some IDA executives think Congress outweighs student radicals as a menace to IDA's well-being.

On the right wing, IDA has long been a favorite target for invidious attack. For example, Edith Kermit Roosevelt, writing in the New Hampshire *Sunday News*, observed last year that IDA is part of a shadowy complex that includes the major institutions of government, and she went on to say, "Under the think factory system . . . there is the interlocking directorship between research groups, government posts and consultantships. Obviously," she concluded, "the Communist network has not missed creating its own links into this establishment."

In confronting the problems that now afflict its university sponsorship, IDA has been forced into a rather contorted position. Throughout its history it has fulsomely praised its academic underpinnings as vital to its successful operation. Thus, IDA's 1965 report states, "Without the efforts of these [university] men and the cooperation of these institutions, IDA would not be what it is. We are proud to grace the pages of our report with scenes of the campuses of our twelve Member Universities, as partial recognition of our debt to the entire academic world." Yet, in IDA's pamphlet "The Purpose and Nature of IDA," it is stated that, while the universities have generously supplied people for IDA, "it should be noted that the universities gain nothing by this relationship. It has been and continues to be a valuable form of public service."

Today, of course, the greatest public service a university can perform is to prevent itself from blowing up. Since SDS has successfully converted IDA into a detonating device, IDA's continued existence as an extension of the academic world would seem to be open to serious doubt. Whether such a change would seriously affect the quality of its staff and output is difficult to say. Those who oscillate between IDA and the academic world view the academic foundation as essential to IDA's success. Those who are in IDA's employ on a long-term basis tend to regard it as peripheral or even irrelevant. But there is no doubt that SDS's shaggy troop has seriously rocked one of the Defense Department's most esteemed devices for bringing scientific talent into the service of government. IDA's President Taylor, Vice President MacDonald, and Board Chairman Burden readily acknowledged as much, though they all believe that IDA will emerge from the storm more or less intact. Since nine of IDA's 12 university sponsors at present show no sign of pulling out, they may be right. But SDS is a sort of Jason-like organization, anti-military sentiments are running high throughout the academic world, and the conflict is not yet over.

—D. S. GREENBERG

France: The Latest Eruption of the International Student Revolt

Paris. The university center of Nanterre on the outskirts of Paris has become French higher education's most celebrated trouble spot. Left-wing student activists have created a series of well-publicized incidents, and there have been lurid reports of intramural vice and violence. As a result, many Frenchmen speculated whether Nanterre was an isolated special case or whether it represented the leading edge of a new wave of student radicalism.

Two weeks ago, violence escalated when Nanterre militants swarmed into Paris to join Sorbonne students in what was described as the worst student riots since the mid-1930's. The occasion was a demonstration planned to protest closing of the Nanterre center, but the protests ran the gamut of student grievances, from Vietnam to university overcrowding.

For the past 2 weeks, Paris police and students have been locked in violent combat. As this was written, the French government had been forced to take a conciliatory approach, but "the Nanterre syndrome" among the students seems to be stronger than ever.

Nanterre is one of the "expansion" campuses established to help accommodate France's rapidly growing university population. Its physical circumstances are depressing. It is located on a former military site, in grim surroundings. Neither the campus nor the neighborhood provides the normal setting for French student life; isolation is accentuated by poor transportation into Paris.

One of the ironies of Nanterre is that, when the center opened 3 years ago, the staff of the faculty of letters and human sciences (which was strong in the social sciences, where most French university faculties have been weak) was rated as among the ablest and liveliest in France. The very rapid increase in enrollment at the center has lowered the originally favorable faculty-student ratio, adding to disenchantment.

The demands of the political militants at Nanterre range across a now-familiar spectrum. The militants want to create a "critical university" which students would share in governing, to carry on the "battle against imperialism," and to further the European student movement. Their feelings are conveyed by such wall slogans as "Professors you are old and your culture also," "Let us live," "Victory to the NLF," and "Down with police repression."

The militant minority at Nanterre and at other French universities, until the Paris riots, had been able to rouse the mass of students to protest pitch on only one issue—the regulations for students living in government-built and -administered student residences (*cités universitaires*). The main objections are to strict taboos against visitors in student rooms and restrictions against any sort of political activities on the premises. There have been outbursts against the rules (notably at Nantes, Rouen, and Paris), and on 14 March there was a well-organized "day of action" in which men invaded women's dormitory blocks at most French universities.

Student militants of the recent past tended to look on the present student movement as ineffective and rather frivolous. Opposition by students and intellectuals to the Algerian war was remembered as a successful exercise of student power. One observer, who is a veteran of that opposition effort and still has links with the university, finds the present students "divided between the anarchists and the indifferent."

Although student militancy has a long history in France, nothing like the

German student campaign against the Springer press or the Italian student occupation of university buildings had been seen in France. It is possible that, with coalition government in both Germany and Italy and university reform blocked in both countries, provocation there seems greater than in France. Or perhaps, as some observers suggest, the French government has used both carrot and stick more skillfully in domesticating its students.

Marx, Mao, and Marcuse

French militant students, nonetheless, take the view that the new student revolt is "international." Members of the European "New Left" reject party politics and the doctrines of both the liberal Left and orthodox Communists. Their ideology is mainly a mixture of Marx, Mao, and Herbert Marcuse, the German-born political theorist now teaching at the University of California.

Their theorists say their revolt is against the "power systems" of Western industrial societies, which, they argue, deprive the individual of liberty as much by manipulation of public opinion as by open exercise of force. One of the aims of student demonstration is to expose that oppressive nature of society.

European youth since World War II has generally been more enthusiastic than its elders about the idea of a Europe united in more than trade arrangements. Another idea that seems to foster the nascent student "internationale" is that students and university intellectuals today are estranged from the working-class left, and that students have a destiny as a new revolutionary class.

Some more pragmatic observers see an explanation of unrest among students in disappointed expectations. In France, for example, university life and prospects for graduates have changed radically since immediately after World War II, when there were about a fifth as many students as there are now. Students then were a privileged minority, for the most part assured of satisfactory careers. Now the student with visions of life at the Sorbonne and a career de luxe may find himself watching closed-circuit TV at Nanterre and training for a job that may not exist.

Overloading of the system is the grossest feature of the university crisis in France as well as in Germany and Italy. Recent figures show that the British have managed a staff-to-student ratio of 1 to 10 in their universities. The ratio in Germany is perhaps 1 to 50, and that in France, even higher. In Italy things are so bad that it is difficult to establish meaningful figures. It should be noted that Britain is the only one of these nations to make admission to universities rigorously selective. The continental policy is to admit all students from academic secondary schools who pass the tough examinations taken at the end of their studies. British universities get a lower percentage of the age group matriculating than French universities do, but the rate of failure is dramatically lower in British universities than on the Continent.

In France, despite priorities for the development of science and engineering in the universities, there are still difficulties. In the science faculties the staff-student ratio has been reduced to about 1 to 15—which is vastly better than that in some other faculties—but an analysis of the composition of the staff reveals some serious rigidities in the system.

An Organisation for Economic Cooperation and Development (OECD) study shows that between 1928 and 1962–63 the number of professors in the faculties of science rose from 192 to 498, while the number of assistants went from 246 to 4731. Appointment to a professorship requires that a candidate hold a state doctorate, a degree that requires an 8- or 10-year academic marathon involving the submission of two theses. The number of state doctorates awarded always falls short of the forecasts, and critics of the "feudal" powers of French professors suggest that the professors are not anxious to correct the balance in their bottom-heavy staff structure.

Swing from Science

Efforts made in the past decade to increase the numbers of students in science and engineering in the universities as compared with those in arts and law had considerable initial success, but then the balance shifted. In 1966 the increase in the number of students in science courses dropped to about 7 percent from approximately double that figure the year before. This was less than the percentage increase in total students. The swing away from science in France seems to be taking the form noticed in other industrialized countries —a decline in interest in science among secondary school students. Diagnosticians point out that a failure of the universities to produce enough science and math teachers means that only about 40 percent of the physics and mathematics teachers in the expanding secondary schools are fully qualified.

Higher education in France, as in other continental countries, is in the throes of transforming itself from minority education to mass education. Pressure for change has come from two obvious sources—the rise in the postwar birthrate and the increase in the percentage of young people preparing for the university, or, as Professor Charles Morazé of the Ecole Pratique des Hautes Etudes succinctly puts it, "demography and democracy."

Resistant Professors

The need for reform of what is taught and how it is taught in the universities has been recognized by the government. Blame for inertia in the universities is increasingly being directed at professors indifferent or hostile to reform.

Jacques Monod, biologist and Nobel prize winner in medicine, who is an activist in the cause of reform, said in a recent public discussion that the principal resistance to reform "comes not from the authorities, who admit its necessity, but from within the universities." He went on to say that "*la sclerose universitaire*" is the bane of all European countries, that the great advantage of the American scientific system is the extreme mobility of men and ideas, and that this mobility is incompatible with the existing French university system.

Reformers hope that the expansion of the provincial universities and the creation of new university centers, with the accompanying creation of new professorships and new departments, will allow for development of flexible patterns of teaching and research in universities and loosen the dead hand of old-guard professors.

One major policy aim is to curb the excessive growth in the University of Paris, which has flourished at the expense of the provincial faculties. A third of France's half million university students are in the Paris area, and overcrowding of classrooms and laboratories is much worse in Paris than in most other places.

The *gigantisme* of Paris is particularly pronounced in respect to science and technology. It is estimated that half the researchers in France work in the Paris area and that about half of the engineering students are enrolled here. The *Grandes Écoles*—the professional schools which attract the top 20 per-

cent of engineering students—are concentrated in Paris in splendid isolation from the universities. (The influence of these elite schools and the problems they create in French research and technical education will be discussed in another article.)

Limiting growth in Paris is not a simple matter. Historically the best teachers have been attracted to Paris, and there has always been an inflow of provincial students. To cut this traffic radically would be viewed as discrimination. The policy of decentralization in higher education, however, has been given strong impetus by the government's program of regional development. The economic case for strengthening provincial higher education is especially cogent in the sciences, and the French equivalent of a "new centers of excellence" program seems to promise genuine competition for Paris. Grenoble has already established its reputation as a center of physics research, and the science and engineering departments at Bordeaux seem set for a central role in the development of an electronics-aerospace complex around Toulouse.

Decentralization is also intended to help the cause of democratization in French education. There are pronounced regional inequalities in education, reflected in the percentages, by age group, of students who complete secondary school and enter the university. The major cities, and particularly Paris, lead other areas, especially rural France, by a wide margin. A recent study showed that only 2.5 percent of university students are children of farmers. In the 1950's the government started serious efforts to stem this waste of talent, with a series of education reforms under a policy of "investing in men," but much remains to be done. Not until next year, for example, will a sizable scholarship program for peasants' children be launched.

The French have not solved their crisis of numbers in higher education, but they are putting into effect a program of reforms of a kind still only being debated in Germany and Italy. The trouble is that the recent outbreaks bring into doubt the willingness of French students to accept these reforms.

Government policy assumes that a reformed university will fulfill the needs of modern society. The student militants, however, have given violent emphasis during the past 2 weeks to their argument that the role of the university is not to be a service academy for the technological society but an agent for the transformation of that society.—JOHN WALSH

Federal Aid: House Votes To Deny Funds to Campus Rebels

In a fit of resentment against recent campus disturbances, the House of Representatives last week voted to deny National Science Foundation support and various forms of Office of Education aid to individuals who participate in riots or who willfully commit serious infractions of university regulations. The restrictions face an uncertain future, for they must still be considered by the Senate, but the legislation has potentially far-reaching impact. It would cover about 1.25 million students receiving educational assistance and about 30,000 students and teachers receiving NSF support. Moreover, some congressmen hope to place similar restrictions on virtually all federal aid to college students and teachers.

The House action brought swift cries of outrage. Donald F. Hornig, the president's science adviser, likened it to "cutting off one's nose to spite one's face." And Harold Howe II, commissioner of education, labeled the restrictions "unfair, unnecessary, totally unmanageable, totally destructive, a dangerous precedent, and a triumph of resentment over wisdom."

The House action caught almost everyone concerned by surprise. It seems to have originated as a spontaneous outburst of indignation by a few congressmen, but it clearly struck a responsive nerve and won overwhelming support from House members. The move to crack down on campus rebels was launched by Representative Louis C. Wyman (R–New Hampshire) who lamented in a floor speech on 7 May that "infraction of university rules . . . has assumed disturbing proportions in recent months." Wyman, who was particularly critical of disturbances at Columbia University, said he would offer an amendment to the appropriations bill for NSF that would deny NSF funds to "any individual certified by the president of any educational institution to the director of the National Science Foundation as having . . . refused to obey a willful order of university authorities."

However, when Wyman actually introduced his amendment on the following day, there was no mention of having university authorities certify that an individual had refused to obey orders. The amendment simply said that no part of the NSF appropriation could assist "any individual who at any time after the effective date of this act willfully refuses to obey a lawful regulation of the university or college which he is attending or at which he is employed." That leaves NSF in charge of determining who has disobeyed university rules—a task which one NSF official claims is "difficult, if not ridiculous."

Wyman said his amendment was "intended as a help to the institutions in controlling their own internal affairs." He stressed that "no part of this amendment limits or otherwise restricts the grant of funds to the institution itself—it applies solely to individuals." When asked if the amendment covered minor infractions of university rules, such as cutting classes, Wyman replied: "The intention, of course, is that the infraction shall relate to a disruption of the university or college administration. . . . There is no intention to penalize anyone by cutting off a scholarship for a minor infraction." Wyman said he hadn't specifically worded the amendment to exclude minor infractions because he had been advised it would then be subject to a point of order. After only a brief discussion, Wyman's amendment was adopted by voice vote, with the understanding that its wording might be "perfected."

On the next day, 9 May, it was the Office of Education's turn. While considering a bill to extend four student assistance programs [namely, the low-interest student loan program under