## Lottery Admissions System in the Netherlands

The editorial "Medical school admissions matching" (2 Aug. 1974, p. 401) and the subsequent letters (11 Oct. 1974, p. 93) have called our attention to the fact that the problem we currently face in the Netherlands is far from unique.

Originally in this country, every student who passed state-controlled high school examinations could enter the academic field of his choice, provided the subjects of his examinations were suitable for that particular field. In recent years, in at least ten fields of study, the number of applicants has greatly exceeded the capacity of the universities to train and accommodate these students adequately. Finally, 3 years ago, a quota system was established for certain fields of study, one of which was medicine.

At present, there are approximately three applicants for each available place, so a selection system was set up to keep the number of students admitted within the allowable quota. Committees were appointed and selection procedures in other countries were carefully studied. The system we ended up with allows entrance to a few students with very high examination scores; for the remaining students, entrance is decided by lottery. This approach, although highly unsatisfactory, at least enables gifted students to study in the field of their choice.

This system has now been in operation for 2 years, and we expected that during this time a quantitative admissions procedure would be developed. However, instead of a selective admissions system, the Dutch government now proposes to limit student admissions by lottery only. This will prevent a number of highly intelligent students from being admitted to the profession of their choice.

We think it is immoral to have a system in which the future of human beings is decided by a game of chance, and we feel that to use a lottery as a means of limiting the number of students admitted to universities is a direct threat to science in general.

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## Computer Use

In their article "Computer use under a free-access policy" (31 May 1974, p. 957), Luehrmann and Nevison make a case for free access to computing at a university, claiming that it is different from other schemes for allocating resources and that it results in greater educational value. In doing so, it appears that they make some faulty assumptions and draw some misleading conclusions.

First, the authors claim that, at most universities, users must pay for the services they consume. In this, they confuse accounting practice with allocation procedures. At Dartmouth College, faculty and staff bills are sent to users; and so they are at most institutions. Dartmouth student bills are sent to the Dean of Student Affairs; at most universities they are sent to the faculty responsible for the work the students are doing. Accounts are kept and bills are sent in both cases; neither case is analogous to the library procedure, as the authors suggest. The confusion is due to the fact that at most institutions, allocations are made to students in units called "dollars." What they are given in fact are not dollars but shares of the resources of the facility (*1*). If the input to the computer facility is $1 million, then the output is assumed to be computing services worth $1 million; a one-millionth "share" of this output is called a "dollar."

It can be argued that the share system is in fact a more flexible method of allocation and control than the methods in use at Dartmouth, where strict limits are placed on which parts of the system are accessible to the user. In the share system, the user can decide whether he wants to spend his shares on disk storage, tape input-output, CPU (central process unit) cycles, or interactive connect time. It is easier to make the resources match the job, and it is easier for facility management to mold user behavior to minimize conflict.

Second, the authors assert that the free-access policy accounts for the large number of users at Dartmouth. This would be hard to prove. The Dartmouth Time-Sharing System is well designed, user oriented, and includes interesting, exciting, and well-documented software. It is supported by a faculty and administration that makes the importance of computing evident to everyone on the campus.