

SCHOLARSHIPS AND THEIR RELATION  
TO HIGHER EDUCATION.<sup>1</sup>

THE Board of Education has recently issued an interim report from the Consultative Committee on the reference made to the Committee early in 1913. The inquiry was interrupted by the war, but its resumption a few months later has furnished material for the present document, which contains a discussion of many subjects deserving attention by men of affairs no less than by teachers and professional educationists. The original reference was as follows:—

To consider the existing provision of awards—whether by local education authorities, by the governing bodies of secondary schools, universities, and colleges, by the trustees of endowments or otherwise—for assisting pupils (other than those who have declared their intention to become teachers in State-aided schools) to proceed from secondary schools to universities or other places of higher education; and to report how far such provision is adequate in character, extent, and distribution, and effective in meeting educational needs, and what measures are necessary and practicable for developing a system of such scholarships and exhibitions in organic relation to a system of national education.

This is a fairly wide reference, and since it is true, as observed in the report, that “no educational problem of any magnitude can be isolated,” it seems obvious that the whole ground cannot be covered in an interim report. The Committee, therefore, has confined its attention to the needs of industry and commerce in connection with scholarships to be held at universities and other places of higher education. The sub-committee charged with the investigation sat on fourteen days and examined twenty-nine witnesses.

The main object of the scholarship system, which is almost peculiar to this country, is to assist the student who has shown promise and is at the same time in need of pecuniary help. Properly administered, it may be expected to afford encouragement to learning and to assist in the provision of useful public servants. But, however obvious it may be to the majority of the public that such a system is desirable, the expenditure of larger sums of money on its further extension has not been without opponents. The late Sir William Ramsay, for example, was one of those who thought it advisable to subsidise teachers and teaching institutions with the object of increasing efficiency and reducing fees, rather than to add to the pecuniary resources of the student. This was probably in part connected with his known objection to examinations, and recalls to mind one of the chief difficulties connected with any scholarship scheme—namely, the problem, at present unsolved, as to the best mode of selection.

This question naturally receives considerable attention from the Committee, and alternative methods of award are discussed in connection with scholarships from secondary schools to universi-

ties. The Committee is there led to the conclusion that no practicable method of award can be suggested which does not mainly depend on competitive examination. But in the succeeding paragraphs it proceeds to consider the importance of the adjuncts to examination derived from the school record and the opinion of teachers, the *vivâ-voce* examination of selected candidates, and in the case of science candidates the attested laboratory note-books, since laboratory examinations admit a large element of luck. But when all precautions have been observed, the marks gained in an examination must be chiefly given for *knowledge* already acquired, and most examiners of experience would admit the great difficulty of estimating justly the *capacity* of candidates to deal with unfamiliar problems and the probability of their success in research.

In this connection it is well to look with special attention, not only at the best candidates, but here and there at some of the worst. It is unnecessary to quote here the famous cases of men who have risen to eminence after an unsatisfactory career at school. The boy supposed to be dull is sometimes merely not interested in the conventional school subjects, and lives in a world of his own. There are probably few of this kind among candidates for scholarships, but there should be a constant look-out for them on the part of the schoolmaster and some means devised for giving help and encouragement if needed.

The report before us raises in the mind of the reader a great many questions besides those connected with the creation, award, and distribution of scholarships. It leaves, for example, the old confusion between education and instruction uncorrected, or rather, if possible, further beclouded. It discusses briefly but suggestively the demand for what is called equal opportunity. It points out that it is impossible, and undesirable to attempt, to give higher education to all, and it justly points out that

the public interests demand that none shall waste his time and the time of others by schooling or training at the public expense unless he or she has proved that such training is likely to be advantageous. . . . It will be economical to give more training to the highest talent and less to the inferior or mediocre.

Then, again, it appears that there are persons among the witnesses before the Committee who are prepared to find in the “public schools” the great impediment to educational progress. It is therefore well that the Committee should remind such persons, in the words of the report, that

the public schools have a great tradition; a tradition of character, a tradition of manners, a tradition of physical excellence, a tradition of self-government. They do, in fact, supply the boys of the country with more than half the higher secondary education that they receive. It would be wasteful to weaken their vigour and independence.

The Committee itself goes so far as to express the opinion that “it is desirable in the national interest that after the war the public schools should devote more energy to scientific and prac-

<sup>1</sup> Interim Report of the Consultative Committee on Scholarships or Higher Education. [Cd. 8291.] (London: Wyman and Sons Ltd. 1916. Price 4½d.)

tical training." This, however, must not be taken to mean technical instruction in applied science, or the position of physical and natural science as an integral part of a truly liberal education will be seriously imperilled. How far the old universities themselves should be encouraged to deal with the technological aspects of science is an open question. The report states that "the subjects for which either Oxford or Cambridge, or both, may be regarded as offering special advantages are: Classics, history, mathematics, pure science. The modern universities should be better, as a rule, for students desirous to pursue commerce, applied science, technology." All this has its bearing on the source, the pecuniary value, and the tenure of scholarships to be held in the universities.

The Government has already appointed a Committee of the Privy Council for Scientific and Industrial Research and an Advisory Council to survey the field and propose schemes to this committee. In connection with research, the importance of continuing scholarships for a fourth or fifth year is indicated in the report. After the rather obvious remark that "the good researcher is rare," reference is made to the qualifications of women in this direction. "One of our witnesses," it is said, "has spoken unfavourably of women as researchers, at any rate in chemistry; but in our opinion experience does not point to any such general conclusion. Judgment should come later, after a full trial of feminine capacity in this direction." With this sentiment we heartily agree, notwithstanding the impression that the experience of teachers of chemistry and physics up to the present generally supports the view of the witness referred to. The independent research accomplished by women, to judge by published work, has been chiefly in connection with biological subjects.

The Committee has drawn up a series of General Conclusions, followed by a number of definite Recommendations. Among the general conclusions the report contains the following passages, with which most readers will agree:—

The system of scholarships at every grade of education should be judged from the point of view of national needs. . . . The exceptional needs of the nation are at the present moment, and will be for some time to come, rather on the scientific and technological side than on the literary side. . . .

The first need is the wider recognition, especially by employers, of the benefits that can be obtained by the employment in industry, agriculture, and commerce of men trained in science—in all grades, but especially for directive and advisory posts.

Secondly, the most useful thing that can be done without any great increase in the means at our disposal is to encourage research in existing institutions after graduation. The prolongation of scholarships in suitable cases is one means that is available; other means fall within the province of the Committee of the Privy Council.

Improved and extended places of higher technical and scientific instruction as well as improved secondary education are needed, and as the uni-

versities, colleges, and schools are strengthened and the number of workers increases, so an increase in the supply of scholarships will become necessary. It appears to be admitted on all sides that we must be prepared after the war for a great increase in the cost of education in all departments. The Committee makes an estimate of the cost of the additional scholarships and other forms of endowment recommended in the report. The amount of their estimate, 339,500*l.* a year, cannot be regarded as excessive, but it will probably be prudent to begin with moderation and to be satisfied with additional endowments in proportion as the expense seems to be justified by experience.

The recommendations of the Committee are as follows:—

We recommend for the consideration of the Board of Education, and of those local education authorities which have power to grant scholarships from secondary schools to universities and other places of higher education, and of other authorities so far as they may be concerned:—

#### *General Principles.*

(1) That, in framing schemes for scholarships, the following ends be kept in view: the training of men and women according to their capacity that they may serve the needs of the nation in the manner for which they are best fitted; the reward of merit and the encouragement of learning; and the provision of equal educational opportunity: the furtherance of industry, agriculture, and commerce being regarded as a principal need of the nation, and higher education being regarded as a means to this end among others.

(2) That, for the furtherance of higher scientific and technological education, scholarships from secondary schools to universities and the highest scientific and technical colleges be still accepted as the principal means.

(3) Nevertheless that, as supplementary and subsidiary means to the same end, scholarships from secondary schools to senior technical schools and technical colleges, from senior technical schools to universities and other places of higher education, from evening classes and works-schools to technical colleges and universities, be also granted on a suitable scale.

(4) That a certain proportion of scholarships to places of higher education should be granted to candidates who show merit under scientific and mathematical tests alone, without any test of general education beyond an examination in the English language.

(5) That the matriculation tests at the universities be modified so as to admit to full university privileges scholars who, having obtained their training by part-time or discontinued instruction, have been selected by the tests indicated in recommendation (4), and are able to satisfy the university authorities that they are fit to take advantage of university instruction in science or technology.

#### *Aid Required from Government.*

(6) In proportion as the provision of higher secondary education is extended, improved, and used, the provision of scholarships by local authorities to universities will need to be correspondingly increased.

The provision of such scholarships for women needs immediate increase.

But, in order to hasten the extension of higher secondary education—especially for boys—we venture to suggest that a substantial grant-in-aid be made at

the earliest opportunity for strengthening the higher parts of selected secondary schools, or that some similar expedient be adopted for the same purpose. For this purpose we suggest as a beginning the sum of 100,000*l.* a year.

We recommend:—

(7) That the State provide maintenance grants to enable selected scholars to continue their secondary education from the age of sixteen to that of eighteen or nineteen. For this purpose we consider that 90,000*l.* would be required in the third year.

(8) That the State provide about 250 scholarships every year for students from secondary schools who intend to pursue scientific or technical subjects at the universities. That these scholarships be allotted to the several universities and awarded by the universities. We estimate the cost of this provision at the annual sum of 67,500*l.* Should the second alternative recommendation in (26) below be adopted, a further sum of about 10,000*l.* would be needed for the additional cost of such of these scholarships as may be held at Oxford or Cambridge.

(9) To encourage local authorities to develop their schemes of scholarships from secondary schools to the universities, and with special reference to increased provision of scholarships for women, we recommend that a special grant-in-aid of 25,000*l.* be made.

(10) For scholarships to the universities from senior technical schools, and for candidates who have obtained part-time instruction in scientific and technical subjects while pursuing their vocation, we recommend for the present that the annual sum of 27,000*l.* be granted.

We recommend:—

(11) That, on the application of a scholar and on the recommendation of some professor who is willing to undertake his or her training in scientific or technological research, the prolongation of a scholarship for a year after the conclusion of a degree course be favourably considered, and the cost of such a system be defrayed from national funds.

(12) That after such prolongation for one year the scholarship be capable of prolongation for another year on the certificate of the professor that the scholar shows aptitude for research, and is willing to pursue research under his guidance in some specified branch of science or technology, the cost being met from national funds.

We consider that for the purposes of recommendations (11) and (12) the annual sum of 20,000*l.* would be sufficient at the inception, and we recommend that in so far as these prolongations are defrayed from national funds the regulation of such prolongations be entrusted to a Central Committee nominated by the Board of Education.

#### *Value of Scholarships to Universities.*

We recommend:—

(13) That the value of a scholarship to a university granted by the Government or by a local authority be 60*l.*, and that all university fees and dues be defrayed in addition by the Government or the authority, except in the case of scholars who also hold a scholarship at Oxford or Cambridge or some other emolument.

(14) That the sum payable annually by virtue of the scholarship be withheld or reduced if the Government or the local authority be satisfied that the scholar or his parents or his guardians can themselves afford to defray the whole cost, or part of the cost, of his university education.

#### *Duration of Scholarships.*

(15) That the normal duration of a scholarship to a university be three years, subject to residence, good

conduct, and satisfactory reports on the scholar's work.

(16) That (subject to the same conditions) the scholarship be prolonged for one year when the normal university course for that scholar is four years.

(17) That a scholarship to the university once awarded by a local education authority should not be dependent on the continued residence of the holder or his parents or guardians in the area of the awarding authority.

#### *Methods of Award of Scholarships to Universities.*

(18) That every local authority offering scholarships from secondary schools tenable at a university entrust to some university the award of such scholarships. That Government scholarships be allotted to the several universities and be similarly awarded.

(19) That such award be made according to the responsible judgment of a board of about five awarding examiners, after consideration of the marks allotted and the reports made by the examiners in the several subjects, after interviewing selected candidates, after such further scrutiny of the written work as may seem to the board desirable, and after weighing in cases of doubt such further evidence as may be made admissible by the regulations.

(20) That evidence of general education up to an adequate standard be required as a qualification for appointment to scholarships from secondary schools to universities.

(21) That a serious test in English be imposed on all candidates in such competitions, and be taken into account in the award of scholarships.

(22) That subjects be grouped for purposes of examination according to some reasonable principle so as to discourage excessive specialisation on the one hand, and heterogeneous study on the other.

(23) That the examination be designed to encourage an adequate breadth of study, but that nevertheless the boards of examiners have full discretion to recognise either exceptional merit and promise in one subject, or general excellence over a wider range, as they think fit.

(24) That, in view of the special need of encouragement for scientific and technological studies, scholarships be awarded somewhat more readily to candidates who intend to pursue such studies than to others.

(25) That no examination for scholarships from secondary schools to universities be regarded as satisfactory in which more than two hundred candidates are examined in one batch.

(26) We recommend to the attention of the local authorities the practice of the London County Council in awarding senior scholarships without further written examination to those who have won open scholarships by the award of the colleges of Oxford and Cambridge; and to the colleges of Oxford and Cambridge we recommend that they should seek powers to grant a proportion of scholarships on their own foundations to such Government or county scholars as, having received the grant of a scholarship by the award of a board of examiners acting for some university, have (without further examination) proved to the satisfaction of the college that they would benefit by education at Oxford or Cambridge.

Or, as an alternative, that all scholarships to Oxford and Cambridge, whether granted by the Government or by a local authority, or by a college so far as college statutes permit, shall be of such value as to cover all strictly necessary expenses of residence, maintenance while residing, and education, subject to the provisions of recommendation (14) above.