French Educational Reform

In his 14 June article "Moving mountains for French research" (News & Comment, p. 1485), Peter Coles writes about some aspects of our policy since 1988 to promote French universities. Understandably, the article focuses on some more controversial aspects of the policy and emphasizes the financing of Parisian universities, CNRS (Centre National de la Recherche Scientifigue)-associated laboratories, and the (isolated) problems that arose in the case of the University of Paris VI. I would like to call attention to some other (and I believe at least as significant) aspects of our policy to better prepare French academia for the opportunities of the new Europe.

The budget for the Direction de la Recherche et des Etudes Doctorales has increased by 20% between 1988 and 1991, reaching 2.4 billion francs (\$400 million) salaries excluded and 11 billion francs (\$1.8 billion) when they are included, a total budget similar to that of CNRS. We have used the extra money to launch national research and training programs in cognitive sciences, the architecture of computers, computers in biomedical research, research in law, the chemistry of large molecules and of the atmosphere and the hydrosphere, research in education, urban sciences, and the frontiers of physics. We have also injected more money in the 4-year contracts under which the main funding for research and graduate studies of the universities comes. Coles stresses that the Paris universities were the first to get the new contracts (the total increase in funding was +11%) in 1990. But now we are signing contracts with universities outside Paris, and we have given them a +18% increase, that is, we have acted on the well-known problem that the provinces have been underendowed for decades (if not centuries) compared to Paris

We have also decided to boost the humanities, which have traditionally been underfunded. Their share has risen in 1 year from 16% to 25% of the total, growing budget. We have launched a significant "Young Teams" program under which high-quality new professors get special funding for 4 years to launch their new research programs.

Another part of our program has been to restore morale to the teaching personnel in the form of salary raises and accelerations in

careers. One noteworthy aspect has been the creation of a special bonus for those engaged in research and the training of graduate students at a particularly significant level (minimum criteria are one international publication per year and one Ph.D. student having graduated every other year). Five thousand such bonuses have been given in 1990, the average level being 30,000 francs per year (\$5000) for 4 years (after which one must compete again).

We have also embarked on an ambitious program of "Écoles Doctorales," under which we expect to give better structure and visibility and larger scope and international access to graduate schools in our better universities.

The last and possibly most significant part of our policy has been to encourage graduate students to pursue Ph.D.'s and young doctors to become professors. The number of new Ph.D. scholarships has risen from 1900 in 1988 to 3250 this year. It should reach 3700 in 1992; since the scholarships are normally given for 3 years, this means a total of almost 11,000 scholarships (by 1994). In addition, we have created the "Monitorat d'initiation à l'enseignement supérieur," under which 1600 new students each year get an additional scholarship, including training and participation in undergraduate teaching and seminars on how the system works (universities, administration, employment, international topics, and educational aspects). By this September, a total of 4700 "Moniteurs" will have been recruited in the system, each one receiving a total sum of 115,000 francs (\$19,000) per year. More than 1500 each year are expected to become maîtres de conférences (assistant professors) after they graduate. And indeed more than 1500 new positions as professor are now being opened each year in the French university system (with absolutely no restriction on the nationality of the candidates).

Finally, we have initiated a system of postdoctoral fellowships under which in 1991 we will have given 100 such fellowships (at 120,000 francs or \$20,000 per year) in 1991, essentially to foreign students from Europe, the United States, and Japan coming to France as postdocs. We expect to increase this number to 400 next year and also hope that foreign countries will reciprocate by offering more postdoctoral positions to French graduates.

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