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VICE-CHANCELLORS' CONFERENCE

1962

UNIVERSITY GRANTS COMMISSION
AND
MINISTRY OF EDUCATION
GOVERNMENT OF INDIA
NEW DELHI

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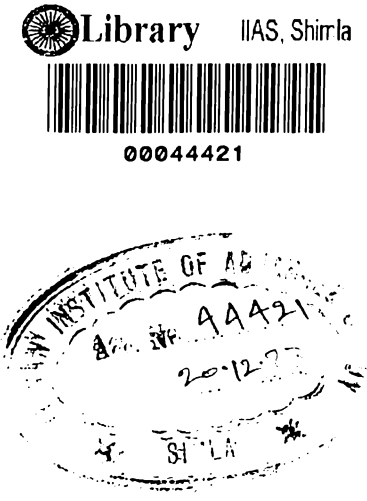

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Preface

The Fourth Annual Conference of Vice-Chancellors of the Indian Universities and Institutions "deemed as Universities", convened by the University Grants Commission and the Ministry of Education was held on October 11-13, 1962 in Vigyan Bhawan, New Delhi. The Education Minister, Dr. K. L. Shrimali, inaugurated the Conference. The Prime Minister, Shri Jawaharlal Nehru, addressed the Conference on October 11, 1962. Dr. D. S. Kothari, Chairman, University Grants Commission, presided.

The Conference also divided itself into three committees. The committee under the chairmanship of Dr. C. D. Deshmukh, Vice-Chancellor, Delhi University, dealt with admissions, medium of instruction, and related subjects; the committee under the chairmanship of Shri S. Govindarajulu, Vice-Chancellor, Sri Venkateswara University, considered the service conditions of university and college teachers, and progress of the three-year degree course; and the committee under the chairmanship of Dr. A. C. Joshi, Vice-Chancellor, Panjab University, was largely concerned with the improvement and modernisation of courses of study, coordination of research, preparation of text books and matters relating to students' welfare.

This report of the Conference contains the Addresses of the Prime Minister, the Education Minister, the Chairman of the University Grants Commission, and the reports of the three Committees. Some charts of general interest, giving statistical information about higher education, are given at the end of the volume.

Welcome Address

By
Shri Prem Kirpal
Secretary, Ministry of Education

On behalf of the Ministry of Education and the University Grants Commission it is my very pleasant duty to welcome our friends and guests gathered here to participate in the Inaugural Session of the 4th Conference of the Vice-Chancellors of Indian Universities. This Conference has been meeting over a period of five years now, beginning spasmodically in 1957 to discuss the specific problem of university administration, and gradually acquiring a more definite form through its annual sessions from 1960 at which a broad range of subjects were discussed. What had started as an experimental measure has become over a very short span of time at least a continuing forum for the deliberation of important issues and problems in the field of higher education. This growth has been naturally arising from the circumstances of a rapidly changing society. Without superseding older and more formal methods of concentration among the universities, the Vice-Chancellors' Conference has already turned new leaves for the evolving and implementing of national policies of university education. A forum such as this Conference at which the Vice-Chancellors, the Chairman and members of the University Grants Commission, and the representatives of the various Ministries of the Government of India and the Planning Commission are gathered, is an invaluable guide to the process of learning for national development especially in the field of education. The requirements of planning and the solution of the problems encountered in the implementation of Plan schemes make this consultation essential.

In these times of vast and rapid changes and especially in the context of the main objective which our country has chosen after independence, the university has a new role to perform. It can no longer function entirely as a home of learning in isolation from the new tasks and the new

throbbings that confront and pulsate our society. Problems concerning the relationship of the university with the community at large are therefore appropriate subjects for discussion at this Conference.

Lastly this Conference can and does contribute to the discharge of that national responsibility for the maintenance and coordination of standards of higher education mentioned in the Constitution which has now acquired the greatest importance and urgency. In consonance with the democratic character of our institutions and the freedom and autonomy of the universities, this national responsibility is largely discharged through free and open discussion leading to conclusions which are left to the free choice of the university in regard to acceptance and implementation. The report on action taken by the universities on the recommendations made by the last Conference of Vice-Chancellors which is now submitted to you is an ample testimony of the success of this method.

I do not wish to take any more of your time. Once again I would like to welcome this eminent gathering especially the Vice-Chancellors who have responded to our invitation. Apart from the wisdom which they will contribute to the solution of the problems presented to them, I and my colleagues in the Ministry of Education and our colleagues in other Ministries are very gratified and very honoured at meeting the Vice-Chancellors and renewing our personal acquaintance with them. We are very specially honoured by the presence of Shri Shriman Narayan, Member of Education of the Planning Commission. I am sure his presence here will be encouraging to the deliberations of the Conference.

I would now request the Education Minister, Dr. K. L. Shrimali to deliver his Inaugural Address.

Inaugural Address

By
Dr. K. L. Shrimali
Union Minister of Education

We are meeting again after more than a year. During this period some new universities have come into existence, and I should like to take this opportunity to welcome them to our growing family. There is a pressing demand for setting up new universities. We should welcome this development and also ensure that it does not bring about a fall in standards. During the period of rapid expansion it is all the more necessary to lay stress on the quality of education, without which society cannot maintain high standards either in administration or in its social and cultural activities.

In the coming years our universities will have to face many difficult and complicated problems which naturally arise in a changing society. Universities are specially fitted to consider the current controversies in an objective manner, and to give proper guidance and direction to society. The Government have always valued the advice given by the universities, and in all matters relating to the universities we have almost always acted on the advice of the university men. It can be rightly claimed that we have never encroached on the rights of the universities in academic matters. National educational policies in the field of higher education are always formulated on the advice of university men.

One problem which has deeply agitated the minds of our people is that of the medium of instruction. On this issue Government is sometimes criticized for what appears to its critics as a failure in evolving a definite policy capable of speedy and concerted implementation. Such a criticism is often unfair and sometimes even voiced by the very people who have themselves been involved in the process of shaping our policy on the medium of instruction; the resulting confusion gives an unfortunate impression that the

Government and the universities are working at cross purposes. This Conference of Vice-Chancellors can do the greatest service to the cause of Indian education by stating finally and unequivocally our national policy on the medium of instruction at the university stage and, what is more, by resolving to implement this agreed policy in a determined, whole-hearted and systematic manner.

You would recollect that in 1951 the University Education Commission appointed under the Chairmanship of Dr. S. Radhakrishnan had recommended that Hindi or the regional language should become the medium of instruction as early as possible. The Commission had argued that:

> "Both from the point of view of education and of general welfare of a democratic community it is essential that their study should be through the instrumentality of their regional language. Education in the regional language will not only be necessary for their provincial activities; it will enable them to enrich their literature and to develop their culture. Educated naturally in the regional language they ought to achieve higher standards of learning and of thought, and should be able to give a powerful stimulus to research and extension of the boundaries of knowledge. Equipped with the requisite knowledge of the Federal language, the provincial students will have no difficulty in joining institutes of an all-India character, and the provincial scholars in undertaking to teach them."

The Central Advisory Board of Education after careful deliberations accepted the recommendations of this Commission, and since 1951 Government of India have been asking the universities and the State Governments to implement them. The Report of the Radhakrishnan Commission has been the basis of the recent reorganisation of university education. In consonance with its recommendations several universities have allowed the students to appear for examinations in Hindi or the regional languages. Out of the 45 universities which have supplied information to us, 21 universities are permitting their students to appear for their examinations at different stages through the medium of Hindi or the regional languages. The number of universities which have made arrangements for teaching through Hindi and the regional languages is 17. The percentage of students who appear for examinations in the regional language naturally varies from faculty to faculty and from university to university; in general more students appear in the regional language in the Arts than in the Science courses, and more at pre-university and inter level than at graduate level.

Whereas in Agra, Vallabh Vidyanagar, Nagpur, Ranchi and Bihar over 90% appear through the regional language, Mysore returns the percentage of 3, Marathwada 33, and Poona 40. This state of affairs depends upon a number of factors: availability of textbooks, facility of getting instruction, and the use of the regional language in the State for secondary education.

These figures clearly indicate that the universities are already in the process of change, and we should now take suitable measures to give them all possible assistance in the production of textbooks and in equipping teachers to teach through the regional languages so that the change-over may be facilitated. I do not wish to minimise the difficulties which we have to face in this process but instead of exaggerating these we must try to resolve them. The National Integration Council, which recently deliberated upon this subject, reaffirmed the policy followed by Government and advised the universities to implement this policy in a more purposeful manner. The resolution states:

> "In the Council's view, the change is justified not so much by cultural or political sentiments as on the very important academic consideration of facilitating grasp and understanding of the subject matter. Further, India's university men will be unable to make their maximum possible contribution to the advancement of learning generally, and science and technology in particular, unless there was a continuous means of communication in the shape of the regional languages between its masses, its artisans and technicians, and its university men. The development of the talent latent in the country will also, in the view of the Council, be retarded unless regional languages are employed as media of instruction at the university stage".

In order to facilitate the exchange of professors and migration of students, the Council has further recommended that the standard of teaching both in Hindi and English should be improved and maintained at a high level in schools and colleges, so that there may not be any difficulty for them to follow lectures delivered in these languages. If the universities establish their reputation in certain faculties, and teaching through regional languages becomes effective and respectable, and we continue to strengthen the link languages, English and Hindi, I have no doubt in my mind that students from different regions will flock to the universities in even larger numbers than they are doing today.

I do not wish to minimise the role of language as a unifying factor, but

let us not make our languages the scapegoats for all our present troubles. The causes of the present tensions are diverse, complicated and deeprooted, and it would not be right to single out one of these and put all the blame on it. As far as languages are concerned we must recognise the basic fact of diversity in our cultural life, and build whatever structural unity we wish to create on this foundation. The unity thus brought about will be, more real and abiding because people will be emotionally committed to it.

If any university or college wishes to continue the use of English as a medium of instruction it should be completely free to do so. Both the National Integration Council as well as the Emotional Integration Committee have recommended the use of English as an alternative or associate medium of instruction. The universities should be catholic in their outlook and we should allow a large measure of freedom in the choice of medium to those who impart instruction as well as to those who receive it. In the transitional period it may be desirable to have an alternative medium. In the long run, however, there will be a continuous and pressing demand on the part of the people to receive instruction through their own languages, and no university which is responsible to the needs and requirements of society can afford to ignore the aspirations of the people. I would, therefore, request you to make the necessary preparation for the change-over before the demand becomes too pressing and insistent and we are driven to hasty and ill-prepared action.

I am aware that this view does not find favour in some circles but they forget that the present generation of students who are coming through high schools have not learnt English as they did themselves. Sir John Sargent, the first Educational Adviser to the Government of India, who was recently invited by the Government of West Bengal to survey the system of education in that State has remarked:

> "I have been surprised to find how many teachers in universities, technical institutions and even in some progressive high schools favour the retention of English as the medium of instruction, and I have sometimes found myself the sole upholder of the view that even intelligent students may find it difficult to understand lectures in a language, of which their knowledge is imperfect or to express ideas in a language, in which they do not normally think. I have also had to remind some Indians of the older generation that for them English is not really a foreign language, since they grew up in a bilingual environment."

We decry the lowering of standards but we do not take the one logical

step which alone can raise standards. It is a well known educational principle that both for the acquisition of knowledge as well as for the expression of thoughts and emotions, one's own language is the best medium. During the last one century we have attempted to master a foreign language but our own original contribution to knowledge can be judged by the number of English books written by Indian authors that are available in any international library. Gandhi, Tagore, Aurobindo, Radhakrishnan and Nehru stand out as the few eminent writers whose writings have found access to international libraries in our times. Certainly India has no dearth of talent but in the past it has been denied expression on account of the lack of a proper medium. All the advanced countries in the West or in the East have their own languages as media of education and communication. It would be a great tragedy if for lack of a proper medium of expression, Indian genius is unable to make its own contribution to the cultures of the world. It is my firm conviction that unless the universities adopt and develop our own languages, we shall not succeed either in the dissemination of knowledge among our people or in the stimulation of research and the creation of new ideas.

We have arranged an exhibition of books in the regional languages which are being used at present by the university students. The Government also propose to bring out an annual bibliography of these books so that you may be kept in touch with the progress made in the publication of books for the use of university students. The exhibition will show that though the number of books in the Sciences and Technology is small at present we have no reason to feel disappointed at the progress made. The Government have a scheme under which they assist the universities on a hundred per cent basis for the production of textbooks in our own languages. The task of production of textbooks is of the highest importance and needs the attention of the best of our professors. Even after the production of textbooks in Hindi and the regional languages, it is obvious that for a long time our students will have to depend on books in the English language. For some years some of the professors may also find it easier to lecture through English. For these reasons and also for keeping in touch with developments outside our country the students' knowledge of English should be sufficient to enable them to have easy grasp of original English texts. There is absolutely no desire on our part to minimise the importance of the English language. If we are to keep abreast of the progress of Science and Technology, the knowledge of a foreign language is essential, and English comes handy to us since we are used to it. But an adequate knowledge of English can be acquired without using it as a

medium of instruction in the universities. People confuse the issue when they say that by replacing English as a medium of instruction we are banishing English altogether. In fact the adoption of the regional language as the medium of instruction calls for special efforts to improve the knowledge of English.

This brings me to another important aspect of university education. The universities have concentrated so far on education and training. Research which is really the basis of knowledge and its propagation has been neglected. Whatever other functions the university may be called upon to perform, it exits primarily to seek truth and to advance the frontiers of knowledge. It is research which gives substance to teaching and brings the students into contact with the real process of discovery and the enquiring spirit of science. Without this, facts committed to memory or mere information received mechanically become dead and inert knowledge.

You may be aware that the University Grants Commission has recently decided to set up schools of advanced studies at the universities. Funds are needed to develop research and I am glad that the University Grants Commission has decided to meet the major share of expenditure on this project. But more important than funds is the intellectual climate which can be created only by the universities. Our universities in recent years have not succeeded in recruiting new talent. Many of our talented young men who go to foreign universities for studies are reluctant to return home; and higher emolument is not the only consideration which drives them to seek employment outside the country. For the proper development of the universities it is necessary to develop a more congenial atmosphere of freedom for nurturing talent and giving scope for new creations in the realm of thought. The quality of research and scientific output will be in exact proportion to the inflow of talent.

There is another weakness in our research methods which must be removed as early as possible if we are to make rapid progress. Whatever limited work our scholars and scientists are doing is done mostly in isolation. There is also a tendency to set up elaborate and expensive research institutions outside the purview of the universities. Research work requires coordination and collaboration among specialists in various fields and can be best carried out only in the universities where the various disciplines and fields, of knowledge are brought together. The results of team-work will be far greater than the output of individual scientists working in the comparative isolation of specialized institutions. In this

connection I would like to quote Professor Gerald Holton, Editor of the American Academy of Arts and Sciences from a recent issue of *Daedalus*:—

> "The gathering of talent brings not merely rewards proportionate to the amount of talent but also rewards that are, at least in the early stages of a new field, nonlinear and disproportionate. In other words, the contributions of n really good persons working in related areas of the same field are likely to be larger (or better) than n times the contribution of anyone of them alone in the field. This is true of a group as well as of individuals who do not work in physical proximity to one another."

It may even be necessary to regroup or federate some of the existing departments in order to strengthen research. Inter-disciplinary research centres are becoming an integral part of the research and teaching facilities of a number of universities in the West. Whatever administrative arrangements we may make in different departments, the universities should not lose their universal character. Scholarship and research can flourish only where individual disciplines are related to the whole of knowledge. I am, therefore, glad to find that this Conference is giving its attention to the question of promoting coordination between universities, national laboratories and other institutions devoted to research in Humanities, Science and Technology.

It is also gratifying to note that this Conference will review the progress of the three-year degree course. It was after a great deal of thought and deliberation that we adopted the three-year degree course. I would request you most earnestly not to tamper with the scheme which has now become a pattern for the entire country with the exception of the University of Bombay and the State Universties of Uttar Pradesh. The University Grants Commission is negotiating with the Government of Uttar Pradesh and it is my sincere hope that the State universities will also fall in line with the national pattern. In some circles hope is sometimes expressed that we may be able to add one year to our school system and increase the total duration of the degree course to 15 years (12+3) instead of 14 years (11+3). This is undoubtedly a laudable objective, but as far as I can see, we would need to utilise all our resources for the consolidation and improvement of present standards by increasing the salaries of the teachers and by providing better laboratories and libraries. These high priorities in educational development would pay a richer dividend than the lengthening of a poorly staffed and ill-equipped course.

Mr. Chairman, I am grateful to you and to the Vice-Chancellors for having given me this opportunity to say a few words on this occasion. It is my sincere hope that as a result of your wise deliberations, we may be able to put an end to some of those controversies which create doubts and confusion in the minds of our people and retard the educational progress of our country.

Some Aspects of University Education

By
Dr. D. S. Kothari
Chairman, University Grants Commission

In the modern world, with its increasing dependence on science and technology, universities hold a unique place, and their role and influence in determining the pace of progress—material, cultural and even spiritual—is both powerful and profound. Perhaps, there is no other institution or agency which in this respect is of comparable importance. The mission of universities is to provide society with good and competent men and women trained in arts, science and technology, medicine, agriculture and other professions, who above all are imbued with a sense of highminded dedication. Equally important is their mission to seek and cultivate new knowledge, and to engage themselves vigorously and fearlessly in the pursuit of truth. Shri Nehru said in a Convocation Address,* "A university stands for humanism, for tolerance, for reason, for the adventure of ideas and for the search for truth. It stands for the onward march of the human race towards even higher objectives. If the universities discharge their duties adequately, then it is well with the nation and the people."

It is common knowledge that in education many of the fundamental problems with which we are concerned also face most countries, including the more advanced ones. As such there is much we could learn from the experience and thinking of others**, though we need not necessarily accept

* Quoted from the Sampurnanand Committee Report on Emotional Integration (1962).

** The report likely to be available in the near future, of the Lord Robins Committee appointed by the U.K. Government sometime ago, is certain to be of unusual interest and value to all concerned with higher education.

or adopt their views and practices. Almost everywhere there is a marked increase in student enrolment to meet the requirements of expanding economy and other national needs; there is an acute shortage of teachers partly because of the increasing drift to industry and other avenues of public and private employment, and the shortage is further accentuated because of rising student numbers; there is much serious concern that in many places there is too much 'teaching' but relatively too little of good teaching and far too little of good research; there is the problem of specialization and insulation, and its relation to inter-disciplinary communication and the needs of liberal education; there is too much fragmentation and compartmentalization of knowledge, and not only are there wide gulfs separating humanities, science and technology, but the bridges are far too few and even these are often unused; and there is the important and pressing problem of collaboration and mobility of staff between universities, national laboratories, industry and also government scientific departments. There is also the complex and far-reaching problem of university autonomy, of relative freedom from Government control and outside interference, of freedom from internal strife and bigotry, and these can take many different and ugly forms.

The universities are almost perennially faced with the nearly insuperable difficulty—this applies to us with particular emphasis and acuteness—of meeting the ever-expanding requirements of teaching and research with inadequate resources and meagre grants. Again, the administration of a university is no easy task. In the wise words of Sir Eric Ashby: "...a university is a society, not a public service. Its vitality depends on the maximum opportunity for initiative being distributed among the maximum number of members of the society. You cannot issue directives for scholarship and you cannot devise assembly lines for research. Conformity, orthodoxy, the party line, are out of place in the academic world."

In a sense the central problem facing us, which is basic to everything else in the field of higher education (in fact, all education), is *to raise quality and reduce wastage* (particularly that resulting from large-scale failures of the order of 50 per cent at examinations).* To progress in this

* "The overall failure rate in British Universities, those who enter but leave without a degree is probably 15 per cent.... In the first place university failures are uneconomic.... Secondly, the intellectual life of the university is affected. ... Thirdly, failure at university is a penalty carrying pain and humiliation, not to mention loss of career prospects, that is altogether too savage to be visited on so many young people on the threshold of their adult lives. It is also an

direction it is most important that we take urgent and energetic steps to raise the quality and strength of the teaching staff, to make available good books at reasonable prices within easy reach of our students, and to provide 'reading-seats' in libraries and 'day-students homes' for a substantial proportion of our students. And in whatever we do, the student must always be at the centre of our attention.

University Enrolment

The number of universities in India is 55 and the number of institutions "deemed to be universities" under the UGC Act is 5. The total enrolment in the Universities is now a little over a million. The number was about 0.5 m. in 1951, 0.8 m. in 1956, and 1.1 m. in 1961. (The ratio of total enrolment for 1961 to 1951 is 2.17—the ratio is 3.37 for enrolment of women). This represents an average yearly increase of about 10 per cent and is equivalent to a doubling period of about 10 years. Even an increase of 2 per cent per year in university enrolment, to keep pace with the rise in population at that rate, means 100,000 additional students over a period of 5 years. This number is comparable to the total strength of the universities in the U.K. which is 111,400. (The number of full-time university students in the U.K. increased from 83,500 in 1951 to 85,200 in 1956, and 111,400 in 1961, and is expected to reach 150,000 in 1966-67, that is at the end of the present quinquennium, and probably some 200,000 by the mid-1970s. These figures do not include the 22,000 places in the CAT *i.e.* Colleges of Advanced Technology. The yearly output of scientists and engineers by mid-1960s is likely to be 20,000). Women students constitute about 17 per cent of the total, the corresponding figure for the U.K. being 24 per cent. A large proportion of the students, about 85 per cent of the total, receive their education in affiliated colleges of the universities. There are some 1,300 colleges in Arts/Science/Commerce, 111 in Engineering and Technology, (with an yearly intake of about 14,000 students), 70 in Medicine (intake of about 6,000) and 58 in Agriculture (intake of about 5,000). The detailed statistics are given in the University Grants Commission report: *University Development in India—a statistical report 1961-62*, (1962)".

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arbitrary one, often meted out as a result of impersonal examinations whose accuracy is highly dubious, and whose applicability to first-year students, necessarily finding their feet in university working methods at very different speeds, is problematical." N. Malleson, *New Statesman*, 28 April, 1961. Also see *Access to Higher Education in India* by K. G. Saiyidain and H. C. Gupta, UNESCO, New Delhi (1962).

The total number of teachers in the universities and colleges is about 63,000* (including tutors and demonstrators) and the number of professors is some 14 per cent of the total. This gives a pupil-to-teacher ratio of about 15.6. In the U.K., the ratio of professors to teachers was 1 to 1.7 in 1937-38, but it has fallen now to 1 professor to 3.5 lecturers (*Nature*, June 9, 1962, p. 902).** The distribution (for the U.K.) of full-time academic teaching staff grade and faculty-wise, for 1938-39 and 1958-59 is given on page 15 [E. B. Butler, University Students, Staff and Recurrent Grants, Pre-war and Post-war; *Journal of the Royal Statistical Society* 125, 118 (1962)].

We have today in the country receiving higher education about one person in every 50 of the corresponding age-group. The figure for the U.K. is one in about 25, and for the U.S.A. one in five. In the U.S.A. to quote Brode, "approximately 35% of the persons of college age enter college and about a third of these complete only junior college work or drop out for other reasons prior to graduation. The balance, or about 20% of the persons of college age, graduate from college.... While the nation as a whole has been expanding at a fairly steady rate of about 1.7% per year in population... the college graduate population still probably continues to

* This figure does not include teachers under the Board of Intermediate Education in U.P., M.P. and Rajasthan.

** The following table gives the strength of full-time academic staff in the universities in the U.K. [Source: *University Development—Interim Report on the years 1957 to 1961*, University Grants Committee. HMSO (1962)].

Full-time Academic Staff Employed in Teaching Departments

		1956-57	1960-61
1.	Professors	1,459	1,627
2.	Readers, Assistant Professors and Independent Lecturers	757	888
3.	Senior Lecturers	1,131	1,490
4.	Lecturers	4,903	5,770
5.	Asstt. Lecturers and Demonstrators ..	1,176	1,460
6.	Others ..	1,059	1,180
	TOTAL	10,485	12,415

Note:—The figures in this table do not include staff of the rank of Senior Lecturer or below at Oxford and Cambridge.

For U. K.: Percentage Distribution of Full-time Academic Teaching Staff by Grade and Faculty 1938|9, 1958|9

Figures in any particular column give staff in that grade expressed as percentage of the total staff

Faculty	*Year*	*Profs.*	*Readers*	*Senior Lecturers Lecturers*	*Asst. Lecturers & Demon-strators*	*Others*	*Total staff* %	*No.*	*Index*
Arts	1938|9	27.8	13.0	38.9	15.9	4.4	100.0	1,449	100
	1958|9	16.6	6.9	60.0	10.0	6.5	100.0	3,892	269
Pure Science	1938|9	20.4	7.9	40.6	24.0	7.1	100.0	1,260	100
	1958|9	11.7	9.0	58.1	14.1	7.1	100.0	2,780	221
Technology	1938|9	14.5	6.8	41.9	22.5	14.3	100.0	635	100
	1958|9	10.8	5.3	68.5	7.3	7.6	100.0	1,537	242
Medicine	1938|9	25.3	6.7	29.9	31.5	6.7	100.0	479	100
Dent. & Vet.	1958|9	14.1	8.8	54.5	12.9	9.7	100.0	2,352	491
Agriculture	1938|9	9.4	4.1	33.9	17.5	35.1	100.0	171	100
& Forestry	1958|9	6.2	2.0	38.1	9.4	44.3	100.0	564	330
All	1938|9†	22.3	9.2	38.6	21.4	8.4	100.0	3,994	100
	1958|9†	13.5	7.4	58.4	11.2	9.4	100.0	11,125	279

grow at about 5% per year during most of this decade." (W. R. Brode, 'The Growth of Science and a National Science Program', *American Scientist*, March 1962. Also see in this connection Gerald Holton, Scientific Research and Scholarship, *Daedalus* Spring 1962).

Faculty-wise Distribution

The faculty-wise distribution of university students is given in Table I. For comparison the corresponding figures for the United Kingdom and Australia are also included.

† Excludes Oxford and Cambridge.

TABLE I

Faculty-wise Distribution of University Students

Faculty	India 1961-62		U.K.[1] 1960-61		Australia[2] 1959	
	Actual enrolled (in thousands)	% of total	Actual enrolled (in thousands)	% of total	Actual enrolled (in thousands)	% of total
Arts including Social Sciences*	688	59.5	47	43.9	18.0	49.6
Science	337	29.2	26	24.3	5.0	13.8
Applied Science or Engineering Tech.	58	5.0	16	15.0	5.0	13.8
Medicine including Dentistry ..	40	3.5	15	14.0	5.0	13.8
Agriculture ..	25	2.2	2	1.9	0.9	2.5
Veterinary Science ..	5	0.4	1	0.9	0.4	1.1
Others ..	3	0.2	—	—	2.0	5.4
TOTAL ...	1,156	100.0	107	100.0	36.3	100.0

Expressed in thousands the number of students are (for the year 1961-62), Pre-University and Intermediate Classes: 250+232=482; First-degree classes (Arts|Science|Commerce); 219+146+59=424; First-degree classes in Engineering and Technology, Medicine and Agriculture: 45+32+14 =91; post-graduate and research: 68+5=73 (the number in research is less than one-tenth in post-graduate classes).

It is apparent (see Table I) that what is required in our case is not so much an expansion of enrolment in pure science subjects, as in medicine, engineering and still more in agriculture and veterinary sciences. Again, a basic weakness in our case is the relatively low proportion of students engaged in post-graduate (M.A./M.Sc.) studies and in research.** For

* Include Teachers' Training, Commerce etc.

Source:

[1] U.G.C., U.K., *University Development—Interim Report for the Period* 1957-61. (1962).

[2] Report of the Australian Universities Commission 1958-63. Faculty figures refer to Bachelor's degree enrolment only, while higher degrees are included in others.

** In the U.K. the proportion of students doing post-graduate work or research is about 16 per cent of the total. The figure for India is 6.3 per cent.

The position (for 1959) in the U.S.A. is given in the following table. It deals

instance, our output of M.Sc's is about the same as the number of doctorates in science in the U.S.A. The total number of doctorate degrees (Ph.D./D.Sc., D.Litt) awarded by Indian universities was about 3,900 in the last 5 years, science degrees being 45 per cent of the total.

Doubling Period of Scientific Knowledge

As is now widely recognised the *doubling period,* variously estimated, of scientific knowledge is about 10 to 15 years. We are witnessing what may be called an 'explosion of scientific knowledge.' Even so, in a highly industrialised country such as the U.S.A., the proportion of college students doing science and engineering has remained nearly constant over the past 50 years at about 20 per cent of the total enrolment. The number of science graduates in the U.S.A. who go into non-scientific careers and do not make a direct use of their science education is estimated to be as high as 70 per cent. In the case of engineering graduates, the figure is about 15 per cent. The corresponding figures for our country are also likely to be fairly high.

The short doubling period (about one-third of a generation in duration) of scientific and technological knowledge and the close dependence of life and culture on science and technology have, for the first time in man's history, led to a terrifically *swift pace* of evolution and innovation in our technological and social environment. It confronts man with a radically novel situation and a new challenge. It lends a new significance and meaning to education. It makes it incumbent upon us that through education we

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with science subjects only.* The total number of doctorates in science and technology and humanities was 9,360 in 1959.

Degree Field	*Total degrees (in thousands)*	*Bachelors' degrees (in thousands)*	*Masters' degrees (in thousands)*	*Doctors' degrees (in thousands)*
1. All Fields	60.08	48.34	8.22	3.52
2. Agriculture	6.78	5.43	1.01	0.34
3. Biological Sciences	18.20	15.15	2.00	1.05
4. Forestry	1.55	1.35	0.17	0.03
5. Mathematics	10.80	9.02	1.50	0.28
6. Physical Sciences	20.45	15.46	3.18	1.81
7. General Sciences	2.30	1.95	0.34	0.01

* Reproduced from National Science Foundation Publication "The Long Range demand for Scientific and Technical Personnel."

learn how to meet the challenge of a fast-changing world, and acquire a high capacity to adjust ourselves to innovations. "We don't even know what skills may be needed in the years ahead. That is why we must train our ablest young men and women in the fundamental fields of knowledge, and equip them to understand and cope with the change. That is why we must give them the critical qualities of mind and the durable qualities of character which will serve them in circumstances we cannot now even predict."*

University is a Society

A university as stated earlier is, above all, a society of students and teachers dedicated to the pursuit of learning, accumulation of knowledge, its transmission to succeeding generations and exploration of new knowledge. (A good teacher is a 'continuing student'.) A university combines education and discovery, teaching and research, and in this combination lies its peculiar strength.** The experience of over a century beginning first with the German Universities, has conclusively demonstrated that teaching and research flourish best in combination and they both wither in isolation. The best of either is achieved in an environment where both are cultivated. The essential elements in the functioning of a university are (to quote from Sir Grant Robertson, *The British Universities*): "First, university students must work in constant association with their fellow-students, of their own and other faculties, and in close personal contact with their teachers; they should start their work when young and be able to give their whole time to it; secondly, university studies may be of great value for professional or practical purposes, but are pursued not for the sake of information, but for the disciplined training of the mind and for the attainment of truth; thirdly, there must be a close connection between under-graduate and post-graduate work, and alike, for teachers and taught the higher and the lower work must not be separated. Co-operation in the advancement of knowledge is the surest way of securing precisely those qualities of mind and the atmosphere that stimulates all which transform an association of teachers and students into a real university department, and differentiate it from a polytechnic or a literary and scientific institute."

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* J. W. Gardner: *Excellence, can we be equal and excellent too?* Harper (1961).

** *Scientific Progress, The Universities, and the Federal Government* (G. T. Seaborg Report)—President's Science Advisory Committee (USA)—1960.

P. M. S. Blackett: Organisational Problems of Scientific Research in the Universities, *Nature,* May 26, 1962.

Cost of Education

The total recurring expenditure of Indian universities is estimated to be some Rs. 65 crores for the year 1960-61. The annual rate of increase during the last few years has been relatively small: it is about 18 per cent per year. The total expenditure in 1960-61 incurred by the universities in the U.K. is about £67 million (Rs. 90 crores approximately) for the year 1960-61. It was £41.8 million in 1956-57. [The main sources of university income which provide the £67 million are (expressed as percentage of the total)—Parliamentary Grants—72.7, Fees—9.4, Endowments—2.8, Local Authorities—2.0, Donations and Subscriptions—0.6, Payments for Research—8.9, other sources—3.6; Total=100]. The non-recurrent grants totalled £28.3 million (Building £20.7 million, Furniture and Equipment £6.3 million) in 1960-61 as against £20 million in 1957-58. The yearly expenditure (not included in the above figures) on assistance and scholarships to university students is about 35 million. Our expenditure per university/college student is about one-fifteenth of that in the U.K. In most of the advanced countries the expenditure per university/college student is of the same order as that of per capita national income. In our case also the two figures are comparable—the cost per student is nearly twice the per capita income. The distribution of university expenditure on staff salaries, administration and so on, is shown in Table II. The figures for India relate to the average for the Central Universities (Aligarh, Banaras and Delhi). It is interesting to notice that the percentage expenditure on academic staff is about the same in the U.K. as in India.

TABLE II

University (recurring) Expenditure—its relative distribution—INDIA and U.K.

Head of Expenditure		INDIA (Average for Central Universities 1960-61)	U.K. (Average of all Universities 1960-61)
Administrative and other Staff	...	12.3	18.1
Salaries of Academic Staff	...	42.3	44.2
Laboratories, Library and Furniture, maintenance		6.7	13.8
Buildings (including Hostels)	...	7.1	3.1
Others	...	31.6	20.8
TOTAL	...	100.0	100.0

Our resources are slender, and it is therefore all the more necessary that these are utilized to the maximum advantage. Economy in the construction of buildings and proper utilization of accommodation are most important. Norms and specifications for library buildings, lecture rooms, laboratories, etc. have been recommended by the Commission on the basis of expert advice, but variations within reasonable limits—plus and minus—may not only be made but even encouraged to take into account any special requirements and circumstances. The implementation of the building and other development programmes has been relatively slow in some cases, on account of difficulties sometimes beyond the control of the universities and the University Grants Commission. There is also a need, it appears, to improve and simplify the present procedures both at the UGC and the University ends for approval and finalization of plans relating to buildings and other schemes.* We are examining these and other matters in consultation with the Universities, so that our development programmes can proceed with greater speed. One has also to remember that the direction of the flow of ideas is often not the same as the direction of the flow of money and grants.

It is important to note that, as recently estimated, the expenditure on research in the case of universities in the United Kingdom is about 50 per cent of the total departmental expenditure.** Also about 50 per cent of the time (on an average) of the University staff is devoted to research. The total expenditure on university research is about £26 million per year (that is, nearly Rs. 35 crores)—which is made up of £14 million of departmental expenditure and £12 million of overheads and non-recurrent expenditure. In connection with scientific research, an adequate provision of technicians is also important, and this matter deserves the attention of our universities. In the absence of adequate assistance for technicians, not only the time of the research workers is not used to the best advantage, but the level of research is also adversely affected.

Visiting Committees

The funds made available to the Commission for the Third Plan are Rs. 37 crores only. (The provision made in the Third Plan for engineering

* In this connection the Report on Methods used by Universities of Contracting and of Recording and Controlling Expenditure (HMSO-1956), issued by the University Grants Committee (U.K.) is of considerable value and interest.

** University Grants Committee, U.K.: *University Development—Interim Report for the year* 1957-1961, HMSO. (1962).

education is Rs. 142 crores; for medicine Rs. 57 crores and for agriculture Rs. 20 crores). The amount is very inadequate even to meet the top priority requirements of the universities. The Commission has given generally the highest priority to proposals for raising the quality and number of teaching staff, and development of libraries and laboratories. The visiting committees of the U.G.C. have visited most of the universities, and committees would be going to the remaining universities during the next few months. The committee on such occasions discusses on the spot the development programmes of the university with the Vice-Chancellor, members of the teaching staff and other members of the university. It then makes its recommendations to the Commission. (It is felt that it would be of real value to have from time to time an evaluation by Expert Committees of the progress achieved in the implementation of the development plans. Apart from other things, such an evaluation would be of real help in formulating proposals for the next Plan period). On account of limitation of funds at the disposal of the Commission, the actual sanction for the present has been limited to 70 per cent of the estimated expenditure on programmes approved by the Commission. It is expected that it would be possible within a year or two to lift the 70 per cent restriction currently imposed. In the implementation of the development programmes the universities have, and should have, considerable flexibility in the assignment of relative priorities to their schemes, and in the deployment of funds to the best advantage as regards teaching and research. We consider this to be essential if optimum use is to be made of the very limited resources.

I propose to say a few words about some of the matters which will engage our attention during this Conference. I hope I shall not unduly tax your patience and kindness.

Teacher Shortage

The shortage of teachers in India is an acute problem. In fact, this is almost a world problem but is much more accentuated in our case. The report of the committee on post-graduate engineering education and research published in August 1961 points out the disconcerting fact that in the engineering colleges, "the shortage (of staff) at present is of the order of 40-50 per cent of the sanctioned strength in the institutions. It is also becoming increasingly difficult to attract persons of high calibre to the teaching profession. These difficulties will be felt even to a greater extent as further expansion of technical education is undertaken in the Third Five-Year Plan. The committee wishes to emphasise that unless the

problem of staff is adequately solved, it will be futile and even dangerous to expand technical education any further. The foundation for post-graduate studies and research is laid in the first degree courses. If the standard of under-graduate courses falls due to inadequate teachers in the institutions, the foundation becomes weak and progress at the post-graduate level suffers."

Everything possible should be done to make the teaching profession really attractive. Reasonable salaries are important, but by no means everything. Opportunities of professional advancement, possibility of migration from college to university, and between universities, recognition by society of the value and importance of the teaching profession, would go a long way in attracting to the profession a reasonable proportion of men and women of high intellectual ability and character. Generally, it should be possible for a teacher to carry with him his provident fund, leave and other benefits in moving from one university to another. It would be desirable to provide a provident fund cum insurance policy in place of provident fund alone.*

Education provides a good illustration of the 'feed-back' process. If things are so organised that every year an appreciable number of our best young men join our schools and colleges as teachers, we shall have a continually accelerating improvement in education. On the contrary, if we plough back into our schools and colleges young men with less than average ability, then standards would rapidly (exponentially) go down as years roll by. The key to a continuous improvement of standards is to feed back into the teaching profession every year a reasonable proportion of the best young men turned out by the universities.

Staff Appointments

"The quality of a university is always in direct proportion to the quality of its teachers." It is of the utmost importance to ensure that the highest standards are observed in the recruitment of the teaching staff. Appointments should be made on the basis of academic merit and suitability, uninfluenced by considerations of caste, regionalism and other extraneous factors. At one of its recent meetings, the Commission after carefully considering the matter, was definitely of the view that "appointments of

* For example, see Report of a Committee on the Superannuation of University Teachers, UGC, HMSO (1960).

teachers in the Universities should be strictly governed by their suitability for the work to be done by them (that is on the basis of academic achievement, personality and character), and *no* consideration should be given to factors such as caste, creed and place of birth." Every possible encouragement should be given to young men of ability to join the teaching profession. If a person has outstanding work to his credit, young age should be no disqualification for appointment to university Chairs. In fact, other things being equal, it is in the interests of university education that young men still in the most creative period of their life be appointed to high academic posts.

Scales of Pay of University Teachers

The Commission have recommended the following scales of pay for university teachers :

Professors	...	Rs. 1000-50-1500
Readers	...	Rs. 700-40-1100
Lecturers	...	Rs. 400-30-640-40-800

The scales have been introduced in the Central Universities and also in several State Universities (e.g. Panjab, Calcutta, Allahabad, Andhra, Gauhati, Karnatak, Kerala, Madras, Nagpur and Rajasthan). In the case of the State Universities the Commission will meet 80% of the additional expenditure during the Third Plan period. Thereafter the total expenditure will be borne by the University/State concerned.

It has been possible to introduce some improvement in the salary scales of teachers in affiliated colleges, but it is much less than what the Commission considers essential. Much larger funds will be required for the purpose than those presently available.

Assistance to Outstanding Teachers

The Commission have recently adopted a scheme for assisting outstanding teachers to continue their teaching and research activities after superannuation. A teacher, under this scheme, is paid an honorarium of Rs. 4,000 per annum, and an annual grant of Rs. 1,000 for contingent expenditure.

Textbooks

The importance of having good textbooks, and of pricing them reasonably so as to be within the reach of students in general, was emphasised at the last Vice-Chancellors' Conference. Some progress has been made in this direction, but much more remains to be done. Every possible encouragement and incentive should be given to outstanding men to produce first-rate books. In deserving cases leisure and facilities should be provided to teachers for this work, and such work should receive due recognition.

Summer Schools and Seminars

The Commission has encouraged and assisted the universities to hold summer schools and seminars for teachers and advanced students. Seminars in special subjects are also organised jointly by the universities and the national laboratories and other research institutions. During 1961-62 some 15 summer schools/seminars were held. The subjects included: Theoretical Physics (many-body problem), Mathematics (set theory, topology etc.), Solid-state Physics, English, Economics etc.

A scheme is also being worked out to encourage 'academic mobility' by enabling selected teachers of one university to teach or carry out research for some time at other universities.

Standards of Education

The problem of assessing the standards of education and research is as important as it is complex. A few things are immediately apparent. For example, the contents of the courses both in quality and extent are much superior now to what they were even ten years ago. Again, the universities now cover a far wider spectrum of knowledge than they used to do before. This is particularly true in science and technology. It is also equally obvious that whereas standards in some universities appear to have gone down, there are other universities where they are much better than before. Further, even in the same university standards vary very much between one department and another. The most important component of a university is the teacher. Competent teachers make good students and indifferent teachers can only produce students of indifferent quality. During the last decade the universities have considerably expanded their student population and the number of properly qualified teachers has not increased very much. The reason is obvious. Student population can be raised by providing a few more buildings and other physical facilities, and these take

only a couple of years, whereas it would take a much longer period of training to produce a first-rate teacher. The result, therefore, is that students now on an average have much less opportunities of coming into contact with and being influenced by first-rate teachers than was the case a decade ago. This, no doubt, is the most important single factor which has led to the deterioration of standards and discipline in Indian universities. Even now universities or rather the departments in universities which have a really competent staff and where the student-teacher ratio is not too unfavourable, the standards are much better than is generally the case. In fact, the standard in some of these departments will compare with the best in any country. In many cases, however, the students are taught by a staff which has little competence. In fact, it would be a distinct improvement if as a temporary measure such departments could be closed and the number of admissions raised in departments which have competent staff. After a few years when we have trained a reasonable number of competent men we could start more departments in the country. It would be useful to organise a survey of the relative distribution in the universities of the number of competent teachers and the student-staff ratio in relation to these teachers. A criterion for assessing research standards is the number of published papers in standard journals. A related criterion is the number of references to Indian publications by other contemporary workers in the field. This would, in fact, give a better assessment than merely the total volume of publications.

We can also make a systematic study, at any rate in a few selected subjects, of the pattern and standard of question papers and the pass percentage during the last few years. Do the question papers of today as compared to those of ten years ago give more emphasis to the understanding of the subject or to cramming or is there no change at all? These and other things are under examination by a Committee under the distinguished chairmanship of Shri S. Govindarajulu.

Examination Reforms

The University Grants Commission Committee on examination reform submitted its report early this year.* The report has been circulated to

* Also see *"Evaluation in Higher Education—Report of the Seminars on Examination Reform organised by the UGC* (1961).

Professor Linstead has observed: "We have just completed a survey of the fate of the freshman who entered the Imperial College of Science and Technology (London) in 1957 and I will compare this with the corresponding record

the universities for their observations. The main recommendation of the Committee is with regard to some continuing assessment of the work of the students by the teachers concerned. The Committee says, "Teaching work should be done not only through lectures but through tutorials, seminars, etc. It will be desirable to hold periodical short tests on the work done in the tutorials and to maintain a record of the assessments made. This should be regularly evaluated. Each university may decide what weightage should be given to this." It is generally agreed that the number of examinations leading to a degree should be reduced. For example, it is not desirable to have a university examination at the end of each year of the three-year degree course.

Review Committees and the Improvement of Curriculum

A number of 'review committees' consisting of eminent university teachers have been appointed by the University Grants Commission to look into the current syllabuses, and to make recommendations for their modernisation and improvement. Some of the reports (e.g. those on Bio-Chemistry, Botany and Chemistry) are under print. The Mathematics Report has just been issued. These reports would serve a most useful purpose in helping to improve our courses of studies.

General Education

The report on general education, prepared by an expert committee appointed by the University Grants Commission, has been published and circulated to the universities for their comments. The Commission has received a grant of $1.75 lakhs from the Ford Foundation for assisting the programme of general education. General education can be of real value in making education interesting, meaningful and purposive. It is, however, not a cheap remedy and needs careful preparation and organisation of reading material by competent teachers. General education is less of a separate subject and more of an attitude or approach, which should

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for those who entered in 1952—five years earlier. The annual intake of fresh under-graduates increases during this period from 358 to 582, that is by two-thirds. The number successful rose from 78.8 to 84.3 per cent. The wastage (left from failure or for other reasons) fell from 14.7 to 14.1 per cent". A most interesting fact was the significant rise in the numbers successful in the minimum time of three years, i.e. with no repeating. This rose from 64.7 to 74.4 per cent" (Presidential Address to the Science Masters' Association (1962), *The School Science Review*, March 1962).

permeate the entire course of study. In thinking about general education, or about the so-called division between science and humanities, it is well to remember the words of Sir Cyril Hinshelwood : "The division exists not between arts and science, not between pure science and technology, but simply between those who adopt a truly liberal attitude towards life and learning (and the relation between them) and those who do not succeed in doing this. I do not believe that this has anything to do with the content of the subjects studied. I do not believe in the Two Cultures. I think that there are simply two kinds of attitude, and it is the business of universities to encourage the right kind."

Correspondence Courses and Evening Classes

The Ministry of Education appointed last year a Committee on Correspondence Courses and Evening Classes. The committee has already submitted its report on correspondence courses, and the report on evening classes is under preparation. It is generally recognised that correspondence courses and evening classes can and ought to play an important role in our educational programme.* In many countries a substantial fraction of the population receives its education through correspondence courses and evening classes, and the system is of special importance in relation to technical education at all levels. It may be observed that in the U.S.S.R. some 30 per cent of the students are in regular employment and obtain their higher education through correspondence courses and evening classes [R. V. Khokhlov, Times Educational Supplement, September 7, 1962]. In the proposed expansion over the next 20 years of the 'university population' in the U.S.S.R. from 3 to 8 millions (which implies an increase of 7 per cent per year), it is estimated that some 60 per cent would obtain their education in evening classes. Almost every university or technical institution in the U.S.S.R. conducts correspondence courses and evening classes. There is much that we can do in our country in this field.

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* "There is no doubt that there are large numbers of people for whom postal tuition is the only practicable method of improving their education.... Why people take correspondence courses, and who they are, and how many, is largely guess work. 150,000 is thought to be the number at present involved—more than the university and C.A.T. populations put together. Hundreds of internal university students are taking correspondence courses in order to improve their examination prospects." ('Correspondence Colleges: The Sheep and the Goats' by Vt. H. J. Boyden, *Times Educational Supplement* May 11, 1962).

The role of Evening Institutes in the field of education in U.K. is described in the Ministry of Education (UK) booklet 'Evening Institutes' (HMSO, 1959).

In the case of the correspondence courses, it may be observed, lessons prepared by gifted teachers can be made available to a participant even if he is in a remote corner of the country. Unlike class-room education, correspondence courses do not suffer from the limitations of class-room accommodation, hostel capacity and so on. In fact, in the case of correspondence courses the larger the numbers the more economical the operation. Again, the system provides considerable flexibility with regard to combinations of subjects leading to a degree, as one is not circumscribed by difficulties of timetable and such factors. The system has certain inherent limitations, but it also possesses some definite advantages. It is hoped that the merits and flexibility of the system will be fully exploited. The University of Delhi has already started correspondence courses for degree courses in Arts subjects, and it is expected that these would be extended in the near future to science and other courses. In all these things it is, of course, most important that sufficient attention be given to the maintenance of adequate standards.

Students Hostels and Day Homes

It is necessary to give high priority to the provision of staff quarters and hostel accommodation. About 18 per cent of the university/college students stay in hostels—the percentage varies considerably from one university to another. Also in several places the floor-area (of the hostel rooms) per occupant is considerably less than 80 sq. ft.* We have recently appointed a small committee of Vice-Chancellors and College Principals to examine

* The 'norms' for student-rooms, common rooms etc. are given in the UGC publication 'Report of the panel on university-buildings—Hostels'.

It is of interest to note that in the U.K. the percentage of students in residence has not changed substantially during the last few decades, but the percentage of those living in lodgings has increased considerably

	Numbers	*Percentage of total*	
	1960	1939	1960
In colleges or halls of residence ..	28,094	25.1	27.0
In lodgings ..	52,288	33.2	50.3
At house ..	23,627	41.7	22.7
TOTAL ..	104,009	100.0	100.0

['The National Union of Students (U.K.) discovered that nearly three-quarters of men students take paid vacation employment, and only slightly lower proportion of women". *New Statesman* p. 666, 28th April, 1961]

this matter. Apart from student hostels, it is important to make adequate provision for day students homes where they may have facilities for quiet study, and also, if possible, 'cheap meals'. The reading rooms in libraries also need considerable expansion. A library should be a sort of house of "perpetual temptation" to students. One of the basic reasons for poor standards and high wastage at examinations is the fact that a large proportion of our students come from homes with no academic background, and can hardly find even a small corner in their homes for quiet study. In most cases they have to participate (and rightly so) in domestic chores, and are subject to diverse kinds of distractions which go with low-income households. It is, therefore, essential that liberal provision be made for reading rooms in libraries and in 'student-homes' (within the campus or outside) where they can do a major part of their reading and 'home-work'. In the universities in the U.K. libraries provide on an average (there is considerable variation from one university to another) reading-places for about one-fourth of the total student population. In our case the need is far greater, and the existing facilities are grossly inadequate. Establishment of reading-rooms and 'student homes' should be given a high priority. We should aim at providing within the next few years 'reading seats' for about 20 per cent of our student population in the universities and colleges.

Medium of Instruction

A few words on the problem of the medium of instruction at the university stage may not be out of place. One does not expect that when we discuss a subject such as this one's views will be readily shared by others. It is sometimes heartening to remember that "if education can be defined in one word, that word is controversy; where concord arises, learning withers; where conflict rules, education flourishes." In dealing with the language problem we are concerned with a dynamic and creative situation, and a discussion of the subject will benefit us all provided it is free, frank and objective—and in a conference such as this it cannot be otherwise. The first condition for dispassionate discussion is a mind receptive and 'utterly at ease.'

It seems that so far as the near future is concerned universities have to function largely on a bilingual basis instead of a monolingual basis, namely, the regional language and English, as recommended by the National Integration Council (June 1962). For post-graduate study and research, and to serve as a link for inter-communication between the universities, and also with the outside world, English is an obvious choice for us in the

context of the times. On the other hand, to facilitate understanding of difficult subjects and basic concepts, and to bring together workers and thinkers which is an essential process for advancement of science and industry in the country, the use of regional languages becomes almost a necessity. (Hindi should be taught as a compulsory language at the school stage to serve as a 'communication link' throughout the country). As the National Integration Council (June 1962) has observed.*

> "In the Council's view, the change in the medium of instruction is justified not so much by cultural or political sentiments as on the very important academic consideration of facilitating grasp and understanding of the subject-matter. Further, India's university men will be unable to make their maximum possible contribution to the advancement of learning generally, and science and technology in particular, unless there was a continuous means of communication in the shape of the regional languages between its masses, its artisans and technicians and its university men. The development of the talent latent in the country will also, in the view of the Council, be retarded unless regional languages are employed as media of instruction at the university stage."

It is most important that the introduction of regional language as medium of instruction is not misinterpreted to mean shutting out of English from university life and work. In fact, for successful completion of the first-degree course a student should possess an adequate command of English to be able to express himself with reasonable ease and felicity, to understand lectures in that language, and to avail of literature in English (particularly scientific and technical). With this aim in view adaquate stress should be laid on the study of English as a language right from the school stage. The study of Russian should also be on a much more extensive scale than at present.

As has been pointed out on several occasions, the present arrangement under which a large proportion of students at the first-degree stage, and also later, use their regional language for the purpose of examinations, though class-room instruction is given through the medium of English, is educationally undesirable and unsatisfactory. A sudden switch-over in the

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* The recommendations (relating to medium of instruction) of the Integration Council, as also the recommendations of the Sampurnanand Committee on Emotional Integration, are given in Appendix A.

medium of instruction for a student in passing from school to university has in most cases very unwholesome effects. In a student's life, the change from school to college is a crucial stage. On entering college he finds that there is a far greater demand on his powers of understanding and concentration than he was accustomed to at school. When to this is added the perplexity and difficulty inherent in a sudden change in the medium of instruction in going from school to college, no wonder that many a student feels bewildered and lost, and loses zest in studies. The difficulty of medium of instruction is added to that of subject-matter, and the two together become too much for a good many students. At the early stage of the under-graduate course it will be, therefore, an advantage if the bulk of the instruction is given through the regional languages. As one goes higher up the educational ladder, more and more instruction would be through the medium of English.

Whatever may be the medium of instruction, it is important (in the interest of academic mobility and for other reasons) that a teacher at the university stage should be entitled to lecture in English (even at the under-graduate stage), if he so desires. I am thinking—I need not say again —of the near future and not what the position would be, or should be, after some decades. In such a case a teacher would probably have to put in more effort in getting the subject-matter across that if he were lecturing in the students' own language. But the point is that the understanding and grasp of a difficult subject would be much better and creative if it was presented to students in their own language.

Whatever may be the policy and programme of the universities regarding the medium of instruction, it is important that energetic action be taken to produce books and literature, particularly scientific and technical, in the regional languages. This is important for a variety of reasons. It would help to bring together the elite and the mass of the community. It would assist materially in the progress of industrialisation. It would help in the dissemination of science and the scientific outlook.

As the Integration Council has observed, the change in the medium of instruction in a university is primarily a matter for the university concerned. For a variety of reasons and circumstances there cannot be a rigid formula in this matter which could be applied indiscriminately to all the universities. In the transition from English to a regional language as medium of instruction, every precaution should, of course, be taken to ensure maintenance of adequate standards. In fact, the purpose and also

the desirability of the change should be judged by the improvement it makes in the quality and standard of education. We must proceed most carefully, but careful action is not synonymous with slow speed or no action at all. In fact, caution is meaningful only if it is tied to a policy of deliberate action.

The importance of a common linguistic link between the universities cannot be gainsaid, but what is still more important is that they should co-operate in joint programmes of teaching and research, in forging and sharing common aspirations and common aims. We should, with all the energy and enthusiasm we have, develop a corporate intellectual life amongst the universities in the country. And no impediment should be allowed to stand in the way of this process.

New Universities

The Commission appointed a Committee in September 1961 to examine the question of establishment of new universities, and to suggest the broad outlines of a plan for the next few years. The Committee has submitted an interim report which has been accepted by the Commission. It is recommended that, wherever resources and circumstances make it possible, it would be advisable to adopt a 'federal type' of organization for a university. A federal/unitary university provides greater possibilities, scope and incentives for improving the quality of higher education, specially at the post-graduate and research level. This is our most pressing need. In an affiliating university post-graduate work is generally spread over a number of colleges, and under such an arrangement it is often difficult and time-consuming to raise standards or to introduce any substantial reform in courses of study and examinations. Not unoften it tends towards mediocrity rather than the pursuit of excellence. On the other hand, in a federal or unitary type of university post-graduate education in any particular subject is essentially organised as *one unit,* and the best staff available in the university as well as colleges can be made available for the teaching of that subject. In such a university improvement of courses and standards, and examination reforms are relatively easier, and receive greater attention and encouragement than in an affiliating type of university. The committee recommended the establishment of federal universities at Indore and Jodhpur, and an affiliating university at Kolhapur. It also recommended (as a long term programme) the establishment of such universities at Bangalore, Hyderabad, Madras and Poona. The Committee felt that it

would be of real value to have at least one federal type of university in every State.*

Concentration of Effort—Centres of Advanced Study

As we have repeatedly observed our most pressing need in the field of university education is to raise quality, specially at the post-graduate and research level. The proposed scheme of what are called Advanced Centres (for want of a better name) is a modest step in that direction. It is intended to provide substantial assistance in terms of competent and promising men and essential equipment to a number of university departments, carefully selected on the basis of their work and achievement. The essence of the scheme is a combination of *teaching and research*. The implementation of a scheme such as this cannot be an easy undertaking. It would require much serious thought and boldness in approach and implementation. It would demand active co-operation and team spirit on the part of participants. Many difficulties are likely to be faced in the actual working, but through determined effort there is no doubt they can be overcome. If this scheme works well, men trained in these departments would be available to other universities for their development programmes. It is hoped that within a few years most of the universities will have some departments engaged in advanced study and research of a level comparable to international standards.

Good work needs to be actively encouraged—that helps to generate more good work. There could, perhaps, hardly be a more effective way of accelerating good work than the establishment of the proposed "centres", provided in their selection the basic criteria of merit, achievement and potentiality of development are satisfied. The primary aim of the scheme is to encourage 'pursuit of excellence'.

The Commission proposes to start, in consultation with the universities, some 20-30 centres during the Third Plan period.

* The capital cost of establishing a new university (with a total enrolment of about 3,000 to 5,000 students) in a newly-developing country such as Nigeria is estimated to be £5 million without medical faculty, and £10-12 million with medical faculty; the recurring expenditure is estimated to be £2 million and £3-4 million respectively.

Collaboration between Universities and other Institutions

The question of effective collaboration between the universities, National Laboratories and other research organisations has been under consideration of the Scientific Advisory Committee to the Cabinet and other agencies concerned with higher education. It is apparent that for development of higher education and research in our universities, it is necessary and important (apart from promotion of closer co-operation and academic mobility between the universities themselves), that we take full advantage for university work of the special facilities and resources available in institutions concerned with advanced work and research outside the universities, namely the National Laboratories, the laboratories of the Atomic Energy Commission and so on. Men of outstanding ability constitute our most valuable asset and it is also the most scarce. It would be of distinct benefit to us if we could in special cases obtain on deputation, for short or long periods, the services of outstanding persons available in governmental and non-governmental research organisations. In general such deputations would not only benefit the universities concerned but also the lending organisations. The movement of persons, organised on the basis of a deliberate policy, between the universities, national laboratories technological institutions, industry and government scientific departments can be of the utmost value and benefit to all concerned. We hope that steps in this direction would be taken relatively soon. In this connection the recent Zuckerman Report on the 'Management and Control of Research and Development' is of unusual interest. The *Nature* in its editorial (July 7, 1962) says: "Lord Hailsham, for example, has repeatedly emphasised the importance of locating institutes for fundamental research in close relation with universities and the danger otherwise of such institutes stagnating within one or two decades, and in addressing the Parliamentary and Scientific Committee last March he referred specifically to the report of the Zuckerman Committee on the organisation and management of research, although without, as does Sir Willis Jackson, considering the mobility of scientists in this connexion."

In certain fields, particularly in the domain of science and technology the facilities and equipment required for research are so elaborate and expensive as to be sometimes beyond the resources of the universities. The same may, however, be available in National Laboratories and other specialised institutions. We should do all we possibly can to make use of such facilities for university research and also post-graduate training.

Whatever the constitution or pattern of university organisation, and whatever be one's views on university autonomy, it is essential if a university is to fulfil its obligation and play its proper role in society, that it should in a real sense be free to select whom to teach, free to select its teachers, determine the courses of study and conduct its examinations. (We are of course thinking of a "real" university and not a pretence of it). The selection of students and appointment of teachers should be determined on merits, uninfluenced by considerations of caste, regionalism and such other extraneous factors. A university should be a place where the highest standards of work and conduct are expected, respected and cultivated. It should do all it can to raise the intellectual tone of society, and aim "at cultivating the public mind, at purifying the national taste and supplying true principles to popular enthusiasm and fixed aims to popular aspirations".

In the administration of a university—it is hardly necessary to say at a meeting like this—the important thing to ensure is the flow of ideas between and across different levels of the university hierarchy. In a university the principle that good ideas often originate at the lower levels of the hierarchy must be recognised and respected. As Sir Eric Ashby has stressed in *Technology and the Academics* (1959), "this principle of upward flow is vital to the efficient administration of a university and for the survival of autonomy and self-government—the principle of upward flow shall apply throughout the whole hierarchy and not merely between the Council and Senate. Not all professors consult their lecturers before decisions are taken as scrupulously as they themselves expect to be consulted by the lay governors in similar circumstances. As faculty boards become larger there is a temptation for an oligarchy of senior professors to take over the responsibilities of government on behalf of their more junior colleagues. That way danger lies, for any weakening of the principle of self-government within the academic body makes it harder to preserve self-government within the university as a whole, and correspondingly harder to maintain the autonomy of the university in the modern democratic State."

It is sometimes said that a good many young men and women in the universities are not serious about their work, and are often casual and slovenly in their behaviour. The reason probably lies in the fact that we fail to place before them definite and worthwhile goals—goals which they should keep before themselves and which they should strive to attain. People almost always would work hard, unexpectedly hard, for something they believe in, but if aims and aspirations are missing then not unoften 'no work' becomes a more tempting substitute for honest hard work.

Our resources are limited, but by spending thought even meagre resources can be made to go a long way. We are engaged in a most challenging and at the same time a most rewarding task, and if we have faith, mutual understanding and dedication, today's aspirations will become tomorrow's actualities.

Medium of Instruction

The Sampurnanand Committee, in its Report on Emotional Integration, has endorsed the recommendations of the National Integration Council: The Committee says:

> The importance of having Indian languages as media of instruction from the lowest to the highest stage of education is a matter of profound importance for national integration. There is urgent need to remove the gulf that has existed between the masses of the people and the intellectual elite. For centuries Indian intellectuals had to work in some common language, first Sanskrit, then Persian and recently, English. The gulf between them and the masses of the people has, therefore, persisted. Only the adoption of regional languages as media of instruction right up to the university level will help to remove the gulf. We wish to endorse and emphasise what the National Integration Council said at its recent meeting (June 1962): "India's university men will be unable to make their maximum possible contribution to the advancement of learning generally and science and technology in particular, unless there is a continuous means of communication in the shape of the regional languages between its masses, its artisans, technicians and its university men. The development of talent in the country will also, in the view of the Council, be retarded unless regional languages are employed as media of instruction at the University stage.

Further, the Committee *summarising* its recommendations says:

> The use of Indian languages as the medium of instruction from the lowest to the highest stage of education is a matter of profound importance for national integration as only the adoption of regional languages as media of instruction right up to university level will bridge the gap between the intellectual elite and the mass of the people.

Safeguards have to be devised, however, to prevent the lowering of standards.

The change-over to the regional language must be preceded by preparation of text-books and arrangements for translation from English and, wherever possible, from other modern languages.

In order to maintain inter-university and inter-State communication special attention must be paid to the teaching of the link languages, Hindi and English, when the change-over to regional languages is accomplished.

Special efforts must be made to forge links between universities in different parts of the country when the regional languages become media of instruction, or else, wide gaps will be created not only between universities but also between different States.

For purely intellectual purposes students in universities should have a good knowledge of the English language so that they can express themselves with facility. It is necessary, therefore, that they should frequently listen to lectures and write tutorials in English.

To ensure that the universities are not cut off from one another, that common standards are maintained and gifted Indians are enabled to reach the highest degree of excellence in their chosen field of knowledge, there should be provision for English as an associate medium of instruction in the universities. This is a necessary corollary to the recognition of English as an associate official language. The use of this associate medium of instruction can be made in some selected colleges, in a university or in some divisions in a large college. Details in this connection will have to be worked out by the universities to suit varying conditions and requirements.

The recommendations of the National Integration Council (June 1962) are reproduced below:

In the Council's view, the change in the medium of instruction is justified not so much by cultural or political sentiments as on the very important academic consideration of facilitating grasp and understanding of the subject-matter. Further, India's university men will be unable to make their maximum possible contribution to the advancement of

learning generally, and science and technology in particular, unless there was a continuous means of communication in the shape of the regional languages between its masses, its artisans and technicians and its university men. The development of the talent latent in the country will also, in the view of the Council be retarded unless regional languages are employed as media of instruction at the university stage.

The Council considers that while generally speaking the replacement of English as medium was thus an inevitable end which should be actively pursued, every care should be taken by universities to ensure that the transition is made without jeopardising the quality of education and after careful preparation, *e.g.*, the cooperation of teachers and the availability of good standard books written by university teachers or other experts for which every incentive should be provided by the authorities concerned.

The Council lays stress on the importance of teaching English as a compulsory subject, whether in any transitional scheme of the adoption of regional languages as medium of instruction, or even after the replacement has been fully carried out at a future date. In the transitional stage, English will serve as the link among university men and between university and university in respect of exchange of professors or migration of students; whilst, at all times, as a language of great international importance, English would furnish a link with the outside world, constitute an indispensable tool for further study and assist in the development of the regional languages.

The Council hopes that while English would thus be an international link at all times, its place as an internal link will gradually be taken by Hindi as it develops. The Council therefore urges that at the university stage, the students should be equipped with a progressively better command of Hindi in addition to a good working knowledge of English such as would enable them to follow lectures delivered in that language.

In the light of these considerations, the Council reiterates the recommendation of the Chief Ministers' Conference that the standard of teaching both in Hindi and English should be improved and maintained at a high level in schools and colleges. The change in the medium of instruction in a university is primarily a question for the university to decide. While it seems natural that regional languages would gradually

become the media of instruction at the university stage, the Council sees no reason why there should be any bar to the use of English or Hindi as a medium of instruction in a university, or in some of its colleges. Indeed it foresees that in some special circumstances the establishment of such a college might become a desideratum.

In this connection, the Council urges that there should be a provision in every university permitting the use of Hindi or English as an option to the regional language for answering examination papers."

Thanks

By
Shri Samuel Mathai
Secretary, University Grants Commission

Once again we have had a Conference of Vice-Chancellors and heads of some other institutions get off to a good start with an address of welcome, an inaugural address and a presidential address. Many true and wise things and perhaps some provocative things also have been said in these speeches and the right atmosphere created for the business that lies ahead during the next two days of the conference. The business that awaits discussion is of the kind that comes up again and again when university people get together. Most of the items on the agenda have been discussed several times before by Vice-Chancellors and others. But many of the problems we are going to consider are always live. They are part of the continuing concern of university education and we have to keep on discussing them. we may even now find no perfect answers to some of our questions, but coming together in a conference of this kind is itself an edifying experience and sharing one another's experience, and insights enables us to return to our work with fresh vigour and renewed energy.

This conference is evidence of our common anxiety to plan our higher education as wisely as we can and to make it worthy of our nation and our age. We are struggling today with the problems of rapid expansion and growth of numbers, of maintaining high standards adequate to our needs and comparable to standards anywhere else in the world, and making our university education in some measure at least an expression of our own distinctive heritage and national genius. In dealing with such vital problems we cannot always come to quick and easy decisions. We have to live with these problems and apply our minds and spirits to them constantly. Your readiness to come together for such a purpose is evidence of your concern, and we are grateful to you as fellow workers in the same field for your cooperation.

My function now is to thank you all for accepting the invitation of the University Grants Commission and the Ministry of Education and coming to this conference. Many of you have travelled long distances, and even in these days of speed, travelling is not always a pleasure. We therefore are appreciative of the effort you have made and the cooperativeness you have shown.

I have to thank the Minister of Education for inaugurating this conference. In coming here and giving so much of his time to this conference he was not merely performing a duty or doing a ceremonial act. Dr. Shrimali is an educationist by vocation and I know something of the depth and keenness of his concern for the development and improvement of education in this country. In a truly democratic spirit he always seeks to bring concerned and interested people together in discussion so that the best judgment can be applied to the tasks of education, and policies are developed by the consent and cooperation of all concerned.

Dr. Kothari, the Chairman of the University Grants Commission, deserves our thanks for his presidential address into which he has put a great deal of thought.

Dr. Kothari is the true academic man, dedicated to his work and single-minded in the fulfilment of his duty. I know with what concentration he has worked in preparing his address and giving us this lead for the discussions to follow. On your behalf and mine I thank him.

I must also thank Shri Kirpai for his address of welcome, and for his assistance in arranging the Conference and planning its work. He is a wise counsellor and is a source of strength to all of us.

Behind the scenes in all such Conferences there are a number of persons who labour very hard for several days to make the plans, see to the physical details, run about doing the innumerable little things that need to be done. I cannot name them all and to pick out one or two would be invidious. To my colleagues in the Ministry of Education and the University Grants Commission, I should like to express my hearty thanks for the excellent work they have done.

Once again I thank you all.

Address

By
Sri Jawaharlal Nehru

I am grateful to you for inviting me here to meet you. Dr. Shrimali said that it is refreshing to hear my views. It may be that it is refreshing but not always profitable if it concerns some matter about which you ought to know much better because, as you know, politicians have to express their views about every subject, education more especially which is so highly important, and I am trying to think that it would be far better that they were expressed by educationists than by politicians.

Yet, things being what they are, the politician has to play a part, and that part is not always as good as it might have been. I do think it is important in educational matters, especially higher education with which you as Vice-Chancellors are chiefly concerned, that your views should largely govern policy in this because, apart from other things, matters concerning education, I think, should be considered in a calm atmosphere and not exactly in the market-place of politics, and I take it that, however much you may feel strongly about some subjects, you would consider them calmly and objectively. We have great arguments today about the medium of instruction, about the place of the regional languages, of Hindi and of English. All these are eminently matters for calm and careful consideration, not only in regard to the ideal aimed at, but in regard to the process of changes which we have to go through.

One thing we have always to keep in mind, and that is the maintenance of quality, because without quality we fall back. We must have quality in our education, and that quality must be maintained throughout the process of education, not only by the educational process but by research. I am glad to find from the Chairman of the University Grants Commission that he attaches a great deal of importance to post-graduate courses and to

research work. University education sinks to a lower level unless there are groups of persons in each university doing good research work, and I hope that it may be possible for these research centres to be organised in every university in some subject or other, and that the University Grants Commission will be of some help in this direction.

Now the medium of instruction has given rise to much argument. I have no doubt that the ideal to be aimed at is that of the medium being a regional language. That was one of the reasons why Rabindranath Tagore started Santiniketan. He insisted upon it and I think very rightly, if I may say so. That process is going on now, I think—the change-over to the regional language as the medium of instruction. It may be that this change-over might be staggered a little so as not to create a break in the process of education, not perhaps so much in literature and arts, but in technological and scientific subjects, and there is no reason why we should not use both the regional language and English at the same time, English for some subjects and the regional language for some other so that education might not suffer and yet the change-over may take place. People talk too much in terms of absolutes, either this or that. But there may be a middle course leading to the final change. So I have little doubt that the medium would ultimately be the regional language which is good for the student undoubtedly, but that creates a certain difficulty about the universities not becoming quite isolated from each other. That is a grave danger. Now how should they keep contacts, for professors to be exchanged, and students also? That is a vital matter because it would be highly dangerous and harmful and will come in the way of progress if there are not these contacts. Now the contacts, so far as language is concerned, can apparently only be, as we are constituted today, either through Hindi or English. At the present moment they are in English; it is admitted, and even if the change takes place, it will probably be some time before those contacts are fully in Hindi, but anyhow Hindi and English are the two link languages you may call them, which should, I think, exist both on practical considerations and other.

I have just seen outside your exhibition of books, and it is gratifying to note what great progress has been made in the translation of books in our regional languages and the process, I think, will continue at a faster pace now. But one has to remember that however much you may translate text-books or produce text-books, knowledge is not confined to text-books, and we have to read many other books, i.e., in the higher stages of education, many books other than text-books, and it is impossible for anyone

to imagine that all the literatures of the world would be translated into the Indian languages—it is physically impossible. Therefore the necessity comes for people in the higher stages of education, more especially for people in science and technology—which is the important modern facet of education to know some foreign languages, because we cannot again be left behind in this race for knowledge, if you like, in scientific education, scientific thinking and scientific research work. I mentioned the importance of research. No research can take place isolated from what is being done in the rest of the world on a particular subject. When I was in England recently, I read a report of some commission or committee and I think it was about scientific education, and it laid stress on the fact that English was not enough for scientists. They pointed out three other languages, French, German and Russian, as essential for science, and that they said over and above their language English, which is probably more prevalent than any other language today. Even that was not enough. Thus more so would it be insufficient for us, for any such research work on higher education for any person not to know other foreign languages. Our regional languages, good as they are—and they should be expanded—are not enough now or even at any time, any language for the matter of that. When English is not enough, when French is not enough, when German is not enough, how can we presume and say that regional languages can be enough to cover the world? Therefore, it becomes necessary to encourage the learning of foreign languages—most of the important ones. Now it is obvious, when we consider foreign languages, that the one with which we are most acquainted is English; we have certain background; we need not start from scratch. So I do hope that efforts would be made to teach foreign languages both for scientific purposes and cultural purposes, and in this way I say we have them in some universities where, as classical languages, we learn Arabic and Persian, which is good, because they are fine classical languages, but it is perhaps more important to learn modern Arabic and modern Persian than only classical Arabic and classical Persian. I hope that some efforts will be made to that end. There is a vast part of the world called the Arabic world, and purely for cultural contacts, political contacts and others it is necessary to know Arabic, not for scientific purposes so much. Persian again is a language which used to be very widespread and is still. Now in scientific work probably Russian is more advanced than any other language; it probably comes next to English in the volume of work produced. So we have to produce people knowing these various languages but, as I said, inevitably it is both advantageous for us and the facts of the situation warrant it that we must use the English language we know already, and concentrate on English as a window

to the outside world of knowledge. Therefore, I hope that the study of English will be widespread and will be good. I do not think it is good enough to say that English should be a language of understanding and no more. I do not know how you understand a language without understanding the language properly. You may understand a school book or some simple sentences, but in order to appreciate either a scientific book or literary book you have to know it rather well—the language, and we should aim at a thorough study of the languages we take up.

You know that there is some argument, especially in the political sphere, to continue having English as the associate language at the Centre. We stated, the then Home Minister, Pandit Govind Ballabh Pant, and I, in Parliament two years ago that it was the decision of Government that English should continue as an associate language; we did not fix any period for it; vaguely we stated that the period would be determined later and would be largely left to the wishes of the non-Hindi speaking States. There is, some feeling, some strong feeling expressed now against it, against this continuation of English apart from the fact that a firm assurance was given on behalf of Government, and it would be highly improper to go back upon it. It is practically desirable and necessary and I think that Hindi or the other regional languages will profit by this association with foreign languages, specially English; English being the easiest foreign language for us, they will actually profit and grow more.

As a people we in India have been in the past rather inward looking, rather ignoring the outside world. The outside world changed rapidly especially in sciences and technology and we remained immersed in our own learning which was very good, but still it was limited in so far as the world was concerned. Now the world grows into one and we cannot afford to have that limited outlook. We must remain in contact with the world. Languages play a most important part of maintaining those contacts with the world, with the young world, with the changes taking place in the world. So I feel that it is important that we should teach foreign languages and teach them well. And of the foreign languages, inevitably English is likely to suit us better than others though others should also be encouraged.

Now, even if you agree with the principles that I have suggested, yet a great deal remains to be done in the manner of doing it, that more than others these things should be decided by educationists, I think, and not by political decisions. Broad principles being laid down should be worked out by educationists of universities themselves. But I hope that in

doing so they will always keep in mind the necessity of not isolating themselves from other universities. Obviously that will impede their own growth. Take science. However eminent an individual scientist may be, scientific research is done more by a group than by an individual. So also other forms of real research. Research should be common factors in universities. Universities may join together. For example, professors may go from some places to other places. If because of the linguistic barrier they cannot do so, our progress and research work will suffer.

So I have ventured to place before you some ideas of mine as a mere politician. But I do think that these matters are eminently fit to be determined by educationists, not that, I believe, educationists are calm, they look at things calmly and philosophically always; they get excited too. But still they are relatively better situated than politicians even in other fields. Take a vital matter for the world's future—peace and war, nuclear testing, stopping of them and the like, disarmament. Now, there are committees and commissions meeting interminably without coming to an agreement. Yet we have found that when those particular matters are referred to a body of scientists coming from the very countries which are at loggerheads with each other, those scientists have usually found a way out of the difficulties and suggested a solution, because it may be that their training was somewhat different from that of the politicians. It would be a good thing, therefore, if these matters, which excite people so much were considered in a more academic atmosphere, not divorced from practical side of it but nevertheless not purely thinking in terms of day to day politics in our thinking, purely in terms of some academic ivory tower.

After all, we have our Five-Year Plans and the like. The most important thing—however, I do not know what is most important, everything is important—is Educational Planning. Education is, after all, the basis of all the progress that we are likely to make. And education, both mass education, general education and specialised education, both are essential. And constantly we have to face a dilemma, quantity *versus* quality. Quantity is necessary. But it would be a pity if quality were sacrificed over it.

Now, today primary education has grown pretty fast. I do not know the number of students now. Two years ago I was told it was 45 million. Forty-five million is a tidy number. It is impressive. When I repeat this figure in other countries they are impressed. It is more than the population of most of the countries. Yet it is only a part of our problem. Probably it

is now 47 million, I am told. But, then, if you look at the quality of the 47 million, it is not so satisfying. The schools and other places have little equipment. Perhaps not all of them have trained teachers. That is the difficulty that one has to face. But we should always try to improve the quality, at the same time the quantity. Ultimately the quality depends upon the teachers. In the higher branches of education the teachers usually have quality if they do research work. Because they go deeper in it they are honoured, more respected than merely people who read text-books and repeat them to the students. I am sorry I am telling you some obvious things with which you are very well acquainted. But then if you ask a politician what can he do? He cannot enter deeper. I hope you will consider all these matters and give a proper lead to this great adventure of spreading education.

I have not said anything about one matter. My own education was—well, it might be called—scientific. I took my degree in Science. That does not mean that I am a scientist. Now, there is this controversy now going on in the Western world between scientific education and the Humanities. I have no doubt that both are necessary. I am quite sure that a scientist may be a very good scientist but he lacks something which is so essential for a human being. Also you cannot possibly leave science out and concentrate on Humanities. Then you get cut off from the world. And so far as it is possible, one should combine the two. I think—although I lack it—that where possible it is a very good thing for a person to know classical languages. The difficulty is you cannot have all this together. I think Sanskrit, for instance, in India is of enormous importance. I should like to encourage it. But I feel I cannot simply make it a compulsory language for every one, but I should like to encourage it because so much has happened in India. In fact, the whole root and background of Indian culture is wrapped up in the Sanskrit language. Later many other elements came into it and created the mixed culture that we have. We welcome that, but Sanskrit has been the root of it. It is a magnificent language. I say so even though I do not know much of it. But how to cover all this wide field of knowledge in the course of one's educational career of school and college I do not know. That is for you to consider, how to produce an integrated individual with the depth that comes from the knowledge of the classics and the scientific training that is so essential in these days. Possibly we cannot have it. But anyhow, both should be encouraged and to some extent every scientist must know the Humanities, and to some extent every classical student must know Science to some extent and not too much, must know at least the background of it, and it should not be said by some-

body like Mr. C. P. Snow in England, "I think that there are two cultures marching off in different directions and not meeting. The Scientist does not understand a non-scientist and the non-scientist being at variance with the other." That is to some extent happening. There are many esteemable people who are singularly ignorant of the other branch. I think something, especially in the High Schools, should be done for the human being, for a student to have some basic knowledge of both these sciences. He can at least have some glimpse of an understanding of the modern world. After that he may develop it or not if he so chooses.

I do not know if I have said anything of any particular importance to you because I am rather hesitant to talk to experts in a field in which I am an amateur. Anyhow, I am grateful to you for inviting me and I wish you success in your labours.

Recommendations of Committee 'A' on Admissions, Medium of Instruction and Related Matters

The Committee 'A' on 'Admissions and medium of instruction and related matters' under the Chairmanship of Shri C. D. Deshmukh, Vice-Chancellor, University of Delhi, considered the following items of agenda:

I (*Item 1*): Matching assistance from State Governments for schemes of development approved and financed by the University Grants Commission —Difficulties arising out of.

II (*Item 3*): To consider the problem of increasing demand for university admissions and rationalisation of admission procedure and the total span of education.

III (*Item 13*): To receive reports on (a) Correspondence Courses and (b) Evening Colleges.

IV (*Item 4*): Consideration of the recommendations of the National Integration Council held on 2nd and 3rd June 1962 with particular reference to (a) university admissions (b) the medium of instruction and place of English and Hindi and also the question of the translation of standard works of social sciences and other Arts subjects with regional languages except Hindi.

The Committee consisted of the following:

1.	Shri C. D. Deshmukh,	Vice-Chancellor, Delhi University
2.	" B. F. H. B. Tyabji,	" Aligarh Muslim University
3.	Dr. A. L. Narayan,	" Andhra University
4.	Shri V. Subrahmanyam,	" Annamalai University

5. Shri N. H. Bhagwati,	Vice-Chancellor,	Banaras Hindu University
6. " L. R. Desai,	"	Gujarat University
7. " K. M. Panikkar,	"	Jammu & Kashmir University
8. " D. C. Pavate,	"	Karnatak University
9. Dr. K. C. K. E. Raja,	"	Kerala University
10. " Jyotindra M. Mehta,	"	M.S. University of Baroda
11. Shri Mahesh Chandra Pradhan,	"	Orissa Agricultural University
12. Dr. Jodh Singh,	"	Punjabi University
13. Shri G. P. Bhutt,	"	Saugar University
14. Dr. A. G. Pawar,	"	Shivaji University
15. Smt. Premila V. Thackersey,	"	S.N.D.T. Women's University
16. Shri K. A. S. Stevenson,	"	U.P. Agricultural University
17. „ Satyavrata Siddhantalankar,	"	Gurukul Kangri University
18. Prof. M. Mujeeb,	Sheikh-ul-Jamia,	Jamia Millia Islamia.

Rapporteurs:

1. Smt. Muriel Wasi
2. Shri N. N. Iengar
3. Shri R. K. Chhabra

I. (*Item 1*): *Matching assistance from State Governments for Schemes of Higher Education—Difficulties arising out of—*

Surveying the existing position, the Committee observed that in allocating money to State Governments for educational development at university level, the Planning Commission shows the amounts under such heads as "University", "Technology" and "Cultural Affairs". No clear demarcation has been made between funds ear-marked for old and new universities in each State. The State Governments have also been permitted to re-appropriate funds freely under these heads according to their requirements

during the Plan period. The amounts allocated have fallen far short of the State Governments' needs for these purposes. The result is that these Governments have used their allocations in accordance with their own educational priorities and developmental education at university level has suffered. This apart, there was a tendency to favour Government colleges at the expense of universities, or not to support a raise in teacher salaries for fear of its repercussions on salary scales of primary or secondary school teachers. At present, the University Grants Commission gave a hundred per cent grant for a variety of schemes. But the bulk of the schemes of development required matching grants. Several suggestions were made in the course of the discussion about how most effectively to overcome the difficulty of universities not receiving matching grants in time. A view was expressed that the University Grants Commission should give grants on one hundred per cent basis for a *smaller* number of schemes and omit from their purview schemes on which matching assistance was required. On these items, the State Universities would then try to obtain a hundred per cent grants from their Governments. But it was felt that this had the disadvantage that it might lead to a reduction of total resources available for there was no certainty about the amount that could be obtained from a State Government. A suggestion that was generally approved was that the University Grants Commission should give one hundred per cent assistance (taking complete responsibility for committed expenditure on a continuing basis) without seeking matching grants from the State Governments in regard to a *larger* number of items, such as might be considered to fall into a "crucial field".

After a full discussion, the Committee concluded that the University Grants Commission should enlarge the area of a hundred per cent assistance for "crucial grants" and in comparatively less important areas, developmental expenditure could be shared between the University Grants Commission and the State Government. At the same time, planning for each Plan period should be more precise in order that diversion of funds by State Governments from one head to another could be easily located and, where delay occurred in releasing funds, the Ministry of Education, the University Grants Commission and the Planning Commission could exert pressure on the State Governments to release the funds more promptly or to restore the amount diverted to the appropriate head.

II (*Item* 3): *To consider the problem of increasing demand for university admissions and rationalisation of the admission procedure and the total span of education.*

The Chairman read out a report on the working of the scheme for central registration tried out by the Delhi University. (Copies of this report* have been made and circulated to the members of all Committees). The Committee was of the view that nothing more ambitious could be attempted at present. It did not enter into the abstract question of whether admission to a university was the birthright of every Indian citizen or could be claimed as a political right, but took the view that it was necessary to have the widest diversification possible within our resources at post-secondary level in order to admit the largest possible number of students to different courses of higher education. In regard to the total span of education opinion was unanimous in favour of a total span of 15 years for the first degree and 16 or even 17 for a Technological Degree. The 15 years would be made up of 10 in high school, 2 in Higher Secondary School or Junior College and three for the degree, where as in Bombay the total School period was 11 or where conversion of High School into Higher Secondary School had taken place, there should be 1 preparatory year before the 3 year degree course. Opinion was divided in regard to whether the intermediate 2 year should be part of School or College.

III (*Item 13*): *To receive reports on (a) Correspondence Courses and (b) Evening Colleges.*

The Chairman took as read the Report on Correspondence Courses that had been circulated with the working papers. He read out a short report on the action taken to-date by the University of Delhi to implement the recommendations of the Expert Committee on these courses, that had been accepted by the Government of India. (This note** has been circulated to memebrs of all Committees.) The Committee supported the promotion of Correspondence Courses as a new instrument of education and decided that it would be advisable to watch the success of the Delhi experiment before extending this to other universities. It was stressed that in order to obtain the full advantage of the Correspondence Method, it would be wise in the immediate future not to multiply centres of instruction. It might, however, be necessary at a later date to have branches of a central correspondence organisation in other parts of India that might deal with students wishing to take courses in regional languages. As the report on Evening Colleges still awaits final approval, it was decided to postpone consideration of this document.

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* See Appendix 'A'.

** See Appendix 'B'.

IV (*Item 4*): *Consideration of the recommendations of the National Integration Council held on 2nd and 3rd June, 1962, with particular reference to (a) University admissions and (b) the medium of instruction and place of English and Hindi and also the question of translation of standard works of Social Sciences and other Arts subjects into regional languages except Hindi.*

The Committee considered the question of reservations and thought that reserving a percentage say 75—for products of local Universities was permissible. As regards reservation for Backward Classes, the word "classes" should mean sections or categories and not castes or communities. Also, reservation should be restrained so as not to discourage the discovery and encouragement of talent. In the case of reservation for Scheduled Castes/Tribes, the Committee thought that there should be a reasonable or minimum mark prescribed for admission and not a bare qualifying mark and that allowance for inferior home environment should be expressed moderately in terms of marks differential, say not more than 10 in 100, (i.e., say, 66 for unreserved, 56 may be allowed for the last Scheduled Caste candidate and that no such candidate with a score of below 50 should be admitted to an Engineering College run by a State.)

The Vice-Chancellors generally endorsed the Resolution adopted by the National Integration Council at their first meeting on June 2 and 3, 1962, which is reproduced below:

"The Council reaffirms the conclusions set out in paragraph 15* of the Statement issued by the National Integration Conference in September-October, 1961. The Council recalls that these conclusions did not differ materially from the decisions in regard to the medium of instruction at the University stage arrived at by the Chief Ministers' Conference in August 1961, as also that they had since been accepted by the Emotional Integration Committee in its preliminary report.

The Council observes that the policy in this respect is being implemented in varying measures by different Universities, but it is of the view that its implementation should be more purposeful. In the Council's view, the change is justified not so much by cultural or political sentiments as on the very important academic consideration of facilitating grasp and understanding of the subject-matter. Further, India's university men will be

* See Appendix 'C'.

unable to make their maximum possible contribution to the advancement of learning generally, and science and technology in particular, unless there was a continuous means of communication in the shape of the regional languages between its masses, its artisans and technicians and its university men. The development of the talent latent in the country will also, in the view of the Council, be retarded unless regional languages are employed as media of instruction at the university stage.

The Council considers that while generally speaking the replacement of English as medium was thus an inevitable end which should be actively pursued, every care should be taken by universities to ensure that the transition is made without jeopardising the quality of education and after careful preparation, e.g., the co-operation of teachers and the availability of good standard books written by university teachers or other experts for which every incentive should be provided by the authorities concerned.

The Council lays stress on the importance of teaching English as a compulsory subject, whether in any transitional scheme of the adoption of regional languages as medium of instruction, or even after the replacement has been fully carried out at a future date. In the transitional stage, English will serve as the link among university men and between university and university in respect of exchange of professors or migration of students; whilst, at all times, as a language of great international importance, English would furnish a link with the outside world, constitute an indispensable tool for further study and assist in the development of the regional languages.

The Council hopes that while English would thus be an international link at all times, its place as an internal link will gradually be taken by Hindi as it develops. The Council, therefore, urges that at the university stage, the students should be equipped with progressively better command of Hindi in addition to a good working knowledge of English such as would enable them to follow lectures delivered in that language.

In the light of these considerations, the Council reiterates the recommendation of the Chief Ministers' Conference that the standard of teaching both in Hindi and English should be improved and maintained at a high level in schools and colleges.

The change in the medium of instruction in a university is primarily a question for the university to decide. While it seems natural that regional

languages would gradually become the media of instruction at the university stage, the Council sees no reason why there should be any bar to the use of English or Hindi as a medium of instruction in a university, or in some of its colleges. Indeed, it foresees that in some special circumstances the establishment of such a college might become a desideratum.

In this connection, the Council urges that there should be a provision in every university permitting the use of Hindi or English as an option to the regional language for answering examination papers". The Committee however, felt that when and how the switch over should take place should be left to the Universities to decide.

In this connection a point was made that the continued use of English as the medium of examination for the all-India services might retard the development of the regional languages. A view was expressed on the other hand, that even this disadvantage might have to be balanced against the advantage of the convenience of all-India administration which was secured by the use of English as such a medium. Recognising that in the matter of prescribing a medium of instruction in State Universities an option would always be permissible, the hope was expressed that in every State there would be High Schools or colleges giving instruction in English and Hindi for the "floating population" such as the children of Central Government servants, and the children of parents who for any special reasons desire to educate their children in English or Hindi. A fear was expressed that if regional languages were to supplant English as a medium of instruction at the university stage, its probable result would be the weakening of the study and knowledge of English. But the general view seemed to be that this consequence need not follow if the Three-Language Formula was worked with the necessary determination.

Note on Registration by the University of Delhi

As per the Vice-Chancellor's orders, registration of all eligible students for Arts and Social Science courses was undertaken this year. A meeting of the Principals was held on 9th June, 1962 at which 8 Principals and their representatives were present. Principal Shri M. M. Begg was the Chairman of the meeting.

It was decided at the meeting to start registration from 12th June, 1962 and extend it up to 30th June in respect of Science Courses and 10th of July in respect of Arts courses. This was given wide publicity in the news columns as well as in the advertisement columns in the local dailies. For the facilities of the students, a number of centres were decided to be opened at the following Colleges:

1. Faculty of Arts (Girls & Boys)
2. Deshbandhu College (Girls & Boys)
3. Lady Shri Ram College (Girls only)
4. Delhi College (Girls & Boys)
5. S.G.T.B. Khalsa College (Girls & Boys)
6. Janki Devi Mahavidyalaya (Girls only)
7. W.A.F. Memorial Shivaji College (Girls & Boys)

The timings were from 9-00 a.m. to 1-00 p.m. on all working days.

Students were to be considered for admission by Colleges only on the production of a Registration Slip issued by any of the centres. This procedure was being followed only to collect statistical data and that it was

not intended to alter in any way with the admission procedure being followed by the various Colleges. The Registration Slip did not also guarantee admission of the student or determine his eligibility for admission to the course or class desired by him and the Colleges were free to use their discretion in the matter of admissions subject to the rules of the University.

The Principals were asked to scrutinize all cases of admission regarding eligibility according to the rules of the University.

To avoid duplication of registration it was decided that Original/Provisional certificates were to be produced, on the back of which the respective stamps of centres were to be placed. It was also decided to exclude professional courses like Law, Medicine, Technology, Education, etc.

The Registration was heavy for the first three days and an approximate total number of about 6,060 registrations were made up to the evening of 15th at all centres. Then the registration was slack. Up to 30th the total number of registration was 10,045, out of which 3,782 were girls. As the registration became very slack, the following centres were closed from 23rd June after advertisement in the press:

1. Lady Shri Ram College
2. Delhi College
3. S.G.T.B. Khalsa College
4. W.A.F. Memorial Shivaji College

It was decided to allow the colleges to entertain applications direct from the outstation students and a circular was sent to this effect to all colleges. Final registration particulars are given below for 1962:

STATEMENT OF STUDENTS REGISTERED AND ADMITTED IN VARIOUS ARTS AND SCIENCE COURSES

Course	*Registered*	*Admitted*	*Not admitted*
Pre-Medical (I & II yr.)	787	624	163
B.A. (Pass)	4,553	3,179	1,374
B.A. (Hons)	1,359	1,323	36
B.Sc. (Genl) & B.Sc. (Hons)	1,777	1,058	719
B.Com.	719	397	322
M.Com.	69	42	27
M.A.	948	795	153
M.Sc.	274	129	145
TOTAL:	10,486	7,547	2,939

Note by Delhi University Directorate of Correspondence Courses

The University of Delhi instituted Correspondence Courses for the B.A. Pass Degree in English, Hindi, History, Political Science, Economics, Commerce and Mathematics from September, 1962. Qualifications for admission are either Higher Secondary Examination and its equivalent or Intermediate Examination and its equivalent. The duration of the course is 3 years for those who have passed the Intermediate or its equivalent Examination and 4 years for those who have passed Higher Secondary Examination or its equivalent examination. The final University Examination for those who have passed Intermediate Examination will be held in September, 1965 and for those who have passed Higher Secondary Examination, in April 1966. The last date for receiving applications for admission to the Course was 10th August, 1962. Till this date about 2,500 applications were received, out of which about 850 applicants were found ineligible as they did not possess the requisite qualifications. Letters were written to the eligible candidates intimating to them about their selection and telling them that admission would be confirmed on receipt of the Ist instalment of fees (Rs. 110/- only) and on verification of original certificates. 1,084 students have paid their fees and have been finally admitted.

First lessons in English and Hindi were mailed out on the 29th September, 1962, and the first lessons in each of the other elective subjects were mailed out to all the students on the 5th October, 1962. Number of applicants who asked for copies of the prospectus with a view to join the course received after the scheduled date viz., 10th August, 1962 was very large; even now many enquiries about admission to the Course are being received daily. They are being advised to seek admission next year. It may be mentioned that among the 850 ineligible candidates most of them had passed the High School or Matriculation Examination when the Higher

Secondary Courses were not started. A Student's Response Sheet is attached with each lesson; it contains questions designed to guide the thinking of students and to assess their understanding of the subject matter of the lesson. Response sheets are being received in large numbers from the students. These will be corrected by qualified Tutors appointed for this purpose and returned to the students with necessary remarks for guidance.

A provisional programme has been drawn up giving dates when lessons will be sent to students in the first year of the Course.

Paragraph 15 of the Statement Issued by the National Integration Conference in September-October, 1961

As regards the medium for University education, while a plea was made for the use of Hindi as the medium on an All-India basis, the general view was that the regional languages are bound to replace English as the medium of instruction as soon as the necessary preparations for the change-over could be made acceptable to the academic world. But it was agreed that in such an arrangement, there would be the necessity of a link in the shape of a language understood all over India. It was felt that this link must ultimately be Hindi, but since Hindi, like any other regional language, will take some time for its full development, English will continue to be such a link. This implied that Hindi must continue to be taught as a second language as in the secondary stage of education, where necessary; and it also implied that English, apart from continuing as a transitional link, will remain as a language of international importance for the enrichment of our language in regard to science and technology.

Recommendations of the Committee on Service Conditions of College and University Teachers and Three-Year Degree Course

The Committee 'B' on 'Service Conditions of College and University Teachers and Three-year Degree Course' under the Chairmanship of Shri S. Govindarajulu considered the following items of agenda.

I. (*Item 2*) Conditions of service of university and college teachers and related matter viz., Scales of Pay, Provident Fund (or Pension)-cum-Gratuity Scheme, Provision of Residential Accommodation, Age of Retirement, Sabbatical Leave.

II. (*Item 5*) Development and improvement of Collegiate education —Consideration of relative priorities.

III. (*Item 7*) To consider the progress of Three-Year Degree Course Scheme in the universities.

IV. (*Item 6*) To consider proposals relating to the recognition of degrees and diplomas in the universities.

V. (*Item 8*) To consider a note from the Ministry of Community Development, Panchayati Raj and Co-operation, on the place of Co-operation and Community Development in higher education in universities.

The Committee consisted of the following:

1.	Shri S. Govindarajulu,	Vice-Chancellor	Sri Venkateswara University
2.	Shri P. D. Gupta	"	Agra University
3.	Shri P. N. Thapar	"	Agricultural University, Ludhiana
4.	Shri B. Mallick	"	Calcutta University

5.	Dr. H. J. Taylor	Vice-Chancellor,	Gauhati University
6.	Dr. V. R. Sen	"	Jabalpur University
7.	Dr. Umesh Mishra	"	K. S. Darbhanga University
8.	Shri Suraj Bhan	"	Kuruksetra University
9.	Dr. A. V. Rao	"	Lucknow University
10.	Dr. K. K. Datta	"	Magadh University
11.	Shri S. P. Kotwal	"	Nagpur University
12.	Dr. George Jacob	"	Patna University
13.	Dr. Mohan Sinha Mehta	"	Rajasthan University
14.	Shri Sarangdhar Sinha	"	Ranchi University
15.	Shri S. N. M. Tripathi	"	Varanaseya Sanskrit Vishvavidyalaya
16.	Dr. G. L. Datta	"	Vikram University.

Rapporteurs:

1. Dr. P. J. Philip
2. Dr. R. D. Deshpande

It was agreed at the outset that the recommendations which the Committee might make after considering the various items referred to it should be broad and flexible enough to cover possible variations to suit the requirements of different universities and other institutions.

I. (*Item 2*): *Conditions of Service of University and College teachers and related matters, viz., Scales of Pay, Provident Fund (or Pension)-cum-Gratuity Scheme, Provision of Residential Accommodation, Age of Retirement, Sabbatical Leave.*

Taking up item No. 2 "conditions of service of university and college teachers and related matters" it was noted that the universities found it difficult to obtain the 20% share of the additional expenditure, required from the State Governments for introducing the salary scales recommended by the University Grants Commission. While some State Governments

had agreed to the acceptance of the higher scales, others were still considering the matter. The main difficulty appeared to relate to obtaining an assurance from the State Governments that the new scales of pay would be continued as a permanent measure after the assistance of the Commission ceased on completion of the five year period. The Committee would urge the University Grants Commission to take up this matter with the State Governments and the Planning Commission which had made provision for development of university education in the Third Plan allocations to the State Governments.

In this connection it was also pointed out that the universities should apprise the Commission regarding the exact position of the development projects approved by the Commission vis-a-vis availability of funds from the State Governments concerned for their implementation. The University Grants Commission should inform the Planning Commission of the position to enable it to ascertain why the allocated funds had not been released for development of university education. It was also felt that if the whole of the funds required for university development were given to the University Grants Commission instead of dividing it between the Commission and the State Governments there could be quicker and more effective implementation of the development schemes. The maintenance expenditure of universities could be provided by the State Governments.

Another point that was stressed by the Committee related to provision of adequate funds for the growing needs of the existing (older) universities in the context of the tendency on the part of State Governments to consider the requirements of the new universities at the expense of the needs of the older ones.

The Committee also agreed that the difference between the salaries of teachers in university departments and in affiliated colleges, particularly in the post-graduate colleges, should be reduced, as any wide disparity between the two scales often deprived colleges of qualified staff who are attracted by the higher emoluments offered by the universities. This problem should be taken up by the Commission as requiring a speedy solution in the interest of maintaining standards of teaching in the colleges, considering that higher education is largely conducted in the colleges. It was noted that a Committee of the University Grants Commission is currently examining this question.

The Committee thought that the scales of pay of the university teachers

should compare favourably with the pay scales offered by industry and institutions like National Laboratories, Atomic Energy Commission, etc. There was need for raising the maximum of the professors' scales in order to enable universities to retain their services in the face of the higher scales offered by various non-university research institutions. It was desirable to have a selection grade of Rs. 1600-1800 or even up to Rs. 2,000 for a certain proportion of professors. It was also necessary to give a higher start to Lecturers with a view to attracting able young people to the teaching profession. The Committee, however, realised that several universities had only recently revised their scales of pay and it was perhaps necessary to stabilise the situation before embarking upon a further revision.

As regards the pay scales of college teachers the Committee noted that the scales recommended by the Commission were not very high, as compared to the scales of pay of university teachers. If funds permitted a further revision of pay of the college teachers could be taken up. The pay scale of Rs. 600-800 for Principals of colleges was singled out as being quite inadequate for obtaining the services of able teachers and commensurate with the high quality of work that was expected of them.

The Committee welcomed the suggestion that there should not be any disparity between the salary scales of teachers of technical subjects and teachers of other subjects (Arts and Science). The same scales of pay should be given to all the teachers irrespective of their subjects as any difference between the scales of the two categories would create an unhealthy situation in the university. If it was found difficult to obtain the services of technical teachers at the minimum of the scales for different categories, universities could give a higher starting salary to them.

Service Rules

The Committee realised that one way in which able persons could be drawn to the universities and colleges would be by making their service conditions attractive. The Committee recommended that every university should have for their teachers service rules, whether they were permanent, temporary or on probation. It should also be possible for every teacher to appeal against dismissal, etc. to some authority of the university—to the Chancellor or a Committee appointed for this purpose consisting of representatives of the Chancellor and other authorities. What the Committee wishes to stress is that it should not be difficult for teachers to obtain justice. If the University Grants Commission could draw up Model Service Rules, it would be helpful.

Provident Fund-cum-Pension

It was agreed that the rate of contribution by the universities or colleges towards the Provident Fund of the teachers should not be less than 8⅓% It would be desirable to combine Contributory Provident Fund with provision for payment of pension and other benefits to the teacher. The details of such a scheme could be worked out by the Universities in consultation with the Life Insurance Corporation and certain Universities like Madras, etc., which have already introduced a Contributory Provident Fund-cum-Pension-cum-Gratuity scheme for their teachers. In the case of college teachers, it might be difficult to introduce a similar scheme on account of the various disabilities from which their managements suffer. It was, however, necessary to ensure that at least Contributory Provident Fund was made available to the teachers and that the contribution of the college towards the Fund would not be less than 8⅓% as in the case of university teachers. The Committee attached great importance to the need to ensure that the teachers carried this benefit with them when they went from one university to another or from one college to another. Apart from the benefit accruing to the teachers themselves, such a provision would also promote the possibility of migration of teachers, thus strengthening the corporate intellectual life of the country.

Age of Retirement

The Committee was of the opinion that the age of retirement should be 60 in both universities and colleges and extension may be given up to the age of 65, provided such extension was justified.

Sabbatical Leave

The Committee generally welcomed the proposal to provide sabbatical leave for teachers on condition that assistance was made available for meeting the financial liability involved. Such leave may be given to the teachers for the purpose of study or research. Leave of this kind was important particularly in view of the fact that the teacher-student ratio in the universities was high and consequently teachers were left with very little time for studies or research work. It may be necessary for the universities to provide such leave only to a limited number of teachers, after taking into consideration the merits of each case. The teachers may be paid their full salaries or at least half of their salaries during the period of the sabbatical leave.

Accommodation

The Committee attached the greatest importance to the provision of residential accommodation to the teachers as a part of the arrangement that might be made for the recruitment and retention of able teachers in the universities and colleges. Unless speedy and effective measures were adopted to deal with the problem of shortage of proper accommodation for teachers, it would become difficult for universities and colleges to attract really qualified people. The Committee would, therefore, suggest that high priority may be given by the Commission for providing necessary assistance for construction of staff quarters. The Committee suggested that for providing houses for a certain proportion of teachers (for a basic minimum) out-right grants might be given. The cost of the accommodation required over and above this minimum might be shared between the Commission and the State Governments or other agencies.

II. (*Item 5*) — *Development and Improvement of Collegiate Education—Consideration of relative priorities.*

The Committee welcomed the proposals of the University Grants Commission for improvement of conditions of teaching and other facilities in the colleges. The Committee stressed the need for the introduction of a tutorial system in the colleges. Unless it was possible to establish a real personal and academic contact between the students and teachers, other improvements were not likely to lead to better education. It would be necessary to raise the teacher-pupil ratio by the appointment of additional teachers, develop the libraries for encouraging the reading habits of the students and provide additional accommodation for enabling the teachers to meet the students in groups.

The Committee recognized the importance of providing more halls of residence or hostels in the colleges. The Commission might give an out-right grant for construction of hostels for a certain number of students. It was also desirable to establish non-resident students' centres for the use of day scholars. The Committee noted that a large number of students in the college did not have adequate facilities for private study in their homes.

The scheme pertaining to the establishment of Hobby Workshops was also welcomed by the Committee.

The Committee recommended that the power of affiliating colleges should vest in the universities and there should not be any interference or pressure from the State Government or any other agency. The universities should insist that every college seeking affiliation should have a reasonable endowment fund to ensure financial stability. At the time of affiliation the university should stipulate the amount of endowment fund required and ensure that this condition is fulfilled by the college. The State Government should provide a liberal grant-in-aid code and meet at least 75% of the net deficit incurred by the colleges.

The Committee felt that the under-graduate courses in many universities required modernisation. It was noted that the Review Committees appointed by the University Grants Commission had found many of these courses out of date, particularly, in science subjects. The model courses worked out by the Review Committees might be recommended to the universities for their consideration. It was also necessary to arrange seminars and workshops in order to bring home to the teachers the need for modernization of the syllabi and to introduce them to the methods that may be employed for the purpose, with the assistance of experts in different subjects.

The existing courses required reorganisation also with a view to making the under-graduate education adequate to the intellectual and spiritual needs of the young students in the modern world. This required a rearrangement of the course contents in order to acquaint both Arts and Science students with the whole area of relevant knowledge and not merely with the area of specialization. This could be done without adding to the present work-load of the students.

Post-Graduate Studies

The Committee did not favour the development of post-graduate studies in the affiliated colleges without taking into consideration the facilities that are necessary for their proper conduct. It was felt that the universities should not permit new colleges to start post-graduate teaching. As far as possible facilities for post-graduate studies in the colleges should be developed on a cooperative basis, as individual colleges on their own would not command resources in physical facilities and personnel required for proper development of post-graduate teaching. Affiliating universities might select centres for the development of post-graduate studies, if necessary, apart from its headquarters, after taking into consideration the

possibility of developing corporate teaching by pooling the resources of a number of colleges situated in the centre. Assistance may be given by the University and by the University Grants Commission for providing additional facilities to such centres.

III. (*Item 7*) — *To consider the progress of Three-Year Degree Course Scheme in the Universities.*

The Committee generally agreed that the Three-Year Degree Course was an improvement on the previous system of confining under-graduate education to a two-year degree course. It was, however, felt that the period of school and college study required for the first degree should be 15 years and not 14 years as at present. This period could be combined in different ways, for example 10 years of school education plus a two-year intermediate course plus a three-year degree course or 11 year school course plus one year pre-University course plus a three-year degree course or a 12 year school course plus a three-year degree course. It was, however, felt that a 10 year school course plus two-year intermediate course plus a three-year degree course had certain distinct advantages, as the two-year intermediate course could be devoted to a proper preparation for the university education. In this context the importance of honours course was emphasised by the committee. It was regretted that many universities had given up the honours course with the introduction of the three-year degree course. Apart from the possibility of providing an under-graduate course of a high standard for better students, the honours course could also be a preparation for post-graduate study, stress being laid in the honours course on intensive study of the subject or subjects to be taken up at the Master's level subsequently. In contrast to the honours course, the pass course could be of a general nature, it is however, necessary to make post-graduate courses available to those who had shown special ability even in the general courses.

IV. (*Item 6*) — *To consider the proposals relating to the Recognition of Degrees and Diplomas in the Universities.*

In this connection the attention of the Committee was drawn to a resolution adopted at the 25th Annual Meeting of Inter-University Board held at Banaras, which recommended that "Examinations of one university should be recognised by the other university on a reciprocal basis, provided the entrance qualifications, duration of the course and the general standard of attainment are similar to those prescribed by the recognising

university". The Committee generally agreed with this view and expressed the opinion that in this matter each university was the best judge.

The question of recognising the diplomas awarded by the Rural Institutes, it was noted, was receiving the attention of the Inter-University Board whose recommendations should be awaited for a decision to be taken in the matter.

V. (*Item 8*) — *To consider a note from the Ministry of Community Development, Panchayati Raj and Co-operation, on the place of Co-operation and Community Development in higher education in Universities.*

The Committee did not approve of introducing the teaching of Community Development, Panchayati Raj and Co-operation as a separate discipline. It was of the view that these subjects could be included at the appropriate place in the curricula of economics, political science, public administration, sociology, social work, psychology, etc. It was noted that a committee of experts had recently made certain suggestions with reference to the topics to be included in such courses. These, it was agreed, may be recommended to the universities for their consideration.

Recommendations of the Committee on Contents of Education and Co-Ordination of Research

The Committee 'C' on 'Contents of Education and Co-ordination of Research, under the Chairmanship of Dr. A. C. Joshi, Vice-Chancellor, Panjab University considered the following items of agenda:

I. (*Item 9*) To receive a report on the Review Committees set up by the University Grants Commission for improvement and modernisation of Courses of Study at the under-graduate and post-graduate level.

II. (*Item 10*) Promotion of Co-ordination between universities, National Laboratories and other institutions devoted to research in Humanities, Science and Technology, Exchange of Staff and utilisation, by the universities for research and training, of special facilities available in the National Laboratories and other institutions.

III. (*Item 11*) To receive a report on the preparation of 'cheap' books for university courses.

IV. (*Item 12*) To consider the level of the existing facilities for Students' Welfare and their expansion and improvement.

V. (*Addl. Item*) To consider failure in examinations and consequent wastage.

VI. (*Addl. Item*) Pre-university and Higher Secondary education.

The Committee consisted of the following:

1. Dr. A. C. Joshi	Vice-Chancellor	Panjab University
2. Dr. Balbhadra Prasad	"	Allahabad "
3. Dr. P. L. Srivastava	"	Bihar "

4.	Dr. V. R. Khanolkar	Vice-Chancellor	Bombay University
5.	Dr. A. C. Chatterjee	"	Gorakhpur "
6.	Shri P. N. Chinchore	"	Indira Kala Sangit Vishwa-vidyalaya
7.	Dr. T. Sen	"	Jadavpur University
8.	Shri B. N. Jha	"	Jodhpur "
9.	Dr. S. N. Das Gupta	"	Kalyani "
10.	Mahamahopadhyaya D. V. Potdar	"	Poona "
11.	Shri G. B. K. Hooja	"	Rajasthan Agricultural University
12.	Shri G. Pande	"	Roorkee University
13.	Shri M. D. Patel	"	S. Vallabhbhai Vidyapeeth
14.	Dr. P. K. Parija	"	Utkal University
15.	Dr. B. P. Pal	Director	Indian Agricultural Research Institute
16.	Dr. R. S. Krishnan	Director-in-Charge	Indian Institute of Science, Bangalore
17.	Dr. A. Appadorai	"	Indian School of International Studies
18.	Shri S. R. Dongerkery	Vice-Chancellor	Marathwada University

Rapporteurs:

1. Dr. V. S. Patankar
2. Dr. S. Bhattacharya
3. Dr. D. Shankar Narayan

I. (*Item 9*): *To receive a report on the Review Committees set up by the University Grants Commission for improvement and modernisation of Courses of Study at the under-graduate and post-graduate level.*

(a) The work being done by different Review Committees appointed by the University Grants Commission in subjects relating to Science and

Humanities was noted. It was felt that this is of considerable value and it is desirable that the reports, when ready, be circulated to all universities for their consideration.

(b) The recommendations on general education were received with interest. While many universities have altered the structure of undergraduate education by introducing the three-year degree course, comparatively little has been done to reform the courses of study. It was felt that the introduction of a programme of general education could be one of the important steps for bringing about this much-needed reform. It was desirable that all students should have some acquaintance with regions of human concern and knowledge familiarly referred to as the Humanities, the Social Sciences and the Natural Sciences. But general education is not simply a programme of broad-based education, nor is it a separate or additional subject of study to be pursued independently of other subjects of study. In addition to broadening the range of interest and knowledge of the students, general education also involves an attitude of mind that should permeate the study of every subject.

The exact way in which courses in the different fields could be integrated with the area of concentration of the students will have to be carefully worked out. In formulating a concrete programme, universities may obtain advice from the Expert Committee specially set up by the University Grants Commission for considering matters relating to general education. It will also be necessary to organise seminars for the benefit of teachers who will participate in the teaching of general education types of courses, as well as to prepare suitable reading material. Some suggestions in this regard are given in a note recently prepared by the University Grants Commission.

(c) The recommendations No. 2 to 7 and 9 made in the 'Report on Examination Reforms' are accepted. As regards the others, the following observations are made:

No. 1: The recommendation regarding the introduction of two additional papers at the school leaving examination may not be workable. It is difficult to work out a test to assess the intellectual maturity of a candidate for admission to a university. The best method of assessing candidates may be based on examination result and personal interview.

No. 8: There is no need for changing the present system of

awarding marks at various examinations, or the classification of successful candidates in the Master's Degree Examination into three divisions. It was felt, however, that candidates getting third division may, within a fixed period, be given one more chance to improve the division.

No. 10: It was felt that delay in declaring the examination results was generally not due to administrative slackness; it is often caused by examiners. It is, recommended that wherever possible a beginning may be made to have assessment by internal examiners only up to the first degree stage, particularly in practical examinations.

II. (*Item 10*): *Promotion of Co-ordination between universities, National Laboratories and other institutions devoted to research in Humanities, Science and Technology, Exchange of Staff and utilization by the universities for research and training of special facilities available in the National Laboratories and other institutions.*

The proposals for co-ordination between universities and other centres of research for exchange of teachers and research personnel are generally welcome. It is noted that the Inter-University Board has already considered this matter and passed the following resolution:

"Resolved that all National Laboratories be given general recognition.

Resolved further that each university will have to consider in the light of its own regulations and its requirements to what subjects of research recognition can be given. It is understood that where the university is fully equipped for research in its own departments, candidates will naturally be expected to work in those departments. Research for the first degree should preferably be conducted in the university departments, if full facilities and personnel are available. In cases where the universities are not in a position to provide these facilities, the National Laboratories will be requested to accept candidates for research, such candidates being asked to supplicate for research degrees of their own universities."

As regards the suggestions made earlier in this regard by some Vice-Chancellors, the adoption of the following is recommended:

(1) In addition to a two-way traffic between National Laboratories and the universities, another important measure of exchanging

professors from affiliated colleges to universities and vice-versa may be introduced.

(2) The scope of the travel grants given by the Commission may be extended to invite persons from non-university centres of research.

(3) The University Acts, many of which were formulated years ago, may, if necessary, be revised for facilitating the exchange of personnel.

(4) The research institutions may not be considered as substitutes for university departments.

(5) Collaboration between the universities and the research centres may not be limited to Science subjects only, but may be extended to Humanities and Social Sciences also.

III. (*Item 11*): *To receive a report on the preparation of 'cheap' books for university courses.*

Noted.

IV. (*Item 12*): *To consider the level of the existing facilities for Students' Welfare and their expansion and improvement.*

The efforts so far made by the Commission in providing various facilities for the promotion of the welfare of students were generally appreciated. It was, however, felt that the assistance given for the construction of hostels, staff quarters and development of health centres was not sufficient and needs to be substantially increased. It was agreed that the provision of facilities for physical education should form a part of the programme of student welfare.

V. (*Addl. Item*): *To consider failure in examinations and consequent wastage.*

The remedy lies in the improvement of the machinery of education, careful admissions better facilities for training, and appointment of sufficient number of good teachers.

VI. (*Addl. Item*): *Pre-University and Higher Secondary Education.*

High Schools should be raised to the Higher Secondary Schools only when properly qualified teachers, books and proper equipment are avail-

able. It was also felt that a minimum period of 15 years of education is necessary before a student takes his first degree. This period of 15 years may be broken either as 12 years of school education and 3 years of university education, or 11 years of school education followed by 4 years of university education.

List of Participants to the Vice-Chancellors' Conference

1. Dr. D. S. Kothari,
   Chairman, U.G.C.

2. Shri Shriman Narayan,
   Member,
   Planning Commission.

3. Dewan Anand Kumar,
   Member, U.G.C.

4. Prof. A. R. Wadia,
   Member, U.G.C.

5. Shri Prem Kirpal,
   Secretary,
   Ministry of Education,
   and Member, U.G.C.

6. Shri P. D. Gupta,
   Vice-Chancellor,
   Agra University.

7. Shri P. N. Thapar,
   Vice-Chancellor,
   Agricultural University.

8. Shri Badr-ud-Din Tyabji,
   Vice-Chancellor,
   Aligarh Muslim University.

9. Dr. Balbhadra Prasad,
   Vice-Chancellor,
   Allahabad University.

10. Dr. A. L. Narayan,
    Vice-Chancellor,
    Andhra University.

11. Shri V. Subrahmanyam,
    Vice-Chancellor,
    Annamalai University.

12. Shri N. H. Bhagwati,
    Vice-Chancellor,
    Banaras Hindu University.

13. Dr. P. L. Srivastava,
    Vice-Chancellor,
    Bihar University.

14. Dr. V. R. Khanolkar,
    Vice-Chancellor,
    Bombay University.

15. Shri C. D. Deshmukh,
    Vice-Chancellor,
    Delhi University.

16. Dr. H. J. Taylor,
    Vice-Chancellor,
    Gauhati University.

17. Dr. A. C. Chatterji,
Vice-Chancellor,
Gorakhpur University.

18. Shri L. R. Desai,
Vice-Chancellor,
Gujarat University.

19. Shri P. N. Chinchore,
Vice-Chancellor,
Indira Kala Sangit
Vishwavidyalaya.

20. Shri V. R. Sen,
Vice-Chancellor,
Jabalpur University.

21. Dr. T. Sen,
Vice-Chancellor,
Jadavpur University.

22. Sardar K. M. Panikkar,
Vice-Chancellor,
Jammu & Kashmir University.

23. Shri B. N. Jha,
Vice-Chancellor,
Jodhpur University.

24. Dr. S. N. Das Gupta,
Vice-Chancellor,
Kalyani University.

25. Dr. Umesh Mishra,
Vice-Chancellor,
Kameshwar Singh Darbhanga
Sanskrit University.

26. Shri D. C. Pavate,
Vice-Chancellor,
Karnatak University.

27. Dr. K. C. K. E. Raja,
Vice-Chancellor,
Kerala University.

28. Shri Suraj Bhan,
Vice-Chancellor,
Kuruksetra University.

29. Dr. A. V. Rao,
Vice-Chancellor,
Lucknow University.

30. Dr. K. K. Datta,
Vice-Chancellor,
Magadh University.

31. Dr. Jyotindra M. Mehta,
Vice-Chancellor,
Maharaja Sayajirao University
of Baroda.

32. Shri S. R. Dongerkery,
Vice-Chancellor,
Marathwada University.

33. Shri S. P. Kotval,
Vice-Chancellor,
Nagpur University.

34. Dr. A. C. Joshi,
Vice-Chancellor,
Panjab University.

35. Dr. George Jacob,
Vice-Chancellor,
Patna University.

36. Mahamahopadhyaya
D. V. Potdar,
Vice-Chancellor,
Poona University.

37. Dr. Jodh Singh,
Vice-Chancellor,
Punjabi University.

38. Shri G. B. K. Hooja,
Vice-Chancellor,
Rajasthan Agricultural
University.

39. Dr. Mohan Sinha Mehta
Vice-Chancellor,
Rajasthan University.

40. Shri Sarangdhar Sinha,
Vice-Chancellor,
Ranchi University.

41. Shri G. Pande,
Vice-Chancellor,
Roorkee University.

42. Dr. M. D. Patel,
Vice-Chancellor,
Sardar Vallabhbhai
Vidyapeeth,

43. Shri S. Govindarajulu,
Vice-Chancellor,
Sri Venkateswara University.

44. Dr. A. G. Pawar,
Vice-Chancellor,
Shivaji University.

45. Smt. Premila Thackersey,
Vice-Chancellor,
Shreemati Nathibai Damodar
Thackersey Women's
University.

46. Dr. P. K. Parija,
Vice-Chancellor,
Utkal University.

47. Shri K. A. S. Stevenson,
Vice-Chancellor,
U.P. Agricultural University.

48. Shri S. N. M. Tripathi,
Vice-Chancellor,
Varanaseya Sanskrit
Vishvavidyalaya.

49. Dr. G. L. Datta,
Vice-Chancellor,
Vikram University.

50. Shri Satyavrata Sidhantalankar,
Vice-Chancellor,
Gurukul Kangri
Vishwavidyalaya.

51. Dr. B. P. Pal,
Director, Indian Agricultural
Research Institute.

52. Dr. R. S. Krishnan,
Director-in-Charge, Indian
Institute of Science, Bangalore.

53. Dr. A. Appadorai,
Director, Indian School of
International Studies,
New Delhi.

54. Prof. M. Mujeeb,
Sheikh-ul-Jamia,
Jamia Millia Islamia,
New Delhi.

Ministry of Education

1. Shri Raja Roy Singh.
2. Smt. Muriel Wasi.

Ministry of S.R. & C.A.

1. Shri G. K. Chandiramani.
2. Shri L. S. Chandrakant.

Planning Commission.

1. Shri K. L. Joshi.
2. Shri D. P. Nayar.

University Grants Commission.

1. Shri S. Mathai.
2. Shri N. N. Iengar.
3. Dr. P. J. Philip.
4. Dr. V. S. Patankar.
5. Dr. S. Bhattacharya.
6. Dr. R. C. Gupta.
7. Shri R. K. Chhabra.
8. Dr. D. Shankar Narayan.
9. Dr. R. D. Deshpande.
10. Shri S. Viswanath.

Inter University Board

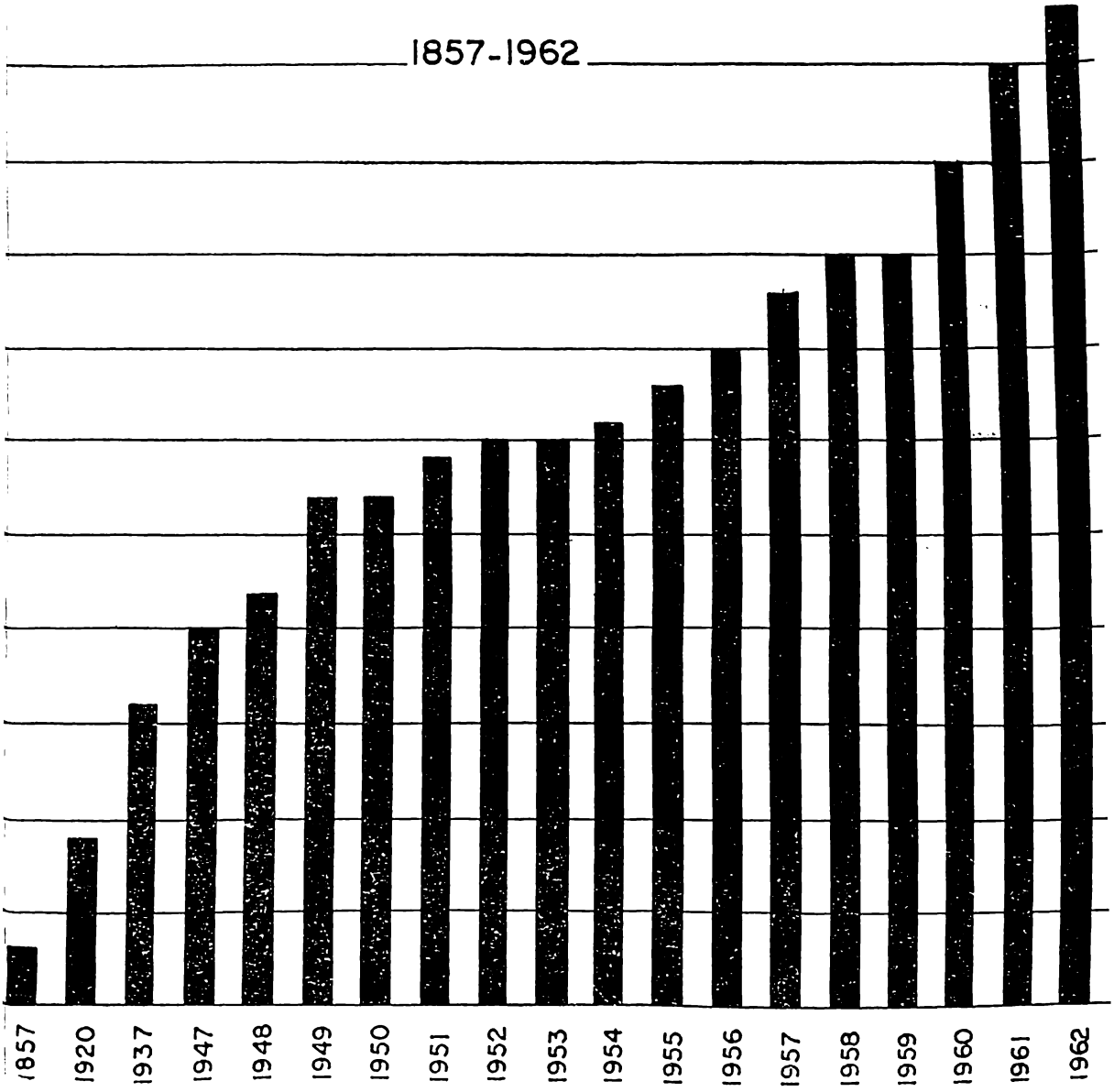
Dr. B. D. Laroia.

Information Officer

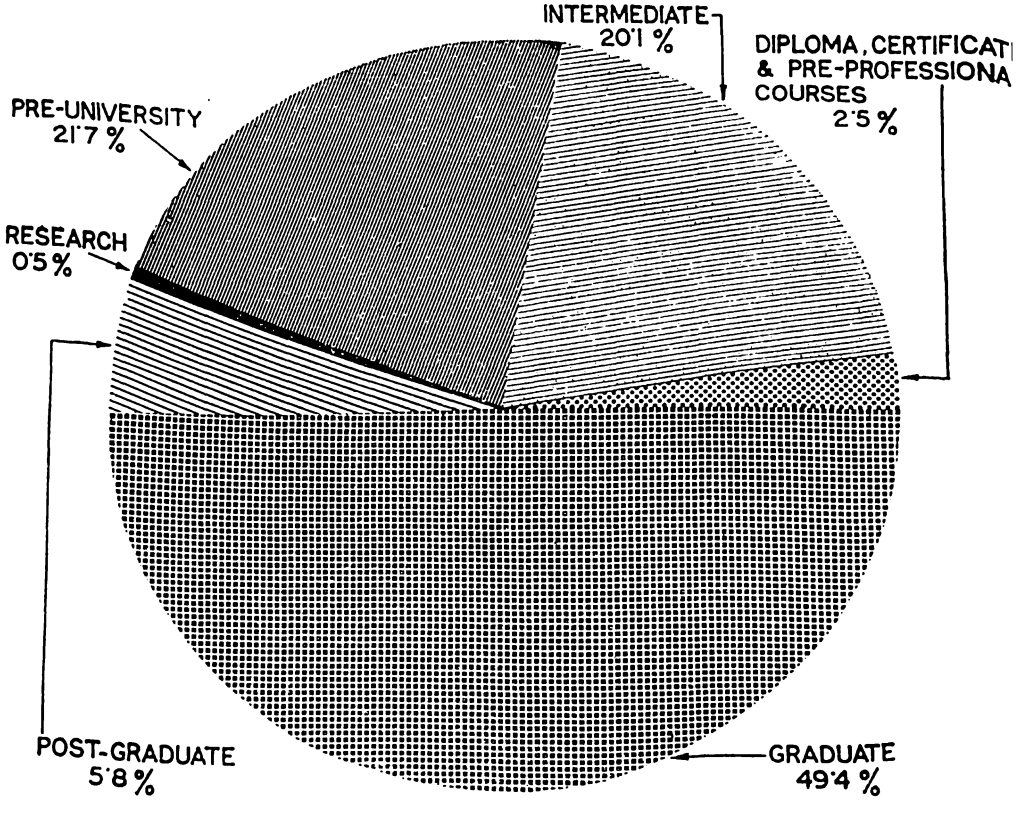
Shri B. R. Bowry.

NUMBER OF UNIVERSITIES IN INDIA

1857-1962

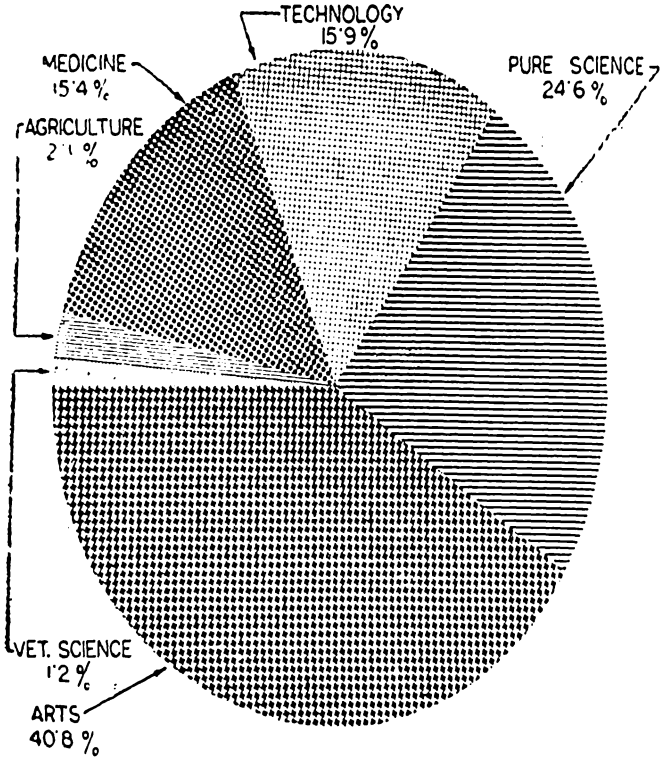


UNIVERSITY ENROLMENT IN DIFFERENT COURSES (INDIA—1961)

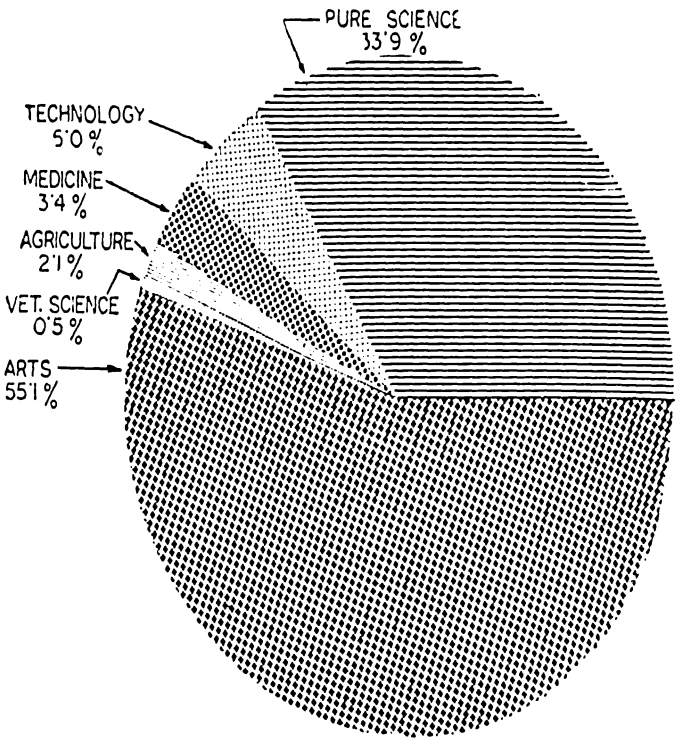


FACULTY-WISE ENROLMENT FOR INDIA & U.K.

(FIGURES FOR INDIA INCLUDE INTER AND PRE-UNIVERSITY COURSES)



U.K.
1959-60

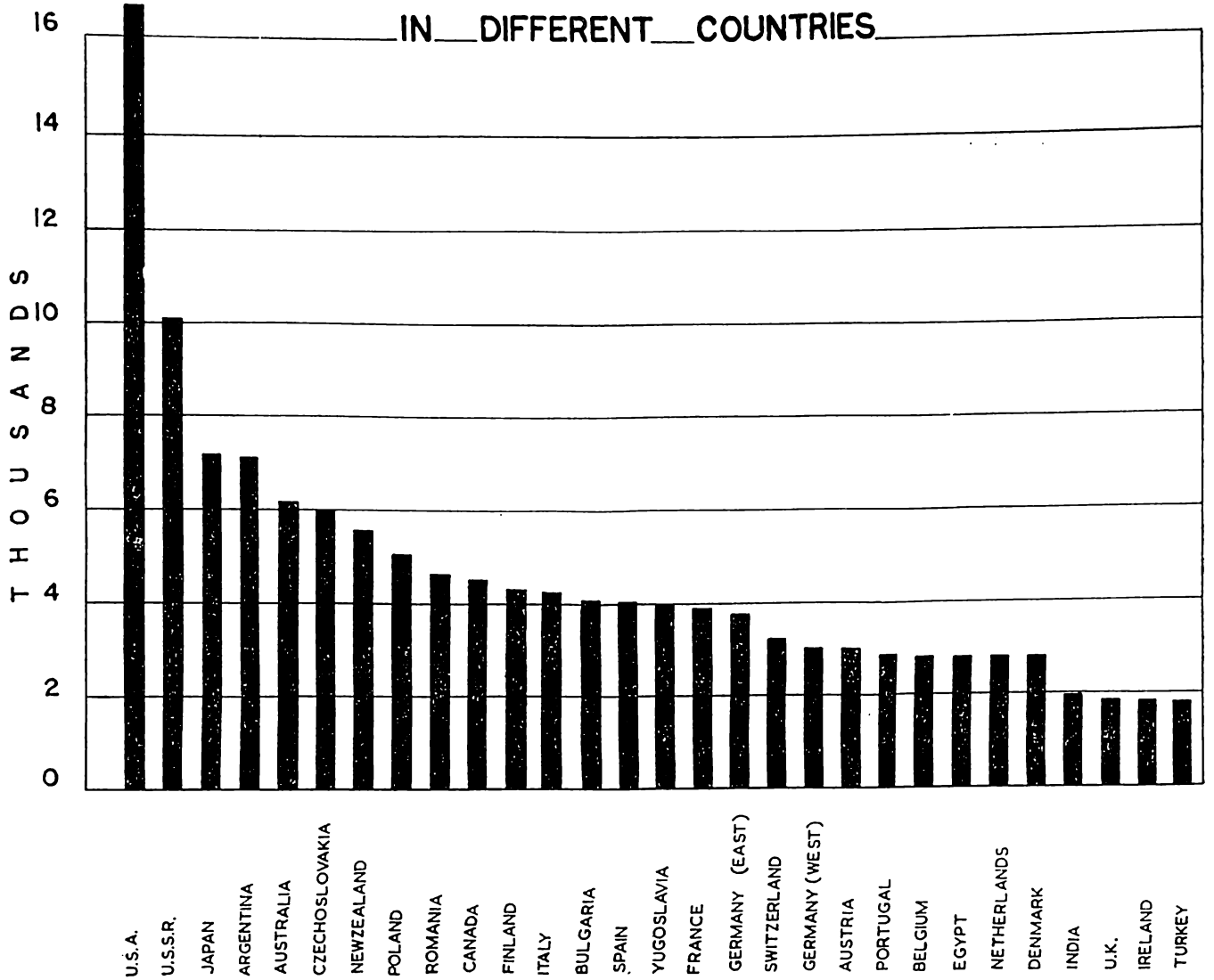


INDIA
1961-62

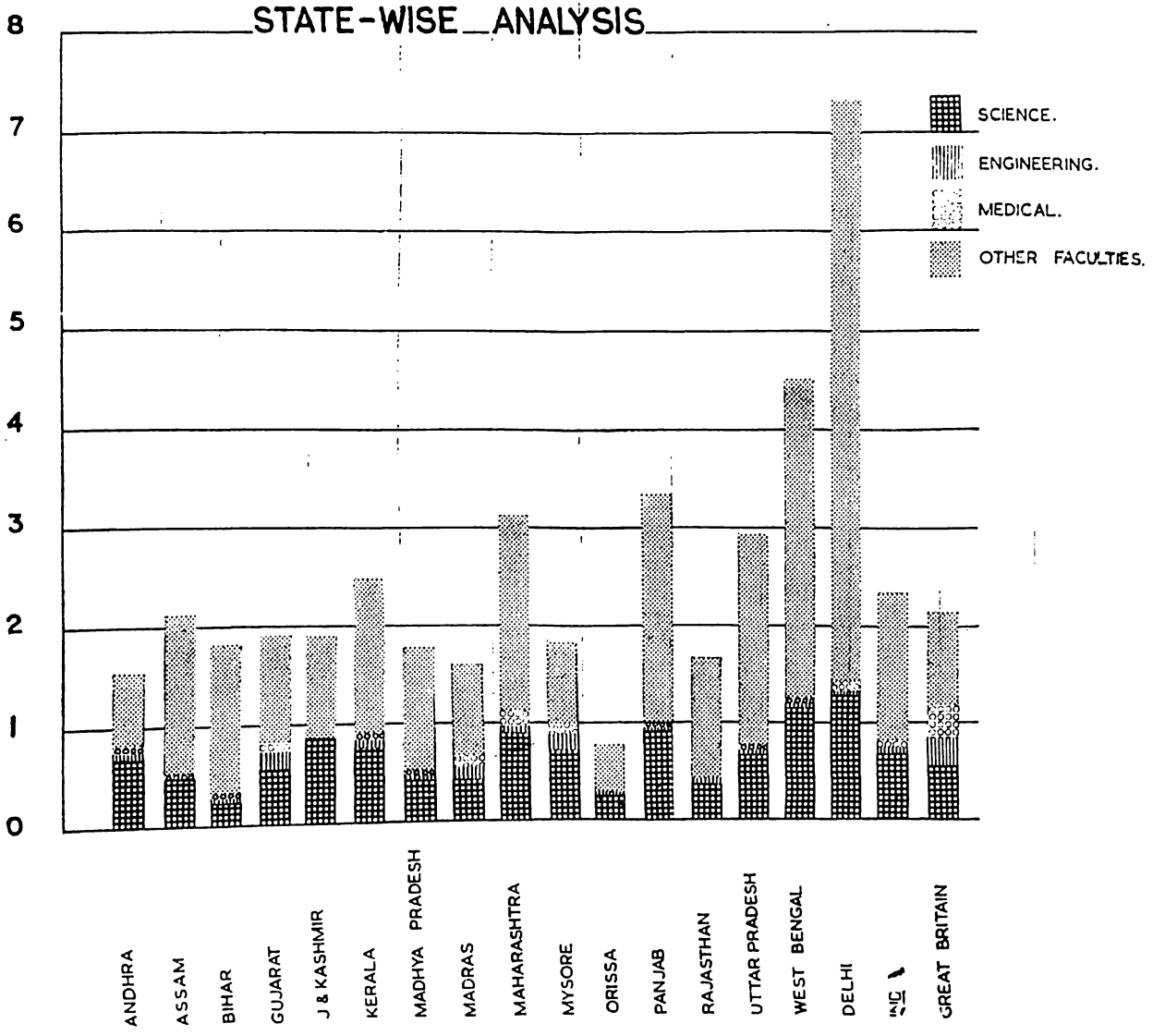
NUMBER OF UNIVERSITY STUDENTS PER MILLION OF POPULATION

1957

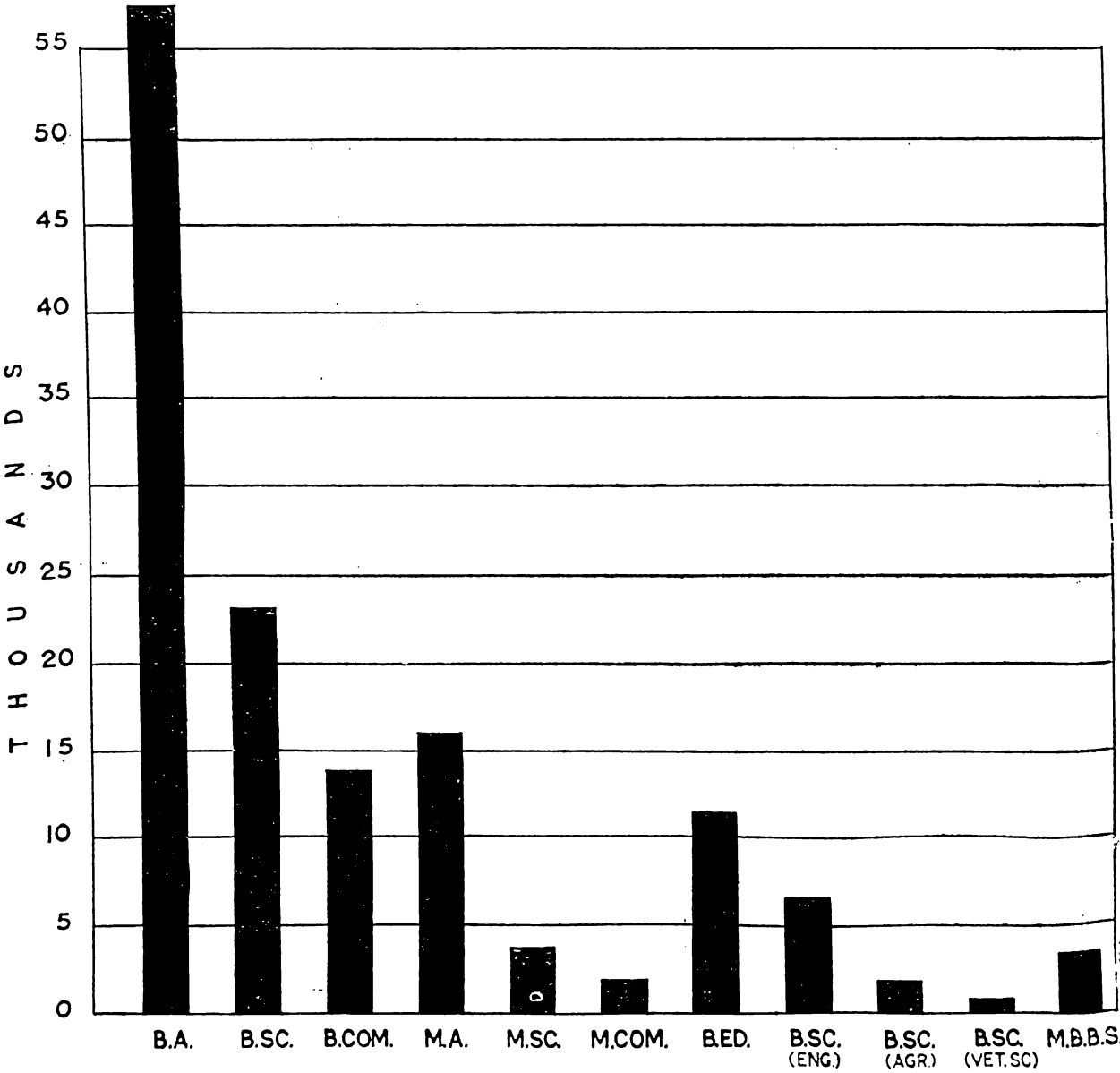
IN DIFFERENT COUNTRIES



NUMBER OF UNIVERSITY STUDENTS PER THOUSAND OF POPULATION
1960



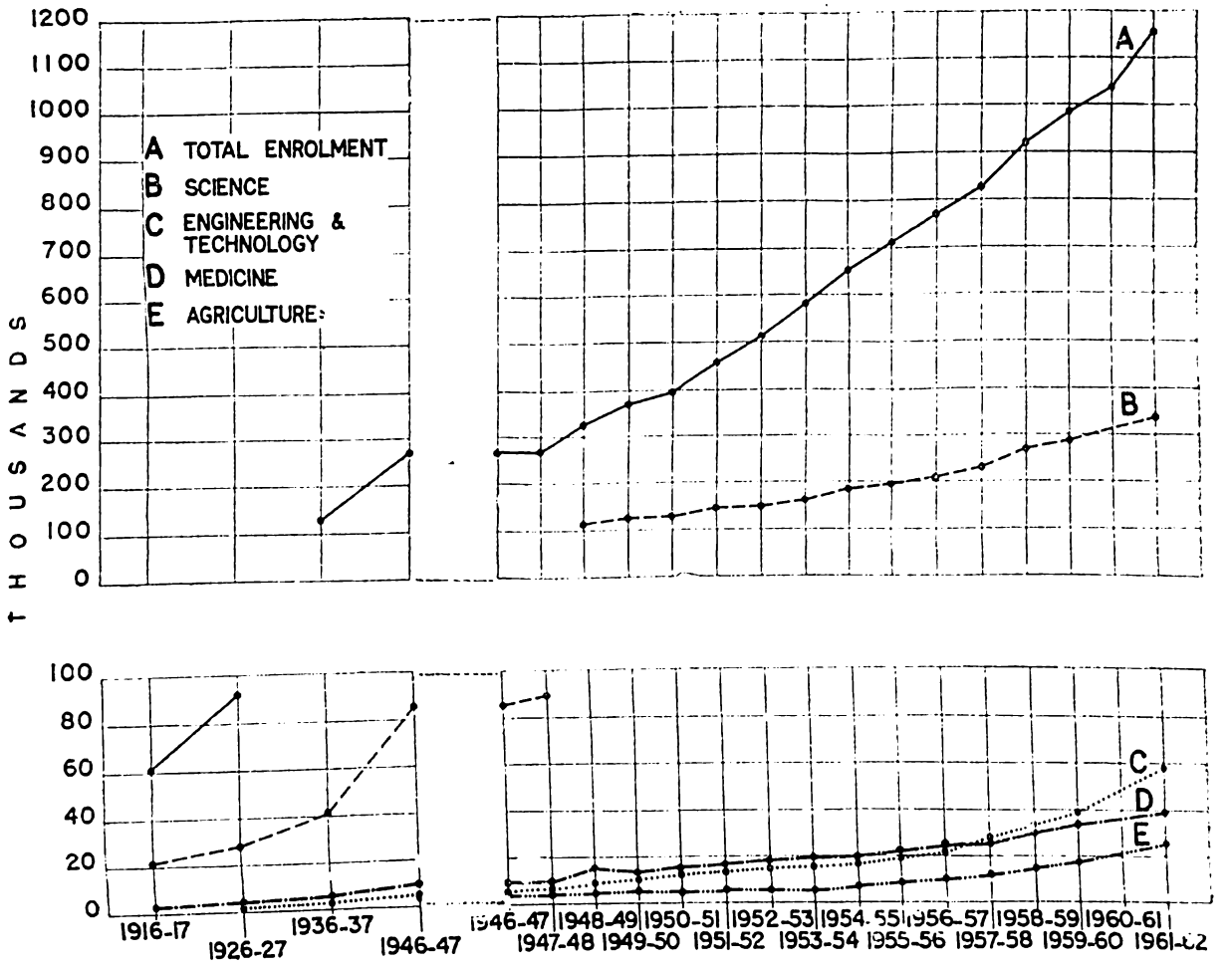
OUT-TURN OF GRADUATES AND POST-GRADUATES IN INDIA
1960

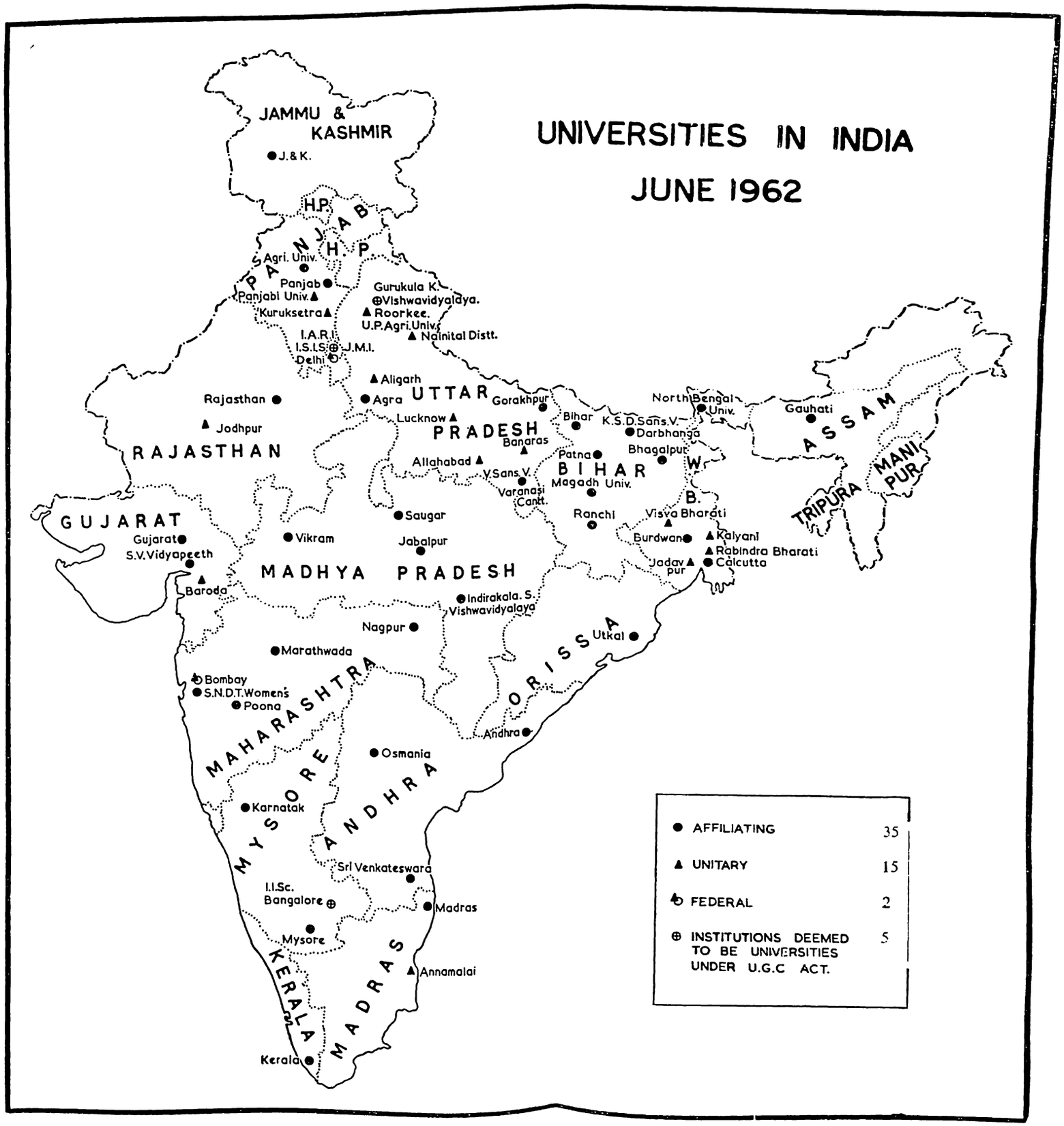


TOTAL UNIVERSITY ENROLMENT WITH FACULTY-WISE BREAK-UP (INDIA)

(INCLUDES INTERMEDIATE AND PRE-UNIVERSITY STUDENTS)

1917 TO 1962




UNIVERSITIES IN INDIA
JUNE 1962
JAMMU & KASHMIR
J.& K.
H.P.
PANJAB
H.P.
Agri. Univ.
Panjab
Panjabi Univ.
Kuruksetra
Gurukula K.
Vishwavidyalaya.
Roorkee.
U.P.Agri.Univ.
Nainital Distt.
I.A.R.I.
I.S.L.S.
J.M.I.
Delhi
Aligarh
Agra
UTTAR
PRADESH
Lucknow
Gorakhpur
Rajasthan
Jodhpur
RAJASTHAN
Banaras
Allahabad
V.Sans.V.
Varanasi Cantt.
Bihar
K.S.D.Sans.V.
Darbhanga
Bhagalpur
Patna
BIHAR
Magadh Univ.
W.
B.
Ranchi
Visva Bharati
Burdwan
Kalyani
Rabindra Bharati
Calcutta
Jadav pur
North Bengal Univ.
Gauhati
ASSAM
MANI PUR
TRIPURA
GUJARAT
Gujarat
S.V.Vidyapeeth
Baroda
Vikram
Saugar
Jabalpur
MADHYA PRADESH
Indirakala. S. Vishwavidyalaya
Nagpur
Utkal
ORISSA
Marathwada
Bombay
S.N.D.T.Women's
Poona
MAHARASHTRA
Andhra
Osmania
MYSORE
ANDHRA
Karnatak
Sri Venkateswara
I.I.Sc. Bangalore
Madras
Mysore
Annamalai
KERALA
MADRAS
Kerala
AFFILIATING 35
UNITARY 15
FEDERAL 2
INSTITUTIONS DEEMED TO BE UNIVERSITIES UNDER U.G.C ACT. 5