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Fall 1972 Graduate Science Enrollment Down 3.7 Percent

Graduate science departments experienced a 3.7-percent decline in science and engineering graduate student enrollment between fall 1971 and fall 1972.^a Students enrolled full-time decreased 3.3 percent compared to a 4.9-percent drop in part-time enrollment. Among the factors believed responsible for the lower graduate enrollment are the effect of reduced military conscription, a general shift in students' attitudes away from the sciences and engineering and toward the humanities, the curtailment of Federal grants for fellowships and traineeships, and shrinking job markets for Ph.D.'s in a number of scientific occupations.

Engineering suffered the largest decline, 5.8 percent, in full-time enrollment, followed closely by the physical and mathematical sciences with drops of over 5 percent each. Full-time enrollment went down in every field of science except psychology.

The number of federally supported full-time students declined in all fields of science, with the largest percentage decrease occurring in mathematical sciences, 23 percent. Students receiving Federal assistance made up 28 percent of all full-time graduate enrollment in the sciences and engineering. Those receiving institutional support constituted 40 percent; and self-supported students, 24 percent.

These data were derived from a National Science Foundation survey of science and engineering departments in Ph.D.-granting institutions with 100 per-

cent of the surveyed institutions responding. The survey revealed that full-time students holding fellowships and traineeships accounted for 21 percent of graduate science students in 1972, down from 29 percent in 1969. Federally supported fellowships and traineeships were down 24 percent from 1971, continuing a declining trend that began in the late sixties.

The recent increase in direct Federal support of academic research and development has begun to be apparent in the number of graduate students holding research assistantships. Graduate science departments reported a 1-percent increase in this category, following declines in the previous 2 years.

Public and private institutions alike were affected by the slowdown in graduate science enrollments. Both groups experienced decreases of more than 11 percent in federally supported graduate students. The largest relative decrease, however, was the 17-percent drop reported by private institutions for student

support from private foundations, industry, and other sources of outside non-governmental support. At these institutions, the share of students providing their own means of support increased nearly 15 percent.

Of the 20 institutions selected most frequently by NSF fellows, four reported increases in full-time enrollment between 1971 and 1972, one reported no change, and the remainder reported decreases amounting to as much as 12.8 percent. As a group, these 20 universities experienced a drop in full-time graduate enrollment of 1.1 percent.

Data on the number of women graduate students in science were collected for the first time in the 1972 survey. Women attending on a full-time basis accounted for 18 percent of the total number of students in doctorate departments and 23 percent in master's departments. Of the total number of women enrolled in all graduate departments, 31 percent were enrolled in the social sciences and 29 percent in the life sciences.

Percent change in full-time graduate enrollment, by area of science and source of major support, 1971 to 1972^a

Area of Science	Total	Source of major support			
		U.S. Government	Institutional	Other outside	Self
Total	-3.3	-11.2	1.7	-9.8	1.5
Engineering	-5.8	-7.7	-1.9	-11.0	-4.4
Physical sciences	-5.4	-12.9	1.6	-19.1	.4
Mathematical sciences	-5.3	-23.1	.5	-7.7	-1.0
Life sciences	-3.0	-11.8	5.2	-12.1	.2
Psychology	3.9	-7.2	5.6	18.9	15.4
Social sciences	-1.4	-12.1	.6	-5.3	3.3

^a Based on 2,706 graduate departments reporting for 1969-72.

^a The data in this article are based on reports from 2,706 graduate departments that reported data to NSF in the survey of Graduate Science Student Support for each of the years 1969-72.