GENERAL SCIENCE

Teaching Attracts Low I.Q.

Studies of marks achieved in Army General Classification Test show that of the bottom one-fifth of all graduate students, nearly half are in education.

➤ SCHOOL TEACHING attracts the least bright students, the natural sciences attract the brightest.

These are some of the conclusions based on studies of the marks achieved in the Army General Classification Test by groups of college graduates, graduate students and Ph.D.'s specializing in almost all fields of learning.

Of the bottom one-fifth of all graduate students, in terms of AGCT marks, 46% are in education. Of the top one-fifth, 18% are in the natural sciences.

"One of the sad effects of the low salaries and low prestige accorded to the nation's school teachers," the study says, "is the fact that nearly half of the lowest fifth of graduate students in the country are working for advanced degrees in education. They will be guiding the development and influencing the career choices of the next generation of students."

The average person who earns a bachelor's degree earns a score of 126 on the AGCT test, the study shows. The average person in the general population has a score of 100. Only about 10% of the general population could achieve a score above 126. The average graduate student scores around 129, and the average Ph.D. in the sciences scores around 138. Only about 2% of the general population can score higher than that.

The lower 25% of all students who earn a bachelor's degree would not pass the Selective Service college deferment test, the study's figures show. To be deferred, a student has to achieve a mark equal to 120 on the AGCT scale.

The most rarefied atmosphere seems to be in the psychology field, where one-tenth of the Ph.D.'s earn scores of 163 or better. However, the highest median score, 132, for those who have earned bachelor degrees is in the physical sciences, except chemistry, while the lowest median score is in physical education, 117.

The study is reported in *Science* (Sept. 26) by Dr. Dael Wolfle and Toby Oxtoby of the Commission on Human Resources and Advanced Training, Washington.

Science News Letter, October 11, 1952

GENERAL SCIENCE

Tax Non-Profit Research

➤ RESEARCH THAT is carried on for the primary purpose of commercial or industrial applications is going to pay income taxes, beginning with the 1951 tax year, even if it is conducted by non-profit organizations.

A new ruling of the Bureau of Internal Revenue has canceled the tax immunity for all but fundamental research, and this even applies to universities, foundations, institutes and other such organizations.

Commercial laboratories, whose trade association has been urging such taxation for several years, will thus be relieved of what they consider competition from non-taxed organizations.

The organizations that are deprived of their tax privileges will undoubtedly take the matter to the courts but meanwhile there may be indecision as to what research can and can not be done tax-free under the new regulation.

Research, in the bureau's ruling, does not include activities of the type ordinarily carried on as an incidence to commercial or industrial operations. As an example, there is specified ordinary testing or inspection of materials or products, or the designing or construction of equipment and buildings. Fundamental research does not include, in the bureau's opinion, work that is carried on for commercial or industrial applications.

The new ruling followed action by Congress that applied to colleges and universities federal taxation upon activities that are not related to education.

There are about 300 commercial laboratories, some large and some small, and most of them do work for companies that do not have their own laboratories or desire research done to supplement their own efforts.

Science News Letter, October 11, 1952

PHYSICS

Gravity-Free State Found Unharmful for Brief Time

See Front Cover

➤ MAN MAY be able to stand for brief periods the gravity-free state expected in rocket flight to the outer atmosphere if he has something to hang onto, Air Force experiments with mammals in Aerobee rockets show.

The Air Force revealed last March (see SNL, March 29, p. 194) that live animals, both mice and monkeys, had been rocketed to altitudes of 80 miles, but the first pictures taken on a later, May 22, flight have just been released.

They reveal the struggles of two white mice at 38 miles above the earth. Shown on the cover of this week's SCIENCE NEWS LETTER is one picture, made shortly after the rocket head was separated and two minutes of zero gravity, taken from the movie film.

One mouse is floating helplessly in a smooth-sided plastic drum, unable to gain a foothold.

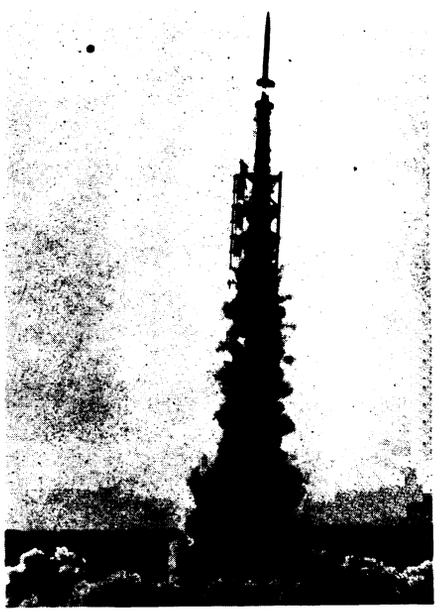
But in the adjoining section of the drum that has a shelf, another mouse was able to take a firm hold, stay calm and keep his equilibrium during the weightless period. Note that the ball is suspended in air, away from the sides of the drum.

The monkeys and mice showed no unusual effects from the flight, although they were subjected to a brief, one-second acceleration of about 15 g and a force of 3 to 4 g, lasting for 45 seconds. The monkeys were anesthetized to prevent their disturbing the instruments that recorded their reactions.

From these experiments at Holloman Air Force Base, Alamogordo, N. Mex., plus several human experiments in jet fighters, the Air Research and Development Command has concluded that a man, properly secured in an aircraft, can "function normally during brief periods of zero gravity and perform any operations necessary in piloting an aircraft."

There are, the Air Force warned, differences between mice and men, and the results obtained from the mice and monkeys sent up in V-2 and Aerobee rockets can only be applied with caution.

Science News Letter, October 11, 1952



HEADED FOR SPACE — ***An Aerobee rocket leaving the launching tower during an experiment to test reactions of animals at zero gravity.***