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primarily from different assumptions about the appropriate population base to be considered in estimating probabilities. This is a problem that traditionally frustrates cluster analysis. Does one ask how likely it is that three deaths would occur normally on a given day among the relative handful of people who were vaccinated during the critical hour at that one clinic, or among the 1200 who were vaccinated at the clinic that day, or among the 8000 or so elderly who were immunized in Allegheny County that day, or among even larger groups of elderly immunized in the state or nation?

Using one set of assumptions, the Center for Disease Control, which is promoting the immunization campaign, has managed to calculate the odds as low as 1 in 50 that the deaths would occur normally. Using another set, the county coroner's office, acting as devil's advocate, puts the odds as high as 1 in a million. One neutral expert—Robert J. Armstrong, chief of mortality statistics at the National Center for Health Statistics—has a gut feeling that the deaths were "an extremely rare event—a tremendous long shot." But he notes that highly improbable events do in fact occur.

Federal officials also stress that, on a nationwide basis, the death rate following vaccination is far less than the normal death rate for the elderly population, a statistic which tends to exonerate the vaccination campaign as a cause of mortality. But skeptics put little stock in such figures. They doubt that the reporting of deaths after vaccination is complete. They also suspect that most of those who are about to die on any given day are too sick to venture out for a flu shot. Thus the population that visits clinics might be expected to show fewer deaths.

One federal investigator who is skeptical that the three deaths were coincidental is Philip Graitcer, one of two specialists from the Center for Disease Control who masterminded the investigation here. Graitcer speculates that some of the deceased might have been killed by hysteria or stress at the shock of seeing others collapse, receive oxygen treatment, and then get carted away on a stretcher, amidst a wailing of sirens. He hopes to return to Pittsburgh soon to investigate this hypothesis more thoroughly. If his theory proves plausible, it might explain how the million-to-one shot occurred. It might also suggest the need for new procedures aimed at minimizing the hubbub caused by medical emergencies.—PHILIP M. BOFFEY

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depression led Friedman to invert the proposition—an essentially stable private sector operates as a shock absorber to the shocks imposed by an erratic and "unstable" government sector. This inversion created much intellectual heat. It is noteworthy, however, that Friedman provided us with the only piece of evidence we have on an issue of fundamental importance. The issue is anything but settled. But again, Friedman raised a radically unfashionable question and we should hope that scholarship will attend to its serious examination.

My presentation of Friedman's work to a wider group in the scientific establishment has concentrated on his extensive scholarly work. But the new Nobel Prize winner is far removed from "academia's ivory towers." He has been embroiled for many years in important issues of public policy. This aspect of Friedman's life deserves some clarification. He is frequently presented as an ideologue, as a man who lets his politics dominate his economics. He is also refered to patronizingly as a "controversial figure."

The accusation that politics plays an important role in Friedman's work thoroughly distorts the actual situation. The remarkable fact is that many of Friedman's "political or policy views" were guided by a strong commitment to a relevant empirical use of economic analysis. His "politics" emerges to a major extent as an assessable consequence of his economic analysis. Analysis led him to a series of quite radical questions bearing on many of our social institutions, or more specifically, on the prevalent views of stabilization policies. The proposal for a monetary rule was not motivated by any "laissez-faire preconception" but evolved from his appreciation of the unpredictable variability of monetary lags.

And, lastly, there is indeed a commitment. It involves the value and freedom of an individual human being, and a commitment to rational discourse and the cognitive adventure called science. But views about social institutions, their mode of working, and their consequences remain a matter subject to the procedures of empirical science. Perhaps we may hope that Friedman's lifelong struggle to insert such scientific commitment into economics may yield a broader application of relevant analysis over the full range of social institutions and political processes.

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less homogeneous and their teaching load very heavy. In contrast, others viewed a mix of both 2-year and 4-year college teachers in the same course as mutually beneficial.

There was some sentiment for courses specifically designed for academic deans and faculty development officers. One participant felt that several of the short courses would also benefit nonscience faculty, and another thought that the current program seems more profitable for nonscientists than scientists.

A potpourri of suggestions for the content of the short courses emerged:

- more emphasis on lab-centered and hardware-type courses, perhaps 1 or 2 weeks in duration;
- the latest laboratory techniques—what's going on at the leading laboratories in the country;
- courses on the current year's happenings in biology, chemistry, or physics; and
- more on improved methods of teaching the sciences, such as how to develop teaching materials; how to reach nonmajors; how to apply the techniques of modular instruction to the all-important introductory course.

A suggestion that the AAAS consider arranging some sort of credit for short courses highlights a basic question which was asked and discussed, but not resolved: How do you motivate faculty who are comfortably uninterested in self-improvement?

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Office of Science Education

Nuclear Power Seminar Scheduled

A regional seminar on nuclear power, cosponsored by the AAAS Division of Public Sector Programs and Knox College, will be held on 1 December on the Knox College campus in Galesburg, Illinois. The program will include a discussion of the Illinois energy picture, the nuclear fuel cycle, and a number of concerns associated with the safety and waste management of nuclear power.

AAAS members in the Galesburg area are invited to attend. For further information, contact Dr. Herbert Priestley, Knox College, Department of Physics, Galesburg, Illinois 61401. Telephone: (309) 343-0112, Ext. 248/485.