THE NON-TRADITIONAL OCCUPATION PROGRAM AT
BREVARD COMMUNITY COLLEGE, PALM BAY, FL

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INTRODUCTION TO NTO

The Non-Traditional Occupations (NTO) Program is a part of the PAVE Program which Promotes Access to Vocational/technical Education by providing college programs accompanied by services and activities designed to eliminate sex bias and stereotyping in vocational career fields. It accomplishes this by assisting women and men to pursue careers, non-traditional for their gender, through courses leading to a vocational certificate or an associate degree. The majority of the women enrolled are older re-entry students with family responsibilities and a desire to enter a higher-paying career that will enable them to become self sufficient.

During the five years of its existence, the PAVE/NTO program at the Palm Bay Campus of Brevard Community College has successfully served both women and men students with vocational education, many kinds of counseling and support services, an actively participating Advisory Board, peer club support, mentoring, placement assistance and industry internships. The program also acts as an incentive for students to continue their education toward a four-year technical degree in other educational institutions. This will describe the various parts of the program and make suggestions for interactions that might be profitably initiated by engineering/technology schools.

PROGRAM DEFINITION AND FUNDING

Brevard Community College (BCC) is a part of the state community college system. The Palm Bay campus, the newest, opened five years ago. It is the site of the Florida Advanced Technology Center and has a number of state-of-the-art vocational program facilities. This emphasis on current technology has made its administration receptive to programs such as Non-Traditional Occupations.

The PAVE/NTO program is federally funded under the Carl D. Perkins Vocational Education and Applied Technology Act through the auspices of the Florida Division of Vocational, Adult and Community Education. The Perkins Act funds two significant types of programs for women that are often combined: under Section 221 are programs for Single Parents, Displaced Homemakers and Single Pregnant Women and under Section 222 are Gender Equity Programs for vocational enrollments non-traditional to one’s gender. The latter are the focus of this discussion.
Funds are obtained on a biannual basis through grant fund proposals made by the college to the state. Eligible for the funds are community colleges, school districts, and consortia of educational institutions and industry throughout the state of Florida. The Florida State Equity Program evaluates the proposals and chooses those to be funded and the amounts. Funding for the second year is 30% dependent upon the performance of the recipient's program during the grant's first or previous year; 60% is on the program proposed and 10% depends upon the institutional support.

Grant support for the BCC program has averaged around $50,000 each year with the college providing about $20,000. In addition, BCC provides office space and services, a work-study student assistant, travel funds for the program coordinator to attend one state conference each year, a part-time program advisor and, of course, the educational facilities and services used by all students. If a grant were not awarded to the program, it probably would not be funded by the college. Some small amounts for special projects are made available occasionally through local industries.

**FLORIDA 1994-95 RFP GOALS**

The Florida requests for proposals this fiscal year were expected to address either or both of these two goals and their accompanying objectives:

**GOAL 1.** To enroll students in vocational education non-traditional for their gender and provide them with financial support and career counseling.

**Objectives**

A. Recruit culturally diverse girls/women between the ages of 14 and 25 into non-traditional training programs.
B. Provide preparatory services which will aid the student in preparing for successful entry into a non-traditional program.
C. Provide support to aid the student in retention and completion of a non-traditional program and employment into a skill-related job. (This could include financial support for items such as transportation, child care, tuition, books, fees, remediation/tutoring, mentoring, career shadowing, business involvement.)
D. Identify high-wage and high technology non-traditional programs and give these programs priority in information and recruitment activities.

**GOAL 2.** To provide activities and services designed to eliminate gender bias and gender role stereotyping and to promote equity awareness in vocational education.

**Objectives**

A. Design and implement programs, services and activities to eliminate gender bias and gender role stereotyping and promote equity awareness in secondary and post-secondary vocational education (such as Tech Prep, Blueprint for Career Preparation, Life Management and etc.).
B. Make the educational environment conducive to non-traditional enrollments by promoting equity awareness in vocational education, especially through dual enrollment between secondary schools and community colleges.
PROGRESS OF THE PAVE/NTO PROGRAM AT PALM BAY

The Palm Bay area is a dynamic, fast growing community with a large high technology industry in computers, electronics and related fields. It is also only about 35 miles from Kennedy Space Center. While this industry has been severely impacted by the defense and space cutbacks, the need for technical and vocational workers in non-traditional fields is beginning to return.

The Program Coordinator, Donna Jean, initiated the program at BCC Palm Bay campus in 1989. The first class enrolled in the program in January 1990. Ms. Jean has carried on all the recruiting, outreach, counseling, advising, proposal writing, coordinating with state and college administrators, obtaining community and industry partners and establishing the Advisory Board. She also became for the students in the program friend, confidante and advisor on personal, educational and career matters. The addition of a part-time program advisor in May, 1994 will extend the program to all the other BCC campuses. He will have office days on a rotating basis at each campus. This will allow the program coordinator to spend more time in activities such as recruiting and outreach programs in local schools, seeking industry internships and placements for program graduates, bringing awareness of and support for the program from the community.

Each year the Palm Bay program has been cited by the state of Florida as exemplary. In 1992, the Technical Assistance for Special Populations Program, a service arm of the National Center for Research in Vocational Equity Non-traditional Programs, selected this program as one of five in the nation which most exemplified high quality vocational education for individuals with special needs. This was the first time that a sex equity program had been selected for this honor.2

One of the strengths of this program has been its successful Advisory Board and resulting partnerships with local businesses and industries. As an example, the Board's plan for business internships by NTO students has been approved for college credit. The internships may be paid or unpaid but each will enable students to actually perform work in the career fields they have chosen.

Another success has been the peer support NTO Club. Although it meets only monthly, the interactions between members have been the difference to many NTO students between giving up and staying in school. Its president, as a member of the Advisory Board, provides valuable insight and comments.

The PAVE/NTO Program at Palm Bay has set six goals against which it measures its progress:
• Direct student recruitment using outreach approaches
• Community networking with local groups and agencies
• Strong effective partnerships through involvement of Advisory Board in mentoring, internships and job placement
• Sex-fair environment through equity training
• Multi-dimensional student support through financial assistance, counseling, peer groups, mentors
• Student placement through local businesses3

WOMEN IN ENGINEERING CONFERENCE: EFFECTING THE CLIMATE
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PROFILE OF STUDENTS IN THE NTO PROGRAM

Students may take the classes and enter certificate/degree programs without enrolling in the PAVE/NTO program. Only those who enroll are able to take full advantage of its assistance. Since its beginning at Palm Bay in 1990, the program has provided financial support for over 400 students. Each year about 100 students have been actually enrolled in the program and about 250 counseled. During the 1993-94 school year, 125 students were enrolled. Throughout the entire college, there were 219 students enrolled this year in vocational education programs and 110 females in the NTO program.

Retention rate for NTO students is about 85%, although most of them attend only part time because they have to keep bread and butter on the table for their families. Few of them complete their course of study in the one or two years required by the full time student—in fact, most of them take three years or more, often dropping out for a term now and then because of financial and family needs. After obtaining their vocational diplomas, most NTO students continue to get their Associate of Arts degree in another two terms. This degree is parallel to the first two years in a four-year state university and all credits are fully transferable there. Again, the majority of students who earn the Associate of Arts degree continue in a full bachelor's degree program at a nearby university. It appears from this that when an engineering school works with NTO students it is working with its own future students.

Data is not yet available for the school year just ending, but it appears to parallel the compilations of the Florida Sex Equity Electronic Data System for the 1991-92 year. Some of the more pertinent information describing the students and the program includes:

- Women ages 14-25 make up the largest group served (46%) since the Perkins Act of 1990 targets them. Students ages 26-34 make up the next largest group served (28%) and are followed by ages 35-44 (19%).

- White students constituted the majority of enrolled students by about 2.5 to 1 and females exceeded males by nearly 6 to 1.

- At the time of initial contact with the NTO program, the majority of students were unemployed and had personal incomes of less than $10,000, probably because so many fell in the 14-19 age group. Over 34% of the non-traditional students were employed, about equally divided between full and part time work.

- Over 40% of the students had an average of 2 dependents—children or disabled adults.

- The typical non-traditional student had a high school diploma and no post secondary education on entering the program, however nearly 24% had neither GED nor diploma.

- About 25% of the students were enrolled at the secondary level and received training suitable for secondary students. Of these, over 70% were enrolled in drafting, followed by criminal justice at 13%.
• For postsecondary students, computer programming was the most frequently selected course, nearly double the number in each of the next four most frequent choices of business administration, electrical engineering technology, drafting and correctional officer. For postsecondary adult students, there was a small spread between the most frequent choices of correctional officer, electronic technician and welding.

• Tuition and child care constituted 66% of direct support to students by Sex Equity funds; transportation and books were next major support items from the funds.

• The most used support services were personal counseling at 34% and vocational counseling at 14%.4

**HOW ENGINEERING SCHOOLS CAN INTERACT WITH NTO PROGRAMS**

During the past year, the Space Coast Section and the Florida Institute of Technology Student Section of the Society of Women Engineers (SWE) have been working with the Palm Bay NTO program in a variety of ways that have benefited both.

• A SWE member serves on the NTO Advisory Board.

• The NTO Club was invited by the Florida Tech students to a get-acquainted family picnic that encouraged both groups to bring their children.

• NTO students assisted with the SWE "Expanding Your Horizons" career conference for secondary students, provided a session on the NTO program, served as guides and program aides, helped with registration and in a variety of other tasks. For many NTO students, this was their first real opportunity to serve as role models themselves. They rose to the occasion magnificently in every situation.

• SWE members invited NTO students to meetings, on field trips, to Engineers' Week.

• Plans are for SWE to hold resume writing, mock interviews for both student groups.

• Space Coast Chapter is assisting the NTO Club and its Program Coordinator with funds and services to evaluate the program through a survey of present and past NTO students. This will be extremely valuable information for writing proposals, seeking funds and gaining support.

• SWE members can provide opportunities for career shadowing, internships and job placement.

• This year the NTO program held a "Breaking Traditions Essay Contest" to promote gender equity during Women's History month. A local industry provided money prizes to girls enrolled in a non-traditional technical education course. There were separate contests for secondary school and community college levels. Next year contests will be at three levels--elementary, middle/junior and senior--as well as for the college level. The elementary level prize will be a visit to the Palm Bay campus to shadow the NTO students.

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INTERACTION RESULTS

From the experiences of the Palm Bay PAVE/NTO Program, the adjoining table details the techniques that have worked best with each program phase. Notice that the techniques that are most effective for all phases are the ones that involve the community. These are the areas where engineering schools can make their greatest impact.

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Engineering schools that make an effort to interact with students in non-traditional career programs at local community colleges can have a very positive effect on these programs and students as well as on their own schools and students. It is not a one-way street. The data presented here reinforces the hypothesis that when an engineering school works with NTO students it is indeed working with its future students.

REFERENCES

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