Science

19 FEBRUARY 1988 VOLUME 239 **NUMBER 4842**

American Association for the Advancement of Science

Science serves its readers as a forum for the presentation and discussion of important issues related to the advancement of science, including the presentation of minority or conflicting points of view, rather than by publishing only material on which a consensus has been reached. Accordingly, all articles published in *Science*—including editorials, news and comment, and book reviews—are signed and reflect the individual views of the authors and not official points of view adopted by the AAAS or the institutions with which the authors are affiliated

Publisher: Alvin W. Trivelpiece Editor: Daniel E. Koshland, Jr.

Deputy Editors: Philip H. Abelson (Engineering and Applied Sciences); John I. Brauman (Physical Sciences)

EDITORIAL STAFF

Managing Editor: Patricia A. Morgan

Assistant Managing Editor: Nancy J. Hartnagel Senior Editors: Eleanore Butz, Ruth Kulstad Associate Editors: Martha Coleman, R. Brooks Hanson Barbara Jasny, Katrina L. Kelner, Edith Meyers, Phillip D. Szuromi, David F. Voss

Letters Editor: Christine Gilbert

Book Reviews: Katherine Livingston, editor; Deborah F.

This Week in Science: Ruth Levy Guver Contributing Editor: Lawrence I. Grossma Chief Production Editor: Ellen E. Murphy

Editing Department: Lois Schmitt, head; Mary McDaniel,

Copy Desk: Joi S. Granger, Beverly Shields, Anna Victoreen Barbara Wittig

Production Manager: Karen Schools Assistant Production Manager: James Landry

Graphics and Production: Holly Bishop, James J. Olivarri,

Eleanor Warner

Covers Editor: Grayce Finger
Manuscript Systems Analyst: William Carter

News Editor: Barbara J. Culliton

News and Comment: Colin Norman, deputy editor; William Booth, Mark H. Crawford, Diane Henry, Constance Holden, Eliot Marshall, Marjorie Sun, John Walsh **Research News:** Roger Lewin, *deputy editor*; Deborah M.

Barnes, Richard A. Kerr, Jean L. Marx, Leslie Roberts, M. Mitchell Waldrop

European Correspondent: David Dickson

BUSINESS STAFF

ss Staff Manager: Deborah Rivera-Wienhold Classified Advertising Supervisor: Karen Morgenstern Membership Recruitment: Gwendolyn Huddle Member and Subscription Records: Ann Ragland Guide to Biotechnology Products and Instruments: Shauna S. Roberts

ADVERTISING REPRESENTATIVES

Director: Earl J. Scherago **Traffic Manager:** Donna Rivera

Traffic Manager (Recruitment): Gwen Canter Advertising Sales Manager: Richard L. Charles

Advertising Sales Manager: Richard L. Charles Employment Sales Manager: Edward C. Keller Marketing Manager: Herbert L. Burklund Sales: New York, NY 10036: J. Kevin Henebry, 1515 Broadway (212-730-1050); Scotch Plains, NJ 07076: C. Richard Callis, 12 Unami Lane (201-889-4873); Chicago, IL 60611: Jack Ryan, Room 2107, 919 N. Michigan Ave. (312-337-4973); San Jose, CA 95112: Bob Brindley, 310 S. 16 St. (408-2400); Depted VT 65615; Each W. Dieffenbach Kent Hill 998-4690); Dorset, VT 05251: Fred W. Dieffenbach, Kent Hill Rd. (802-867-5581); Damascus, MD 20872: Rick Sommer, 24808 Shrubbery Hill Ct. (301-972-9270); U.K., Europe: Nick Jones, +44(0647)52918; Telex 42513; FAX (0392) 31645.

Information for contributors appears on page XI of the 18 December 1987 issue. Editorial correspondence, including requests for permission to reprint and reprint orders, should be sent to 1333 H Street, NW, Washington, DC 20005. Telephone: 202-326-6500

Advertising correspondence should be sent to Tenth Floor, 1515 Broadway, NY 10036. Telephone 212-730-1050 or WU Telex 968082 SCHERAGO.

To Retire or Not to Retire, That Is the Question

"orkaholics of the world, unite—you have nothing to lose but your leisure!" Such might be the battle cry of the increasingly aging and increasingly healthy older population. To retire or not to retire, that is the question. The answer is quite different to those who like their jobs and to those who do not. The first group, including many professionals, consider "retirement" to be a dirty word, something to be avoided at all costs. The second group, including many blue collar workers, think retirement is a nirvana to be sought as an escape from a boring daily routine.

In the past, both labor and management encouraged mandatory retirement for many workers. As the number of the elderly increases, however, the financial burden that this growing retired population places on young and middle-aged workers also increases. (Deductions for Social Security have never paid for the system, and new cures keep extending the life span. Decreased cigarette smoking, for example, may well bankrupt Social

One argument against letting the elderly add to national productivity is that it takes away jobs from young people. That has been the argument used against immigrants, who supposedly take jobs away from "real Americans," or women, who take them away from men. In fact, the influx of those two groups into the labor market has not been accompanied by an increase in unemployment, suggesting that individuals create jobs as well as occupy

Moreover, the able elderly are now continuing to work, often through a shift of employer. A nuclear engineer becomes an expert witness on nuclear power, a tenured professor moves to fill a post at a less prestigious university, a lawyer leaves a large law firm to set up practice on his own. In each case, the elderly person is potentially taking away a job from a younger person, but this is concealed because the retiree is not staying in the same

The movement to new jobs has some virtues; it involves an objective selection of the physically and mentally vigorous from the tired and the inflexible. But mandatory retirement has largely disappeared, and the attempts of universities, for example, to be given a special exemption seems unlikely to work. Just before a recent court decision, the airline industry settled out of court over mandatory retirement in the case of air traffic engineers. If airplane personnel, judges, and doctors cannot be forced to retire, the first disgruntled professor who takes his case to court is likely to prove age discrimination without too much trouble.

The challenge to society, therefore, is to develop some scheme of retirement based on performance not age, and one that does not block the advancement of younger people. Research productivity is probably the easiest to evaluate, since distant committees in Washington develop priority scores for individuals in other localities. Local duties such as teaching and administration are a little more difficult, since the subjectivity of evaluating a colleague will inevitably intrude. Ad hoc committees to consider retirement as ad hoc committees consider promotion are certainly feasible. Mentally young but chronologically old individuals could lighten the teaching load of assistant professors starting an academic career. Retired executives can serve as consultants for young venture capital companies that have scientific expertise but little business sophistication. Commissions and boards that have a hard time competing for the time of a young scientist might be more appropriately manned by experienced professionals who have seen more of the complexities of life.

Age by itself does not bring wisdom, nor does youth automatically bring a fresh viewpoint: some individuals are born doctrinaire, and others embrace new ideas until the day they die. Each profession will have to think of the criteria that justify continued employment. Early retirement for some and late retirement for others may well average out to a more productive society. To begin such a system it is probably wise to set some quotas and devise a system of priority scores. That would change the question from, "Is old Jake good enough to continue work?" to "Of the hundred individuals who are up for retirement, which twenty are we going to ask to continue working, and what are we going to ask them to do?"

The population changes mean that there will be more people, not fewer, who prefer work to chronological welfare. A society that can make supercomputers should be able to solve the problem.—Daniel E. Koshland, Jr.