

of science and technology in provincial centers throughout France, many of which have only been opened in the past decade, and still face a precarious hand-to-mouth existence.

In principle, the new museum will work closely in support of local centers, for example by producing travelling shows for them, or as a center of information and documentation. The practice could work out differently. The liaison group's critique states directly that "the project for la Villette and the money allocated to it risk stifling regional developments," adding that "the funds currently anticipated to support these latter projects are miserly, and should be increased."

Foreign critics express a further set of concerns, suggesting that the museum's planners may be trying to go too far too fast. Most of the large science museums in the world have been built up through a slow but steady accumulation of objects and expertise; the French are trying to do it all in 6 years. "It is a fantastic project, but I do not know if it is wise to try to do it all at once" says one British museum official. "I would have opened one tenth at a time, using your experience to revise your plans for the next tenth, and so on."

To which the French museum officials reply that this may be the ideal method of approach, but in practice the political constraints that they are working with—their major goals are to finish the project on time, and to demonstrate that they have met the mandate which they have set—dictate otherwise. They are confident both goals can be met.

With President Mitterrand's recent decision to abandon plans for a World Fair in Paris in 1989 that was to have celebrated the 200th anniversary of the French Revolution, the successful completion of the museum has taken on an even greater national importance. Significantly one of the first planned temporary exhibitions will celebrate another bicentenary, the publication of Diderot's *Encyclopédie*, one of the first deliberate attempts to place French industry on a "scientific" footing.

Furthermore, it has escaped few observers that, unlike the planned world fair, the new museum is scheduled to open before the end of Mitterrand's current 7-year term in office. And France will perhaps find itself heading into the next presidential election with a newly opened "Mitterrand Center for Science, Technology and the Future," like the *Encyclopédie* trying to reconcile a literary nation to the new demands of science and technology.—**DAVID DICKSON**

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## The Uneven Crisis in Science Education

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The purported crisis in science and mathematics education in the United States is highly diverse, according to a survey of the 50 states compiled and published by *Education Week* (27 July, p. 25). The survey is part of a 64-page special supplement devoted to this crisis.

Central is the issue of teacher shortages. Thirty-one states, including Texas and California, report a serious shortage of math and science teachers. But other highly urbanized states, including Illinois, New Jersey, and Massachusetts, report only slight shortages or even surpluses of qualified teachers. Others, such as Pennsylvania, say that shortages may be developing, and a few, such as New York, keep such poor track of their science and math teachers that judgments must be based on what kinds of teachers are graduating from state colleges rather than on what posts are being filled.

There is little or no consistency among the states in the use of financial incentive programs—supplementary pay—to recruit and retain science and math teachers. And there is little yet to indicate whether those incentives work. Fourteen states have incentive programs, and eight are considering them. Of the 14, only Connecticut and Washington report adequate numbers of science and math teachers. Maryland and New Hampshire, two states currently faced with shortages, considered but rejected incentive programs this past year.

Much else makes the U.S. science and math education crisis a study in diversity, if not confusion. The states, and in some cases local school districts, set vastly different standards for students. According to the survey, Florida sets the most challenging standards, requiring 3 years each of science and math in high school. Twelve states have neither a mathematics nor a science requirement; 20 require at least 1 year of science; and 15 require 2 years. Proposals to boost requirements now are being considered in several states, the survey found.

By itself diversity may not be bad, but it is bound to complicate attempts to assess the national scope of the

science education problem, particularly when it comes to distributing funds in an attempt to solve it.

—**JEFFREY L. FOX**

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## Round Two: Mosher Appeals Case Again

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Steven W. Mosher has again appealed his expulsion from Stanford University's anthropology department. Mosher, who was dismissed from the doctoral program last February for alleged illegal and unethical activities while conducting field research in China, has this time taken his case to vice provost Gerald J. Lieberman, dean of graduate studies.

Mosher already appealed his dismissal to Norman Wessells, dean of the School of Humanities and Sciences. In July, Wessells, acting on the advice of a three-member panel he appointed to review the case, upheld the anthropology department's decision. Lieberman has appointed an appeals officer from within Stanford to help handle the case.

Mosher has contended that he was ousted for political reasons because he published an article in a Taiwan weekly about birth control practices in China. Stanford denies this, but refuses to elaborate on the exact details of Mosher's alleged misconduct (*Science*, 13 May, p. 692).

So far, Stanford has handled the Mosher case as an internal matter. Although one member of the panel appointed by Wessells came from outside the university, no external committee has been set up to review the case. Some have suggested that an outside review would at least provide the appearance of a more objective assessment of the evidence, but Mosher himself is opposed to bringing in outsiders. In a letter to Wessells, he said he wanted a single investigator from within the Stanford administration to prevent "further dissemination of the libelous and confidential report compiled by the anthropology department," which formed the basis of his dismissal.

If Lieberman should uphold his dismissal, Mosher has one level of appeal left. He can take his case directly to Stanford president Donald Kennedy.—**MARJORIE SUN**