THE FRANKS REPORT-AN INSIDE VIEW

By PROF. R. E. RICHARDS

Physical Chemistry Laboratory, University of Oxford

[This comment on the Franks Report by Prof. R. E. Richards, Dr. Lee's professor of physical chemistry at Oxford, differs in part from that which appeared in *Nature* on May 14 (**210**, pp. 667–8), particularly on admissions policy and balance between humanists and scientists. Its publication here should not be taken to indicate anything but a belief that public discussion of the Franks Report is in the public interest—or at least in the interests of the University of Oxford]

THE report of the Franks Commission on the University of Oxford was published on May 12, after 2 years of intensive work [*Nature*, 210, 661, 667; 1966]. Hasty judgments on the complicated issues raised in the report are not likely to be of much value, but the following personal impressions concern some of the matters raised and the preliminary reactions they have produced.

The character of a university is bound to be strongly influenced by its admissions policy, and the procedure at Oxford has been widely criticized on various, sometimes incompatible, grounds. Before 1945, most who had suitable qualifications and could pay the fees could come to Oxford. After the 1944 Education Act, however, applications for admission increased very rapidly and far exceeded the capacity of the colleges. For many years the colleges had been setting an examination for the election of Scholars and Exhibitioners, and this well-tried system soon came to be used for the selection of nearly all candidates for admission. The examination has proved to be very effective at selecting promising young men, and those who have had a third year in the sixth form have been at a great advantage over others. It has thus been responsible to some extent for the criticisms often made simultaneously that Oxford takes too much of the cream of talent among university entrants and at the same time favours the independent schools.

The Commission has recommended that the examination should be retained, but with special questions only for those who are in the second year of sixth-form work. This proposal has already been anticipated by the scientists, who are setting a special paper in the next examination, which may be taken only by those who are in their second year after Ordinary Level. It is hoped that this proposal will accelerate still more the trend towards a greater proportion of candidates from maintained schools (only 19 per cent of those admitted in 1938–9 as against 47 per cent in 1965). It is interesting to note that almost the same proportions of those applying from maintained schools, from direct grant schools and from independent schools were admitted in 1965.

The proposal to abolish closed awards will also be generally welcomed. Their origin is historical and they are anomalies at the present time; 45 per cent of the closed awards in 1965 were made to candidates from independent boarding schools. Opinion among university teachers and school teachers is divided on the value of Open Scholarships and Exhibitions. Some think that the incentive to study for an examination without a restricted syllabus is valuable, others that it distorts the school curriculum. The weight of evidence to the Commission strongly supported the view that the present Advanced Level Examination, rather than the Oxford Scholarship Examination, is the main cause of undue specialization in the sixth form. The report recommends that the number of scholarships should not exceed 10 per cent of those admitted, thereby saving about £100,000 a year

for other educational purposes. On this basis a small college might be able to offer only five or six scholarships a year, so that comparison might have to be made between very different subjects. The choice between, say, a physicist and a historian is often likely to be a rather arbitrary one, and for this reason many tutors would prefer to see scholarships for undergraduates abolished altogether. One compromise might be to award scholarships for one year only, and then to re-allocate them each year on the basis of progress made that year. This is open to the objection that it depends only on the personal judgment of a tutor.

The award of scholarships to postgraduates by colleges is recommended, and many recommendations are also made on the admissions of postgraduates, but these seem to be more applicable to the arts than to the sciences.

The size of the University is discussed at some length. As expected, the Commission has concluded that the collegiate system has so many advantages that the University of Oxford should not be allowed to grow so much as to undermine this important feature. Furthermore, the essentially democratic constitution of the University is easier to maintain than it would be if numbers were allowed to rise by a large factor. The suggestion is that the present population of 9,800 should be allowed to grow gradually to about 13,000 during the next 15-20 years. Much of this growth is expected to be among postgraduates, whose numbers will rise from 2,200 to 3,500-4,000. The report recommends that the number of women should be increased by seven hundred. These increases in numbers must, of course, be accompanied by increases in accommodation and this is inevitably a slow process. There is already a desperate shortage of lodgings in Oxford and it would be foolish to imagine that these increases can be accepted without further building.

On the distribution among subjects, the report recommends that much of the growth in numbers should occur in the applied sciences; an undergraduate school of about five hundred engineers is envisaged. A major expansion in the pure sciences and social studies is also recommended and, because of the limitation of total numbers, a compensating contraction must occur in other subjects, within an agreed programme of development. Many exciting new developments in pure and applied science have already been planned and we all welcome the encouragement of the Commission.

The teaching in Oxford has traditionally depended on the tutorial, and although the Franks Commission heard some criticisms of this method, I am sure that the great majority of teachers have no doubt about its value. The Commission quite rightly points out that few undergraduates can prepare themselves adequately in one week for more than one tutorial, and it recommends that the tendency in some subjects to multiply tutorials and to use them as a means of "handing out" information should be stopped. Among the interesting statistics on the tutorial is the fact that 90 per cent of all tutorials in science are given by Fellows or lecturers and only 6 per cent by graduate students.

The report makes it clear that "research, in the broadest sense, is not something which academics do in the spare time they have left over from teaching, but that it is the first priority in their lives, giving meaning to the rest of their activities". One of the most common complaints from the academic staff was lack of sufficient time for their research, and the detailed survey by the Commission clearly shows that the reason for this is the very heavy burden of teaching borne by the academic staff. For example, the ratio of students to teachers, weighted according to the formula of the University Grants Committee for science at Oxford, was 13.5 in 1964-65. In other British universities, excluding Oxford, Cambridge and six new universities, the average was 9.8. The report recommends that the ratio at Oxford should be brought down to the national average "as a first step". This would involve the appoint-ment of 124 more senior academic staff in science alone, and it is plain that this could only be done over a prolonged period. If it took 20 years, it would correspond to an increase at the same average rate as in the period 1922-65. It is not enough to find the men and the salaries to pay them; laboratories and equipment would also be needed. The report points out that the Holford Plan for the science area could provide an additional 1,000,000 sq. ft. of buildings. This would be enough to cope with the expansion, but on even the most optimistic estimate it could only be developed over a period of 10-20 years. The first step must therefore inevitably be a slow one.

The solution offered by the Commission is to reduce the hours of contact with pupils (including research students) to 14 per week, which is still much higher than the national average. Even this seems a pipe-dream to some scientists at present, many of whom teach for an average of 18 h per week, not including graduate supervision.

Some feel that in the sciences it is unreal to separate personal research from that carried on in collaboration with research students, and that research students need not be included in "contact-hours". Within limits, graduate students provide a stimulating influence on research, and an original and imaginative supervisor can easily provide enough ideas to keep several research students busy; their interaction with him can often provide a remarkable spur to further work. I think it is a mistake arbitrarily to limit the number of research students and that it would be best to discount them altogether from teaching hours, thereby giving scope to the more energetic research workers, without requiring the load of undergraduate-teaching to be unequally shared among lecturers. The maximum flexibility should be retained, and as the student/teacher ratio is reduced over the next 10-20 years, the teaching load will decrease and adjust itself, provided the numbers of undergraduates are kept within the planned figure.

Despite the very adverse ratio of students to teachers, Table 330 shows that the average total number of publications of the academic staff at Oxford (and at Cambridge, which is about the same) is higher than at any other university in Great Britain and at Berkeley, California. Table 331 gives a comparison, for certain science subjects for the year 1962–63, relating publications to staff at lecturer level and above at Oxford, Manchester and University College, London. The average number of publications at Oxford was 40–60 per cent higher than at either of the other two universities. We all know that the number of publications is not necessarily a good indication of excellence, but the evidence does not support the view that the heavy teaching load has been allowed to interfere seriously with research. The question of academic salaries has received much publicity. The total bill for academic salaries at Oxford in 1964-65 was found to be about 15 per cent higher than the average total bill for other British universities. However, the staff at Oxford are considerably older than those at other universities, and if allowance for this is made, it turns out that the average salaries at Oxford are only 4 per cent greater than the national average.

A not inconsiderable part of the income of many Fellowlecturers at Oxford is derived from what the Franks Report refers to as "piece rate" teaching. In the sciences this arose in the 'fifties when Oxford responded very quickly to a national demand for more university places. For example, whereas the number of men taking finals. in the physical sciences was 250 in the period 1951-54, in 1957 the number was 494, and in 1965, 644. Unfortunately this increase was not accompanied by a corre-sponding increase in staff. Everyone was therefore required to teach more, and teaching over the normal limit, which may vary from 14 to 18 h in different Colleges, was paid for "piece rate". The Franks Commission proposes that these payments should be abolished, and states that "Our proposals must be considered together with those which we make for restricting the amount of tutorial teaching given to each undergraduate. with those for limiting the total teaching load on the staff of Oxford, and that for bringing up the staff-student ratio to the national average". However, it expects the new arrangement to be implemented in 3-5 years, although there seems to be little hope of improving the staff situation for 10-20 years. Most Fellow-lecturers would expect their income to be cut only as their teaching burdens are reduced to something approaching the national average.

The most radical reforms proposed by the Commission are concerned with the administrative structure. The truly democratic nature of Oxford has often been the envy of members of other universities for the freedom enjoyed by the academic staff in the organizing of their research and teaching. Most of the power resides in the faculties, so that in a real sense the University is controlled by the whole academic staff. The present complicated structure of the administration is, however, in dire need of overhaul, and the Commission proposes a complete revision of the present system. There is to be an interlocking system of elected bodies, headed by Council, which is to have considerably greater powers than in the past to plan and act decisively and quickly when necessary. The system will have to be studied in great detail, however, and the many objections weighed up, before it is fully implemented. Certainly the proposal to elect the vice-chancellor, who is to be given greater responsibilities and a longer term of office, will be welcomed.

In the science departments, formal committees will be established, with six members and the head of department as Chairman, to evolve general policy on teaching, appointments, buildings, and allocation of facilities. Such committees already operate in most departments, but the formalization of this arrangement will be welcomed. It provides the academic staff of a department with an opportunity to take part in its government and would make possible the occasional relief of the head from his administrative duties.

These are only some aspects of the conclusions given in this very impressive document. It is easy to seize on particular recommendations and criticize them out of context of the report, but intensive study will be required during the coming months to evaluate its conclusions fully. No doubt the University will implement the recommendations, or modifications of them, when they have been adequately debated. It seems likely that some of the issues which have been raised may prove helpful to other universities, and it is also clear that some of the weaknesses which have been uncovered are the result of rather haphazard growth which is not entirely the fault of Oxford itself.