Universities and the New National Effort

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Summary. In reassessing the role of government, many Americans have agreed that public expenditures should be curtailed. Although our universities must bear their full share of the sacrifices, some of the Administration's recent proposals would be to the detriment of the country. Drastic cuts in student aid, for example, will not encourage young people to seek the best possible education and training; reductions in federal funds for scientific instruments and facilities will mean that our laboratories will deteriorate, our accomplishments will be fewer. The success of American science has depended heavily on the talent that came from Europe at the time of World War II. Today that source has largely disappeared, and if we cannot replace it with exceptional young investigators of our own, the quality of our universities and the vitality of our science will diminish.

For all of us, the 1970's were trying and tumultuous, beginning in a time of war and protest and proceeding through the revelations of Watergate, the resignation of a President, the formation of OPEC, the soaring growth of interest rates and inflation, and the long incarceration of the hostages in Iran. Amid these shocks and surprises we had few triumphs and knew few heroes. If there is any legacy from this decade, it is a deep concern over the nation's ability to manage its problems and maintain its strength and forward motion.

The end of the decade has brought a sharp reaction. A new President has taken office determined to move forward in a markedly different way. His programs are controversial and his remedies still untried. But, whether we agree or disagree with what he proposes, his election does reveal a broad consensus in support of certain basic propositions.

- Most Americans now agree that the nation has not been functioning well and that a major effort will be needed to rally the country and energize its institutions.
- After many frustrations and disappointments, most Americans also seem to agree that the government has attempted to do too much and that private institutions and individuals must assume greater initiative if we are to succeed in regaining our momentum.

In short, the country has embarked upon a search for some new definition of the respective responsibilities of the public and private sector in a common quest for greater progress and prosperity. As this new era begins, it is fitting for major universities to consider what role they should play in this new national effort. I do not mean to ignore their traditional goals of serving the larger ends of expanding knowledge, preserving culture, and helping individuals to live fuller, more inquiring lives. Indeed, it is not a university's prime purpose to address immediate social issues. Yet, if society is to resolve its problems, it will surely need the help of many able, well-prepared people, as well as new ideas and discoveries. For better or for worse, universities represent the country's principal source of talented people and new knowledge. As a result, we have a duty to use our resources not only to serve the larger ends of learning and culture but to address society's more pressing needs.

Over the past few years, we at Harvard have been carefully reviewing our aims and activities, especially in the professional schools, with these social responsibilities clearly in mind. The education faculty, for example, at a time of wide dissatisfaction with the quality of public education, has redirected its efforts to bear more heavily on the problems of our public schools. We have developed a new curriculum to train those who plan and administer our systems of education at the state and metropolitan level. And we are preparing a fresh array of programs for principals of individual schools. These new initiatives have been selected deliberately to focus our efforts on those participants in public schooling who have the greatest opportunity to exercise leadership and bring about constructive change.

In medicine and public health, we have tried to address the public concern over the staggering costs of medical care. Since a dollar of prevention can avoid many dollars of cure, we are strengthening our efforts in toxicology, nutrition, and environmental health. We have developed extensive new programs to train those who plan and administer our health care systems. And we are using new methods to evaluate medical technology and practices in order to achieve greater efficiency in the provision of acute health care.

In our school of government, we have launched an experiment to provide a more rigorous professional education than has ever been devised for those who seek responsible careers in public service. We have programs not only for recent college graduates at the beginning of their government careers but for congressmen, mayors, generals, admirals, and established public officials at the federal, state, and local levels. By attracting able students and providing them with the best attainable professional training, we mean to supply whatever education can provide to help meet the public demand to improve the quality of our government.

In the years ahead, it is clearly our duty to continue and strengthen similar efforts throughout the university. For example, in our law school, it will not be enough simply to prepare competent practitioners, important as that may be. The nation is not interested merely in competent lawyers; it is concerned about a legal system that is expensive and cumbersome for private institutions while often inaccessible and ineffective for large numbers of the poor and middle class. If our law faculty is to exercise leadership, it must find a way to address these problems.

In the same fashion, the business school cannot occupy itself entirely with the preparation of able general managers. It must press forward with the efforts already under way to explore the major problems of the corporate sector in our society—how to increase the rate of productivity and technological

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change; how to resolve the ethical dilemmas of corporate life; how business and government can work more effectively together; how corporations can be held accountable in a society where competition does not provide a perfect discipline and traditional government controls seem so imperfect and unsatisfactory.

Elsewhere in the university we must seek to address other human problems, ever mindful of the fact that as an independent institution it is our special responsibility to attend to issues that are truly fundamental to the society in the long run, whether or not they happen to enjoy much public favor at the moment. Specifically, we must continue to work at the problems of arms limitation, recognizing that the threat of mutual annihilation remains the single greatest danger to the survival of our civilization. We must continue to devote our time and energy to the problems of population and economic development, remembering that poverty in the underdeveloped world represents the greatest source of human suffering and a principal threat tc peace and stability in the world. We must continue to reach out to attract the ablest students we can find in our minority populations, recognizing that the preparation of able Blacks and Hispanics for responsible positions in society represents the surest path to greater racial equality and understanding.

In moving forward on this broad agenda, we can accomplish much of what is needed through our own resources with the help of our alumni and friends. But like it or not, we have learned over the past 30 years that universities cannot fully meet society's needs without assistance from the federal government. Early in the postwar period, we found that research in the physical, biological, and medical sciences could only progress satisfactorily with substantial government support. Some years later, higher education found it impossible to accommodate huge increases in the student population without federal assistance to train more Ph.D.'s and build new dormitories and classrooms. More recently, Congress has provided major support to achieve the ambitious goal of enabling all young people to have access to higher education in institutions appropriate to their needs.

By and large, these programs of federal support have achieved their purposes, so much so that American science and American universities have come to be widely recognized as preeminent in the world. Today, however, the role of government is being reassessed, and a judgment has been made that public expenditures should be curtailed. In this environment, universities must bear their full share of the sacrifices. We cannot expect the government to balance our budgets nor can we look to Washington to support activities and programs simply because they are valued by our professors or helpful to our students.

As citizens, however, we should expect the government to assure the continuation of functions that are truly important to the welfare of society, especially when these functions cannot be discharged satisfactorily by private means alone. In a society so dependent on knowledge and able people, two responsibilities seem especially critical. First, the federal government should make certain that our most promising young men and women have the opportunity to obtain the best possible preparation for callings that are important to a healthy, progressive society. Second, the federal government must take steps to ensure that the highest quality of research can proceed in broad fields of inquiry that are important to the welfare of the nation.

Neither of these functions should be looked upon as assistance for the private needs of our universities. Instead, they represent essential investments in the future strength and vitality of the country and should be justified on that basis.

From this perspective, what are we to make of the proposals now being considered by the Congress and the new administration? Have these bodies gone far enough in reducing waste and cutting back on nonessential programs? And will they maintain the support that is critical to preserve the quality of education and research in fields important to our common welfare?

As we examine what is being proposed, many cutbacks seem eminently sensible. To choose but one illustration, no one who is serious about the need for fiscal restraint can protest the fact that well-to-do parents will no longer be allowed to take advantage of federally subsidized student loans. Other cuts will be painful but understandable. For example, the government has long given several thousand dollars to our medical schools for each student enrolled. We have benefited from these funds and have tried to use them well, yet I could not honestly assert that the quality of education available to doctors will decline significantly if these grants are brought to an end.

Other proposals raise more serious concerns. For example, the Administration has called for drastic cuts in student aid that could increase the cost of repaying educational loans as much as 50 percent. Such burdens would be difficult enough for undergraduates. But they would be particularly severe for students seeking to go on to graduate or professional schools after accumulating debts that often run to $10,000 or more. For many of these students, the consequences would be clear. Either they would turn in greater numbers to careers in medicine, law, and business where they can expect to earn large starting salaries to repay their debts; or they would enroll, not in the institutions they prefer, but in schools that offer an education at the least possible cost. In either case, the nation would suffer. Many able students would have to abandon plans to enter the ministry, or government service, or public school teaching—despite an acute national need to attract greater talent into these callings. Other able men and women still seeking to enter these vocations would be unable to obtain the best preparation and would settle instead for the least expensive training.

These problems strike with particular force on those who are considering a life of science or scholarship. It is true that the nation has produced too many Ph.D.'s over the past 10 years and that the prospects for a career in academic life are very limited indeed. At such a time, no one would argue that the government should mount a broad-based program to support large numbers of doctoral students. But the nation will always have a vital stake in continuing to attract to university faculties that small number of unusual people with the special talent to make important contributions to knowledge. If anything, this need has become even more critical today.

Too few of us realize how much the success of American science has depended on the wealth of outstanding talent that came to us from Europe during the decades that surrounded World War II. Today, that source of talent has largely disappeared. If we cannot replace it with exceptional, young investigators of our own, the quality of our universities and the vitality of our scientific work is bound to diminish. In these circumstances, it is surely shortsighted to abolish the program of National Science Foundation fellowships that supports the 480 ablest young people each year for advanced study in the sciences. If students of this caliber are not encouraged to enter careers of research, the loss will be irreparable, since we will never benefit from the contributions they might make to fields of knowledge essential to the nation's progress.

Other proposals under consideration pose further threats to the quality of research in this country. Over the past 15 years, federal appropriations for basic research have at least held their own in constant dollars. But federal funds for scientific instruments and facilities have fallen by more than 50 percent in real terms even as the costs of equipment and laboratory renovation have been rising much faster than the cost of living. The effects of this process are now becoming painfully clear. We know that the average age of the equipment in our university laboratories has grown to twice that of the major industrial laboratories. We also know that the quality of our facilities has fallen even further behind the better laboratories in Western Europe and Japan. Despite these facts, added funds for scientific equipment have been stricken entirely from the budget. We should not delude ourselves about the consequences. The Nobel Prizes that our scientists are now receiving in such abundance almost always reward discoveries made at least a decade in the past. If our laboratories continue to deteriorate, our accomplishments will look very different when they are judged a decade hence. Without modern equipment, investigators cannot do their best work. If we neglect our facilities, the initiative in science will simply pass to other countries that have chosen to make more determined efforts to provide the best environment for scientific work.

A final cause of concern is the sudden decision to reduce federal funds for research in the social and behavioral sciences by up to 75 percent. We can all agree that social science research is extremely difficult and that efforts to understand human behavior are often disappointing in their results. Even so, the fruits of such research are in evidence everywhere. The very means employed by the government to measure the gross national product, the rate of inflation, or the increase in productivity, the very methods used to forecast economic growth and unemployment, to estimate the deficit in the federal budget, to survey public opinion—even our knowledge about the burdens of government regulation and the basis for regulatory reform—are all the products of social science research.

Our ignorance about many social phenomena is acute, and such ignorance costs us dearly. We know too little about the reasons for changes in productivity, yet the decline in our productivity is a subject of intense national concern. We lack the knowledge to minimize unemployment, yet every added percentage point in the unemployment rate costs us $70 billion each year. I need not speak of the price we pay for our failure to comprehend the causes of crime or the motivations that lead millions to indulge in habits injurious to their health, or the learning difficulties that consign so many children to a state of functional illiteracy. Although the problems in carrying out such research are very great, the costs of ignorance are even greater. In such circumstances, it would be unfortunate not to make the modest investments required to continue research of the highest quality.

In making these remarks, I do not mean to join the parade of special pleaders seeking lower government appropriations for all institutions save their own. In higher education, the issue is not how much federal support to provide but how it should be allocated. Even as the government considers the spending cuts I have described, further proposals have been made with bipartisan support to offer a tax credit of $500 per family for each student attending a college or university. By 1985, the resulting loss of tax revenues would exceed $4 billion per year. No one knows how much of this money would benefit the families of America and how much would accrue to colleges and universities through larger increases in tuition. In either case, the funds involved would pass to taxpayers and universities without regard to need and with little heed for the contribution that such sums would make to the progress and vitality of the society. At a time of fiscal austerity, I would seriously question any decision to use public resources in this manner while neglecting less expensive programs that represent a more important investment in the future welfare of the country. (I do not address these remarks to the separate question of providing tax credits to offset tuition for private primary and secondary schools.)

The problems I have described remind us how important it is to build an effective partnership between the government and our universities, especially in a nation so dependent on new discoveries and able people. In the past, this partnership has succeeded in its major task of lifting American research and higher education to levels unparalleled in the world. And yet, we must acknowledge that mistakes have been made, at times by spending too much federal money and at times by appropriating too little.

Such errors are always unfortunate. During times of austerity, they become particularly costly. And yet, current procedures give us little assurance that public resources will be expended wisely. Critical choices are made by the Office of Management and Budget and by congressional staff with insufficient knowledge of their impact on important educational needs. In recent years these problems have grown much greater with the changes made in federal procedures for budgeting and appropriations. At the same time, representatives of our universities testifying before the Congress often assume an adversary role and defend each program and subsidy with too little regard for its true contribution to society. If we are to improve the quality of the results, a better procedure must be devised. It is the government's responsibility to decide how much money can be spent and to define the larger goals of education and research to which these funds should be directed. But people knowledgeable in science and education must have a better opportunity to engage in careful discussions to enlighten the government in deciding how to expend the sums available to achieve its public purposes. Through such a process, universities can make a genuine contribution to the nation's welfare even in time of fiscal restraint. Without a better dialog, we endanger the leadership in science and education so essential to the nation's welfare. The consequences of our mistakes will never appear in any balance sheet; they will emerge very slowly over many years. But emerge they will, and the results will cost us dearly. As Alfred North Whitehead once declared:

> In the conditions of modern life, . . . the race which does not value trained intelligence is doomed. Today we maintain ourselves. Tomorrow, science will have moved forward yet one more step, and there will be no appeal from the judgment which will be pronounced on the uneducated.

In the interests of the country, it is important never to allow ourselves to suffer this fate.