

the NRC survey was compiled from the NRC's doctorate records file, which contains records of essentially all doctoral degrees awarded by U.S. institutions, and from sources of information about foreign-earned doctorates. Hence the 42,456 survey responses received (not 59,086, as reported in *Science*) accurately reflected the employment situations of *all* doctoral scientists and engineers, and not just the situations of the members of professional societies.

Some other criticisms of employment surveys in general that were cited in Shapley's article do not apply to the NRC survey. Information about scientists and engineers who had accepted postdoctoral appointments, had retired, had taken part-time positions, or were unable to find science positions—information often overlooked—was collected from this survey. Similarly, individuals not seeking employment or employed in fields other than those in which they were trained could be identified from data collected by the NRC. In fact, the NRC is presently using 1973 survey data to investigate the characteristics of doctoral scientists and engineers who might be regarded as either unemployed or "underemployed" and expects to make the results known in future reports.

WILLIAM C. KELLY
*Commission on Human Resources,
National Research Council,
Washington, D.C. 20418*

References

1. *Doctoral Scientists and Engineers in the United States: 1973 Profile* (National Research Council-National Academy of Sciences, Washington, D.C., 1974).

Shapley's article states, "What no one knows, or has bothered to determine, is how the non-elite segments of the technical work force are faring." This statement and related discussions in Shapley's article seem to overlook both the program of the National Science Foundation (NSF) to measure periodically the nature and activity of the nation's total scientific and engineering labor force and the role of the NRC doctorate survey in this program.

The NSF's Manpower Characteristics System is the successor to the National Register of Scientific and Technical Personnel. It is composed of three subsystems, each of which examines a particular segment of the labor force. One of these subsystems is the Doctoral Roster, which conducts a biennial survey of doctoral scientists and engineers in the United States. This particular survey is carried out by the NRC for the NSF. The results of the

first of these surveys are described in the NRC report discussed by Shapley.

The second component of the system is the National Sample of Scientists and Engineers, which was developed jointly by the NSF and the Bureau of the Census. This sample population includes personnel at all degree levels, including those who function as scientists and engineers and hold no academic degrees. Data are collected biennially. The initial survey of this group, based on the 1970 biennial census, was conducted during the first half of 1974, and the results should be available by the end of the year.

The third component of our system will provide information on those individuals who have entered the labor force since 1970. It involves follow-up surveys of freshmen classes conducted 4 to 6 years after their entry into college. A survey is currently being conducted for the NSF of the 1967, 1968, and 1969 entering classes by the Laboratory for Research on Higher Education of the University of California at Los Angeles.

It should be evident that we are very much concerned about all segments of the scientific and engineering community and have taken steps to provide data on the employment and utilization of all its components.

CHARLES E. FALK
*Division of Science Resources Studies,
National Science Foundation,
Washington, D.C. 20550*

Speaking Plainly

I read with amusement "Speak plainly and eschew neologisms" by Robert Gillette (News and Comment, 18 Oct., p. 240). This is what I have been trying to teach my graduate students for years (inculcate).

I particularly recommend Fowler's essay on "elegant variation" (1). The following is a short relevant passage.

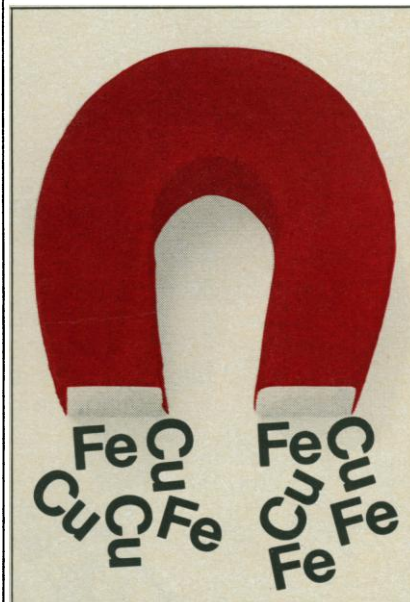
It is the second-rate writers, those intent rather on expressing themselves prettily than on conveying their meaning clearly, and still more those whose notions of style are based on a few misleading rules of thumb, that are chiefly open to the allurements of elegant variation.

HELEN MAHUT
*Department of Psychology,
Northeastern University,
Boston, Massachusetts 02115*

References

1. H. W. Fowler, *A Dictionary of Modern English Usage* (Oxford Univ. Press, New York, ed. 2, 1965), p. 148.

Chelex 100 vs. heavy metals.



(fatal attraction)

Chelex 100, Bio-Rad's chelating exchange resin, shows a high specific affinity for the ions of copper, iron, and other heavy metals. It's ideally suited for **removing, concentrating, or analyzing** trace amounts of these metals, even in the presence of large quantities of sodium and potassium.

Chelex 100's diverse applications include: **analysis** of trace metals in natural waters, reagents, biochemicals, and physiological solutions • **removal** of trace metals from reagents, culture media, soils, buffers and enzyme systems • **recovery** of metals from process streams • **chromatography** of closely-related metals • **concentration** of trace metals for atomic absorption or anodic stripping voltammetry analyses.

Call or write for bulletin 114.

BIO-RAD Laboratories

32nd and Griffin Avenue
Richmond, CA 94804
Phone (415) 234-4130

Also in: Rockville Centre, N.Y.;
Mississauga, Ontario; London;
Munich; Milan; Sao Paulo

Circle No. 119 on Readers' Service Card