SCIENCE

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EDITORIAL

Launching *Science*'s Next Wave

Benjamin Disraeli once observed that "The youth of a nation are the trustees of posterity." Scientists of all nations recognize this truth. Remembering our own introductions to the allure of discovery, we seek to pass the torch to fresh cadres of younger compatriots. *Science* and the AAAS are deeply concerned about the current prospects for the survival of the next generations of scientists, and with good reason. After decades of logarithmic growth, the scientific enterprise in the United States and many other countries is in transition to a budgetary steady state.

There was little warning of this sea change. Only a few years ago, investment in training was seen as a disproportionately small slice of the then-growing scientific pie. Many observers, this editor among them, strongly advocated an increase in that investment. But scientists' retirement rates lagged, and the funding base barely met inflation. This has put the current generation of scientifically trained youth in a bind: The pool of scientists exceeds the available positions in traditional academic research. That situation prevails across scientific disciplines, from particle physics to geology to molecular biology.

This painful condition has led *Science* to take two paths. First, extending the subject of recent editorials, we ask whether scientific training itself—particularly the Ph.D.—requires transformation. See the 1995 "Careers" section (this issue, page 121), conceived and executed by Deputy News Editor Joshua Fischman and Senior Writer Constance Holden, for new perspectives on the scientific Ph.D. Though the idea may be repugnant, is it true that what science needs now is "birth control"—a sharp reduction in the number of people receiving doctoral degrees? Our editors also examine other proposals for reconciling graduate scientific education with current economic circumstances and governmental policies. Given the fact that scientifically trained people must enter the nonacademic career market, we explore industry's need for them. Finally, we discuss the experiences of an especially crucial group—young scientists themselves.

Our young scientists say one thing loud and clear: Their traditional academic mentors are out of touch with the remarkably altered circumstances of today's job market. *Science* and the AAAS believe that we must not simply list alternatives, but also provide them. Thus, the second path we take is to offer our readers a new resource that may ease the growing pains of young scientists. Called "*Science*'s Next Wave" (edited and coordinated by Features Editor John Benditt), it expands our "Beyond the Printed Page" services with a new electronic network on the World Wide Web (URL: http://sci.aaas.org/nextwave/). This site (sponsors willing) will offer services, information, and communication for the next generation of scientifically and technically trained people.

"*Science*'s Next Wave" was created to evolve through its users' participation. Many more features have already been planned for the next several months. The first to appear, beginning today, is an interactive forum on "Training Scientists for 21st-Century Careers." Eight representatives from universities, government, business, and young scientists themselves will offer their perspectives on key issues in scientific training. Anyone who joins the forum can "talk back" to these experts by posting comments on the Web. In this way, *Science* hopes to initiate a dialogue on this critical subject.

"*Science*'s Next Wave" will continue to grapple with alternatives to the traditional career paths in academic research. The first in a series of features on this subject will focus on science journalism; it begins on 27 October. *Science* will discuss the best training programs for science journalism, describe the experiences of those who have made the transition from a scientific Ph.D. to a journalism career, and identify key people for career-related queries.

A central feature of "*Science*'s Next Wave" (beginning on 3 November) will be a network of correspondents at major research institutions in universities and the private sector. These talented young scientists, many of whom have already been enlisted, will report on events at their own institutions, from the latest research to programs for career development, and will include their own experiences.

"*Science*'s Next Wave" is intended to help the next generation navigate through an increasingly difficult and rapidly changing seascape. We believe that these features will interest older scientists as well. Surf with us and help make these new ventures part of your success.

Floyd E. Bloom