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Chapter 11

The Gender Issue in Information Technology: Collegiate and Corporate Solutions

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A paradox is occurring today in the Information Technology (IT) field. At the very moment that a large unmet demand for IT workers exists, approximately one-half of our work force is largely declining the offer. The Information Technology Association of America estimates the number of IT jobs languishing at a staggering 840,000 (eWeek, 2000). Though women in IT earn 60 percent more than women in other occupations, their numbers have dropped from 40 percent in 1986 to 29 percent today (CIO, 2000). The White House Council of Economic Advisors (CIO, 2000) estimates that women are leaving the IT job market at twice the rate of men.

This report focuses on the ongoing strategies employed for the integration and retention of women in the collegiate and the corporate sphere (Frenkel, 1991).

Inequality of computing does not start at the corporate level. The U.S. Department of Education reports that the number of women computer science graduates declined from 37% in 1984 to 28% in 1994. Robert Morris College developed a program to remedy this problem.

The first element C and nucleus C of the program took the form of a far-reaching and expansive curricular innovation. Simply stated, the previous Information Systems offering was a one-dimensional Above it or leave it @ affair that

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concentrated mainly on the development of competent computer programmers. It was replaced by a track system that was more responsive to student needs. Five tracks became available to the student:

- Computer Information Systems,
- Health Care Information Systems,
- Network Administration,
- Accounting Information Systems, and
- Office Information Systems.

Prior to the curricular change, only the programming-oriented Computer Information Systems option was available.

The five-track option quickly became the catalyst for the entire program. Previously, students who were unhappy with the narrowly defined major had but two choices: drop out of college or transfer to a new major. With the introduction of the track system, students could concentrate on the specific niche within the discipline that energized and rekindled the learning process. While the rate of retention increased for both men and women students since the program took hold in the fall of 1993, the retention rate for women advanced from 60.11% to 79.35% by 1997. The corresponding data for men show an advance from 69% to 83% over the same time frame. Thus, the retention improvement factor for women was 32%, while the male factor improved by 20%. The rationale, as voiced by the women students, was that health care, accounting and office information systems were more traditional areas of female interest.

We believe that the rapid growth of our department from less than 400 students in 1991 to 915 students in 1998, while somewhat a reflection of the steady rise in the vitality and prominence of the computing marketplace, is also a result of innovative collegiate and departmental policies. The remarkable improvement in the retention of women in computer system studies indicates that it is a stubborn but solvable problem.

CORPORATE STRATEGIES

As part of their cooperative education job responsibilities, the authors make approximately one hundred on-site visits each year to the 47 corporate workplaces where our students are employed. Along with reviews of student performance, information is gathered from various levels of information systems management concerning the corporate environment, employee job duties, salaries, mobility, hardware, software, employment criteria, legacy systems, subcontracting and myriad other subjects. These corporations and institutions range from large multi-national corporations to health care institutions, government facilities and small businesses with less than 15 employees.