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ABSTRACT

The Project to Assess the Status of Women Students and Employees in Vocational Education assessed number and distribution of women students and employees in vocational programs, their perceptions of equal access, and extent of efforts to address sex equity. Its main activity was a survey of 3,609 vocational students, 455 faculty, 126 counselors, and 61 principals from 42 secondary districts and 9 regional occupational centers/programs (ROC/Ps). An 85-item survey assessed attitudes toward sex equity and satisfaction with district efforts to achieve sex equity. Major findings were that (1) although respondents felt males were less well accepted in traditionally female classes than the reverse, 1978-79 enrollment figures indicated more males enrolled in traditionally female classes than the reverse; (2) students, faculty, and counselors had less positive perceptions about sex equity efforts than did vocational administrators; (3) employers were perceived as more reluctant to hire a female than a male in a nontraditional job; (4) more ROC/Ps had sex balanced employee counts, while more secondary districts had balanced enrollments; (5) while guidance and counseling activities were the most frequently mentioned means of achieving sex equity, vocational counselors were less positive; and (6) most secondary districts supported sex equity activities with state or local funds, while most community college districts used federal Vocational Education Act funds. (YLB)

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# Assessing the Status of Women Students and Employees

## in Vocational Education in California

(Project PASSEVE)

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### Overview

While much effort has been directed toward increasing the numbers of women enrolled in academic programs, especially in science and engineering, relatively little attention has focused on those women for whom a high school diploma or a college degree represent their highest formal education. For these women, the choice of a vocational program is crucial. Unfortunately, the majority of women in vocational programs have tended to follow traditional patterns by enrolling in programs that either do not prepare them for employment, for those which prepare them for work in low paying, traditionally feminine occupations. For example, in 1975, only five percent of the women enrolled in vocational education nationwide were enrolled in programs in Trades and Industry (compared to 29 percent of male vocational students), an area leading to many high paying occupations.

The Vocational Education Amendments of 1976 (P.L. 94-482) mandated that each state gather and analyze data on the status of men and women students and employees in vocational education programs. In keeping with the spirit of this mandate, goals of equal access and equal employment opportunities were incorporated into the California Five-Year Plan for Vocational Education. The Five-Year Plan mandates that the state gather, analyze and disseminate data on the employment of women and men in vocational education programs and vocational education guidance, including "the hiring, firing, promotions, resignations, job descriptions, and salaries of personnel in vocational education."

While California has collected and analyzed much of this information on a statewide basis, the status of women students and employees at the local, district level had not been examined. The overall goals of this project, entitled the Project to Assess the Status of Women Students and Employees in Vocational Education (PASSEVE), were to provide state staff with information about the numbers and distribution of women students and employees in vocational programs at the local level, their perceptions of equal access, and the extent of local level efforts to address sex equity.

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To meet these goals, six activities were conducted:

1. A review of 1978-79 vocational student enrollment, and staff employment data to provide information on the distribution of women students and employees in secondary districts and regional occupational centers/programs (ROC/Ps);
2. A survey of over 4,000 vocational students, faculty, counselors, and high school principals, to assess their perceptions and attitudes regarding sex equity and equal access to vocational programs;
3. Site visits to seven secondary districts and one ROC/P participating in the PASSEVE survey. At each site, interviews were conducted with vocational and academic students, faculty, and administrators to validate the survey results and to explore the underlying dynamics and environmental factors contributing to the status of women's enrollment and employment;
4. An analysis of the Sex Equity Surveys (Form E-127P) collected by the State Department of Education, and of the sex equity items on the Program Administrative Review (PAR), and the Program Assessment of Vocational Education (PAVE) documents, in order to synthesize information about other local level efforts to address sex equity;
5. An analysis of sex equity projects specially funded from federal VEA monies, and a survey of vocational education directors and deans of occupational education to assess the amount and results of federal funds spent at the local level in both secondary and postsecondary local education agencies (LEAs) to address sex equity; and
6. Meetings with LEA personnel to provide assistance in analyzing sex equity data.

The results described in this paper are primarily from the survey, with corroborating data from the other project activities. Of interest here are student's perceptions, attitudes and expectations about vocational programs, their perceptions of faculty attitudes, and what faculty attitudes actually are with respect to students' enrollment in vocational programs nontraditional to their sex. It is these factors, rather than sheer numbers, that may well offer a better explanation of women students' and faculty's status in vocational education.

### Methodology

The main activity of PASSEVE was a survey of 3,609 vocational students, 455 faculty, 126 counselors, and 61 principals randomly selected from a representative sample of 42 secondary districts and nine regional occupational centers/programs (ROC/Ps) across California. At each participating school or ROC/P, surveys were completed by 60 students, 8 faculty, 2 counselors, and the principal. Students within each school were selected to include both sexes enrolled in traditionally female dominated

vocational programs such as homemaking, traditionally male dominated programs such as automobile mechanics, or programs that usually have sex-balanced enrollments, such as data processing. The schools and ROC/Ps were stratified by size of school, geographical location in California, and urban/rural environment.

The surveys consisted of 85 items assessing attitudes toward sex equity and satisfaction with district efforts to achieve sex equity. Surveys were administered at each school by local staff who had previously attended one of six orientation meetings held throughout the state to train on-site liaisons in survey procedures. This method worked extremely well, in that usable data were received from all participating districts and ROC/Ps on time. The use of local liaisons had another benefit, which was that they were able to obtain cooperation and support from faculty and principals with less problems than would have been encountered by an "outsider."

### Results

Demographically, the sample was quite representative of secondary students in California: about half of the students were white, about 20 percent were Hispanic, 20 percent were black, and the remaining ten percent were divided between Asian, American Indian and Filipino. The major findings of the study were as follows.

1. Although respondents to the PASSEVE survey felt that male students in traditionally female classes were less well accepted by teachers and other students than were female students in traditionally male classes, the 1978-79 enrollment figures indicated more male students enrolled in traditionally female programs than female students enrolled in traditionally male classes.

One of the interesting findings from PASSEVE is the apparent contradiction between the perceptions of the acceptance of male students in traditionally female classes, and their reported enrollments. All groups of respondents to the PASSEVE survey, students, faculty, counselors, and administrators, indicated that females in male programs were slightly better accepted by other students and by teachers than were males in female programs. In contrast, the 1978-79 enrollment figures show more male students in traditionally female dominated courses than female students in traditionally male dominated classes.

To illustrate, the only program areas to show an overall imbalance in enrollments in 1978-79 were Health Occupations (predominately female), Industrial Arts (predominately male), and Trades & Industry (predominately male). However, on the district level, two-thirds of all secondary districts offering Health programs had balanced enrollments, as compared to only 14 percent offering Industrial Arts, and ten percent of those offering Trades & Industry. All other programs, Agriculture, Distributive Education, Home Economics, and Office Occupations had sex balanced enrollments on a statewide basis.

Clearly, more boys are taking Home Economics and Office Occupations

classes, long considered traditionally female classes, than there are girls taking classes in Industrial Arts or Trades and Industry, which remain male dominated. Yet the perceptions gathered on the PASSEVE survey were that it was somehow easier for girls to take nontraditional classes than it was for boys.

From the perception data alone, it was tempting to conclude that past sex equity efforts have been too exclusively focused on women, to the extent that attitudes toward females in nontraditional occupations have improved, while attitudes toward males in nontraditional occupations have not. This would imply a reversal of much of the focus of sex equity efforts - away from strictly "women's issues" to men as well. Indeed, this is perhaps what equity is all about.

The enrollment figures, while three years older than the PASSEVE survey, indicate that while females may be slightly better accepted, they are still not enrolling in nontraditional programs in numbers large enough to change the statewide balance of male dominated programs such as Industrial Arts and Trades and Industry. Thus while the PASSEVE data indicate that those girls who do take nontraditional classes may have an easier time of it than they expected, there is still a strong need to encourage females as well as males to consider nontraditional programs in the first place.

2. Students, faculty and counselors in the PASSEVE survey had less positive perceptions about their district's or Regional Occupational Center/Program's (ROC/P's) sex equity efforts than those expressed by vocational administrators.

One of the primary reasons for conducting the PASSEVE survey was that it provided state staff with direct input from a large, representative sample of vocational students, teachers, and counselors. This is in contrast to other procedures used by the California Department of Education for collecting district level information about sex equity, which were completed primarily by school or district administrators. For example, the Sex Equity Survey (Form E-127P) is completed by high school principals; the Program Assessment of Vocational Education (PAVE) questionnaire is completed by a vocational education administrator, in conjunction with vocational teachers (although state staff have the strong impression that PAVE questionnaires have actually been assigned to teachers); and Program Administrative Review (PAR) interviews are conducted primarily with vocational administrators.

Generally, on all measures, district administrative staff expressed satisfaction with their district's efforts to achieve sex equity. For example, on the Sex Equity Survey (Form E-127P), over 70 percent of the respondents rated their district as satisfactory on 15 of the 26 activities listed. In 1982, the number of activities rated as satisfactory by over 70 percent of the respondents increased to 19 of the 26. In both years, the highest percentage of districts indicating that improvement was needed was only slightly over 30 percent.

Similarly, most respondents to the PAR interviews indicated that they

did have the required documents on file, or that the documents were "not applicable." On the PASSEVE survey, 87 percent of the administrators were somewhat or definitely satisfied with their district's efforts to encourage sex equity, and 94 percent indicated that their district either had plans or had already begun with formal or informal efforts to nontraditional enrollments.

The impressions of the administrators were generally more positive than those of the students, faculty and counselors in the PASSEVE survey. Counselors were especially dissatisfied with their district's sex equity efforts, with 58 percent of the female counselors and 18 percent of the males expressing dissatisfaction. Faculty members were also more dissatisfied than administrators, with 34 percent of the female teachers and 18 percent of the males indicating dissatisfaction.

The questions assessing students' satisfaction with district sex equity efforts were slightly different. About 46 percent of all students indicated dissatisfaction with their district or ROC/P's efforts to encourage male students to enroll in traditionally female courses. Interestingly, the most dissatisfaction was expressed by male students in male imbalanced programs (56 percent). Similarly, 38 percent of all students were dissatisfied with their district or ROC/P's efforts to encourage female students to enroll in traditionally male programs. The most dissatisfaction here was expressed by the female students in female imbalanced programs (41 percent).

Note that more students were dissatisfied with efforts to encourage male students to enroll in nontraditional programs than with efforts to encourage female students into nontraditional programs. This may reflect the emphasis on sex equity efforts directed toward women rather than toward men, which was mentioned earlier.

3. While the attitudes of school personnel and students toward females in nontraditional occupations may have changed, there is the perception that employers are more reluctant to hire a female in a nontraditional job than they are to hire a male in a nontraditional job.

Among the most interesting findings of the PASSEVE survey was that all respondent groups thought that more employers would be willing to hire a man for a job that had been traditionally filled by women than they would to hire a woman for jobs traditionally filled by men. Interviewees on the site visits were asked about this finding, and their comments are illuminating. The director of the ROP visited related a conversation he had had with the owner of a local auto repair shop, who said he would lose his better customers if they saw that he had hired female mechanics. The ROP director also commented that there was the sense that if unemployment continues to rise, the community would demand that jobs be given to traditional "breadwinners," whom they see as male rather than female. The counselor in one urban district commented that employers tended to be conservative in their hiring, and that the presence of a lone female in a shop full of men was considered "jail bait."

In this same vein, students interviewed during the site visits were asked if they would be willing to hire nontraditional workers. As with the PASSEVE survey findings, there was more bias against hiring females for nontraditional jobs than males. For example, many students said they wouldn't hire a female for male jobs involving heavy physical labor, and one male student in a rural secondary district commented that he wouldn't hire a female mechanic since "other men wouldn't trust her so she wouldn't be good for business." There were fewer negative comments about hiring males for jobs as secretaries, and one male student even commented, "It would give me more status to have a male secretary." It should be noted that these students are indeed future employers.

When asked about the future of sex equity in vocational education, many interviewees indicated that students would take nontraditional programs as long as the occupations promised well-paying jobs. The future of sex equity, then, rests to a large extent with employers. State, and local district staff would do well to make efforts to reach employers a top priority in the 1980's.

4. More Regional Occupational Centers or Programs (ROC/Ps) had sex balanced employee counts, while more secondary districts had balanced enrollments in vocational programs.

District level analyses of the 1978-79 vocational student enrollment and employee data revealed that a higher percentage of secondary districts than ROC/Ps had balanced student enrollments in 41 of the 56 vocational programs listed as offered by both. Conversely, in all programs except Office Occupations, a higher percentage of ROC/Ps had balanced employee counts.

There are a number of reasons for both of these findings. Turning first to the differences in student enrollments, several interviewees during the site visits suggested that female students are often more reluctant than males to leave their home campus to take vocational programs offered at either another campus or at a vocational center. This reluctance is aggravated by the fact that ROP classes are often offered on campuses with the "most need," which often translates into either racially isolated campuses, or campuses with security problems. These features could easily lead to the observed male imbalance in student enrollments in ROC/P classes.

The reversal in number of programs with balanced staff counts is closely related to the issue of recruitment of nontraditional vocational faculty. In most of the PASSEVE activities, secondary respondents indicated faculty recruitment as an area of concern. For example, secondary respondents to the Sex Equity Survey (E-127P), in 1977 (18 percent) and in 1982 (13 percent) indicated a need for improvement in recruiting women instructors in traditionally male fields. (Interestingly enough, one-fourth of the respondents in both years felt that recruitment of women faculty was "Not Applicable.")

On the funds survey, recruitment of nontraditional instructors was the least frequently mentioned activity for expenditures. Interestingly, all

of the districts reporting recruitment activities indicated that state and local funds were the source, with only 35 percent indicating that federal VEA funds were also used.

Recruitment also emerged as an area of concern from the PASSEVE survey: On the question assessing satisfaction with their districts' plans to employ female vocational teachers in traditionally male programs, 36 percent of the female faculty, and 43 percent of the female counselors were definitely not satisfied or not very satisfied. Similarly, 27 percent of the female faculty and 42 percent of the female counselors were dissatisfied with their districts' efforts at hiring men into teaching positions usually filled by women.

A number of possible reasons for the apparent difficulty in hiring nontraditional faculty were raised by interviewees during the site visits. One of the main reasons was that there were so few women qualified to teach in traditionally male fields, and secondary districts found it difficult to compete with industry for experienced women, due to salary differences. Many of the secondary districts visited had not been in a position to hire any new faculty in a number of years, and were thus "stuck" with traditional faculty.

The situation was somewhat different in ROC/Ps, where more ROC/Ps had balanced employee counts than balanced student enrollments. On the site visit, ROP personnel suggested that it was easier for them to hire nontraditional staff for a couple of reasons. One reason was that they were able to hire hourly instructors, who were often given release time from their employers to teach. Another reason was that ROP instructors are non-tenured, so there was usually a large turnover in faculty from year to year, leaving opportunities to search for nontraditional staff.

The above findings indicate that to achieve an equitable status for women vocational employees, it is necessary for state staff to encourage the development of recruitment programs for the hiring of women, and men, as teachers in nontraditional vocational programs. The past emphasis on student enrollments has resulted in more sex balanced programs; what is now needed is a similar emphasis on nontraditional vocational faculty (or employee) ratios.

5. Guidance and counseling activities were the most frequently used means of achieving sex equity in vocational programs, the responses of vocational counselors from the PASSEVE survey were as follows.

On many of the PASSEVE activities, counselors or guidance and counseling services emerged as one of the strongest areas of districts' sex equity efforts. On the Sex Equity Survey (Form E-127P), 98 percent of the 1982 respondents indicated satisfaction with their school's provision of guidance and counseling programs to encourage students to consider nontraditional occupations. Similarly, on the PAVE surveys, guidance and counseling was one of the two areas with the greatest percentage of respondents indicating special efforts had been made by program staff to reduce sex bias. The perceived importance of counselors was also evident

in the analysis of funds, since the highest total estimated expenditures in secondary districts were for counseling sessions for students in nontraditional programs.

The students' expectations of counselor support from the PASSEVE survey were, however, far less positive. Male and female students expected counselors to support their choice of a vocational program traditional to their sex, but to be neutral or oppose their choice of a nontraditional program. In contrast, the overwhelming majority of both female and male counselors, when asked for their reactions, thought they would be supportive of both types of choices. The student's perceptions must have had some base in reality, however, since about 22 percent of the male counselors felt that it was mistake to encourage students to take nontraditional courses.

Male counselors consistently expressed more sex biased attitudes than female counselors. In the most striking difference, 56 percent of the male counselors felt that women and men are naturally suited to different jobs, compared to 13 percent of the female counselors. Likewise, more male counselors than females felt that there should be some exceptions to equal access to vocational programs (29 percent as compared to eight percent). The majority of male counselors (59 percent) did not perceive sex discrimination in school as a problem, while the majority of female counselors (68 percent) perceived it as a minor or a serious problem. Overall, more of the female counselors (58 percent) than male counselors (18 percent) were dissatisfied with their district's efforts in conducting activities to encourage sex equity. Oddly enough, more of these same male counselors reported participating in state-wide inservice programs or workshops on sex equity.

In the interviews during the site visits, the majority of the counselors indicated that while they did not make special efforts to encourage or to "push" students into nontraditional programs, they did not discourage students who already wanted to take nontraditional programs.

Vocational faculty had somewhat different perceptions of counselors in the PASSEVE survey. For example, while the faculty judged that nontraditional students were generally well accepted by other students, teachers, counselors, and administrators, the group with the highest percentage of "poor" acceptance ratings were counselors (about ten percent as compared to about three percent for the other groups). The vocational faculty interviewed during the site visits generally felt that counselors had very little influence on students' decisions to enroll in particular classes.

The most interesting comments from vocational faculty on the site visits related to a perceived "anti-vocational" bias among the schools' academic counselors. Many interviewees suggested that academic counselors tended to steer "good" students away from vocational education classes, and academic counselors were judged to lack career and sex equity information in general.

Given the emphasis on sex equity activities involving counseling, the perceptions of counselors gained from the PASSEVE survey are somewhat

startling. While the female counselors expressed strong equitable attitudes, the male counselors expressed more biased attitudes than the male vocational faculty! The suggestion to state staff, then, is to direct inservice training programs and workshops specifically to school counselors, and preferably to the academic counselors, who apparently are more in need of vocationally related and sex equity information.

6. While federal Vocational Education Act (VEA) funds were used by many secondary districts to support sex equity activities, the majority reported using state or local funds. In contrast, the majority of community college districts reported supporting their sex equity activities from federal VEA funds.

Analyses of the survey mailed to all secondary and community college districts in California revealed that secondary districts appeared to rely equally or slightly more on state and local funding sources for sex equity activities, while community college districts appeared to use federal VEA funds to a greater extent to support sex equity activities. Some of these federal funds came from specially funded projects awarded under VEA Subparts 2, 3 and 5. Over half of the specially funded projects focusing on sex equity or women during 1977-80 were awarded to community college districts (for a total of \$1,055,377), while only about a fourth were awarded to secondary districts or county offices of education (for a total of \$472,816).

There are a number of possible reasons for this difference. First, it should be noted that the average federal VEA allocation received by secondary districts in California is much smaller than that received by community college districts. Thus it is reasonable that secondary districts cannot rely totally on federal VEA funding to support sex equity activities. Indeed, the above finding indicates that support of sex equity activities in secondary districts most often requires a district commitment of their own funds.

In contrast, community college districts are required to spend portions of their VEA allocations on sex equity activities. In 1980-81, the Chancellor's Office of the California Community Colleges required that 50 percent of the Subpart 3 funds allocated to the colleges be spent on sex equity activities. The college could use these funds for other purposes only if it could demonstrate that an amount equal to or greater than 50 percent of its Subpart 3 allocation was already being spent on sex equity activities. For 1981-82, the percentage of Subpart 3 allocations to be spent on sex equity was dropped to 20 percent, and Chancellor's Office staff have recommended that this level be maintained through 1982-83. Also in 1981-82, the Chancellor's Office required that one percent of each college districts' Subpart 2 allocation be spent on services for displaced homemakers, and that 1.5 percent of the Subpart 2 allocation be spent for support services for women. Chancellor's Office staff are recommending that these percentages be increased in 1982-83.

With all of these special regulations, it is not surprising that more community college districts report using VEA funds to support sex equity. The implications of this finding, though, go beyond simple funding sources.

Because of the smaller amount of resources at the secondary districts, formal activities to encourage students to enroll in nontraditional programs cannot be totally supported by federal funds, and require a commitment from the district to sponsor such activities. In contrast, community college districts have the luxury, albeit mandated by the Chancellor's Office, to support sex equity activities primarily from federal VEA funds. Whether the colleges would use VEA funds for sex equity to the same extent, or to what extent they would support sex equity without VEA funding is open to question, and may soon be tested. At the same time, staff of the State Department of Education, particularly the Gender Equity Coordinator, must identify ways to encourage commitment to sex equity in more of the state's secondary districts.

Identification of Factors that Led to Balance. Based on the findings from all PASSEVE activities, it was possible to determine some of the factors that led to sex balance in vocational program enrollments and employment at the district level. The major factors identified were:

- \* Districts' commitment to sex equity in vocational programs is strongly related to their commitment to vocational education in general. In those districts with strong commitment to vocational programs, there was a corresponding interest in and knowledge of sex equity issues; in those districts with a weak or nonexistent commitment to vocational programs, sex equity was not a priority.
- \* Commitment to sex equity in vocational programs appears to be very much of an "all-or-none" nature. When there was a strong commitment to sex equity, it was observed at all levels, from district vocational director, to the school principal, to teachers and to students. In those districts with little or no commitment to sex equity, this lack of commitment was observed at all levels, from the district, to school staff and to students.
- \* The attitudes of the surrounding community toward equity in the workplace facilitates the commitment to sex equity in the schools. Interestingly, in sites with strong commitment to sex equity, parents were perceived as favoring either nontraditional or traditional vocational choices, as long as employment prospects were good.
- \* Districts with balanced vocational programs more frequently have formal activities to encourage nontraditional enrollments, such as career centers or special career days, and were more frequent participants in other statewide sex equity activities, such as Gemini or TIDE (Toward Individual Development thru Equity).
- \* More staff members in districts and ROC/Ps with sex balanced enrollments had participated in workshops, inservice training or conferences to provide them specific strategies for correcting sex bias.

Of all of the findings of PASSEVE, those involving counselors and employers stand out as being the most important. There is some evidence that counselors do not have as much influence on student's vocational

choices as one might expect, often because they simply do not have the time to individually advise every student. Nevertheless, the findings here indicate a strong need to clarify the roles and responsibilities of counselors toward vocational education programs in general, and toward nontraditional enrollments in specific.

The perceptions of employers are perhaps the most crucial element in increasing nontraditional enrollments in vocational programs. Why should students be encouraged to enroll in programs if they are not going to be hired when they complete the programs? This seems to be especially critical for female students. Sex equity activities clearly cannot be confined to the classroom; they must be expanded to include local employers if vocational education is to succeed in providing equal opportunities for employment for both sexes.