F	%F	
18	110	85.9%	11	24	68.6%	337	16	4.5%	436	218	33.3%	Albert Lea
97	335	77.5%	112	4	3.4%	588	64	9.8%	985	802	44.9%	Alexandria
0	239	100.0%	210	33	13.6%	1,186	105	8.1%	1,646	1,197	42.1%	Anoka
10	91	90.1%	104	18	14.8%	332	104	23.9%	502	269	34.9%	Austin
24	202	89.4%	--	--	--	197	3	1.5%	287	252	46.8%	Bemidji
27	184	87.2%	--	--	--	252	17	6.3%	437	390	47.2%	Brainerd
15	71	82.6%	22	3	12.0%	150	20	11.8%	339	146	30.1%	Canby
82	279	77.3%	81	11	12.0%	722	83	10.3%	1,141	836	42.3%	Dakota County
8	92	92.0%	--	--	--	675	102	13.1%	783	293	27.2%	Detroit Lakes
81	531	86.8%	255	34	11.8%	573	60	9.5%	1,136	1,143	50.2%	Duluth
18	249	93.3%	--	--	--	331	29	8.1%	471	541	53.5%	East Grand Forks
5	111	95.7%	31	2	6.1%	166	29	14.9%	208	244	54.0%	Eveleth
11	73	86.9%	31	12	27.9%	202	12	5.6%	301	208	40.9%	Faribault
15	208	93.3%	109	5	4.4%	104	8	7.1%	263	263	50.0%	Granite Falls
1	45	97.8%	29	4	12.1%	347	41	10.6%	403	242	37.5%	Hibbing
12	257	95.5%	130	12	8.5%	200	28	12.3%	453	332	42.3%	Hutchinson
9	122	93.1%	73	18	19.8%	491	15	3.0%	627	255	28.9%	Jackson
157	438	73.6%	238	29	10.9%	441	142	24.4%	1,034	932	47.4%	Mankato
158	444	73.8%	94	21	18.3%	1,221	439	26.4%	1,576	1,335	45.9%	Minneapolis
83	333	80.0%	39	1	2.5%	374	42	10.1%	595	485	44.9%	Moorhead
295	831	73.8%	291	75	20.5%	1,615	488	23.2%	2,601	2,439	48.4%	916
11	90	89.1%	--	--	--	208	9	4.1%	263	112	29.9%	Pine City
74	104	58.4%	--	--	--	354	41	10.4%	571	278	32.7%	Pipestone
49	69	58.5%	142	22	13.4%	301	13	4.1%	538	196	26.7%	Red Wing
23	235	91.1%	72	11	13.3%	354	16	4.3%	498	872	63.6%	Rochester
90	403	81.7%	164	14	7.9%	852	98	10.3%	1,307	862	39.7%	St. Cloud
146	469	76.3%	596	81	12.0%	1,386	336	19.5%	2,165	1,348	38.4%	St. Paul
0	20	100.0%	--	--	--	564	85	13.1%	617	105	14.5%	Staples
138	575	80.6%	585	75	11.4%	2,466	511	17.2%	3,532	1,791	33.6%	Suburban Hennepin
13	84	86.6%	74	16	17.8%	297	79	21.0%	421	215	33.8%	Thief River Falls
37	139	79.0%	96	7	6.8%	287	106	27.0%	423	273	39.2%	Wadena
31	357	92.0%	78	3	3.7%	552	251	31.3%	955	919	49.0%	Willmar
17	101	85.6%	47	3	6.0%	302	84	21.8%	428	315	42.4%	Winona
1,755	7,891	81.8%	3,714	538	12.7%	18,427	3,476	15.9%	27,942	20,108	41.8%	TOTAL

TABLE 8. CURRICULUM AREA BY PROGRAM TYPE: NUMBER OF PROGRAMS

Curriculum Area	Number of Programs* Which Are:			Total	Percent Integrated
	Male	Female	Integrated		
Agriculture	8	0	7	15	46.7 %
Distribution	5	4	11	20	55.0 %
Health	2	13	2	17	11.8 %
Home Economics	0	4	4	8	50.0 %
Business-Office	0	16	7	23	30.4 %
Technical	14	0	7	21	33.3 %
Trade-Industrial	47	1	18	66	27.3 %
TOTAL PROGRAMS	76	38	56	170	32.9 %

TABLE 9. CURRICULUM AREA BY PROGRAM TYPE: NUMBER OF STUDENTS

Curriculum Area	Number of Students in Programs* Which Are:			Total	Percent In Integrated
	Male	Female	Integrated		
Agriculture	1,478	0	707	2,185	32.4 %
Distribution	276	1,054	2,113	3,443	61.4 %
Health	169	5,184	249	5,602	4.4 %
Home Economics	0	735	284	1,019	27.9 %
Business-Office	0	5,507	4,139	9,646	42.9 %
Technical	3,622	0	630	4,252	14.8 %
Trade-Industrial	17,094	1,011	3,798	21,903	17.3 %
TOTAL STUDENTS	22,639	13,491	11,920	48,050	24.8 %

\* A "program," on these and the following tables, refers to a statewide aggregate. For example, Agricultural Production may be an integrated course at one or more AVTIs, but statewide total enrollments in all Agricultural Production courses are 97.6 percent male and therefore this is a "male" program at the state level.

TABLE 10. ENROLLMENTS BY COURSE BY CURRICULUM AREA, 1980-81

AGRICULTURE

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
010100	Agricultural Production	524	13	537	97.6 %	2.4 %	Male
010101	Animal Science	31	46	77	40.3 %	59.7 %	Integrated
010104	Farm Management	119	1	120	99.2 %	0.8 %	Male
010200	Agricultural Supplies/Services	278	51	329	84.5 %	15.5 %	Male
010299	Farrier	20	8	28	71.4 %	28.6 %	Integrated
010300	Agricultural Mechanics	275	1	276	99.6 %	0.4 %	Male
010301	Water Well Drilling	19	0	19	100.0 %	0.0 %	Male
010302	Agricultural Structures & Conven.	56	0	56	100.0 %	0.0 %	Male
010500	Ornamental Horticulture	33	84	117	28.2 %	71.8 %	Integrated
010501	Specialty Crop Production	21	9	30	70.0 %	30.0 %	Integrated
010502	Floriculture	16	26	42	38.1 %	61.9 %	Integrated
010504	Landscaping	227	104	331	68.6 %	31.4 %	Integrated
010600	Agricultural Resources	62	20	82	75.6 %	24.4 %	Integrated
010603	Soil	18	1	19	94.7 %	5.3 %	Male
010703	Forest Harvesting, Logging	110	12	122	90.2 %	9.8 %	Male
TOTAL		1,809	376	2,185	82.8 %	17.2 %	

TABLE 10. CONTINUED

## DISTRIBUTION

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
040100	Advertising	33	92	125	26.4 %	73.6 %	Integrated
040200	Apparel & Accessories	24	508	532	4.5 %	95.5 %	Female
040400	Finance & Credit	22	39	61	36.1 %	63.9 %	Integrated
040500	Floristry	3	78	81	3.7 %	96.3 %	Female
040600	Food Distribution	124	46	170	72.9 %	27.1 %	Integrated
040800	General Merchandising	700	629	1,329	52.7 %	47.3 %	Integrated
040801	Small Business Management	21	13	34	61.8 %	38.2 %	Integrated
040900	Hardware - Building Materials	78	20	98	79.6 %	20.4 %	Integrated
041000	Home Furnishings	19	294	313	6.1 %	93.9 %	Female
041100	Hotel and Lodging	39	30	69	56.5 %	43.5 %	Integrated
041200	Industrial Marketing	53	24	77	68.8 %	31.2 %	Integrated
041201	Vending Machine Repair & Merchand.	94	7	101	93.1 %	6.9 %	Male
041400	International Trade	27	40	67	40.3 %	59.7 %	Integrated
041600	Petroleum/Service Station	42	3	45	93.3 %	6.7 %	Male
041700	Real Estate	13	4	17	76.5 %	23.5 %	Integrated
041800	Arena Mgmt, Recreation/Tourism	13	0	13	100.0 %	0.0 %	Male
041801	Sporting Goods	47	9	56	83.9 %	16.1 %	Male
041802	Travel Planner	10	118	128	7.8 %	92.2 %	Female
041900	Transportation	49	12	61	80.3 %	19.7 %	Male
042200	General Merchandising Occupations	48	18	66	72.7 %	27.3 %	Integrated
TOTAL		1,459	1,984	3,443	42.4 %	57.6 %	

## HEALTH

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
070101	Dental Assistant	25	516	541	4.6 %	95.4 %	Female
070103	Dental Lab Technician	69	93	162	42.6 %	57.4 %	Integrated
070203	Medical Lab Assistant	28	243	271	10.3 %	89.7 %	Female
070205	Ward Clerk	19	517	536	3.5 %	96.5 %	Female
070302	Nursing LPN	97	1,885	1,982	4.9 %	95.1 %	Female
070303	Nursing Assistant	107	902	1,009	10.6 %	89.4 %	Female
070304	Human Services Technician	11	117	128	8.6 %	91.4 %	Female
070305	Surgical Technician	17	139	156	10.9 %	89.1 %	Female
070401	Occupational Therapy	10	165	175	5.7 %	94.3 %	Female
070403	Orthotics & Prosthetics Technician	95	17	112	84.8 %	15.2 %	Male
070603	Optometric Assistant	0	61	61	0.0 %	100.0 %	Female
070901	Electroencephalograph Technician	3	14	17	17.6 %	82.4 %	Female
070903	Inhalation Therapist	26	61	87	29.9 %	70.1 %	Integrated
070904	Medical Assistant	2	172	174	1.1 %	98.9 %	Female
070905	Central Service Technician	12	66	78	15.4 %	84.6 %	Female
070907	EMT - Paramedic	48	9	57	84.2 %	15.8 %	Male
070911	Pharmacy Technician	5	51	56	8.9 %	91.1 %	Female
TOTAL		574	5,028	5,602	10.2 %	89.8 %	

## HOME ECONOMICS

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
090101	Consumer Homemaking	41	18	59	69.5 %	30.5 %	Integrated
090201	Care & Guidance of Children	5	343	348	1.4 %	98.6 %	Female
090202	Clothing Mgmt, Production & Serv.	30	187	217	13.8 %	86.2 %	Female
090203	Food Management	84	50	134	62.7 %	37.3 %	Integrated
090206	Pers Svc/Fashions, Fabrics & Notions	0	17	17	0.0 %	100.0 %	Female
090207	Dietetic Assistant	2	151	153	1.3 %	98.7 %	Female
090211	Delicatessen & Catering	22	22	44	50.0 %	50.0 %	Integrated
090212	Comm Svc/Wilderness Guide/Educ Devel	20	27	47	42.6 %	57.4 %	Integrated
TOTAL		204	815	1,019	20.0 %	80.0 %	

## BUSINESS &amp; OFFICE

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
140100	Accounting	630	1,572	2,202	28.6 %	71.4 %	Integrated
140102	Bookkeeping	17	107	124	13.7 %	86.3 %	Female
140105	Banking & Finance	37	190	227	16.3 %	83.7 %	Female

TABLE 10. CONTINUED

(4)

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
140199	Practical Business Management	61	73	134	45.5 %	54.5 %	Integrated
140201	EDP & Programming/Computer Operations	233	311	544	42.8 %	57.2 %	Integrated
140202	Data Entry	14	251	265	5.3 %	94.7 %	Female
140203	Data Processing II/Comp. Programming	494	497	991	49.8 %	50.2 %	Integrated
140304	Word Processing	1	45	46	2.2 %	97.8 %	Female
140305	Business & Office Clerk/Typist	51	1,659	1,710	3.0 %	97.0 %	Female
140308	Medical Clerical	0	12	12	0.0 %	100.0 %	Female
140406	Receptionist	0	66	66	0.0 %	100.0 %	Female
140499	Medical Records Technician	1	72	73	1.4 %	98.6 %	Female
140503	Purchasing & Inventory Clerk	31	26	57	54.4 %	45.6 %	Integrated
140505	Traffic Office Clerk	58	41	99	58.6 %	41.4 %	Integrated
140601	Educational Aide	0	53	53	0.0 %	100.0 %	Female
140701	Administrative Secretary	0	23	23	0.0 %	100.0 %	Female
140703	Stenographic/Clerical	3	206	209	1.4 %	98.6 %	Female
140704	Court Reporter	1	53	54	1.9 %	98.1 %	Female
140705	General Secretarial	20	1,562	1,582	1.3 %	98.7 %	Female
140707	Legal Secretary	4	471	475	0.8 %	99.2 %	Female
140709	Medical Secretary	3	494	497	0.6 %	99.4 %	Female
140801	Rural Banking Credit	88	24	112	78.6 %	21.4 %	Integrated
140901	Clerk/Typist	8	83	91	8.8 %	91.2 %	Female
TOTAL		1,755	7,891	9,646	18.2 %	81.8 %	

TECHNICAL

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
160101	Aeronautical Technology	69	20	89	77.5 %	22.5 %	Integrated
160103	Architectural Technology	280	69	349	80.2 %	19.8 %	Male
160105	Chemical Technology	45	30	75	60.0 %	40.0 %	Integrated
160106	Civil Technology	243	45	288	84.4 %	15.6 %	Male
160107	Cable TV/Electrical Technology	67	3	70	95.7 %	4.3 %	Male
160108	Electronics Technology	1,399	131	1,530	91.4 %	8.6 %	Male
160109	Electro-Mechanical Technology	280	22	302	92.7 %	7.3 %	Male
160110	Environmental Technology	91	28	119	76.5 %	23.5 %	Integrated
160111	Industrial Technology	121	10	131	92.4 %	7.6 %	Male
160112	Instrumentation Technology	72	7	79	91.1 %	8.9 %	Male
160113	Quality Control/Mechanical Technology	117	18	135	86.7 %	13.3 %	Male
160114	Metallurgical Technology	155	15	170	91.2 %	8.8 %	Male
160115	Nuclear Technology	16	7	23	69.6 %	30.4 %	Integrated
160118	Tool Engineering & Design	31	12	43	72.1 %	27.9 %	Integrated
160203	Food Lab Management	31	51	82	37.8 %	62.2 %	Integrated
160300	Electro-Medical Technology	97	13	110	88.2 %	11.8 %	Male
160701	Avionics - Aviation Electronics	65	4	69	94.2 %	5.8 %	Male
160703	Electronic Communications Technology	36	0	36	100.0 %	0.0 %	Male
160704	Communications Technology	155	44	199	77.9 %	22.1 %	Integrated
160705	Fluid Power Technology	318	9	327	97.2 %	2.8 %	Male
160706	Powder Metal Technology	26	0	26	100.0 %	0.0 %	Male
TOTAL		3,714	538	4,252	87.3 %	12.7 %	

TRADE-INDUSTRIAL

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
170100	Air Conditioning	394	3	397	99.2 %	0.8 %	Male
170105	Heating & Sheet Metal	21	0	21	100.0 %	0.0 %	Male
170200	Appliance Repair	187	1	188	99.5 %	0.5 %	Male
170300	Auto Services	17	0	17	100.0 %	0.0 %	Male
170301	Auto Body	929	9	938	99.0 %	1.0 %	Male
170302	Auto Mechanics	2,545	78	2,623	97.0 %	3.0 %	Male
170399	Parts Person Training	300	50	350	85.7 %	14.3 %	Male
170401	Aircraft Maintenance	405	6	411	98.5 %	1.5 %	Male
170600	Business Machine Maintenance	82	17	99	82.8 %	17.2 %	Male
170700	Commercial Art	187	251	438	42.7 %	57.3 %	Integrated
170704	Lettering & Design	19	26	45	42.2 %	57.8 %	Integrated
170900	Commercial Photography	77	47	124	62.1 %	37.9 %	Integrated
170901	Photographic Technology	62	45	107	57.9 %	42.1 %	Integrated
171000	Construction & Maintenance Trades	292	11	303	96.4 %	3.6 %	Male

TABLE 10. CONTINUED

(5)

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
171001	Carpentry	944	30	974	96.9 %	3.1 %	Male
171002	Electricity	897	28	925	97.0 %	3.0 %	Male
171003	Heavy Equipment	194	4	198	98.0 %	2.0 %	Male
171004	Masonry	69	0	69	100.0 %	0.0 %	Male
171005	Painting & Decorating	112	16	128	87.5 %	12.5 %	Male
171007	Plumbing	224	8	232	96.6 %	3.4 %	Male
171011	Maintenance Mechanic/Housing	303	4	307	98.7 %	1.3 %	Male
171012	Heavy Equipmt Operation & Maintenance	292	2	294	99.3 %	0.7 %	Male
171014	Mobile Home Repair	81	2	83	97.6 %	2.4 %	Male
171100	Custodial & Building Maintenance	179	11	190	94.2 %	5.8 %	Male
171200	Diesel & Truck Mechanic	787	9	796	98.9 %	1.1 %	Male
171201	Truck Driving	540	63	603	89.6 %	10.4 %	Male
171301	Architectural Drafting	288	52	340	84.7 %	15.3 %	Male
171302	Mechanical Drafting	607	144	751	80.8 %	19.2 %	Male
171303	Technical Drafting/Mechanical Trades	43	18	61	70.5 %	29.5 %	Integrated
171304	Constructn Drafting/Planning & Mgmt	96	23	119	80.7 %	19.3 %	Male
171402	Lineperson	108	0	108	100.0 %	0.0 %	Male
171403	Motor Repair	31	1	32	96.9 %	3.1 %	Male
171501	Communications	172	14	186	92.5 %	7.5 %	Male
171502	Industrial Electronics	153	39	192	79.7 %	20.3 %	Integrated
171503	Radio/Television	173	22	195	88.7 %	11.3 %	Male
171900	Graphic Arts	638	508	1,146	55.7 %	44.3 %	Integrated
171902	Printing Press Occupations	38	31	69	55.1 %	44.9 %	Integrated
172101	Optical Technology/Instruments	34	30	64	53.1 %	46.9 %	Integrated
172102	Watchmaking & Repair	19	2	21	90.5 %	9.5 %	Male
172302	Machine Shop	991	69	1,060	93.5 %	6.5 %	Male
172303	Machine Tool Operation	258	12	270	95.6 %	4.4 %	Male
172305	Sheet Metal	155	1	156	99.4 %	0.6 %	Male
172306	Welding & Cutting	1,550	47	1,597	97.1 %	2.9 %	Male
172307	Tool and Die Making	567	18	585	96.9 %	3.1 %	Male
172309	Patternmaking	29	1	30	96.7 %	3.3 %	Male
172399	Jewelry Repair	16	15	31	51.6 %	48.4 %	Integrated
172601	Barbering	19	15	34	55.9 %	44.1 %	Integrated
172602	Cosmetology	49	962	1,011	4.8 %	95.2 %	Female
172700	Plastics Occupations	64	1	65	98.5 %	1.5 %	Male
172802	Law Enforcement	223	37	260	85.8 %	14.2 %	Male
172901	Baking	42	59	101	41.6 %	58.4 %	Integrated
172902	Food Preparation Cooking	683	397	1,085	63.4 %	36.6 %	Integrated
172903	Meat Cutting	201	1	202	99.5 %	0.5 %	Male
172904	Waiter/Waitress	5	4	9	55.6 %	44.4 %	Integrated
172999	Kitchen Assistant	14	22	36	38.9 %	61.1 %	Integrated
173100	Small Engine Repair	503	20	523	96.2 %	3.8 %	Male
173200	Total Energy	16	0	16	100.0 %	0.0 %	Male
173302	Tailoring	31	85	116	26.7 %	73.3 %	Integrated
173402	Shoe Repair	24	5	29	82.8 %	17.2 %	Male
173500	Upholstery	66	51	117	56.4 %	43.6 %	Integrated
173601	Millwork & Cabinetmaking	259	34	293	88.4 %	11.6 %	Male
173699	Wood Finishing	14	9	23	60.9 %	39.1 %	Integrated
174001	Musical String Instrument Repair	19	0	19	100.0 %	0.0 %	Male
174002	Band Instrument Repair	26	5	31	83.9 %	16.1 %	Male
174003	Electronic Musical Instrument	31	0	31	100.0 %	0.0 %	Male
17XXXX	Unspecified	28	1	29	96.6 %	3.4 %	Male
TOTAL		18,427	3,476	21,903	84.1 %	15.9 %	

## SPECIAL NEEDS

OE Code	Course	Male	Female	Total	Percent		Course Type
					Male	Female	
200063	Remedial Related Reading	20	28	48	41.7 %	58.3 %	Integrated
200068	Supervisor of Special Needs	215	221	436	49.3 %	50.7 %	Integrated
200069	Pre-Vocational	178	122	300	59.3 %	40.7 %	Integrated
200071	Instructor/Evaluator	73	66	139	52.5 %	47.5 %	Integrated
200078	Interpreter	29	10	39	74.4 %	25.6 %	Integrated
201000	General Special Needs	1,970	1,404	3,374	58.4 %	41.6 %	Integrated
20XXXX	Unspecified	223	193	416	53.6 %	46.4 %	Integrated
TOTAL		2,708	2,044	4,752	57.0 %	43.0 %	

TABLE 11. PROGRAM BUDGETS, 1980-81

AVTI	Total	Male Students	Female Students	Budget-Percent Female	Students-Percent Female
Albert Lea	\$ 937,968	\$ 649,864	\$ 288,104	30.7 %	33.3 %
Alexandria	3,330,810	2,067,011	1,263,799	37.9 %	44.9 %
Anoka	3,743,572	2,435,280	1,308,292	34.9 %	42.1 %
Austin	1,256,140	901,637	354,503	28.2 %	34.9 %
Bemidji	1,170,036	807,496	362,540	31.0 %	46.8 %
Brainerd	1,298,219	624,580	673,639	51.9 %	47.2 %
Canby	907,706	629,144	278,562	30.7 %	30.1 %
Dakota County	4,163,315	2,770,670	1,392,645	33.5 %	42.3 %
Detroit Lakes	1,526,836	1,091,904	434,932	28.5 %	27.2 %
Duluth	2,289,878	1,395,644	894,234	39.1 %	50.2 %
East Grand Forks	1,090,645	558,574	532,071	48.8 %	53.5 %
Eveleth	585,669	304,946	280,723	47.9 %	54.0 %
Faribault	904,894	518,615	386,279	42.7 %	40.9 %
Granite Falls	898,405	553,174	345,231	38.4 %	50.0 %
Hibbing	901,015	581,494	319,521	35.5 %	37.5 %
Hutchinson	1,323,030	854,136	468,894	35.4 %	42.3 %
Jackson	1,164,289	827,428	336,861	28.9 %	28.9 %
Mankato	2,390,147	1,351,077	1,039,070	43.5 %	47.4 %
Minneapolis	2,702,082	1,478,088	1,223,994	45.3 %	45.9 %
Moorhead	1,752,917	1,121,809	631,108	36.0 %	44.9 %
916	3,956,507	2,317,123	1,639,384	41.4 %	48.4 %
Pine City	626,607	497,762	128,845	20.6 %	29.9 %
Pipestone	881,896	585,381	296,515	33.6 %	32.7 %
Red Wing	1,189,661	885,782	303,879	25.5 %	26.7 %
Rochester	1,826,480	762,023	1,064,457	58.3 %	63.6 %
St. Cloud	2,643,966	1,595,979	1,047,987	39.6 %	39.7 %
St. Paul	3,824,597	2,425,369	1,399,228	36.6 %	38.4 %
Staples	2,175,831	1,945,736	230,095	10.6 %	14.5 %
Suburban Hennepin	7,825,038	5,551,056	2,273,982	29.1 %	33.6 %
Thief River Falls	922,632	660,091	262,541	28.5 %	33.8 %
Wadena	1,027,293	717,073	310,220	30.2 %	39.2 %
Willmar	2,581,359	1,494,163	1,087,196	42.1 %	49.0 %
Winona	948,529	602,930	345,599	36.4 %	42.4 %
TOTAL	\$ 64,767,969	\$ 41,563,039	\$ 23,204,930	35.8 %	41.8 %

TABLE 12. PROGRAM COST PER STUDENT, 1980-81

AVTI	Cost per Student			F/M Ratio
	Males	Females	Total	
Albert Lea	\$ 1,491	\$ 1,322	\$ 1,434	88.7 %
Alexandria	2,098	1,576	1,864	75.1 %
Anoka	1,480	1,093	1,317	73.9 %
Austin	1,796	1,318	1,629	73.4 %
Bemidji	2,814	1,439	2,171	51.1 %
Brainerd	1,429	1,727	1,570	120.9 %
Canby	1,856	1,908	1,872	102.8 %
Dakota County	2,428	1,666	2,106	68.6 %
Detroit Lakes	1,395	1,484	1,419	106.4 %
Duluth	1,229	782	1,005	63.6 %
East Grand Forks	1,186	983	1,078	82.9 %
Eveleth	1,466	1,151	1,296	78.5 %
Faribault	1,723	1,857	1,778	107.8 %
Granite Falls	2,103	1,313	1,708	62.4 %
Hibbing	1,443	1,320	1,397	91.5 %
Hutchinson	1,886	1,412	1,685	74.9 %
Jackson	1,320	1,321	1,320	100.1 %
Mankato	1,307	1,115	1,216	85.3 %
Minneapolis	938	917	928	97.8 %
Moorhead	1,885	1,301	1,623	69.0 %
916	891	672	785	75.4 %
Pine City	1,893	1,150	1,671	60.8 %
Pipestone	1,025	1,067	1,039	104.1 %
Red Wing	1,646	1,550	1,621	94.2 %
Rochester	1,530	1,221	1,333	79.8 %
St. Cloud	1,221	1,216	1,219	99.6 %
St. Paul	1,120	1,038	1,089	92.7 %
Staples	3,154	2,191	3,014	69.5 %
Suburban Hennepin	1,572	1,270	1,470	80.8 %
Thief River Falls	1,568	1,221	1,451	77.9 %
Wadena	1,695	1,136	1,476	67.0 %
Willmar	1,565	1,183	1,377	75.6 %
Winona	1,409	1,097	1,277	77.9 %
TOTAL	\$ 1,487	\$ 1,154	\$1,348	77.6 %

TABLE 13. POST-SECONDARY VOCATIONAL TEACHERS, 1980-81

AVTI	# Male Teachers (FTE)	# Female Teachers (FTE)	# Total Teachers (FTE)	% Female Teachers
Albert Lea	31.0	8.0	39.0	20.5 %
Alexandria	85.0	22.0	107.0	20.6 %
Anoka	102.0	48.0	150.0	32.0 %
Austin	38.0	12.0	50.0	24.0 %
Bemidji	33.0	13.2	46.2	28.6 %
Brainerd	38.0	18.0	56.0	32.1 %
Canby	29.2	6.0	35.2	17.0 %
Dakota County	86.0	31.2	117.2	26.6 %
Detroit Lakes	54.0	11.0	65.0	16.9 %
Duluth	50.0	24.5	74.5	32.9 %
East Grand Forks	25.5	24.0	49.5	52.7 %
Eveleth	17.0	8.0	25.0	32.0 %
Faribault	30.0	10.0	40.0	25.0 %
Granite Falls	28.7	7.4	36.1	20.5 %
Hibbing	27.0	9.0	36.0	25.0 %
Hutchinson	34.0	14.6	48.6	30.0 %
Jackson	38.7	2.2	40.9	5.4 %
Mankato	68.0	23.8	91.8	25.9 %
Minneapolis	61.0	33.9	94.9	35.7 %
Moorhead	47.4	19.8	67.2	29.5 %
916	75.1	40.3	115.4	34.9 %
Pine City	*	*	*	*
Pipestone	32.5	7.0	39.5	17.7 %
Red Wing	33.0	10.2	43.2	23.6 %
Rochester	32.0	42.8	74.8	57.2 %
St. Cloud	68.2	30.0	98.2	30.5 %
St. Paul	113.4	65.0	178.4	36.4 %
Staples	39.6	2.4	42.0	5.7 %
Suburban Hennepin	153.4	37.3	190.7	20.0 %
Thief River Falls	32.4	12.4	44.8	27.7 %
Wadena	33.6	6.2	39.8	15.6 %
Willmar	82.0	32.1	114.1	28.1 %
Winona	29.0	13.6	42.6	31.9 %
TOTAL	1,647.7	645.9	2,293.6	28.2 %

\* Staff data are not available for Pine City AVTI.

TABLE 14. VOCATIONAL TEACHER SALARIES & TENURE, 1980-81

AVTI	Average Annual Salary		Average Years Service	
	Males	Females	Males	Females
Albert Lea	\$ 22,585	\$ 15,571	8.7 yrs	5.8 yrs
Alexandria	21,476	14,693	10.0	6.9
Anoka	23,442	18,164	9.2	9.2
Austin	21,109	19,320	13.7	9.9
Bemidji	20,671	16,669	8.9	7.3
Brainerd	20,229	17,825	10.5	9.9
Canby	21,420	12,849	11.0	9.8
Dakota County	20,295	18,675	7.3	6.2
Detroit Lakes	20,291	17,502	9.0	8.8
Duluth	19,469	17,426	11.6	10.5
East Grand Forks	18,073	11,903	18.8	12.5
Eveleth	18,866	17,316	9.2	8.1
Faribault	21,992	18,489	11.5	10.8
Granite Falls	19,397	14,865	10.2	9.4
Hibbing	21,049	21,273	7.6	10.3
Hutchinson	19,652	16,715	12.6	13.5
Jackson	22,738	12,480	13.0	7.0
Mankato	23,165	18,068	8.2	6.3
Minneapolis	26,124	24,606	12.9	10.4
Moorhead	22,617	17,830	10.7	11.1
916	22,993	20,497	6.6	5.9
Pine City	*	*	*	*
Pipestone	22,347	16,682	11.0	7.3
Red Wing	21,254	18,994	8.9	15.1
Rochester	20,676	17,497	17.0	14.1
St. Cloud	23,286	19,183	12.5	11.3
St. Paul	24,732	19,445	12.7	11.5
Staples	24,932	16,746	8.1	18.0
Suburban Hennepin	25,828	20,900	8.1	5.7
Thief River Falls	20,648	15,544	13.6	9.0
Wadena	19,792	15,648	8.2	4.3
Willmar	23,843	19,101	14.4	9.3
Winona	21,639	17,963	11.1	9.6
TOTAL	\$ 22,480	\$ 18,366	10.3 yrs	10.3 yrs

\* Staff data are not available for Pine City AVTI.

# Definitions

All data in this report are from the Minnesota Department of Education, as reported by local school districts. Student and staff information is for the school year July 1, 1980 to June 30, 1981 and previous years. Staff information is as reported on October 1, 1980, and previous years. 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.

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 except where designated. 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, and Trade-Industry.

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

Integrated Programs. 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 students are male. Since this definition is based on actual enrollments, a program may be a "male" program at one AVTI, but an integrated program at another.

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

Traditional. If a female student is enrolled in a program in which over 80 percent of students are female, she is considered enrolled in a traditional program. Similarly a male student enrolled in a program which is over 80 percent male is considered enrolled in a traditional program. Students in traditional programs are referred to as traditional students.

Non-traditional. If a male or a female student is enrolled in a program in which over 80 percent of students are of the other sex, that person is considered enrolled in a non-traditional program and is referred to as a non-traditional student.

Net Budget. Program budgets in this report give expenditures for an instructional program which includes all salaries, fringe benefits, 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 where 75 percent of students are male 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 the same method is used for calculating the male cost per headcount.

Average Yearly Salary. This salary is the total contracted salary based on full-time equivalence, and therefore controls for the 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.