the result has been an "open" university that, in some disciplines, has been overwhelmed by numbers of students.

As one scientist in a Paris research institute observed, "The professors have only one way to control numbers—flunk students at the end of the first year, as used to be done."

Since the reforms, he says, "they have not used their only weapon. They are incapable of separating the good and the bad, and the quality of teaching has gone down the drain." The students are against "criteria," he says, and they accuse the professors of creating conditions that will favor the "class" student.

According to one Paris journalist knowledgeable about developments inside the university, in respect to members "conditions are no worse than before 1968." For students, things are probably somewhat better, in the sense that there are now more seminars and an increase in small-group teaching of various kinds. Teachers, however, are obliged to take part in administration and are very busy. He agrees that hardly anybody wants to speak about selection—"the pressures are too strong."

The outlines of the problem are indicated in the enrollment figures, which rose from 413,000 in the 1965–66 academic year to nearly 700,000 in the current year. The De Gaulle government put especially heavy emphasis on science in the expansion of the university system in the early 1960's, but from 1965–66 to 1970–71 (see Table 1), the percentage of students enrolled in the sciences declined steadily; the total number of science students actually dropped by 4264 between 1969–70 and 1971. The decline in interest in science may, in fact, have been partly accounted for by a shift of students into medicine and dentistry and by a flow of students into the new IUT's (university institutes of technology), which train high-level technicians. In addition, well-informed government officials and university professors note a stronger tendency for students talented in science to seek entrance into the *grandes écoles*, the highly selective professional schools that have trained generations of influential French technocrats and administrators. In part, the *grandes écoles* may be more popular with the scientifically able because they offer greater opportunities for research than they did in the past, but the real attraction would seem to be that a diploma from the *grandes écoles* is still a guarantee of a flying start on a career in government or industry.

For university graduates in science, prospects have dimmed decidedly in recent years. New jobs on university faculties are drying up as the great university expansion of the 1960's tails off. University research funds have plateaued, limiting chances for students seeking places for graduate study.

At the same time, government support of research in such fields as defense, atomic energy, and space are be-

Photocopying Habit in Jeopardy

Photocopying journal articles, a practice that has become part of the life-style of scientists in the United States, may become a very expensive habit. If a recent decision on the question of copyrights stands, photocopiers will have to start paying journal publishers for the right to reproduce scientific papers.

Four years ago, the Williams & Wilkins Co., Baltimore publishers of more than 30 prominent scientific and medical journals, sued the National Institutes of Health and the National Library of Medicine (NLM), alleging that their photocopying activities constitute an infringement of copyright. In September 1970, the case came before the U.S. Court of Claims and now, after reviewing masses of data, James Davis, a commissioner of the court, has rendered a decision in favor of the publisher. Commenting that the resolution of the case required "the judgment of Solomon" if not also the "dexterity of Houdini," Davis ruled that Williams & Wilkins clearly has grounds for complaint, that photocopying diminishes its potential market, and that the company is entitled to compensation.

The ruling, which will be appealed to the full panel of seven judges on the court and then, in all likelihood, to the U.S. Supreme Court, has touched off a wave of concern among the country's librarians and scientific societies. There is talk that the flow of scientific information will be impeded and that library and laboratory budgets for journal material will be markedly inflated by the necessity of paying any sort of fee for copying. Officials at NLM estimate that fees could cost libraries millions of dollars a year. For the present, however, NLM, which makes hundreds of thousands of copies of articles every year, is proceeding with business as usual although, in its case, business is a service, not a profit-making venture.

The publisher, meanwhile, is trying to reassure its customers that the flow of information is not going to come to a dead halt and that, in the words of company president Charles Reville, "We're still your friends." The company has taken ads in several major library magazines, putting forth what it calls a "statement of fact and faith," which summarizes the legal highlights of Davis's ruling and proposes that when subscribing to a journal, libraries may also be able to purchase a license that would entitle them to unlimited photocopying privileges. "This would avoid unwieldly record-keeping," Reville says to be encouraging. Although there is no official information on what such licenses would cost, there are indications that they might be sold according to a graded scale that takes into account the current price of the journal and the size of the purchasing library. Guesses are that the ultimate cost of a journal might double or triple under this arrangement.

The hooker in all this, one with far-reaching implications that have yet to be fully grasped, let alone resolved, is something called "express license." In essence, this refers to a privilege that the government has had since 1965 that allows it to stipulate that publications about research funded with federal money cannot be copyrighted under any provisions that preclude government's copying or translating them without paying royalties. If the government, which now uses express license on an irregular basis, were to broaden its application of this practice and extend it to nongovernment users of publications of federally supported research, the whole issue of copyright fees might be reduced to an academic matter.—BARBARA J. CULLITON