Admission Policies

In his editorial "Open admissions: The real issue" (24 Sept., p. 1197) A. W. Astin asserts that the central issue in education today is elimination of the de facto racial and socioeconomic segregation that results from the selective admission policies followed by many colleges and universities. He makes two recommendations: that we reexamine critically the factors which have led to the present hierarchical arrangement of educational institutions, and that selective institutions admit mediocre or poorly prepared students; he implies that this will succeed because in the past "a few . . . major public universities have . . . been able to accommodate students who vary widely in ability."

The anecdotal evidence available to me about programs in the sciences for disadvantaged students does not encourage confidence that the elimination of admission standards will be educationally beneficial. We have had little experience with students who are outside a narrow range of backgrounds and developed abilities. Most of these students are afraid even to try a science or mathematics course, and they are right in the sense that they are woefully unprepared to meet the competition from regularly admitted students in the usual introductory courses. A few thoughtfully planned special introductory courses give promise that they can supply motivation and fill background gaps for these students, but it has yet to be demonstrated that these courses can assist significant numbers of students to achieve competitive performance levels by the time they reach the baccalaureate level. To date, special admission programs have been expensive for the institutions involved, ineffective in broadening the social outlook of normally selected students, and shattering to the unprepared students who have been admitted to academic competition under special criteria. If any institution or faculty member can demonstrate otherwise, they should teach the rest of us the basis for their success, for we badly need to do better.

Liberal admission policies are not crucial to the broadening of the educational opportunities available to the minority-group student. Such policies may indeed be counterproductive if they encourage him to believe that his institution is committed to giving him a degree, rather than to understand that he is obliged—like any other student—to *earn* a degree. What is crucial is what is done to provide the necessary help for this student after he appears on campus. Astin does an immense disservice to imply that the problems of education for the disadvantaged student will be alleviated by admitting him to a "quality" institution. The real problem is not admission, but educational programs, and the recognition that the goal is not a degree conferred, but an education earned. This process requires struggle and effort on the part of both the students and the faculty members involved to overcome deficiencies in student motivation, self-image, and educational background, and to improve our totally inadequate methods for teaching students from disadvantaged backgrounds.

ROBERT I. WALTER
Department of Chemistry, University of Illinois, Chicago 60680

For the record, my editorial states (i) that segregation is one of the undesirable by-products of ability tracking, that its elimination is "the central issue in education today"; and (ii) that selec-

tive institutions can develop effective programs for students in the lower ability ranges, not that such programs will alleviate "the problems of education for the disadvantaged student."

Walter makes a serious mistake if he assumes that open admissions and "special" admissions programs for "disadvantaged" students are one and the same thing. Indeed, these special programs have often created problems precisely because they are superimposed on an otherwise selective admission policy; a dichotomy is thus created in which most of the best-prepared students are white and practically all of the most poorly prepared students are black. Much of the explosive potential in this type of situation could be eliminated by the adoption of an open admissions policy, in which all students are admitted on the same basis, regardless of racial or other considerations.

ALEXANDER W. ASTIN
American Council on Education,
One Dupont Circle,
Washington, D.C. 20036

Controlling the Earth's Temperatures

The dialogue between Rasool and Schneider and Charlson *et al.* (7 Jan., p. 95) on the question of whether an increasing aerosol content of the atmosphere, caused by man's activities, may produce a long-term increase or decrease in global temperature, has illuminated a theoretical solution to this conjectural problem. If the sign of the temperature change depends rather sensitively on the particle size, its complex index of refraction, and the altitude distribution, then one can imagine that the atmosphere could be seeded with aerosols of appropriate size and composition to offset any temperature changes resulting from man's impact (including release of aerosols and carbon dioxide or any other activity that affects the albedo). Before any attempt to tune the atmosphere could be made, of course, detailed calculations and pilot experiments would have to be performed, so that we understood the side effects and could completely control the result. There also are questions of how much material would be needed and what mechanism of distribution could be employed. One or both could be impractical; however, if man's activities can inadvertently deposit aerosols that have measurable effects, then presumably any intentional seeding could be much more efficient and