The U.S. high energy physics community is seeking federal backing for construction of a multibillion-dollar 20 TeV (trillion electron volt) by 20-TeV proton-proton machine dubbed the Superconducting Super Collider (SSC). Without it, the physics learning curve will flatten out, says Leon M. Lederman, director of Fermi National Accelerator Laboratory. "There is no other way of getting the information that the SSC is designed to get," asserts Lederman.

Despite these arguments, funding the next generation of accelerators may prove to be an uphill battle in both the House and Senate, where even traditional allies of science are worried about the colossal $6-billion (inflated 1984 dollars) projected cost of the SSC. The need for new accelerators for nuclear and high-energy physics is being examined by deficit-conscious members of the Senate appropriation subcommittee on energy and water development. Ranking minority member Bennett Johnston (D–La.) has requested the General Accounting Office (GAO) to review the costs, current planning efforts, and requirements for new devices.

In the first of three GAO reports, the agency observes that Congress will have to nearly double its $118-million annual appropriation for operating nuclear physics facilities if the $220-million Continuous Electron Beam Accelerator Facility, proposed for Newport News, Virginia, goes forward. Absent an $80-million hike in annual funding, GAO notes the continuous beam facility could only be funded by closing down two other nuclear physics facilities located at Los Alamos National Laboratory and Lawrence Berkeley Laboratory.

Whether the scientific community will be forced to make trade-offs on retiring older physics facilities and on other types of basic research remains to be seen. House and Senate aides say the Congress conceivably could be confronted with such hard choices when the House science committee completes its policy review.—**MARK CRAWFORD**

Sociology Stir at Harvard

Controversial tenure decision complicates attempts to bring in more "quantifiers"

Harvard University has lately been the subject of some much-undesired publicity in the wake of its decision not to offer a tenured professorship to its young luminary of sociology, Paul Starr.

Starr, 35, is a Pulitzer prize-winning author who represents the more historical and interpretive as opposed to the quantitative end of the discipline. Last year his department voted, 7 to 3, to offer him tenure. But Harvard president Derek Bok, acting on the advice of an outside committee, decided against it.

Starr, who has spent most of his career on various professional fellowships, in 1983 produced a major book, *The Social Transformation of American Medicine*. It has been widely acclaimed by doctors in academic medicine; a review in *Science* (18 February 1983, p. 837) called it "the most ambitious and important analysis of American medicine to appear in over a decade." It has also drawn favorable reactions from sociologists, although the book, a sweeping work of economic and social analysis, is regarded by many as "social history" rather than sociology.

Nonetheless, the book put Starr firmly on the map, and the decision to withhold tenure roused a good deal of indignation among the Harvard professoriate. The episode has highlighted chronic divisions within the discipline of sociology. It has also embarrassed Harvard in its efforts to position itself more in the "mainstream" of sociology, and has pointed up the shortcomings of what many regard as the university's antiquated tenure practices.

The Harvard sociology department is perceived by some, including the Harvard administration, as being on the decline. (Several sociologists told *Science* that Harvard is not in the "top ten," although this is subject to debate.*) Some say the erosion began in the mid-1970's after the retirement of Talcott Parsons, a towering figure who successfully integrated a rigorous scientific approach with original theoretical contributions. Although the department has been home to many famous individuals, including David Riesman and Paul Starr's mentor Daniel Bell, it does not now possess the stature within the discipline that is held by more quantitatively oriented institutions such as the universities of Chicago and Wisconsin.

It took a crisis of sorts to spur Harvard into some serious thinking about the direction of sociology. In 1981, Theda Skocpol, another rising young Harvard-trained scholar, was denied tenure following a tied vote by the department. Skocpol filed a charge of sex discrimination (Harvard's first) and, during the resulting turmoil, it was determined that the department's personnel policies needed to be straightened out. An outside advisory committee appointed by Henry Rosofsky, the recently retired dean of arts and sciences, was set up to make recommendations. The committee's deliberations were confidential, but it is no secret that they urged the president to bring in some top-ranking quantifiers to bring "balance" to the department.

The committee was dissolved last fall when Aage Sorensen was brought in from the University of Wisconsin as chairman to orchestrate the reorientation of the sociology department. Most of the committee members were retained in an ad hoc capacity to continue advising the president on tenure decisions. Starr says he is the only faculty member since 1970 to have been recommended by the department for tenure. But when his name came up, the committee said no—in part, no doubt, because the case involving Skocpol, also a macrosociologist, had finally been resolved and she was offered tenure in December of last year. (Skocpol now has a tenured position at Chicago and an additional offer pending from Berkeley.)

A number of sociologists and historians at Harvard have taken strong exception to the Starr decision. Perhaps the strongest has come from Bell, who is quoted by the *New York Times* as calling Starr "the most brilliant sociologist of his generation." Orlando Patterson, known for his work on slavery, calls the decision "a blunder." Nathan Glazer,

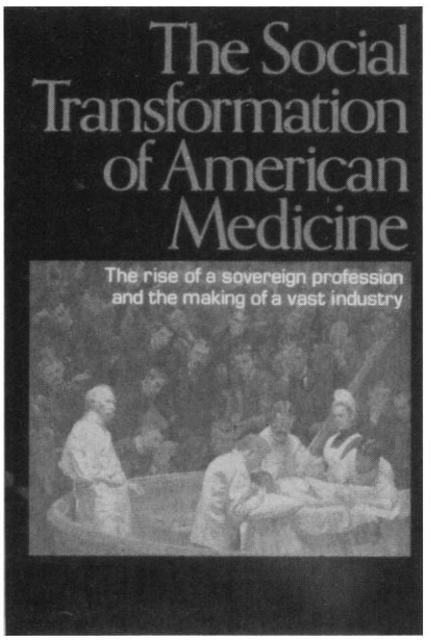
*An assessment of graduate programs published in 1983 by the National Academy of Sciences ranked Harvard just behind the universities of Chicago, Wisconsin, California (Berkeley), and Michigan in faculty quality, and gave it high marks for effectiveness in training researchers. But it was among the lower scorers with regard to improvement over the preceding 5 years.

another synthetic thinker, says of Starr: "very few sociologists have his qualities of mind. . . . Harvard is usually sufficiently secure to accept brilliance regardless of what the profession thinks."

Harvard's most vocal standard-bearer on the other side of the argument is James Davis, former chairman of the sociology department, who thinks the department has enough "brilliant journalists" and needs more academics versed in the statistical and analytic tools of the discipline. Davis's views are representative of the "mainstream." For example, Gerald Marwell, chairman of Wisconsin's sociology department, emphasizes that the heart of the discipline is the production of new knowledge, which means that its "major thrust" has to involve data that can be worked with quantitatively. Edward Laumann, dean of social sciences at Chicago, and one of the many who have declined offers from Harvard, points out that while a wide-ranging book such as Starr's may well be brilliant, it contains no new knowledge, nor does it pursue a sustained discussion of an original hypothesis. The business of sociology, he says, is to look for the "generalizable" as opposed to the "idiosyncratic particularity." Starr's book, in his opinion, leans more in the latter direction.

Most sociologists agree that a consensus of sorts has emerged within the discipline in recent years: that it is "multiparadigmatic," as Patterson puts it; that the "mainstream" is not defined by any one methodology and that pitting "quantitative" against "qualitative" approaches is about as productive as the nature-nurture debate, since knowledge is advanced by the interaction of the two.

Nonetheless, the Starr episode makes it clear that fundamental differences still remain, not over the substantive concerns of the field but over the best ways to uncover truth. Glazer, for example, says that the modeling exercises of the quantifiers "always seem to be a far cry from any complex social reality." Another sociologist is of the opinion that quantifiers too often come up with conclusions that are "distorted, trivial, or irrelevant." Quantifiers are also accused of being jealous of the historical-interpretive sociologists because the work of the former is generally confined to the professional journals while the latter write the widely hailed books. To characterize Starr's book as "social history," says Patterson, is "like accusing an evolutionary biologist of being mainly an historian of science." Quantitative sociologists, on the other hand, contend



Paul Starr's book

Sociology or social history? Experts differ.

that most popular authors have the same relation to sociology as the virtuoso surgeon has to medical research.

Theda Skocpol believes it is something of a distortion to treat the issue as polarized between the pro- and anti-quantifiers. A question more accurately reflecting the conflict, she says, is: to what degree is an individual (that is, Starr) tied with the "mainline activities of the profession?" Starr is widely perceived as keeping aloof from professional meetings, journals, and collaborative endeavors, and his presence at Harvard would, in the opinion of many, reinforce the sense that the Harvard department is detached from the mainstream.

There is also the question of graduate students and their "marketability." According to department chairman Sorensen, students are not getting optimal training in methodology at Harvard, so there is a "discrepancy" between graduate training and "what other universities want to hire." Harvard students still hold their own because they are "brighter," says Sorensen, but he implied that this may not always be the case unless Harvard takes steps to exercise "a more dominant influence in the profession."

Starr, who has since accepted a tenured position at Princeton University, perceives the debate as stemming from a "longstanding dispute between the department and the university over the direction of sociology." He implies that the mainstream is in the eye of the swimmer, since "the field does not have a single dominant paradigm like economics." He adds: "Some people who think they are swimming in the mainstream could be swimming in the wrong direction." He acknowledges that he does not dabble much in "specifically disciplinary" activities, but says he is "very active in a wide variety of professional activities," such as projects conducted by the Social Science Research Council.

As for the future of graduate training, Starr contends that methodological skills in historical analysis are just as valid as those in statistics and model-building. He emphatically rejects the notion that graduate education at Harvard is deficient, and does not think it will be improved by the imposition of a "vocational educational conception of graduate work."

Although Starr has attributed his defeat mainly to politics, Davis insists that the "row" at Harvard "has very little to do with" politics, personalities, or Starr himself, but is rather a "soul-searching battle over the nature of the discipline and the direction of the department."

Be that as it may, the fuss over both the Skocpol and the Starr cases has brought into relief the drawbacks of Harvard's tenure system as well as its difficulty in adjusting from a position of unquestioned dominance to a highly competitive situation.

Most universities have a tenure-track system where merit and toil have a good chance of resulting in a lifetime appointment. But Harvard is accustomed to allowing its junior faculty to slave away unhonored, instead adorning its senior ranks with luminaries plucked from around the world. In recent years, though, it has experienced a flurry of rejections from ranking academics, who, lured by other prestigious and lucrative opportunities, and also increasingly impeded by spousal career imperatives, are not as willing to drop everything and hasten to Harvard. Thus, six people have turned down tenured positions in the sociology department in the past 4 years. Indeed, says Davis, President Bok has tendered "more offers to senior quantifiers in the last decade than any other academic functionary in the world."

The divisions erupting at Harvard have occurred in varying degrees of severity at institutions all over the country. But Harvard is Harvard, which used to mean Harvard *is* the mainstream. Whether the conflict surrounding its approach to sociology is the result of a midcourse correction or capitulation to academic fashion, it is another sign of the growing shortage of ultimate authorities.—**CONSTANCE HOLDEN**