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VOCATIONAL EDUCATION SEX EQUITY REPORT: SECONDARY 1985



COMMISSION ON THE ECONOMIC STATUS OF WOMEN

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Introduction

There was a significant change in vocational education as a result of the 1976 Vocational Education Amendments. This law, called Title II, complemented the basic non-discrimination requirements of another federal law, Title IX.

The vocational law required that vocational programs work to actively overcome sex bias, stereotyping and discrimination. As a result of Title II there have been substantial changes in traditional practices, policies, procedures and attitudes. This has resulted in greater participation of women and girls in vocational education.

The new Carl D. Perkins Vocational Education Act of 1984 is a landmark statute for women and girls. It contains the largest set-aside of vocational training dollars targetted to female populations in U.S. history. In addition, the law provides encouragement to states to support programs and strategies dealing with sex equity issues. The new law has the potential to provide greatly increased opportunities for women and girls.

Women and girls have a far greater range of interests, abilities and economic needs than their enrollment and employment patterns would suggest. The economic condition of women and female-headed families shows that women need to be trained for jobs that provide a living wage.

* * * * *

This report provides information about the status of male and female students and staff in high school vocational courses during the 1983-84 school year. The information in this report is intended to enhance equity efforts by measuring progress and indicating areas needing attention.

Data on student enrollments and staffing are from school district reports to the Department of Education. Student enrollment data are from the Minnesota Civil Rights Information System (MINCRIS). Student follow-up data are from a report on graduates from the K-12 system one year after graduation. The report is funded through a grant from the Department of Vocational Education.

Enrollments are included only for those students enrolled in grades nine through twelve. No data were available for wages of technical occupations graduates.

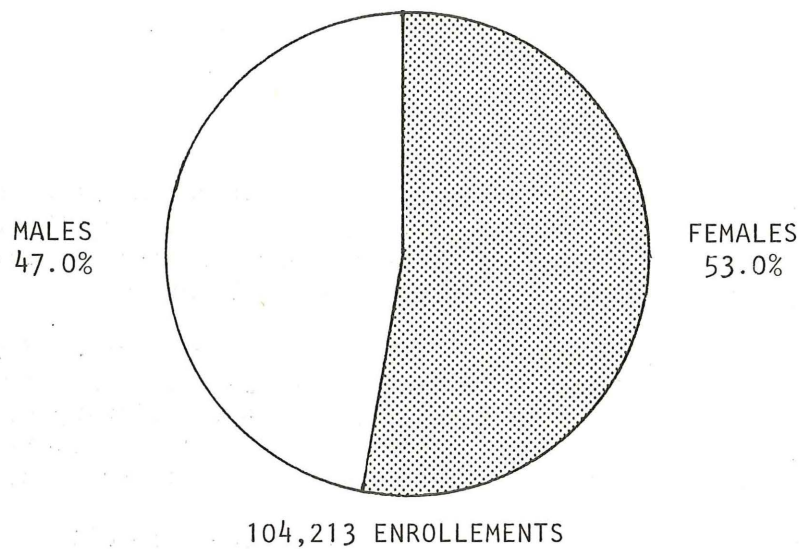
Vocational Enrollments, 1983-84

In October 1983, there were 104,213 enrollments in high school vocational programs statewide. Of these, 19 percent were ninth and tenth graders and the other 81 percent were eleventh and twelfth graders.

As shown in the chart below, female students represent a majority of those enrolled in one or more vocational courses. Enrollments are fairly balanced at the ninth and tenth grade levels. (See Table 1.)

Minority race students represent about six percent of those enrolled in one or more vocational courses. Minority female students are more likely than minority male students to be enrolled in vocational courses, with females accounting for 55 percent of all minority enrollments. (See Tables 2 and 3.)

SECONDARY VOCATIONAL ENROLLMENTS 1983-84



Enrollments by Program Type, 1983-4

Vocational programs can be described as "segregated" or "integrated," depending on the balance of male and female enrollments. By definition, a segregated program is one in which more than 80 percent of students are of the same sex. All other programs are defined as integrated.

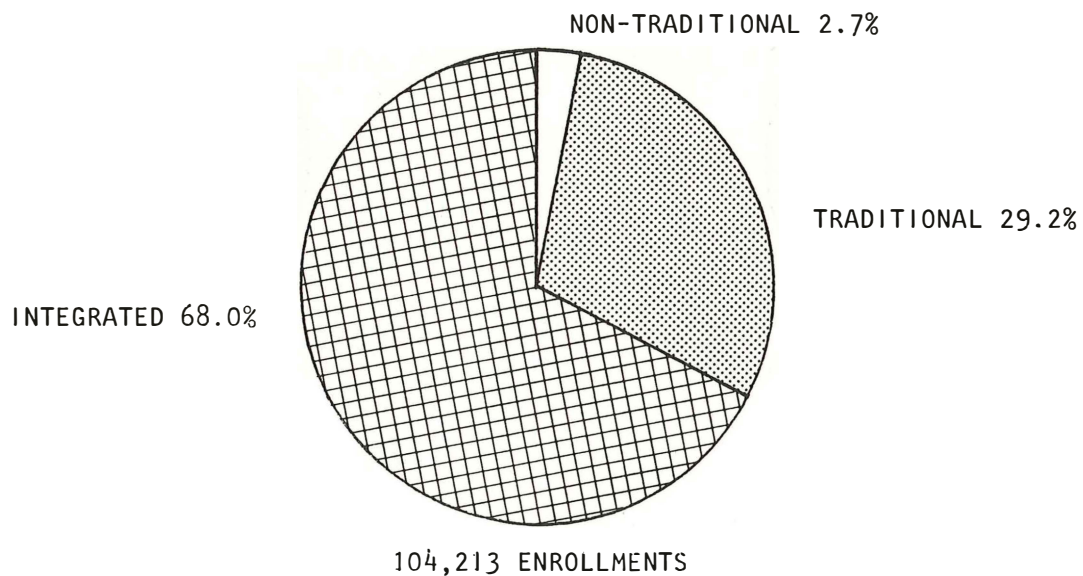
For example, Auto Body Repair is a segregated "male" program, with male students accounting for 97 percent of enrollments. Health Care Occupations is a segregated "female" program, with female students accounting for 87 percent of enrollments. General Merchandise Retailing, in which 42 percent of the students are male and 58 percent of the students are female, is an integrated program.

Enrollments in segregated programs are either "traditional" or "non-traditional." Traditional students are those in programs where the total enrollments exceeds 80 percent of their own sex. Non-traditional students are those enrolled in a program where over 80 percent of the students are of the other sex. Female students in Auto Body Repair and male students in Health Care Occupations are non-traditional students.

There are 56 courses offered statewide. Of these, 21 are "male" courses, six are "female" courses and 29 are integrated courses. Almost 70 percent of vocational students are enrolled in integrated courses, while only three percent of students are enrolled in a course which is non-traditional for their sex. (See Tables 4,5 and 6.)

ENROLLMENT BY PROGRAM TYPE

1983-84



Enrollments by Program Type, continued

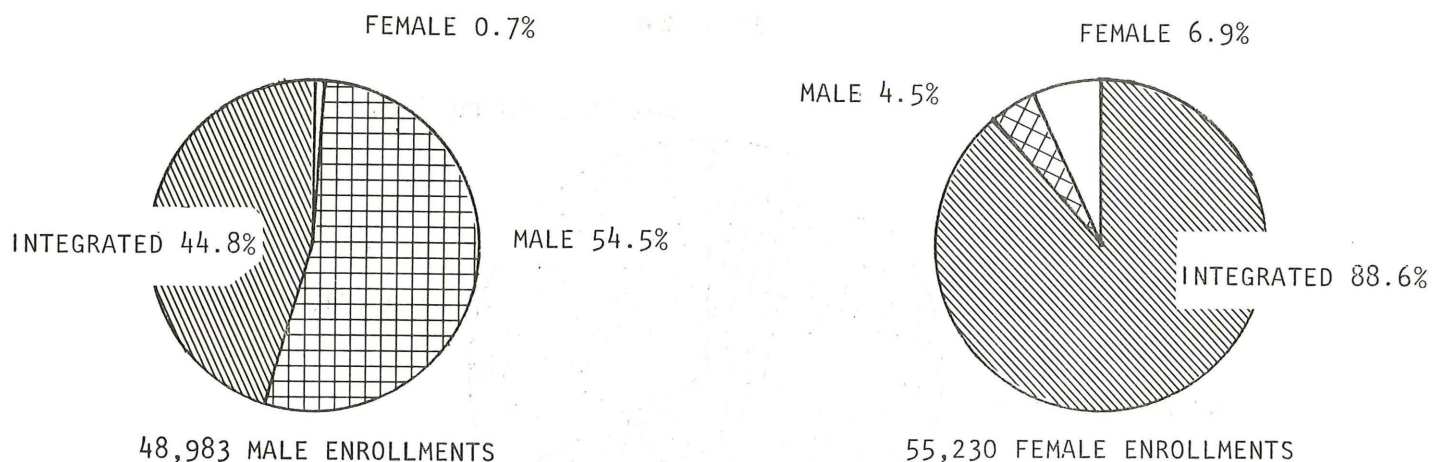
Female students are more likely than male students to be enrolled in integrated programs -- 89 percent of female students and 45 percent of male students. Distributive education, home economics and business and office courses are more likely than others to be integrated.

There are now integrated courses preparing students for jobs which have historically been considered "men's work" or "women's work." These include, for example, Food Occupations, Radio/Television Production, Professional Industrial Wholesale Marketing and Graphic Arts.

Very few students are enrolled in non-traditional programs. Such program account for only 1 in 22 female students and 1 in 143 male students. Agriculture and trade-industrial courses have the largest proportion of non-traditional students, accounting for about 1 in 14 students in these curriculum areas.

Of the 56 programs offered statewide only one is all-female and no programs are all-male. Almost 300 students are enrolled in the all female program area. (See Table 7.)

ENROLLMENT BY PROGRAM TYPE 1983-84



Enrollment by Curriculum Area, 1983-84

There are significant differences in enrollment patterns among the vocational curriculum areas. The chart below summarizes these differences, and the following pages present more detailed information for each curriculum area.

Home economics has the largest number of students, followed by office, trade-industrial and agriculture. Distribution, health and technical enrollments combined account for only six percent of vocational enrollments.

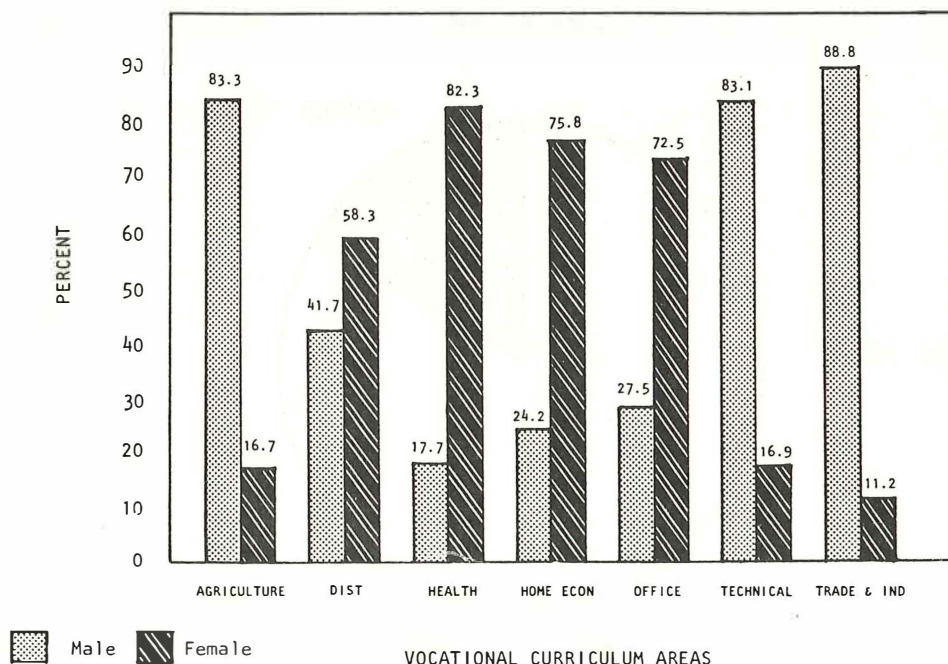
Female students are most likely to be enrolled in home economics, representing over half of all female enrollees. An additional 27 percent of female students are enrolled in office programs. Thirty-two percent of male students are enrolled in these two areas.

Male students are most likely to be enrolled in trade-industrial programs. This area combined with agriculture accounts for over 60 percent of all male enrollments. By contrast, less than ten percent of female students are enrolled in trade-industrial and agriculture programs. (See Table 8.)

Enrollment patterns of minority students also vary by sex. Home economics accounts for over half of all minority female enrollees but for only 21 percent of minority male enrollees. Trade-industrial courses account for half of enrollments among minority men, but for only 11 percent of minority females.

SECONDARY VOCATIONAL ENROLLMENTS

1983-84



Agriculture

Total enrollments statewide in secondary agriculture course is 14,662, accounting for 14 percent of all secondary vocational students.

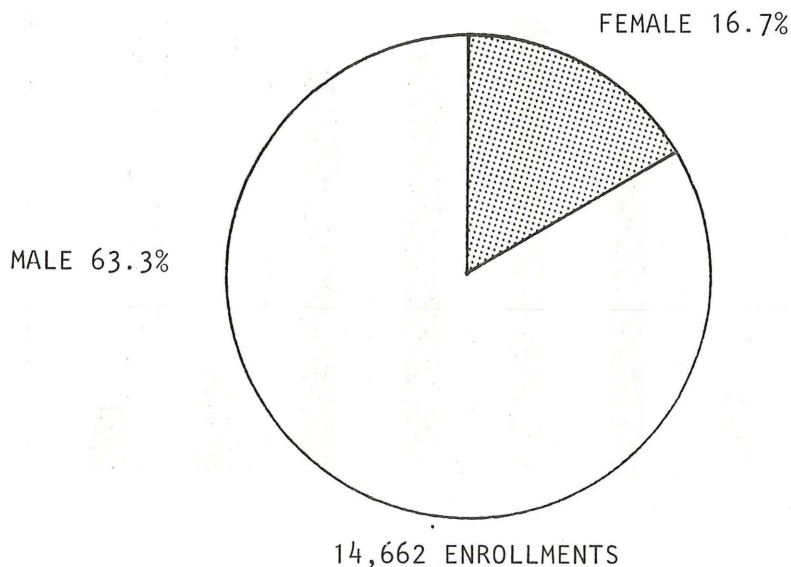
Agriculture courses are predominately male, with male students out-numbering female student by about five to one at all grade levels. Of the eight courses offered statewide, six are "male" and two are integrated. No courses are "female." Nineteen percent of students are enrolled in integrated courses. Nine percent of agriculture students are non-traditional students, all of these are females in "male" courses. This is the highest percentage of non-traditional students of any curriculum area.

The largest course is Production Agriculture Occupations, with 60 percent of all male agriculture students and 45 percent of all female agriculture students. The second largest course for male students is Agriculture Mechanics, while the second largest course for female students is Horticulture Occupations.

Fifteen percent of white vocational students, but only two percent of their minority counterparts, are enrolled in agriculture. Minority enrollments in this area reflects the lower representation of minorities in Minnesota's farm population.

Minority female students are even less likely than minority male students to be enrolled in agriculture courses. This curriculum area accounts for less than one percent of minority females, five percent of white females, almost four percent of minority males and 26 percent of white males.

AGRICULTURE ENROLLMENTS 1983-84



Distributive Education

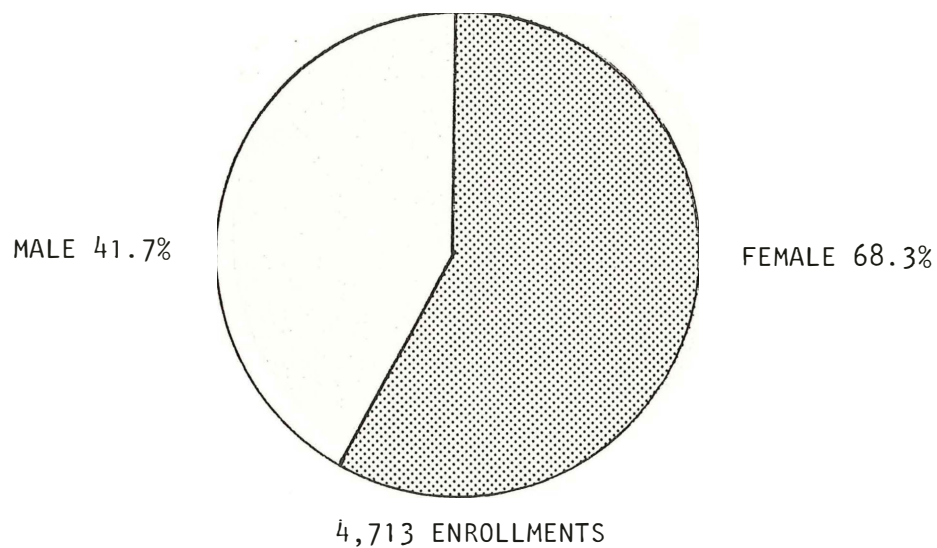
Total enrollment statewide in distributive education courses is 4,713, representing five percent of secondary vocational students.

Although female students have higher enrollments than males, distributive education is one of the most evenly balanced by sex of all of the curriculum areas. As in other curriculum areas most distributive education students are in the eleventh and twelfth grades.

Six courses are offered statewide. Of these, one is "female", five are integrated and none are "male." The integrated courses account for 98 percent of the distributive education students. Eighty-nine percent of male students and 89 percent of female students are enrolled in just two courses: General Merchandise Retailing and General Marketing Occupations.

About three percent of all distributive education students are minorities. This is less than the overall representation of minority students in vocational programs. Like their white counterparts, minority females are slightly more likely than minority males to be enrolled in this curriculum area.

DISTRIBUTIVE EDUCATION ENROLLMENTS 1983-84



Health Occupations

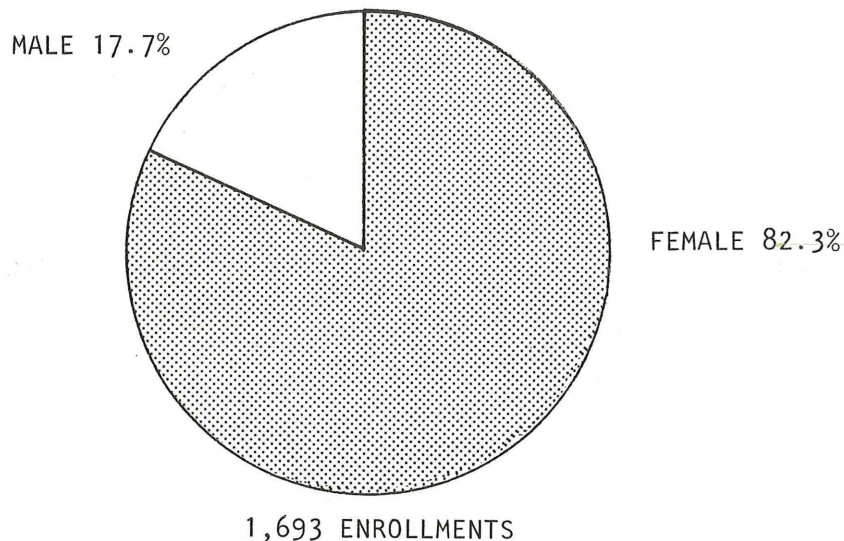
Total enrollment statewide in health occupations programs is 1,693, accounting for less than two percent of all vocational enrollments. Health courses have the lowest proportion of males students to female students of all curriculum areas.

These programs are predominately female, with female students outnumbering male students by about five to one. Although male students are in the minority in all secondary health occupations courses, this pattern is most apparent among eleventh and twelfth graders.

Of the three courses offered statewide, one is "female", two are integrated and none are "male." Eighty-seven percent of the female students are in Health Care Occupations, a "female" course. Sixty-one percent of the male students are also in this course.

About twelve percent of health students are minorities. Four percent of minority females, two percent of white females, three percent of minority males and less than one percent of white males are enrolled in this curriculum area.

HEALTH OCCUPATIONS ENROLLMENTS 1983-84



Home Economics

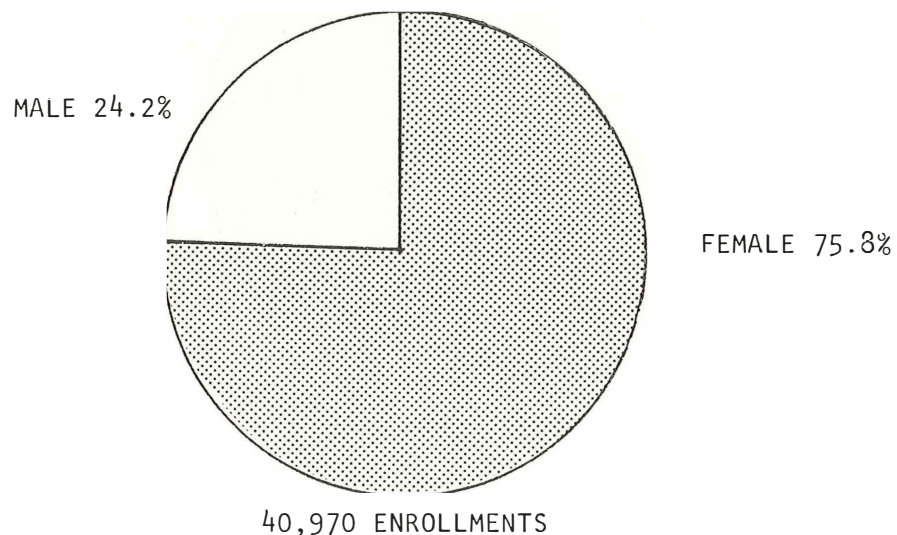
Total statewide enrollment in home economics courses is 40,970, accounting for 39 percent of all secondary vocational enrollments. Home Economics has the largest number of female students and the largest number of students of all curriculum areas. Female students outnumber male students 3 to 1 overall in this curriculum area.

Twelve courses are offered statewide. Of these four are "female", eight are integrated and none are "male." The integrated courses account for 93 percent of home economics students. There is one all female course, Grooming Services Occupations. Less than one percent of home economics students are in courses that are non-traditional for their sex.

More than three-fifths of home economics enrollees are in Consumer-Homemaking Occupations -- 69 percent of male students and 69 percent of female students.

Minority students and white students overall are about equally likely to be enrolled in home economics. However for each racial group there are more female enrollees than male enrollees. Minority females and white females are about equally likely to be taking home economics.

HOME ECONOMICS ENROLLMENTS 1983-84



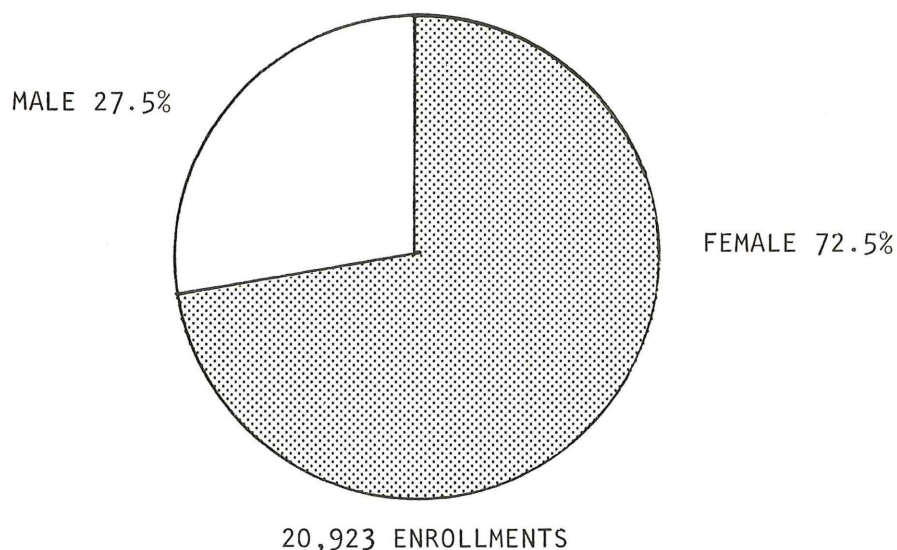
Office Occupations

Total enrollments statewide in office occupations programs is 20,923, accounting for one-fifth of all secondary vocational enrollments. This curriculum area has more female students than any other except home economics. Females outnumber males by about 3 to 1.

All six courses offered are integrated. Sixty percent of all business and office students are enrolled in Secretarial -- 57 percent of male students and 61 percent of female students. Another 22 percent of business and office students are enrolled in General Office Typist.

Overall, minority students are somewhat more likely than white students to be enrolled in office programs. Among both white and minority students females are more likely than males to be enrolled in this curriculum area. Office programs includes 30 percent of minority female students, 27 percent of white female students, 19 percent of minority male students and 11 percent of white male students.

OFFICE OCCUPATIONS ENROLLMENTS 1983-84



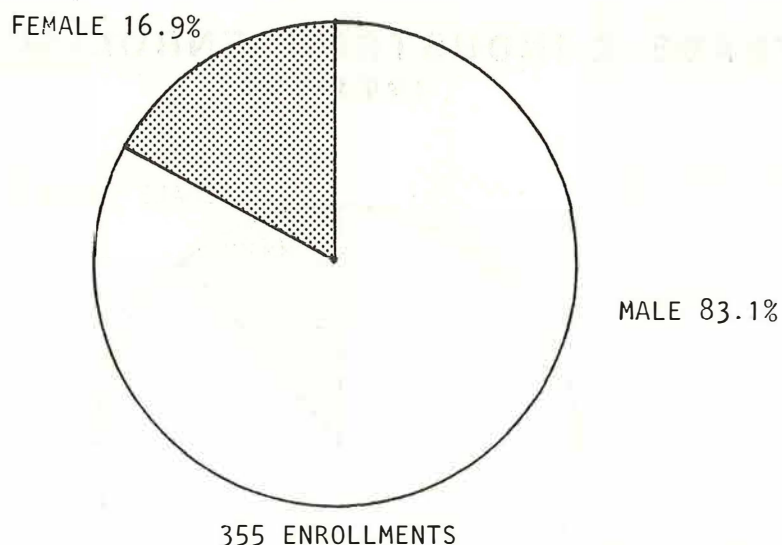
Technical Education

Total enrollment statewide in secondary technical education programs is 355, less than one percent of all secondary vocational enrollments. This curriculum area has fewer students than any other, and the smallest number of male and female students of all curriculum areas. Eighty-three percent of technical enrollees are male.

Of the four technical courses offered statewide, one is "male"; three are integrated and none are "female." Sixty-five percent of technical students are enrolled in the one "male" course, Mechanical Drafting -- 69 percent of the male students and 47 percent of the female students. Women are outnumbered in this course by 7 to 1. At the same time, eight percent of technical students are enrolled in non-traditional courses, the second highest percentage of any curriculum area. All of these non-traditional students are females in "male" courses.

About fourteen percent of the students in this area are racial minorities, minority men and women are slightly more likely than white men and women to be enrolled in this course area. However, enrollments for female students are considerably lower than male enrollments in all racial groups.

TECHNICAL OCCUPATIONS ENROLLMENTS 1983-84



Trade & Industrial

Total enrollment statewide in secondary trade-industrial courses is 20,897, accounting for 20 percent of all secondary vocational enrollments. More male students are enrolled in this area than in any other.

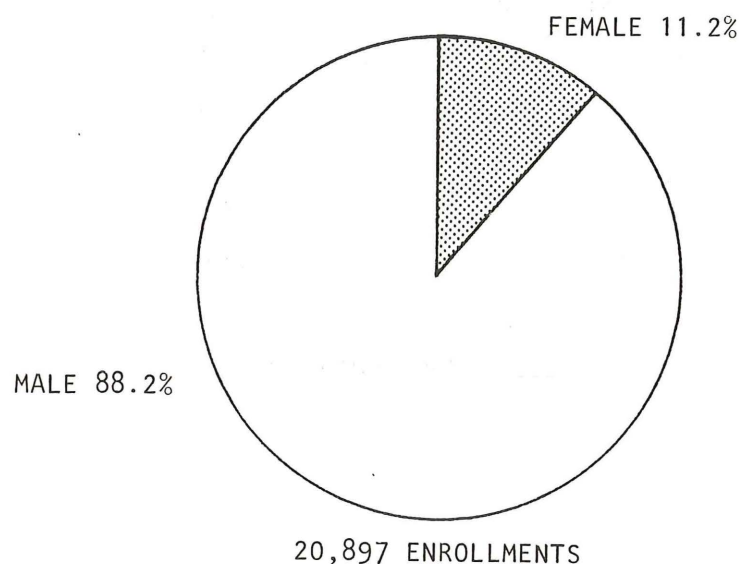
Male trade-industrial students outnumber their female counterparts by almost 8 to 1 overall. Female students are about ten percent of ninth and tenth graders and 11 percent of eleventh and twelfth graders.

There are 17 trade-industrial courses offered statewide, the largest number for any curriculum area. Of these 14 are "male", three are integrated and none are "female." Female students make up less than five percent of the enrollees in seven courses. Five percent of trade-industrial enrollees are non-traditional students, and all of these are female students in "male" courses.

Female students are most likely to be enrolled in Graphic Arts, although they are outnumbered by their male counterparts almost 2 to 1. Male students are most likely to be involved in Auto mechanics, where they outnumber female students by almost 20 to 1.

Although more than four-fifths of trade-industrial students are white males, minority students of both sexes have higher enrollment rates than their white counterparts. Four percent of white females, 11 percent of minority females, 37 percent of white males and 50 percent minority males are enrolled in trade-industrial courses.

TRADE & INDUSTRIAL ENROLLMENTS 1983-1984



High School Follow-Up, Class of 1983

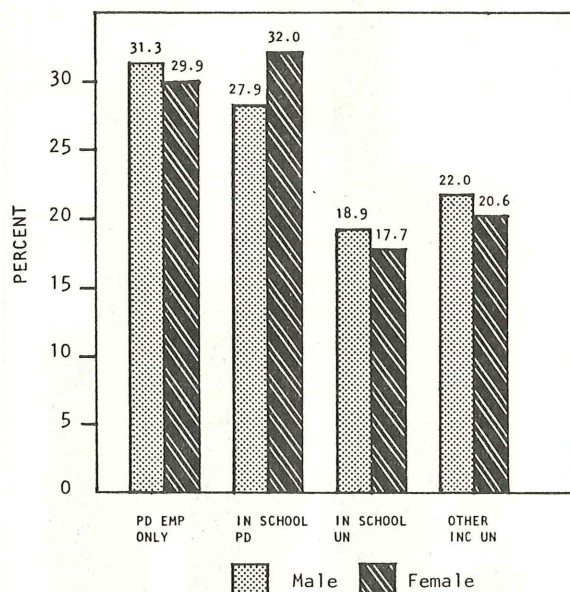
The Minnesota Vocational Follow-Up System reports information about students one year after graduation.* This information was reported in 1984 by 80 schools for students of the Class of 1983, who completed a total of 15,197 questionnaires. Data on this page refer to all graduates in the sample, whether they had been enrolled in a vocational course or not.

Over half of graduates, 60 percent, continue their education in the following year. The women are slightly more likely than the men to continue their education, while the men are slightly more likely to be in paid employment.

More than one-fourth of those enrolled in school one year later are in a vocational school, usually one of the AVTIs. The women are more likely than the men to attend a private vocational school, ten percent compared with six percent.

The majority of both male and female graduates hold paid employment one year after leaving high school. Fifty-nine percent of the employed male graduates and 48 percent of the employed female graduates have full-time jobs. More than one-fourth of both male and female graduates combine paid employment with further education.

HIGH SCHOOL CLASS OF 1983 ONE YEAR LATER.



*Although all former students in the sample are referred to as "graduates" for purposes of this report, about six percent left high school without receiving a diploma.

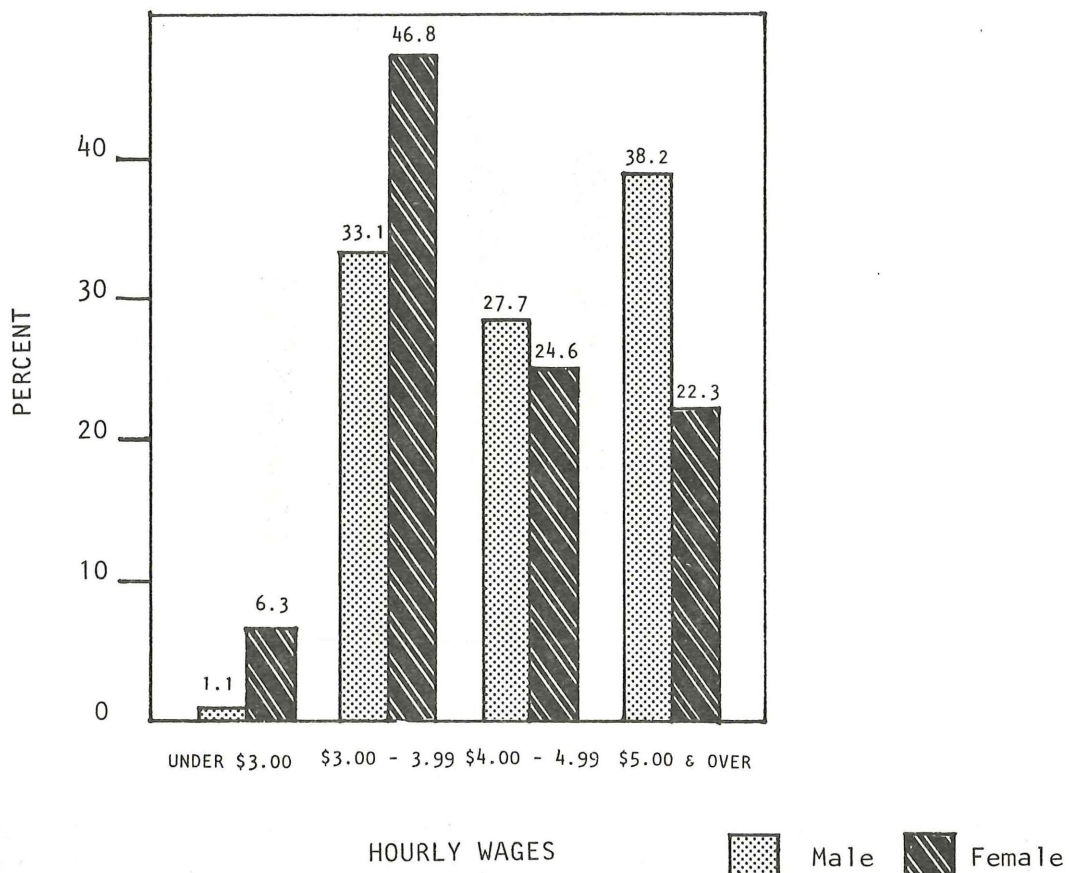
Vocational Student Follow-Up, Class of 1983

Follow-up information is also available for students who were enrolled in one or more vocational programs during high school. In this report, such students are called "vocational graduates," although they may have taken only one vocational course.

Male vocational graduates are more evenly distributed among all occupational groups. Female vocational graduates are heavily concentrated in clerical and service jobs, which together account for 60 percent of the women but only 38 percent of the men. The women are least likely to be employed in technical, agriculture, construction, transportation and mechanical jobs. These jobs account for slightly more than two percent of the women, but for over 20 percent of the men. (See Table 9.)

Female vocational graduates have lower earning than their male counterparts, regardless of the high school curriculum area in which they were enrolled. Average earning for male vocational graduates are \$4.56 per hour, compared with \$3.92 per hour for female vocational graduates. (See Table 10.)

HIGH SCHOOL CLASS 1983 EMPLOYED ONE YEAR LATER



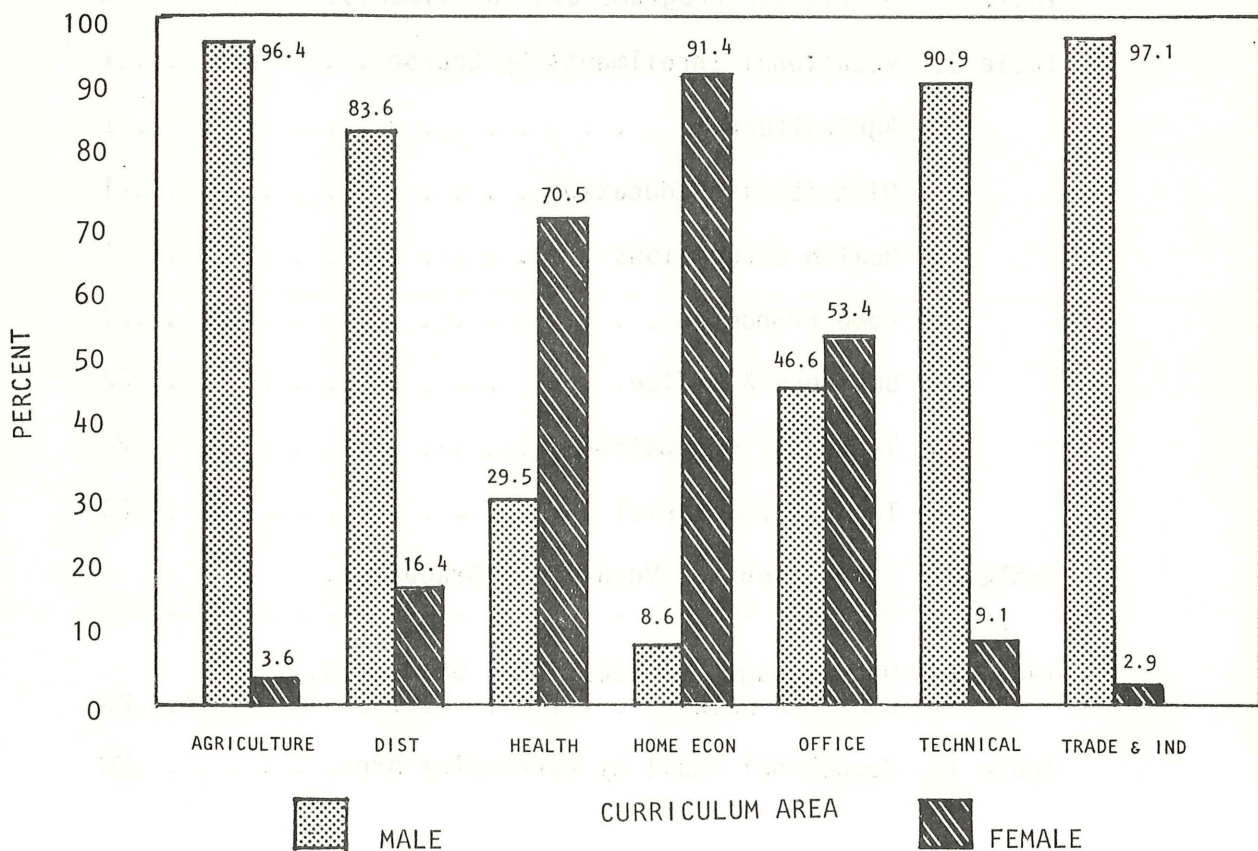
Vocational Staff Patterns, 1983-84

There are 1,332 secondary vocational teachers statewide. Sixty percent are men, while 40 percent are women. Twenty-seven percent of the women and 19 percent of the men teach part-time.

The proportion of teachers who are female is lower than the proportion of students who are female in traditionally "male" areas: agriculture, technical and trade-industrial programs. For example, 11 percent of trade-industrial students, but only two percent of trade-industrial teachers, are female. Similarly, in home economics, males represent 24 percent of the students but only three percent of the teachers.

Minorities are also underrepresented among vocational teachers, accounting for only three percent of the teachers compared with six percent of vocational students.

SECONDARY VOCATIONAL TEACHERS 1983-84



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TABLE 1. ENROLLMENTS BY GRADE LEVEL AND SEX, 1983-84

Curriculum Area	Grades 9 & 10				Grades 11 & 12			
	Male	Female	Total	%F	Male	Female	Total	%F
Agriculture	3,361	636	3,997	15.9%	8,847	1,818	10,665	17.0%
Distributive Ed	121	201	322	62.4%	1,846	2,545	4,391	58.0%
Health	46	69	115	60.0%	254	1,324	1,578	83.9%
Home Economics	1,976	6,979	8,955	77.9%	7,931	24,084	32,015	75.2%
Office	1,236	1,882	3,118	60.4%	4,510	13,295	17,805	74.7%
Technical	91	23	114	20.2%	204	37	241	15.4%
Trade-Industrial	3,241	356	3,597	9.9%	15,319	1,981	17,300	11.5%
TOTAL	10,072	10,146	20,218	50.2%	38,911	45,084	83,995	53.7%

TOTAL

Curriculum Area	Male	Female	Total	% Female
Agriculture	12,208	2,454	14,662	16.7%
Distributive Ed.	1,967	2,746	4,713	58.3%
Health	300	1,393	1,693	82.3%
Home Economics	9,907	31,063	40,970	75.8%
Office	5,746	15,177	20,923	72.5%
Technical	295	60	355	16.9%
Trade-Industrial	18,560	2,337	20,897	11.2%
TOTAL	48,983	55,230	104,213	53.0%

TABLE 2. ENROLLMENTS BY RACE AND SEX, 1983-84

ENROLLMENT BY RACE & SEX

Curriculum Area	INDIAN				ASIAN				HISPANIC			
	# M	% M	# F	% F	# M	% M	# F	% F	# M	% M	# F	% F
Agriculture	46	8.6%	2	0.3%	25	4.3%	15	2.3%	12	6.1%	2	0.7%
Distributive Ed.	14	2.6%	19	2.6%	9	1.5%	11	1.7%	7	3.6%	15	5.2%
Health	1	0.2%	23	3.1%	6	1.0%	7	1.1%	3	1.5%	4	1.4%
Home Economics	102	19.1%	453	61.7%	73	12.5%	364	56.4%	59	30.1%	194	67.8%
Office	64	12.0%	174	23.7%	160	27.3%	214	33.2%	26	13.3%	47	16.4%
Technical	2	0.4%	1	0.1%	4	0.7%	2	0.3%	3	1.5%	0	0.0%
Trade-Industrial	306	57.2%	62	8.4%	309	52.7%	32	5.0%	86	43.9%	24	8.4%
Total	535	100.0%	734	100.0%	586	100.0%	645	100.0%	196	100.0%	286	100.0%

Curriculum Area	BLACK				WHITE			
	# M	% M	# F	% F	# M	% M	# F	% F
Agriculture	10	0.8%	6	0.4%	12,115	26.1%	2,429	4.7%
Distributive Ed.	40	3.0%	53	3.4%	1,897	4.1%	2,648	5.1%
Health	55	4.2%	99	6.4%	235	0.5%	1,260	2.4%
Home Economics	310	23.4%	632	41.0%	9,363	20.2%	29,420	56.6%
Office	253	19.1%	515	33.4%	5,243	11.3%	14,227	27.3%
Technical	28	2.1%	10	0.6%	258	0.6%	47	0.1%
Trade-Industrial	629	47.5%	228	14.8%	17,230	37.2%	1,991	3.8%
Total	1,325	100.0%	1,543	100.0%	46,341	100.0%	52,022	100.0%

TABLE 3. ENROLLMENTS BY MINORITY STATUS, 1983-84

Curriculum Area	Min Male	% Min Male	White Male	% White Male	Min Fem	% Min Fem	White Fem	% White Fem	Min Total	% Min Total	White Total	% White Total
Agriculture	93	3.5%	12,115	26.1%	25	0.8%	2,429	4.7%	118	2.0%	14,544	14.8%
Distributive Ed.	70	2.6%	1,897	4.1%	98	3.1%	2,648	5.1%	168	2.9%	4,545	4.6%
Health	65	2.5%	235	0.5%	133	4.1%	1,260	2.4%	198	3.4%	1,495	1.5%
Home Economics	544	20.6%	9,363	20.2%	1,643	51.2%	29,420	56.6%	2,187	37.4%	38,783	39.4%
Office	503	19.0%	5,243	11.3%	950	29.6%	14,227	27.3%	1,453	24.8%	19,470	19.8%
Technical	37	1.4%	258	0.6%	13	0.4%	47	0.1%	50	0.9%	305	0.3%
Trade-Industrial	1,330	50.3%	17,230	37.2%	346	10.8%	1,991	3.8%	1,676	28.6%	19,221	19.5%
Total	2,642	100.0%	46,341	100.0%	3,208	100.0%	52,022	100.0%	5,850	100.0%	98,363	100.0%

TABLE 4. NUMBER OF PROGRAMS BY TYPE, 1983-84

Curriculum Area	"Male"	"Female"	Integrated	Total Integrated	Percent
Agriculture	6	0	2	8	25.0%
Distributive Ed	0	1	5	6	83.3%
Health	0	1	2	3	66.7%
Home Economics	0	4	8	12	66.7%
Office	0	0	6	6	100.0%
Technical	1	0	3	4	75.0%
Trade-Industrial	14	0	3	17	17.6%
TOTAL	21	6	29	56	51.8%

TABLE 5. ENROLLMENTS BY PROGRAM TYPE AND SEX, 1983-84

FEMALE ENROLLMENTS BY PROGRAM TYPE

Curriculum Area	Total Female	"Male" Non-Traditional	% Non-Traditional	"Female" Traditional	% Traditional	Integrated Programs	% In Integrated
Agriculture	2,454	1,360	55.4%	0	0.0%	1,094	44.6%
Distributive Ed.	2,746	0	0.0%	85	3.1%	2,661	96.9%
Health	1,393	0	0.0%	1,215	87.2%	178	12.8%
Home Economics	31,063	0	0.0%	2,489	8.0%	28,574	92.0%
Office	15,177	0	0.0%	0	0.0%	15,177	100.0%
Technical	60	28	46.7%	0	0.0%	32	53.3%
Trade-Industrial	2,337	1,105	47.3%	0	0.0%	1,232	52.7%
TOTAL	55,230	2,493	4.5%	3,789	6.9%	48,948	88.6%

MALE ENROLLMENTS BY PROGRAM TYPE

Curriculum Area	Total Male	"Male" Traditional	% In Traditional	"Female" Non-Traditional	% In Non-Traditional	Integrated Programs	% In Integrated
Agriculture	12,208	10,486	85.9%	0	0.0%	1,722	14.1%
Distributive Ed.	1,967	0	0.0%	10	0.5%	1,957	99.5%
Health	300	0	0.0%	182	60.7%	118	39.3%
Home Economics	9,907	0	0.0%	160	1.6%	9,747	98.4%
Office	5,746	0	0.0%	0	0.0%	5,746	100.0%
Technical	295	203	68.8%	0	0.0%	92	31.2%
Trade-Industrial	18,560	15,986	86.1%	0	0.0%	2,574	13.9%
TOTAL	48,983	26,675	54.5%	352	0.7%	21,956	44.8%

TABLE 5, CONTINUED

ENROLLMENTS BY PROGRAM TYPE - ALL STUDENTS

Curriculum Area	Total Students	"Male" Programs	% In Male Programs	"Female" Programs	% In Female Programs	Integrated Programs	% In Integrated Programs
Agriculture	14,662	11,846	80.8%	0	0.0%	2,816	19.2%
Distributive Ed.	4,713	0	0.0%	95	2.0%	4,618	98.0%
Health	1,693	0	0.0%	1,397	82.5%	296	17.5%
Home Economics	40,970	0	0.0%	2,649	6.5%	38,321	93.5%
Office	20,923	0	0.0%	0	0.0%	20,923	100.0%
Technical	355	231	65.1%	0	0.0%	124	34.9%
Trade-Industrial	20,897	17,091	81.8%	0	0.0%	3,806	18.2%
TOTAL	104,213	29,168	28.0%	4,141	4.0%	70,904	68.0%

TABLE 6. TRADITIONAL AND NON-TRADITIONAL ENROLLMENTS, 1983-84

Curriculum Area	Total Students	Traditional	% In Traditional	Non-Traditional	% In Non-Traditional	Integrated	% In Integrated
Agriculture	14,662	10,486	71.5%	1,360	9.3%	2,816	19.2%
Distributive Ed.	4,713	85	1.8%	10	0.2%	4,618	98.0%
Health	1,693	1,215	71.8%	182	10.8%	296	17.5%
Home Economics	40,970	2,489	6.1%	160	0.4%	38,321	93.5%
Office	20,923	0	0.0%	0	0.0%	20,923	100.0%
Technical	355	203	57.2%	28	7.9%	124	34.9%
Trade-Industrial	20,897	15,986	76.5%	1,105	5.3%	3,806	18.2%
TOTAL	104,213	30,464	29.2%	2,845	2.7%	70,904	68.0%

TABLE 7. SINGLE-SEX PROGRAMS AND ENROLLMENTS, 1983-84

Curriculum Area	NUMBER OF PROGRAMS:			NUMBER OF STUDENTS:		
	All-Male	All-Female	Total	Male in All-M Programs	Female in All-F Programs	Total
Agriculture	0	0	0	0	0	0
Distributive Ed	0	0	0	0	0	0
Health	0	0	0	0	0	0
Home Economics	0	1	1	0	276	276
Office	0	0	0	0	0	0
Technical	0	0	0	0	0	0
Trade-Industrial	0	0	0	0	0	0
TOTAL	0	1	1	0	276	276

TABLE 8. VOCATIONAL ENROLLMENTS BY COURSE AND SEX, 1983-84

AGRICULTURE

OE CODE	COURSE	TOT MAL	TOT FEM	TOTAL	%Male	%Female	Course Type
010100	Production Agriculture Occ.	7,357	1,103	8,460	87.0%	13.0%	Male
010200	Agriculture Supplies & Serv. Occ.	310	39	349	88.8%	11.2%	Male
010300	Agriculture Mechanics Occ.	1,928	72	2,000	96.4%	3.6%	Male
010400	Agriculture Products Proc. & Mktg.	392	51	443	88.5%	11.5%	Male
010500	Horticultural Occupations	746	600	1,346	55.4%	44.6%	Integrated
010600	Natural Resources Occupations	289	51	340	85.0%	15.0%	Male
010700	Forestry Occupations	210	44	254	82.7%	17.3%	Male
019900	Other Agriculture Occupations	976	494	1,470	66.4%	33.6%	Integrated
TOTAL		12,208	2,454	14,662	83.3%	16.7%	Male

DISTRIBUTIVE EDUCATION

DE Code	Course	Tot Male	Tot Fem	Total	%Male	%Female	Course Type
040200	Mktg/Fashion Merchandising Occ.	10	85	95	10.5%	89.5%	Female
040800	General Merchandise Retailing	995	1,348	2,343	42.5%	57.5%	Integrated
041200	Prof./Industrial Wholesale Mktg.	58	25	83	69.9%	30.1%	Integrated
041450	General Marketing Occupations	755	1,098	1,853	40.7%	59.3%	Integrated
041451	Business & Personal Serv. Mktg.	19	10	29	65.5%	34.5%	Integrated
049900	Other Marketing & Distribution	130	180	310	41.9%	58.1%	Integrated
Total		1,967	2,746	4,713	41.7%	58.3%	Integrated

HEALTH OCCUPATIONS

OE Code	Course	Tot Mal	Tot Fem	Total	%Male	%Female	Course Type
070002	Community Services Occupations	56	97	153	36.6%	63.4%	Integrated
070300	Health Care Occupations	182	1,215	1,397	13.0%	87.0%	Female
079900	Other Health & Environmental Occ.	62	81	143	43.4%	56.6%	Integrated
Total		300	1,393	1,693	17.7%	82.3%	Female

TABLE 8, CONTINUED

HOME ECONOMICS

OE Code	Course	Tot Mal	Tot Fem	Total	%Male	%Fem	Course Type
090101	Consumer-Homemaking Occupations	6,811	21,393	28,204	24.1%	75.9%	Integrated
090112	Other Consumer-Homemaking Occ.	523	1,744	2,267	23.1%	76.9%	Integrated
090120	Home & Individual/Family Resources	364	991	1,355	26.9%	73.1%	Integrated
090121	Individual/Family Life Parenting Occ.	355	1,269	1,624	21.9%	78.1%	Integrated
090201	Child Care/Guidance & Education Occ.	84	1,500	1,584	5.3%	94.7%	Female
090204	Housing Occupations	171	536	707	24.2%	75.8%	Integrated
090207	Grooming Services Occupations	0	276	276	0.0%	100.0%	Female
090214	Fashion/Apparel Textile Occupations	62	620	682	9.1%	90.9%	Female
090299	Other Service Occupation	100	176	276	36.2%	63.8%	Integrated
090402	Child Care/Guidance & Ed. Occ. Aide	14	93	107	13.1%	86.9%	Female
092902	Food Occupations	1,311	2,101	3,412	38.4%	61.6%	Integrated
099090	Service Occupations/Co-op	112	364	476	23.5%	76.5%	Integrated
	Total	9,907	31,063	40,970	24.2%	75.8%	Integrated

BUSINESS & OFFICE

OE Code	Course	Tot Mal	Tot Fem	Total	%Male	%Female	Course Type
140103	Accounting/Data Processing Occupations	686	879	1,565	43.8%	56.2%	Integrated
140120	Banking & Finance Occupations	31	81	112	27.7%	72.3%	Integrated
140199	Supervisor/Management Occupations	125	123	248	50.4%	49.6%	Integrated
140305	General Office Typist Occupations	1,103	3,577	4,680	23.6%	76.4%	Integrated
140730	Secretarial Occupations	3,275	9,312	12,587	26.0%	74.0%	Integrated
149900	Other Business & Office Occupations	526	1,205	1,731	30.4%	69.6%	Integrated
	Total	5,746	15,177	20,923	27.5%	72.5%	Integrated

TECHNICAL OCCUPATIONS

OE Code	Course	Tot Male	Tot Fem	Total	%Male	%Female	Course Type
161301	Mechanical Drafting	203	28	231	87.9%	12.1%	Male
161500	Energy Occupations	45	13	58	77.6%	22.4%	Integrated
165001	Radio Broadcasting	19	10	29	65.5%	34.5%	Integrated
165002	Radio/TV Production	28	9	37	75.7%	24.3%	Integrated
	Total	295	60	355	83.1%	16.9%	Male

TABLE 8, CONTINUED

TRADE & INDUSTRIAL							
OE Code	Course	Tot Mal	Tot Fem	Total	% Male	% Fem	Course Type
170301	Auto Body Repair Occupations	823	24	847	97.2%	2.8%	Male
170302	Auto Mechanics Occupations	3,822	193	4,015	95.2%	4.8%	Male
170312	Service Station Occupations	446	14	460	97.0%	3.0%	Male
171000	Construction Occupations-General	2,154	137	2,291	94.0%	6.0%	Male
171016	Carpentry Occ. & Finishing Trades	1,218	86	1,304	93.4%	6.6%	Male
171017	Construction Occ. & Mechanical Trades	67	11	78	85.9%	14.1%	Male
171020	Construction Occ. Planning & Mgmt.	498	77	575	86.6%	13.4%	Male
171303	Mechanical Drafting Occupations	704	122	826	85.2%	14.8%	Male
171500	Electricity/Electronics Occupations	1,219	81	1,300	93.8%	6.2%	Male
171502	Communications/Media Technology Occ.	305	152	457	66.7%	33.3%	Integrated
171900	Graphic Arts Occupations	1,548	852	2,400	64.5%	35.5%	Integrated
172302	Machine Shop Occupations	1,264	17	1,281	98.7%	1.3%	Male
172306	Welding Occupations	1,258	20	1,278	98.4%	1.6%	Male
173100	Small Engine Repair Occupations	1,163	48	1,211	96.0%	4.0%	Male
173101	Recreational Vehicle Repair Occ.	216	2	218	99.1%	0.9%	Male
179090	Industrial Co-op Programs	721	228	949	76.0%	24.0%	Integrated
179900	Other Industrial Occupations	1,134	273	1,407	80.6%	19.4%	Male
	Total	18,560	2,337	20,897	88.8%	11.2%	Male

TABLE 9. OCCUPATION OF VOCATIONAL GRADUATES*, ONE YEAR LATER

OCCUPATION GROUP	MALE GRADUATES		FEMALE GRADUATES	
	Number	Percent	Number	Percent
Administrative, engineering, scientific, teaching & related occupations	139	3.8%	164	4.2%
Technologists & technicians, including health	28	0.8%	27	0.7%
Marketing & sales	403	11.2%	991	25.5%
Clerical	350	9.7%	1,012	26.0%
Service	1,005	27.8%	1,332	34.2%
Farming, forestry & fishing	265	7.3%	37	1.0%
Construction & extractive	175	4.8%	9	0.2%
Transportation & material moving	155	4.3%	7	0.2%
Mechanics & repairs	184	5.1%	9	0.2%
Production	461	12.8%	231	5.9%
Material handlers, equipment cleaners, laborers & miscellaneous occupations	447	12.4%	71	1.8%
TOTAL	3,612	100.0%	3,890	99.9%

*Class of 1983

TABLE 10. HOURLY WAGES OF VOCATIONAL GRADUATES*, ONE YEAR LATER

CURRICULUM AREA	Total	Percent of Vocational Graduates Earning:				Median Earnings
		Below \$3	\$3-\$3.99	\$4-\$4.99	Above \$4.99	
Agriculture						
Male Graduates (428)**	100.0%	1.9%	31.5%	29.2%	37.3%	\$4.56
Female Graduates (231)	100.0%	4.8%	53.2%	24.7%	17.3%	\$3.84
Business						
Male Graduates (1,745)	100.0%	1.0%	33.4%	28.5%	37.1%	\$4.54
Female Graduates (2,787)	100.0%	4.2%	41.0%	26.6%	28.2%	\$3.95
Distributive Education						
Male Graduates (234)	100.0%	0.9%	26.5%	29.5%	43.2%	\$4.76
Female Graduates (345)	100.0%	5.8%	39.7%	30.4%	24.1%	\$4.14
Health Occupations						
Male Graduates (27)	100.0%	0.0%	37.0%	11.1%	51.8%	\$5.05
Female Graduates (258)	100.0%	6.2%	41.5%	26.4%	26.0%	\$4.08
Industrial Arts						
Male Graduates (1,801)	100.0%	0.9%	30.8%	27.7%	40.7%	\$4.65
Female Graduates (632)	100.0%	6.3%	44.0%	24.5%	25.1%	\$3.55
Home Economics						
Male Graduates (840)	100.0%	1.1%	29.5%	29.2%	40.2%	\$4.65
Female Graduates (2,114)	100.0%	6.4%	45.8%	26.6%	21.0%	\$3.94
Office Occupations						
Male Graduates (330)	100.0%	1.2%	30.0%	27.3%	41.5%	\$4.68
Female Graduates (1,019)	100.0%	5.0%	40.3%	26.5%	28.2%	\$4.17
Service Occupations						
Male Graduates (117)	100.0%	0.9%	29.9%	29.1%	40.2%	\$4.21
Female Graduates (170)	100.0%	5.9%	45.9%	25.9%	22.3%	\$3.68
Trade-Industrial						
Male Graduates (904)	100.0%	0.7%	28.7%	28.0%	42.7%	\$4.83
Female Graduates (296)	100.0%	6.4%	42.9%	27.4%	23.3%	\$4.02

* "Vocational graduates" means students who took at least one vocational course while in high school (class of 1983).

** Numbers in parentheses indicate number of graduates reporting wages in the sample survey.

TABLE 11. VOCATIONAL STAFF BY CURRICULUM AREA, 1983-84

Vocational Staff	Full-Time			Part-Time			All Staff			
	Male	Female	% F	Male	Female	% F	Male	Female	Total	%F
TEACHERS										
Agriculture	179	6	3.2%	37	2	5.1%	216	8	224	3.6%
Distributive Ed.	50	11	18.0%	6	0	0.0%	56	11	67	16.4%
Health	5	16	76.2%	8	15	65.2%	13	31	44	70.5%
Occup. Home Ec.	9	71	88.8%	0	25	100.0%	9	96	105	91.4%
Cons. Homemaking	1	180	99.4%	0	72	100.0%	1	252	253	99.6%
Office	80	85	51.5%	17	26	60.5%	97	111	208	53.4%
Technical	48	5	9.4%	2	0	0.0%	50	5	55	9.1%
Trade-Industrial	178	5	2.7%	58	2	3.3%	236	7	243	2.9%
Other (voc.)	50	13	20.6%	14	3	17.6%	64	16	80	20.0%
TOTAL TEACHERS	600	392	39.5%	142	145	50.5%	742	537	1,279	42.0%
LOCAL ADMIN. SUPPORT	22	6	21.4%	2	0	0.0%	24	6	30	20.0%
LOCAL PROGRAM STAFF	23	13	36.1%	2	2	100.0%	25	15	40	37.5%

Definitions

Enrollment. In this report, enrollment figures other than those for individual courses may represent a duplicated count of students, since some students may be enrolled in more than one vocational course at a time. All enrollment data in this report is statewide.

Curriculum Area or Program Area. These terms refer to groupings of programs into seven areas: Agriculture, Distributive Education, Health Occupations, Home Economics (including both Consumer Homemaking and Occupational Home Economics), Office Occupations, Technical Occupations and Trade & Industrial. Follow-up data contains an additional curriculum area, Service Occupations.

Racial Minorities. Minority student data reported by school districts to the Minnesota Civil Rights Information System does not denote scientific definitions of anthropological origins. No person is counted in more than one racial/ethnic category. Minorities identified by this system are: American Indian or Alaskan Native; Asian or Pacific Islander; Hispanic, referring to country of origin or culture, not race; Black, not of Hispanic origin; and White, not of Hispanic origin.

Course or Program. These terms refer to individual course offering within curriculum areas. All course or program data in this report represent statewide enrollments by subject or grade level, not by individual school district.

Segregated. A segregated program or course is one in which more than 80 percent of the students are of one sex. A segregated "male" program has enrollments which are more than 80 percent male, while a segregated "female" program has enrollments which are more than 80 percent female.

Integrated. All programs which are not segregated by sex are considered integrated.

Traditional. Students enrolled in programs where the total enrollment exceeds 80 percent of their own sex are defined as traditional students.

Non-Traditional. Students enrolled in segregated programs dominated by students of the other sex are defined as non-traditional students.

Vocational Teachers. Vocational teachers are staff members assigned the professional activities of instructing pupils in vocationally reimbursed programs. In this report, this term refers to teachers in secondary cooperative vocational centers as well as high school vocational teachers.

Program Support Services Staff. This refers to individuals employed for the primary purpose of assuring that students benefit from their vocational education programs, such as teacher aides, remedial teachers and interpreters for deaf students.

Vocational Administrators and Supervisors. This refers to professional staff other than teachers and support services staff who are assigned to the supervision of vocational education programs. This does not include general administrative staff, superintendents, principals or guidance counselors.