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Why Bother?

WHEN WE MENTION WOMEN IN SCIENCE AND ENGINEERING, IT IS OFTEN ABOUT THE DIMINISHING numbers, the lower pay, the many difficulties for women, and the personal sacrifices that women necessarily make. Perhaps, by focusing on the negatives, we are unwittingly persuading young women that science and engineering may not be the right careers for them. Why bother to join this profession?

There are many rewards. The wealthy parents of John Enders, a Nobel Laureate of the 1950s, could not believe that he was being paid to play in the laboratory. He had the freedom to be curious. Carol Reiss, a New York University professor, described this freedom to me: "It is the ability to ask questions and develop experiments to answer them, learning something new which no one else has previously found. Yes, I would definitely do it again. Science is a very rewarding and gratifying profession, not a job." Moreover, scientific work contributes to furthering our understanding of the universe and our place in it. Scientists feel uniquely relevant.

In the past, women often received friendly advice to accept less demanding positions, such as research assistant or associate rather than that of professor. It was argued that taking such positions would give women the flexibility for domestic responsibilities and child-birth. Also, there would be no need to search for funding. However, many professors and directors set their own schedule for getting the job done. Financial responsibility may indeed be a hassle, especially now, but having that responsibility also means deciding how that money is spent. Assistants and technicians can be assigned the routine functions, giving additional flexibility to the laboratory chief. Except for teaching, academic scientists and engineers have great flexibility in scheduling, although this might mean working well into the evening hours and weekends. Few other jobs provide such flexibility.

Although time-consuming, teaching has special rewards. Another professor (Amy Cheng Vollmer, Swarthmore College) remarked to me: "Being a mentor—in the classroom [or] laboratory . . . has been the most rewarding—seeing former students become successful . . . and developing balance in their professional and personal lives." Not often mentioned but taken for granted, scientists and engineers mainly interact with smart, capable individuals, making it a pleasure to work together.

Sometimes achieving "balance" is elusive for women. Many women feel they have to decide between a career and family. Rosalind Franklin and Barbara McClintock chose not to have children in favor of science. However, for women who can juggle the demands of a profession and a family, there are special rewards of motherhood. As a young investigator (Theresa Chang, Public Health Research Institute, University of Medicine and Dentistry, New Jersey) told me, "many female colleagues . . . chose not to have children to be competitive. Having children is the best thing that I have done. I am more effective at work and integrate my skill and knowledge into the society through my involvement in the school." To be a mother and a scientist is well worth the effort.

And should it be that after training, a woman decides that academic life is not for her, that training provides an open door to a wide variety of options. Scientists are prepared to solve problems, almost any kind. She can analyze new situations and immerse herself in learning about them. She is able to provide solutions and leadership. There are jobs in industry, on Wall Street, in government, in philanthropy, in administration, in national parks, in advocacy, in defense, and numerous others areas. There is nothing to lose and everything to gain. Yes, it is worth the bother!

— Alice S. Huang

