

## INTERVIEWED KHRUSHCHEV

Well traveled abroad, Davis can claim what few others can—a personal interview in 1959 with Soviet Premier Nikita Khrushchev.

His wife, Pauline, was a constant companion in Davis' many political campaigns, including the blistering pace set in a 1960 special election when Davis, by a close 1,118 votes, lost a U.S. senate seat to the current Democratic incumbent, Sen. QUENTIN N. BURDICK.

His popularity within his administration was shown that year as state officials fled through the governor's reception room with tears in their eyes to bid Davis farewell as he left the governor's office.

But Davis continued his party work, was named state Republican chairman and later, in 1964, made an unsuccessful bid for party endorsement to run against Burdick once again.

## NOW LIVES IN BISMARCK

The Davises currently live in Bismarck They have three children. He is a native of Goodrich, the town near which the Davis ranch still operates.

During his service as governor, his associates recall Davis as "a man always ready to listen and discuss problems and whose office door was always open to those he served."

He has an amazing ability to recall names—first and last—and if there's a Legionnaire who doesn't know of him, it's a cinch they will before his term ends.

## A GOOD APPOINTMENT TO THE FEDERAL POWER COMMISSION

Mr. GRUENING. Mr. President, the President has made an excellent choice in selecting John A. Carver, Jr., for appointment to the Federal Power Commission. No more important responsibilities are exercised by agencies of the Government than the regulation of utilities serving basic needs of society. The effective regulation of suppliers of the essential commodities subject to the jurisdiction of the Federal Power Commission is of special importance to every consumer in the United States. The power that provides individual homes with necessities of light and heat as well as myriad conveniences of modern civilization and which also drives our commercial and industrial system is an indispensable ingredient of American life. Its value cannot be counted, but the cost which those using it must pay must be fairly determined and established at a just and reasonable rate.

For more than 35 years, I have had a deep and abiding interest in matters affecting the public interest in the regulation of basic utilities and have fought consistently for effective administration of legislation establishing regulatory standards.

In 1931 I published a book, "The Public Pays," republished in a new updated edition in 1964, in which are recounted the callous abuses of the public interest by the private electric power utilities that had been permitted to occur during the decade of the 1920's in the absence of any meaningful regulatory controls. "The Public Pays" tells the story of the cynical and unscrupulous propaganda campaign of the self-styled investor-owned utilities which was meant to crush the then emerging consumer-owned power systems, destroying the whole public power movement. When

the book was reissued it included additional material from more recent experience proving that nothing has changed in the purpose of the privately owned utilities to drive out of business publicly owned electric systems and destroy any meaningful regulation of their own activities.

The consumers of the United States have, in fact, no effective protection of their interests except for the regulatory Commissions of the Federal, State, and local governments. The members of these Commissions, and this is especially true of the Federal Power Commission, have the vital responsibility of controlling acts of private utilities to guard the public from damaging assaults on the cost of living. At this time, when our economy seems unstable because of violent changes resulting from war, the role of the economic regulatory agencies of the Federal Government is particularly sensitive and must be exercised with exceptional care.

No regulatory agency can be better than its members. The difficult and frequently controversial nature of the regulatory power requires the assignment to these commissions of the highest caliber of public servant. These appointments demand selection of individuals who are not only able but courageous in their vigilance to protect the public interest.

John Carver's record as Assistant Secretary of Interior for Public Land Management and as Under Secretary of the Department of the Interior assures me Mr. Carver will be a valuable member of the Federal Power Commission. His ability and integrity are unquestioned. He can be depended upon to be a fair judge of the complex issues with which he will have to deal and I know he will be a strong protector of the public interest at the Federal Power Commission, as we all know he has been at the Department of the Interior.

## SUPPORT OF OUR FIGHTING MEN IN VIETNAM

Mr. TOWER. Mr. President, I want to call my colleagues' attentions to the formation of a group of persons who are organizing in Dallas in support of our fighting men in Vietnam. In fact the organization is called Support.

The peculiar characteristic about this group is that it is composed of families of men who are stationed in Vietnam. The worthy aim of these courageous people is to vocalize their support for our Nation's Vietnam policy, and to register their approval of our present southeast Asian confrontation with communism.

I ask permission to have printed at this point in the RECORD an editorial from the Dallas Times Herald in support of Support.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

[From the Dallas (Tex.) Times Herald, Aug. 26, 1966]

## TO RIGHT AN INJUSTICE

One of the great injustices of our time in this nation is that many of those who fight one of the dirtiest, most vicious wars in our

history and many of the parents and wives and other relatives of those who are sent to fight it, feel they have been abandoned by the American people.

Said the mother of a son fighting in Viet Nam: "The general public is really unaware of the war and the loss of lives there. Except for those of us who have loved ones fighting and dying in this war, the public doesn't seem to know or care what is going on in Viet Nam. There are no gold stars for windows in this war."

Neither, she said, are there any other signs of public recognition of the sacrifices of families whose sons and husbands and brothers are serving their country in this war. Actually, many wives and relatives of servicemen in Viet Nam are reluctant to display bumper stickers available to them from some veterans organizations because of fear of reprisal and vilification by anti-war extremists.

"Each of us feels isolated in a terribly tragic situation," she said. "There are lots of families being hurt by this war, lots more than the general public realizes. And many more will be hurt as the war goes on."

This terrible hurt to the individual family was simply and poignantly expressed in a letter to this paper by another mother whose son died valiantly. "Our son was only 20, a boy to us, but a man among men. We miss him very much."

We make these points particularly to urge backing for a new group here, called Support. Inspired by Times Herald correspondent Warren Bosworth's stories of the war, the organization was set up by a group of relatives of servicemen in Viet Nam. It is seeking to rally backing for these servicemen, to reassure them that they are not "forgotten men in a forgotten war," as Bosworth wrote. "We are trying to instill some spirit into the public," one leader of Support said.

The organization also is trying to bring what aid and comfort it can to families whose loved ones have died in Viet Nam. SUPPORT deserves all the help and backing we can give it.

## ADVISORY COMMISSION ON INTER-GOVERNMENTAL RELATIONS

Mr. KENNEDY of Massachusetts. Mr. President, on August 10 I spoke on the Senate floor on the need to build an effective communications system between local, State, and Federal levels of government. I introduced at that time Senate Joint Resolution 187, which would authorize the Advisory Commission on Intergovernmental Relations to study and design a national information system utilizing advanced informational technology which would provide State and local executives with the information they need to achieve the fullest utilization of Federal programs and assistance. As I visualize this system, it would also provide the kind of systems analysis and information data necessary to enable both Congress and the administration to oversee the enactment and administration of Federal programs. Such oversight should permit the implementation of a coherent national agenda of priority programs, rather than the present practice of legislating piecemeal in a random fashion. I am hopeful that hearings on my proposal can soon be held before the Subcommittee on Intergovernmental Relations.

Since the joint resolution was introduced almost a month ago, I have heard from a great number of organizations both within and outside the Government

indicating their support for the development of such an information system, and the desperate need which presently exists for this kind of initiative. I was particularly heartened by the interest shown by officials of the Bureau of the Budget. In particular, I have read with great interest a paper prepared by Mr. Willard Fazar for delivery at the annual meeting of the American Political Science Association. Mr. Fazar, who is with the Bureau's Office of Management and Organization, reviews in great detail the many factors responsible for our present crisis in communication. He documents the fragmentation of effort which is going on in the development of information systems, and he makes a persuasive case for the development of an informational system along the lines I have suggested in my joint resolution.

I believe Mr. Fazar's paper is extremely informative on this subject, and I ask unanimous consent that it be printed at this point in the RECORD.

There being no objection, the address was ordered to be printed in the RECORD, as follows:

FEDERAL INFORMATION COMMUNITIES: THE SYSTEMS APPROACH

[Abstract]

The need for better information management in government stems from recent developments which include the accelerated pace of change, the increased complexity of government responsibilities and programs, the growth of new knowledge and explosion of documentation, the skyrocketing of Federal grants-in-aid to states and localities, and the institution and spread of the Planning, Programming, and Budgeting System (PPBS) at many levels of government. With the expanded adoption of the systems approach and with the availability of modern, multiple-access, time-shared computer systems capable of storing very large data bases and serving many users simultaneously, the ability to deal with many of these developments has increased greatly.

Despite the variations in government agency missions and in the information substance required, there is considerable duplication and overlap in information requirements, processes, and problems faced within and among the many agencies of government. A great fragmentation of effort has been expended to deal with the information management problem through the creation of numerous information systems and centers to serve a wide variety of special purposes at all levels of government. This experience has led to the natural evolution of the concept of an "information community." The members of a given information community would share their common needs for information substance, analyses, and processing. This paper will develop the concept of an information community and describe some explicit efforts directed toward employing the systems approach for better information management in various Federal communities.

In order to create a mechanism for insuring that the significant and interrelated elements of the information management problem are considered in a complete and integrated fashion, the systems approach is vital. The systems approach calls for analysis of the entire problem in a community to draw together the elements that must interact effectively for integrated information management. This analysis, expressed in narrative, diagrammatic, and quantitative terms, should be supported by the application of the tools of management science and operations research. The need for this approach will be

revealed in this paper by the citation or description of various independent and community efforts being experienced in Federal, State, and local governments.

FEDERAL INFORMATION COMMUNITIES: THE SYSTEMS APPROACH

(By Willard Fazar, Executive Office of the President, Bureau of the Budget, Office of Management and Organization, prepared for delivery at the 1966 annual meeting of The American Political Science Association, New York City, Sept. 6-10, 1966)

(NOTE.—The views expressed in this paper are solely those of the author and do not necessarily reflect the views of the Bureau of the Budget.)

This paper is intended to illuminate the complex problem of advancing information management in government. It will focus on efforts in the Federal Government and interrelate them to the efforts and needs of State and local governments. It will present the systems concept as an effective approach for moving toward more effective and coordinated information management within and among government information communities.

Information is a primary resource for prosecuting the missions and for achieving the objectives of all levels of government. Getting the right information to the right people at the right time is the goal toward which we must progress for the benefit of all types of management action and decision-making in government. The need for improvement has been dramatized through such descriptions of the problem as "the information dilemma," "the information crisis," "the information explosion," "the information revolution," and "the paperwork jungle." The problem is so large in scope and so great in complexity that it defies description in a few pages of text.

Nevertheless, with your forbearance, what is being done and what should be done to achieve the information management advancements essential for more effective management and decision-making within and among the various levels of government—Federal, State, and local—will be synopsized in the text that follows.

THE SETTING

The urgency for better information management in government is emphasized by a variety of significant and continuing developments that make up the setting for today's information predicament. Many of these developments are so intertwined that they prod each other onward further to confound the information management problem. A brief review of some of these developments may help you to appreciate their impact on the information quandary that has grown faster than our capacity to cope with it. For example:

The growth of new knowledge. For many decades we have experienced an exponential growth of new knowledge. This growth is reflected by the increases in average holdings at ten university libraries founded before 1831. Their average holdings have doubled every 16 years, from about 12,000 volumes in 1835 to 200,000 volumes in 1900 to more than 1,000,000 volumes in 1940,<sup>1</sup> and over 2,000,000 volumes today.

The accelerated pace of change. Since World War II, the pace of change, sometimes described as "the collapse of time," has accelerated beyond the wildest dreams of our forefathers. Almost daily, we create more significant innovations than could have been expected in an entire lifetime before the nineteenth century. Such innovations, changes, and "discoveries" spread over many fields that bear on man's behaviour, stand-

ards, and way of life—and include not only the fields of missile, aviation, and space but also medicine, land and sea transportation, communication, and education. The rising velocity of change challenges the capacity of today's managers to deal with today's dynamic issues, and to make the quality of decisions in the future for which they have traditionally won acclaim in the past.

The mushrooming of research and development. Federal expenditures for research and development have jumped more than 150-fold in less than two decades—from \$100 million in 1949 to nearly \$16 billion in 1966 and 1967. This rise has been accompanied by a corresponding increase in published scientific journals, technical reports, new books, and monographs. The world-wide number of scientific journals has grown from eight in 1700 to 100 in 1800, 10,000 in 1900<sup>2</sup> to well over 100,000 today. Some 100,000 technical reports are published each year in the United States as a result of Federally-sponsored R & D efforts. Between 1958 and 1962, the Senate Committee on Government Operations examined the information problem as related to research and development, and published several reports and prints with recommendations for improvement.<sup>3</sup> Many leading R & D administrators agreed with testimony presented to the effect that if a project would cost less than \$100,000 to complete, it was cheaper to duplicate the work than to learn whether it had been done before or was being done elsewhere.

The electronic computer and communications breakthroughs. Our capacity to store, process, and transmit vast quantities of information has advanced remarkably over the past decade. The number of computers used for handling and processing information in the executive branch of the Federal Government climbed from one in 1951 to more than 2,600 today. Continuing advancements are being made in computer speeds, in storage and processing capability, in reduction of size, and in economy so that the growth in number to be used in the United States is estimated to exceed 80,000 by 1975.<sup>4</sup> We are moving rapidly toward the widespread application of time-sharing of individual computers. Multiple-access to a single computer by a widespread variety of users who have remote but direct access terminals is now being practiced. Extensions under way in the state of this art will benefit both large and small users on either a continuous or an occasional basis.

In the words of William T. Knox,<sup>4</sup> "Part cause, and part effect of the tremendous growth rate shown above are the improvements (past and future) in computers. The size of computers will probably decrease by a factor of about 1,000 by 1980. Computer speeds will increase to a level of about one billion operations per second by 1980, and the cost per operation will have decreased by a factor of about 200 from present levels.

"Well before 1980, computers will be small, powerful, and inexpensive. Computing power will be available to anyone who needs it, or wants it, or can use it. The new situation will accent personal rather than organizational use. In many cases the user will have a small personal console connected to a large, central computing facility; in other cases he may have a small personal computer. Corresponding developments in man-

<sup>2</sup> "The Exponential Curve of Science," Derek de Solia Price, *Discovery*, June 1956.

<sup>3</sup> For example, *Interagency Coordination of Information*, Hearings before the Subcommittee on Reorganization and International Organizations of the Senate Committee on Government Operations, 87th Congress, Second Session, Sept. 21, 1962.

<sup>4</sup> *The New Look in Information Systems*, William T. Knox, U.S. Office of Science and Technology, July 1966.

<sup>1</sup> *Bibliography in an Age of Science*, Rid-enour, Shaw, and Hill, University of Illinois Press, 1951.

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come here today to this beautiful State of West Virginia where we have seen so many friendly faces in the last six years that we have come among you, to dedicate this important national project, this Summersville Dam, that will not only serve West Virginia, but will serve the entire people of the Nation who today have their eyes on a growing, on a coming, on a developing, on a proud people—the people of West Virginia.

Mrs. JOHNSON. Friends, to be present at the dedication of this dam is, to me, a very thrilling and hoped for moment.

As we flew across, we got the most impressive view of a magnificent dam. It is sort of a feeling that this is both the end and the beginning.

It is the end of a lot of planning and dreaming and fruition of work.

I think all the planners, the public servants and the engineers who helped bring it about are entitled to a "job well done".

It is also the beginning of a pleasant recreation area, for good family Sunday trips; with lots of visitors coming from everywhere in the United States.

I am happy to be here to see the beginning of it. I hope that for many years all Americans will enjoy this beautiful part of the country, as I have had the chance to do several times.

Thank you.

#### ELECTIONS IN SOUTH VIETNAM NEXT WEEK

(Mr. BROOMFIELD asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. BROOMFIELD. Mr. Speaker, some pundits are attempting to explain South Vietnam's election next week in terms of "right" versus "left."

But the issue in that embattled land is much more fundamental. It is a question of "right" versus "wrong."

Certainly, the Vietcong are taking the election of a South Vietnamese constituent assembly with deadly seriousness.

They have unleashed a wave of terrorism and assassination in an attempt to stop the election or to so disrupt the proceedings that "foul" can be called when the results are counted.

The reason for this Vietcong concern is the realization that this first step toward self-determination—the election of any assembly to draft a national constitution—could well mean the eventual end of rebel sanctuaries in the South Vietnamese countryside.

For the most part, farmers have taken the view that the war is really of little concern to them. It has been a battle between military government, which they distrust and often despise, and the forces of communism, which they find equally distasteful.

Since the farmers are taxed by both the regular government and the Vietcong, and since the armies of both have brought death to their families and destruction to their homes and crops, their attitude is at least understandable.

But what if the farmer loses this neutrality? What if he feels he has an ever-growing stake in the future of his country and in his central government?

The disappearance of peasant neutrality could mean the disappearance of the Vietcong as a fighting force in South Vietnam.

The Vietcong well realize that the ballot box could be a weapon as deadly as a bullet to the Communist cause, and that is why everything possible is being done to stop them.

Giving the farmer a stake in government, giving him a portion of the decisionmaking power in the drafting of a constitution and eventually electing his own leaders in his central government could mean an end to this neutrality.

What is sometimes forgotten is that the South Vietnamese held elections at the local level a year ago, and they were fair and honest.

Furthermore, voter turnout was considerably higher than in similar elections in the United States, even though many voters risked their lives to get to the polls and many candidates were assassinated by the Vietcong.

It has been expedient—but wrong—for us to support military dictatorship in South Vietnam. Let us hope that September 11 will mean a turn in the road toward a representative government in Saigon for the South Vietnamese.

Let us also hope that the 310,000 American troops in South Vietnam will offer maximum protection to voters on election day to protect them from terrorists attacks.

We need to pay more than lipservice to self-determination in Asia. We need positive action to back up our sometimes empty words.

#### TRIBUTE TO THE LATE DR. WILL MENNINGER

(Mr. MIZE asked and was given permission to address the House for 1 minute and to include a newspaper article.)

Mr. MIZE. Mr. Speaker, the entire world lost a great man yesterday by the death of Dr. Will Menninger, in Topeka, Kans. The outstanding work of Dr. Menninger and members of his family in the field of psychiatry has contributed tremendous knowledge toward the treatment of those who are mentally and emotionally sick.

By unanimous permission, I include an article on the passing of Dr. Menninger that appeared in this morning's Washington Post:

WILLIAM C. MENNINGER, PSYCHIATRIST, DEAD

Dr. William C. Menninger, who died yesterday at his home in Topeka, Kans., headed the Menninger Foundation, famed psychiatric treatment, training and research center. The center was founded by his father, the late Charles F., and his equally noted brother, Karl, who is chief of staff there.

Dr. Will, as he was known by top members of his profession, had suffered from lymphoma, a malignancy of the lymph nodes, which was discovered last January after exploratory surgery at the Mayo Clinic in Rochester, Minn.

He was given radiation treatment at that time and returned to Topeka in February. But a return visit to the Mayo Clinic was made in July and he went back to Topeka last month. He would have been 67 on Oct. 15.

FOUNDATION STARTED IN 1919

The Foundation was started as a clinic in Topeka in 1919. Dr. Will joined the staff in 1925 after receiving degrees from Washburn

College in Topeka, Columbia University and the Cornell University Medical College and interning at Bellevue Hospital in New York.

He became medical director of the clinic in 1930 and president of the Foundation in 1957. As the Foundation grew, he and his brother agreed that its most extensive operation should be training many types of workers in mental health and research. These activities took priority over private practice.

Dr. Will was no stranger to Washington. He had taken postgraduate work at St. Elizabeth Hospital in 1927. During World War II he was stationed here as director of the neuropsychiatry consultants division in the Office of the Surgeon General.

#### LECTURED HERE

In later years he visited Washington a number of times to lecture before mental health groups. In February, 1962, he appeared before a joint session of Maryland's Senate and House to urge budget increases for State mental hospitals. He had spoken before legislatures in at least 25 states as part of his effort to improve treatment of the mentally ill.

Dr. Menninger belonged to a number of professional organizations and had served as president of three of them—the American Psychiatric Association, the American Psychoanalytic Association and the Group for the Advancement of Psychiatry.

He held a number of citations, among them the Distinguished Service Medal and the French Legion of Honor, awarded for his service during World War II.

He also received the first Lasker Award in 1944 for outstanding service in the field of mental hygiene.

Dr. Menninger was the author of a number of articles and medical papers.

He summed up his philosophy this way: "The problem is to convince people that emotional disturbances do exist, that they are a kind of sickness and that they can be helped by psychiatry. Too often, people don't understand the nature of their problem.

"They grow discontented, apathetic, depressed; they blame somebody in Washington, or they get angry at other people. It never occurs to them that they have an emotional disease."

All three of Dr. Menninger's sons are associated with the Foundation—Dr. Roy W. and Dr. W. Walter as psychiatrists, and Philip B., in administrative work. His wife, Catherine, also survives.

#### FEDERAL CONTROLS OF INTEREST WILL NOT HELP THE BUILDING INDUSTRY AND WILL MAKE MONEY "TIGHTER"

(Mr. TALCOTT asked and was given permission to address the House for 1 minute and to revise and extend his remarks and include extraneous matter.)

Mr. TALCOTT. Mr. Speaker, I think there is a lot of confusion and misunderstanding relating to H.R. 14026, to set temporary interest controls, which we will be taking up later this afternoon. Much misunderstanding stems from our lack of understanding of our very complex and interrelated fiscal, monetary, economic, industrial, and political systems. When we are ignorant we should listen to experts on the subject. In this case we have many "experts" in the several fields, but most are unable to relate their fields of expertise to other segments of our economy, industry, and society.

Unfortunately, too many members of our Banking and Currency Committee

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Democratic Party. I will have to give you a report on that later.

My old friend, **KEN HECHLER**, has represented the Fourth District for seven years. He is one of the most effective Members of Congress. He served in both the Roosevelt and Truman Administration.

**JAMES KEE**, of the Fifth District, is one of the fabulous freshmen of the 89th Congress. He has done yeoman service on the problems of Appalachia. We are very grateful that he is a member of the West Virginia Delegation.

We are also honored by the presence of your great Governor, my good friend, **Hulett Smith**, who addressed you a short time ago, and by the added presence of Governor **Charles Terry**, of the State of Delaware.

I want to thank Mayor **Bryant**, Secretary of State **Bob Bailey**, and others who welcomed me here.

We came here today to consummate an act of faith in the future of the great State of West Virginia.

This is one of the greatest satisfactions that can ever come to any President.

Two and a half years ago I flew over the Ohio River Basin. I saw the destruction that was brought on by one of the worst floods in 20 years. I felt anger and frustration that such tragedies could still occur in the most advanced and most powerful nation in all the world. I knew that we had both the ability and the resources to harness these wild forces of nature, and I was very anxious to get on with the task.

Today we move one step closer toward this goal. The **Summersville Dam** completes a three-reservoir system of the **Kanawha River Basin**. It is a key part of our flood control plans for the entire Ohio and Mississippi River Basins.

It will prevent flood damages averaging nearly \$3 million a year.

In the dry seasons, water from **Summersville Reservoir** will be used to reduce pollution and to meet the ever-growing demands of the great industries of the great City of **Charleston**, where we had such a wonderful welcome just a short time ago.

The Reservoir will also become West Virginia's newest recreation center. It will attract millions of visitors. It will bring new prosperity to the region. It will give life and truth to the statement that West Virginia is the great outstanding tourist attraction of this Nation.

I think I know some little something about what a project like this will mean to you people. I grew up in a country where water was life itself. It was the most precious resource that we possessed, except for the very air that we breathed.

During most of the year, the land was parched and cracked; live oak and scrub cedar were about all it would support. And when the rains finally came, the rivers then flooded. The people were drowned. Property was destroyed. Our topsoil was washed away into the Gulf of Mexico.

We changed all that, beginning 30 years ago when I was a young man, back in 1937. In time we built six great dams on the Colorado River in Central Texas. We stopped the floods and we stopped the drownings. We brought electricity to all the farm homes. We created a vast recreation area for hundreds of thousands of families to visit each year.

That story is not unique. It has happened in California. It has happened in India. It has happened in Kentucky. It has happened in Israel. It is the story of man's ageless quest to make the waters of the earth serve him—to escape the despotism of flood and drought.

In a sense, the whole story of man is revealed in his search for dependable water supplies. Where there has been too little, wars have been fought over what there was.

Where there has been too much, great cities and flourishing agricultures have been engulfed and destroyed. Where there was enough—and where people could depend upon it and where the people could control it—civilization has blossomed and has endured.

It is no different today.

Even in the advanced nations, competition for the use of water is growing—and the supply of usable water is diminishing. America, with all of its power and all of its great wealth, still suffers periodic drought. The Northeast has been gripped in such a drought for five straight years with no end in sight.

But the situation is far worse in the developing nations of the world. I have seen many of its consequences first hand.

In those lands there is an urgent need for water that is simply clean and pure enough for humans to drink—for drinking—for cooking—for washing—for bathing. Nearly half a billion people who live in developing nations obtain their water from unsanitary sources.

Water for growing food—water for producing the elementary goods of life—these are the desperate needs in country after country, nation after nation.

The production of goods require increasing amounts of water that tax the resources already available. Consider this figure: It takes 70,000 gallons of water to produce a single ton of steel.

If our water needs are great today, when three billion human beings inhabit the earth, imagine the situation at the end of this century—when that population will be more than 6 billion human beings.

Our water needs by the year 2000 will not be met merely by doubling the water resources of today. They must be expanded several times over.

It should be clear by now that we are in a race with disaster. Either the world's water needs will be met, or the inevitable result will be mass starvation in the world, mass epidemics in the world, and mass poverty greater than anything you have ever known before.

If we fail, I can assure you today that not even America's unprecedented military might will be able to preserve the peace for very long.

We must be prepared to take action—and we must take it quickly. We know that the battle can be won. We believe that with what we know now—and with what we are just beginning to learn—we can find solutions to problems which just a few years ago were considered insurmountable.

Working through the United Nations, we have joined with 100 other countries to further man's knowledge of water and its relationship to environment.

We have committed ourselves to a Water for Peace Program. A plan of action has now been developed and was presented to me just this week.

First, we will sponsor an International Conference on Water for Peace in Washington next May 23 through 31.

I know West Virginia will take pride. She will provide a great deal of the leadership in her Congressional Delegation, in Senator **RANDOLPH**, for that Conference.

We hope to focus universal attention throughout the world on mankind's need for water and to stimulate practical cooperation among all the nations of the world to meet man's need for water.

Secondly, we will continue our efforts to find cheaper and better ways of converting sea water and brackish water that can be used for both irrigation and human consumption.

We have a great many experiments in the mill now that will come up with, we hope, exciting and unbelievable results.

This is one of our great hopes for the future, for while our population continues to increase, the amount of water presently available remains the same as it was 5,000 years ago.

The Administration just asked Congress' approval to share in constructing the world's largest nuclear-fueled desalting and electric power plant in the marvelous Western area of Los Angeles.

Ultimately that plant will produce 150 million gallons of fresh water daily—75 times the capacity of our largest desalting plants today.

Our breakthroughs in this area—when they occur—will be shared by the rest of the world.

Third, we must join with other nations in creating or strengthening regional centers for water resource development.

Fourth, we must develop more trained water experts here in the United States. These experts will provide services to countries that need leadership, need competence, and that are requesting our help.

Fifth, we must seek ways to train such experts in other countries—so we can man the new regional water institutions.

Sixth, we must encourage the international development of whole river basins for flood control, for water conservation. This kind of development offers man unique opportunities for international cooperation and for the reduction of tensions between nations in the world.

Seventh, we must encourage more effective cooperation with other nations and international organizations in resisting water pollution in all parts of the world. We just cannot afford to continue befouling the water that we have labored at such cost to secure.

The race for water will not be an easy one. It will require the best we have. It will require a spirit of cooperation among nations unknown in the history of man.

That is why I am trying to get people to think of this most important subject before it is too late.

This race must be won. There is no acceptable alternative. For unless it is won, all that we have been seeking to provide for the growing nations—all the technical assistance and training—all the contributions of modern science and technology—all the foodstuffs and fertilizers—all the industrial loans and educational development—all the security from external aggression—will be worn away by the arid winds of drought.

A genuine peace cannot be founded in a desert. A genuine peace cannot be founded among crowded nations that are starved for this elemental—yes, this divine—gift.

My old friend, the great historian, **Walter Prescott Webb**, of the University of Texas, once wrote that "In their efforts to provide a sufficiency of water where there was not one, men have resorted to every expedient from prayer to dynamite. The story of their efforts is, on the whole, one of pathos and tragedy, of a few successes and many failures."

Here today God has blessed you, and you are blessed, with one of the few successes.

As we look out at this magnificent new dam and reservoir to our backs, I have renewed hope that still other resources—the power of science and the determination of man—will, along with a little prayer, and a good deal of dynamite, empower us to quench the thirst of generations to come.

You in West Virginia have shown that you not only have the prayer and the dynamite, you have the leadership in the Congress. You have the leadership of the great Corps of Engineers who participate. You have leadership in the state level with your great Governor—to build projects like this that millions in years to come will enjoy, and millions today will thank you for.

With this hope Mrs. Johnson and I have

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alternate to this would be to install more rail racks at a cost of approximately \$25,000. Presently we are working toward further standardization of cases and packaging by dimensional size so that we can go to more palletization. If we are forced into these proposed packaging changes, it would eliminate this program which we feel is saving thousands of dollars in distribution costs.

5. Assuming that all of these modifications were made to meet new standards, we also would find it necessary to expand the packaging department area to maintain any semblance of our existing efficient operation. The least expensive approach might be to build an addition to our building. This would probably cost us \$100,000 at this time. This expansion would not be warranted on the basis of productivity but rather would be dictated because of the dimensional changes in the packaging and weight changes.

Thus at the minimum we would be forced to spend \$86,000 for equipment and space alone, and expansion of the plant facilities would cost another \$100,000. Another cost factor, difficult to determine, is the "downtime" of these packaging machines, as we do not have enough sales to keep these machines operating 90% of the time. Our machines presently operate about 90% of the time. If we were to add two more machines, they might operate 40% to 50% of the time.

For these reasons, it is estimated that our costs would be increased .01¢ to .02¢ per package to comply with the changes in "standards" described above.

This additional cost would be forced upon our firm would be even more difficult for us to be competitive and thus retain the relatively small share of the market we now have.

The impact of this bill unquestionably will be far greater on the small firm. Should standards be set, as this bill proposes, the ability of major firms to re-tool or purchase machinery or equipment is related to their ability to finance such re-tooling and purchases. The smaller firm on the other hand, and especially in light of today's tight money market, will be seriously handicapped, and unable to re-tool in time to maintain even its very small position in the industry. If standards are established, many small firms may go out of business, and the already high concentration of business among a few companies will further increase.

Studies by both the National Commission on Food Marketing and the Senate Judiciary Subcommittee on Antitrust and Monopoly indicate that a relatively few firms dominate many of the field of grocery manufacturing.

The latest available statistics reveal that there are 207 companies in my own particular industry. The four largest firms account for 31% of all sales; the next four largest command 16% of the market. A total of only 50 firms account for 91% of the entire sales of our industry. Thus 157 firms are left with only nine percent of the market. We are concerned with those 157 firms and their ability to finance and to re-tool when there are backlogs of orders for machine tools in some industries from 18 months to two years.

Can there be any doubt that the larger company placing the larger order and with a quadruple A credit rating will receive precedence when orders are placed for new machinery made necessary by the adoption of "standards" under this bill?

According to the report of the National Commission on Food Marketing, "High concentration is found almost everywhere. The four firms achieving the largest sales volume in each dry grocery product category usually account for more than 50 percent of total domestic sales. For example, it is estimated that the four largest manufacturers in 1965 sold 95 percent of the baby food, more than 90 percent of the soup, more than 55 percent of the coffee, 75 percent of the cake mixes,

and 65 percent of the shortening. Among the exceptions are pickles, jams and jellies, and confectionery products, but the tendency toward high concentration generally prevails".

Appendix A gives the concentration ratio in several areas of grocery manufacturing. This table indicates the preponderant number of small firms in our industry that may be drastically penalized by the enactment of this legislation.

Such ratios of concentration confirm that the "standards" established under this bill would tend to favor the larger companies because of their greater production capacity and high automation. Few small firms could afford the cost of numerous trips to Washington to participate in the long drawn-out "standards" hearings that would follow enactment of this bill.

The Committee is urged to examine this proposed legislation in light of current Congressional discussions concerning changes in the tax laws now allowing a 7% investment credit for new machinery and equipment. According to Treasury Department sources, it is the larger firm, not the smaller firm, that has utilized the investment credit provision. We must assume that this is because of the small firm's inability to raise capital and partly because of its low income.

If this Committee were to approve the proposed labeling-packaging legislation much of the equipment now being used by small firms could become obsolete. We urgently request this Committee to ask for a ruling from the Treasury whether companies presently using depreciation guidelines could take an immediate deduction for equipment becoming obsolete. What would happen to their other equipment that is on the guidelines since the cost of replacing the obsolete equipment would be much greater today?

What allowances would be given by Treasury in the company's tax return?

Mr. Chairman and Gentlemen, many distinguished witnesses have fully covered these points, and I do not wish to belabor the issues. But in concluding I wish to emphasize a few undeniable facts which ought to be conclusive.

First, you can review this record from one end to the other and you will find no evidence of any kind which establishes that the subject matter of this legislation is of sufficient gravity or of sufficient volume to justify the exercise of federal authority especially in terms of advance clearance.

Second, it is my opinion that this legislation, if passed as proposed, can impose an unnecessary price burden on consumers amounting to between 15% and 20%.

Third, the pressures of present federal regulation are gradually forcing the production of food into the hands of the giant corporations. The regulatory burden on research and development in terms of endless bureaucratic entanglement and expense is making it more and more prohibitive for the small manufacturer to stay in the food business. His only recourse is to sell out to the large competitor.

I believe I have demonstrated to this Committee that I believe in fairness to my customers in terms of quality, price and packaging. I firmly believe that I must adhere to this policy in order to stay in business. But I also insist that in this close margin business any extensive meddling with management decisions in this area can very quickly put me out of business. Furthermore, I am convinced that it is impossible to regulate matters of ethics which are purely matters of personal opinion, and I think it is most unwise and impractical to attempt to do so.

I appreciate the opportunity to appear before this Committee.

APPENDIX A

Concentration ratios in manufacturing industry, 1958 — Report by the Bureau of the Census for the Subcommittee on Antitrust and Monopoly, Committee on the Judiciary, U.S. Senate, 1962

1958	Companies	Percent of value of shipments			
		4 largest	8 largest	20 largest	50 largest
Meat packing plants.....	2,646	34	46	57	65
Concentrated milk.....	149	60	60	73	90
Ice cream and ices.....	1,171	38	48	59	69
Canned seafoods.....	229	47	58	73	86
Cured fish.....	77	50	60	81	98
Canned fruits and vegetables.....	1,347	29	39	55	67
Dehydrated fruits and vegetables.....	130	45	66	82	98
Pickles and sauces.....	637	35	46	62	70
Flour and meal.....	703	38	61	68	85
Rice milling.....	61	43	64	84	99
Flour mixes.....	109	75	86	94	98
Cane sugar, refining.....	16	69	88	100	-----
Chocolate and cocoa.....	26	71	84	98	-----
Shortening and cooking oil.....	66	49	76	97	99+
Margarine.....	22	62	86	-----	-----
Flavoring.....	498	55	67	78	87
Macaroni and spaghetti.....	205	25	41	64	87

1 Report based on 1963 data due Sept. 12, 1966.

**A Reporter's View of Vietnam**

SPEECH  
OF

**HON. ED EDMONDSON**

OF OKLAHOMA

IN THE HOUSE OF REPRESENTATIVES

Tuesday, September 6, 1966

Mr. EDMONDSON. Mr. Speaker, Jim G. Lucas, who writes for the Scripps-Howard newspapers, is one the finest combat correspondents American jour-

nalism has ever produced. The list of his achievements and honors is as long and distinguished as his career, which started with the Marine Corps in the Pacific in World War II. Perhaps the best indication of his insight and approach can be seen in the fact that Jim is the only two-time winner of the Ernie Pyle Award, given for writing in the tradition of the late Ernie Pyle.

Jim was in Vietnam 6 months ahead of most of the American frontline correspondents, and he has seen our efforts there grow from advisory force to major

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nies the four largest firms account for 31% of all sales, and 50 firms command 91%, leaving nine percent of the entire market for 157 firms. "We are concerned with those 157 firms and their ability to finance retooling when there are backlogs of orders for machine tools in some industries from 18 months to two years," he said.

Skinner emphasized that the pressures of present federal regulation are gradually forcing the production of food into the hands of the giant corporations. "The regulatory burden on research and development in terms of endless bureaucratic entanglement and expense is making it more and more prohibitive for the small manufacturer to stay in the food business and his only recourse is to sell out to the large competitor".

The NSBA Board Chairman said any significant change in package size is almost prohibitive in terms of cost. By example, he showed how some changes in weights for his macaroni packages could result in additional costs of \$86,000 for equipment and space alone, plus a probable additional investment of \$100,000 for warehousing. "This expansion would not be warranted on the basis of productivity but rather would be dictated because of the dimensional changes in the packaging and weight changes," he said.

Skinner said that "lack of knowledge of the market, ignorance of cost factors, and unawareness of the competitive pressures can put a company out of business as quickly as anything I know, and yet it is seriously proposed here to give bureaucracy control over these vital decisions."

"I wonder if anyone has stopped to think that the idea of seeking government authority in advance before making a vital business decision is absolutely inconsistent with some of our most fundamental and cherished American traditions," he asked.

Enactment of the legislation could impose an unnecessary price burden on consumers amounting to between 15% and 20%, Skinner said.

The National Small Business Association is headquartered in Washington, D.C.

STATEMENT OF LLOYD E. SKINNER ON BEHALF OF NATIONAL SMALL BUSINESS ASSOCIATION BEFORE HOUSE INTERSTATE AND FOREIGN COMMERCE COMMITTEE, HOLDING HEARINGS ON H.R. 15440 AND S. 985, TRUTH IN PACKAGING, AUGUST 1966

Mr. Chairman and Gentlemen of the Committee: My name is Lloyd E. Skinner. I am President of Skinner Macaroni Company of Omaha, Nebraska, and also past President of the National Macaroni Manufacturers Association. I am appearing here today as Chairman of the Board of Trustees of National Small Business Association of Washington, D.C.

I have twice testified against this bill, in April of 1963 and again in May of 1965, not because I am not in sympathy with the objectives of the Bill, but because of the grave doubts about the apparent lack of understanding of the economic considerations involved, as well as the potential impact upon small business and the consumer.

I have closely followed the testimony relating to this legislation. I have carefully studied all of the evidence produced. I have examined the marketing situation with respect to my own industry, and I have not been able to verify the existence of sufficient consumer deception and confusion to justify the legislation under consideration.

I would like to observe also that all through the hearings the general tone surrounding the discussion of this matter appears to cast industry on the one hand and consumers on the other in roles which are basically antagonistic and incompatible. This is certainly not a realistic view, and in fact misrepresents the attitude of the food manufacturer and processor. The truth is

that the patronage of consumers is absolutely essential—but this hinges on a number of factors which include price, quality, packaging, class of advertising, class of distribution, manner of display, type of promotion, and general reputation of the product. I wish to point out with great emphasis that these are not independent elements of food marketing—they are interlocking mechanisms of the competitive process, and it is impossible to treat one phase of this chain as though it could be manipulated and recast to fit a theoretical or idealistic notion of merchandising reform.

In addition to these considerations it must be remembered that the paramount consideration of any business enterprise is to stay in business and there are a great many concerns in the food industry with high quality competitive products which have exactly the same idea. I would venture to assert that at least 95% of the huge volume of food items sold in this country today are beyond serious criticism with respect to display of price and weight, and general packaging practice. The competition between these items is so keen that the slightest disruption of the manufacturing and distributing process by regulation or otherwise can cause a chain reaction of serious proportions.

This legislation proposes to transfer from management to government bureaucracy some of the most critical and costly decisions with which management is faced. There is no room for mistakes or delays in this area. Lack of knowledge of the market, ignorance of cost factors, and unawareness of the competitive pressures can put a company out of business as quickly as anything I know, and yet it is seriously proposed here to give bureaucracy control over these vital decisions.

I would like to point out with great emphasis that this legislation does not deal with offenses which as a matter of public policy clearly ought to be prohibited by general law. At best we are talking about matters of personal opinion—about what kind of a label can be easily understood by a consumer of the lowest mentality about fair display of relevant factual information. The implication of much of the testimony here is that most consumers are fools, which you will agree is not the case. There is no question but that this legislation would put federal bureaucracy in complete control of the size, the weight, the pictorial matter and the copy on every food package.

My own company by any standards is a relatively small business, and yet we have over \$300,000.00 invested in packaging machinery. Any deviation from the standards for which this machinery is designed could result in disastrous expense. I was amazed to note that the Secretary of Commerce suggested that it might be desirable to provide some sort of advance clearance of package labeling and design. This is the most impractical idea I have ever heard advanced. Anyone who has ever had any experience with government knows that this process entails six months to a year's delay, to say nothing of the expenditure of many thousands of dollars in trying to convince some official why it is necessary to do things in a particular way—whether it be to meet competition, to satisfy the psychological preferences of the consumers, to reduce manufacturing costs, or the necessity of staying within the performance limits of automated machinery.

I wonder if anyone has stopped to think that the idea of seeking government authority in advance before making a vital business decision is absolutely inconsistent with some of our most fundamental and cherished American traditions. Advance government permission is the Latin system—nothing can be done without a government license. Unless I have been misinformed all these

years I have been under the impression that we are dedicated to the proposition that, within reasonable limitations, the American citizen is free to do as he pleases, and that if he transgresses the law he must be tried and proved guilty of a specific offense.

This legislation proposed to deal with merchandising ethics which are matters purely subject to personal opinion. What kind of adjectives will be regarded as likely to mislead? What kind of pictorial matter leads to a false conclusion about the product? What is a proper relation of price to weight? How full is a full pack when you produce a number of food products of different densities and shapes which inevitably will reduce in volume as a consequence of transportation? Furthermore, it certainly cannot be argued that these considerations are of such gravity that public policy demands advance clearance by the government. Such a contention would be little short of ridiculous.

With respect to the packages used by our company, we clearly display the weight of Each product contained therein so there can be no mistake about the weight of the product that is purchased by the consumer. Our packages do have a certain uniformity. This is not at all due to merchandising plans but instead is a result of practical necessity. Our packaging machinery will adjust the size of packages to a limited extent and within a very narrow range. We are thus compelled to market the full line of pasta—that is, spaghetti, macaroni, etc.—in packages of similar size. In view of the fact that shapes and density vary from product to product, the degree of "fill" is slightly different in each case, and for this reason we take great pains to display the weight of the contents in figures of unmistakable size. I can assure you that any significant change in package size is almost prohibitive in terms of cost, and changes in package dress represent a major cost item of serious proportions.

With runaway inflation threatening the economy, the Committee is to be commended for probing into the additional costs of manufacturing products that would result if certain "product standards" are set by the Federal Government. Here are realistic estimates as to how my costs could rise.

Assuming weights are established for macaroni products on the basis of 8, 12, 16 ounces and up, and assuming that the 5 ounce egg noodle product is retained, these basic changes and additional costs would be forced upon us:

1. In cut goods where we have one basic machine handling the 7 and 12 ounce and 2 pound carton line, it is our opinion that, due to the variation of density of products, we would have to install a duplicate machine to offset expensive change-overs. Machines are built to take specific size dimensions. When there are changes in dimensions of carton, it takes two to three hours to change-over. It is therefore more economical to invest in a new machine. The cost of this investment would approximate \$34,500, including additional space of 650 square feet for the machine.

2. In the case of our poly line cut goods, we would need an additional machine at a cost of \$25,000 since all volumetric fillers are tailor-made to product weights. Approximately 50 more square feet of floor space would be needed for packaging. This would total \$25,500 for the floor space and packaging machine.

3. In the case of long goods in our poly line, there would be an additional cost of formers, etc. of approximately \$1,000 for changing to 12 ounces.

4. In addition to the above, we must consider the results of the added weight on our skids. Our capacity for high rise stacking of pallets could be limited, thus reducing storage in our warehouse department by 10 per cent. This in turn could force the expansion of our warehouse facilities. The

military offensive. He is home now for a well-earned month of rest, and will return to Vietnam next week to continue his reporting there.

During his visit here, it has been my privilege to hear him speak twice. The picture he gives of the war in Vietnam is refreshingly optimistic and inspiring, although fully realistic. The report he brings on the quality of our troops there, both as fightingmen and effective representatives of American democracy, is full of praise.

Jim has just published a book "Date-line Vietnam," based on his observations and reporting there, which should be must reading for any American who wishes to become acquainted with the frontline efforts in Vietnam.

Mr. Speaker, I would like to have the epilog of this book appear here in the Record. I believe it gives the reasons for our efforts in Vietnam as clearly and understandably as I have ever seen them presented. This epilog should be reassuring to all Americans who believe, as I do, that our efforts in Vietnam are essential if freedom is to be preserved in the world.

The epilog follows:

EPILOG—LONG KHANH

"Why do you do it?" the old man asked. They made a strange pair, the old Vietnamese and his American visitor. The old man with his scraggly beard had lived in this village all of his years, and was its elder.

The young American had been twice wounded defending the village, and bears a silver plate in his head. Back from the hospital a second time, he had walked the half-mile into town to see his friend.

In Vietnamese, the old man's question was the equivalent of "What's in it for you?"

Capt. Ed Fricke of Paris, Ill., son of a coal miner, hesitated over a cup of steaming tea. "I do not know that I have the knowledge or the words to tell," he said.

"Try, my son," the old man prompted. "We know you. We depend on you. But we do not understand you. Why does your body take these blows for us? Why do you risk your life for my country? You are not Vietnamese."

"I am not Vietnamese," the American agreed.

"Is it," the old man asked, "that you want to prevent us from becoming Communists?"

"I do not want you to become Communists," the young man replied, "unless you freely choose to."

The old man was puzzled.

"Why should we choose to become Communists?" he asked.

"I do not think you will," the Captain said. "No free man ever has. But if you chose, I would not prevent you. Do you understand me?"

The oldster was not sure he did.

"Do you say that Communism is evil?" he asked.

"I know it."

"You know it?"

The American nodded.

"There is much in the world that is bad," the old man countered. "There is much that is bad here."

"There is much that is bad in my country," the Captain said. "But we are free to change the bad to good as we acquire wisdom. Man must be free to grow."

"Do you think we are free in Long Khanh?" the old man asked.

"You can be," the young American replied. "I believe you will be. You asked me why I am here. That is my answer. I want you to be free."

The old man was pleased. Cackling, he called out to those who had clustered about and told them what the young American had said. Excitedly, they discussed it among themselves.

The old man smiled.

"My people remind me," he said, "that in our country we have an adage: Throw gold at the feet of a poor man and he will spit on it. Give him a cup of water with dignity and he will be your friend."

"I want to be your friend." The young Captain smiled and rose to go back to his camp.

The old man walked with him to the end of the village street.

"Good-by," he said. "Come again to see me, my friend."

**University of Delaware Provost Urges Federal Action on Recommendations by Research and Technical Programs Subcommittee To Prevent Conflicts Between Federal Research Programs and Nation's Goals for Higher Education**

EXTENSION OF REMARKS

OF

HON. HENRY S. REUSS

OF WISCONSIN

IN THE HOUSE OF REPRESENTATIVES

Friday, September 2, 1966

Mr. REUSS. Mr. Speaker, since the investigation by the Research and Technical Programs Subcommittee into conflicts between the Federal research programs and the Nation's goals on higher education, an increasing number of university administrators, faculty, students, and members of the public have expressed their concern over the need for corrective action.

Dr. John W. Shirley, provost and vice-president for academic affairs at the University of Delaware, in an article published in *Science and Society*, expressed disappointment that action on the subcommittee's recommendations has not been adequate. He emphasized particularly the importance of action on recommendations that Federal agencies sponsoring research at universities seek a balance between teaching and research, stress the importance of teaching, and provide broader general support through institutional grants.

The full text of the article follows:

PROBLEMS INVOLVED IN COOPERATION BETWEEN UNIVERSITIES AND GOVERNMENT AGENCIES

(By John W. Shirley, provost and vice president for academic affairs, University of Delaware, Newark)

So many reams of paper and gallons of ink have been expended in the analysis and discussion of university-government relationships, and so many basic issues are yet unresolved, that it seems presumptuous to approach this problem again. Yet, without question, the role of government in higher education is one of the most critical matters facing our colleges and universities today, and ways and means of establishing university-government cooperation may well be the most important task to which we can now assign our efforts. Though it would be patently unfair to lay the blame for higher education's monumental problems on government's doorstep, it cannot be denied that

recent government actions and Federal support have intensified these problems and brought them into focus. Any solution of these educational problems will require a better understanding between government officials and educators than now exists, and a more cooperative effort on the part of all concerned than we have seen in the past.

Possibly the basic underlying cause of the government-education conflict is the unresolved question of the purpose of education in a democratic society. At a recent conference at the University of Pennsylvania, a discussion session was devoted to the question of goals and values in education. Almost diametrically opposed views were given: that education needed to be isolated from the transient economic and social goals of a particular time, to concentrate on unchanging truths and the essential nature of man; and that education only could be reflection of the society which supported it, and should be responsive to the changing needs of the day. Probably the dichotomies are not as black and white as these positions indicate, but educators have been inclined to stress the historical and the traditional, and government has been more concerned with the relevant.

The first direct Federal support for higher education, the Morrill Land-Grant Act of 1862, was in essence a Federal reaction to the isolation and conservatism of the colleges of that day. In this action, the government gave grants of land to each state to enable the establishment of special colleges with commitments to the education of the average citizen—particularly those engaged in agriculture and industry. This was a revolutionary move in an educational world still geared to the classics and to the production of professional men—teachers, preachers, and lawyers. In fact, one university used the Federal funds to establish a chair in Greek because, it reasoned, a classical education was what the farmers needed.<sup>2</sup> Subsequent Federal actions, however, gave support in increasingly large measure for research in applied sciences and for extending the new-found knowledge to the farms and industries of the nation. But these developments were slow and were confined to a handful of special institutions. And even in these institutions, Federal support was but a small portion of the total budget.

During World War II, when the government did turn to the colleges and universities of the land for support to the war effort in both teaching and research, any differences in objectives were forgotten. Colleges and universities were quick to assume their responsibility for the common welfare. Isolation and the ivory tower dropped out of fashion. Physicists, chemists, and mathematicians joined the Manhattan Project or the Naval Research Center. English and history teachers taught Air Force physics or astronomy. Colleges and government were as one, united by the war against the common enemy.

This unification of purpose and effort paid off more handsomely than even the most optimistic would have predicted. Rockets and atomic power—capable of destruction or of regeneration—were dramatic in their impact on the war. The Kilgore Subcommittee of the Senate Committee on Military Affairs pointed out to Pres. Roosevelt that continued support of science and science education was absolutely essential for the national defense.<sup>3</sup> Scientists were quick to call attention to the peacetime benefits to be derived from continued research and development, and the need for further support of higher educational programs. Vannevar Bush, at the request of the President, reviewed the Kilgore proposals.<sup>4</sup>

He first suggested massive Federal support of science research and development through

Footnotes at end of speech.

the establishment of a National Science Foundation, responsible directly to the President, operated through long-range programs assigned to the colleges and universities of the nation and subject to their controls.<sup>5</sup> But these recommendations had implications, both political and educational. Universities were fearful lest government sponsored research might be too applied and too narrowly conceived. They wanted institutional grants to be subject to the purposes established by the universities themselves. Government was fearful of turning large sums of Federal funds over to universities and their trustees, over whom the government had little or no control. It was not until 1947 that both the House and Senate agreed on a Foundation which would grant funds for science development, but leave the control largely to the institutions. But this action was vetoed by Pres. Truman on the grounds that [this bill] "would, in effect, vest the determination of vital national policies, the expenditure of large public funds, and the administration of important government functions in a group of individuals who would be essentially private citizens."<sup>6</sup> It was in this general context that the final act establishing the National Science Foundation was passed in 1950 and Alan Waterman became its first director. Early policies spelled out the fact that while grants or contracts were to be made generally on specific research or development projects, the government was to retain most of the decision-making responsibilities for the assignment of federal funds. Future Federal investments in higher education—in spite of the continued protests of the colleges and universities—were to follow this pattern.

During the next 15 years, Federal spending for research and development increased at the astounding rate of about 20% each year to a total of over \$16,000,000,000 in 1965.<sup>7</sup> Of this total Federal spending for research, more than \$1,800,000,000 were budgeted in institutions of higher education—more than 15% of the total operating budgets of the 2,000 colleges and universities of the nation. National Science Foundation support for research, a modest \$1,000,000 in 1952, had risen to more than \$300,000,000. National Institute of Health grants for 1965 amounted to over \$500,000,000; defense projects came to almost that amount; NASA research grants were nearly \$100,000,000; and the Atomic Energy Commission was more than \$60,000,000.<sup>8</sup>

Both the rate of this growth and the magnitude of the Federal role in subsidizing the total educational picture have been matters of concern to educational administrators. Programs and grants have come faster than plans, staffs, and facilities could handle them. In the face of universal demand, faculty members could not be found to perform the research being supported. Graduate faculty and facilities were not adequate to cope with the increased number of graduate students being supported and trained on Federal funds. And the burgeoning of these activities came just at the time that the post-war babies were crowding into colleges and universities inadequately manned and equipped to handle increased undergraduate student numbers and mushrooming knowledge at the same time. The leisurely ivory tower of pre-World War II became a thing of the past. The campus became a beehive of frenzied activity. College deans and presidents, of necessity, became less and less academic and more and more like business executives as they met each new problem with at least a temporary solution. A number of national studies were made to try to resolve some of the issues between the educators and the government agencies and policies,<sup>9</sup> and most national organizations devoted sessions to the discussion of possible ways of bringing them together.

Footnotes at end of speech.

As educational administrators were expressing alarm over the institutional effects of governmental support of special educational area, especially about the way in which the sciences were overbalancing the humanities and social sciences, students, too, began to bring charges that the educational times were out of joint. They complained that universities were getting too huge and impersonal as a result of their new opulence, that research had come to overshadow teaching in the eyes of the faculties, that students had become only numbers in the automated records of mechanical educational factories. Their complaints were echoed by large segments of the faculties—particularly those in the less-supported areas, but surprisingly enough by many of the young graduate teaching and research assistants who were supported by Federal grants which had made their education not only possible, but profitable. These complaints were echoed by parents, concerned citizens, and by school teachers and administrators who took some comfort in finding the colleges and universities under some of the pressures they had long endured. As we all know, 1965 was a year of student sit-down strikes, teach-ins, demonstrations, marches on the White House, and of faculty and administration conferences, committee investigations, and general soul-searchings.

All of these factors led inevitably to a Federal investigation of these matters. A subcommittee on Research and Technical Programs of the Committee on Government Operations, under the chairmanship of Rep. HENRY S. REUSS of Wisconsin, staged a full-dress investigation of what they called the "conflicts between the federal research programs and the nation's goals for higher education." This study addressed itself to many facets of the current problems: the diversion of professors from teaching to research, and the inequities which resulted from concentrating funds in limited areas of natural and physical sciences in the graduate schools of relatively few of the nation's ranking universities. It also called attention to the students' protests against the lack of interested and experienced professors. To investigate these problems, the committee sent to some 300 educators, administrators, and distinguished citizens a letter of inquiry on five fundamental aspects of the matter: the effects upon the students of the emphasis upon research rather than teaching; the results of this research upon the faculty in terms of possible shift in loyalties from the campus to government, profession, or industry; the difficulties and distortions of the institutions caused by curricular imbalances, concentration of funds in larger research-oriented institutions in selected areas, and the shifts in institutional purposes and programs to conform to the demands for research; the effects upon the graduates in terms of shifts of careers from teaching to research, and the possible over-emphasis in presently popular disciplines and scarcity in others currently less in demand; and, finally, a consideration of possible methods of improving the government's future role in the use of research funds and other supports for higher educational programs.<sup>10</sup>

More than 200 replies to these questions were received by the committee, most of them thoughtful and comprehensive. Nearly every conceivable point of view is represented in these replies, as was also the case in the formal hearings held by the committee in June, 1965.<sup>11</sup> To recount or summarize these diverse opinions would be fruitless. The summary report of the committee to the House of Representatives on Oct. 13, 1965,<sup>12</sup> though to some it appears biased, appears to me to reflect a reasonable analysis of the testimony presented. In addition, it brings together a large number of statistics on the distribution, nature, and scope of Federal support of research, on the effects of this re-

search support on graduate programs, and the benefits and harms which the nation and its colleges and universities have reaped from Federal grants and contracts. Every educational administrator should go through it carefully.

Recognizing that "too many scientists and engineers have been diverted . . . into research work, and too few are available for teaching,"<sup>13</sup> the Reuss Committee report suggested that the government take steps to reverse this direction. Scientific manpower data should be maintained by the Bureau of the Budget, and the balance between teaching functions and research activities should be controlled. The Bureau of the Budget should alert the agencies to tailor their programs to meet this balance. In addition, government should stress teaching at all levels; all graduate students holding Federal fellowships should be required to teach; science teaching fellowships, matching research fellowships, should be instituted; and Presidential awards recognizing and rewarding outstanding undergraduate teaching should be begun.<sup>14</sup>

General support of education on a much broader base should be established, the committee report continued. Project awards should be modified to cover all geographic areas of the nation and should go to a much larger number of institutions than at present. Panels of reviewers should be drawn from a wider range of colleges and should represent broader and more varied points of view. The currently small programs of unrestricted institutional grants should be widely expanded, and general support for scholarship and instruction in the areas of the humanities and social sciences should be massively increased.<sup>15</sup> Few educators would quarrel with these recommendations; they directly reflect the pleas and requests of the colleges for the past decade.

But anyone who expected the conclusions of the Reuss Committee to have an immediate impact on Federal appropriations for educational support probably was disappointed in the President's budget as presented to the Second Session of the 89th Congress in 1966. Except for some implementation of the National Humanities Foundation and a slight increase in institutional grants occasioned by increased research funds, the budgets for the major granting agencies continue along the same lines as before. As a matter of fact, from the point of view of the colleges and universities, the already-acute problems stand to be intensified rather than diminished. The high level funding of the National Defense Education Act has suddenly thrown new billions of dollars into national education both in new programs and augmented old ones.

For the fiscal year starting in July, 1966, the President's message to Congress estimates that "promotion of higher education will amount to 3.8 billion."<sup>16</sup> The bulk of these funds is earmarked for research and training in areas vital to the national defense, health, or welfare. But an increasing number of programs are action programs tied to special projects of the New Society. These pose new drains on limited academic personnel and draw the teacher more and more away from the campus and the classroom.

The roles of education and government are becoming intermingled more than they ever have been in the past. Generally speaking, education has been concerned with the preparation of the oncoming generation for entrance into society, or for readjustment to change. Government has been the operational body in areas of public welfare and economic and social development. But the Great Society is changing this as universities are being asked to assume partnership roles in Federal programs. As one example, the Poverty Program is permeating many aspects of our academic programs. Not only are our colleges of education being asked to institute special programs to train teachers for the