REMARKS BY
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TECHNOLOGY IS FOR PEOPLE

I appreciate Congressman Dodd's invitation to come to Connecticut to speak on a subject of interest not only to this State but to most others. I also appreciate George Brown's being here. Our subject is transferring technology to meet state and local needs. More specifically, it is transferring it in the most timely, cost-effective and efficient ways.

This, in essence, is what technology is all about -- or should be -- doing more for less, serving the needs of people, at prices they can afford. For some time now technology has been doing this in the private sector. As a result, we have become the most productive society in the world, and we can continue to remain so, if we develop and apply our science and technology wisely, if we revitalize our innovative abilities.

By comparison, however, our technology has not served us as well in the public sector. But this can be changed. And that is one reason we are here today.

It is all the more important that we use technology properly to boost the efficiency and effectiveness of our public services, because such services in general, play an increasingly important role in our lives. Some time in the 1950's we became the first predominantly "service society". That is, more than 50 percent of our working population was engaged in providing services rather than goods. By the late 1960's this figure exceeded 60 percent. And it is still growing, with estimates that by the mid-1980's more than 80 percent of all employment opportunities will be in the service sectors.

This is significant to our state and local governments, and to the Federal government, for a number of reasons. We are all service organizations. And it is in our states, our counties and our cities where most of our public services are provided.

- It is here where our people live and work and play.

- It is here where their children are born and raised and must be properly educated.

- It is here where everyone must get to work on time, must have adequate police and fire protection, and must have proper health care.

- It is here where trash must be collected, power generated and delivered, clean water made available and a safe and liveable environment maintained, and

- It is here where new economic opportunities must be generated and sustained so that not only these communities but the entire country can enjoy new and sound growth.

We cannot separate these needs from the so-called national needs that make the headlines today -- the problems of inflation, innovation, productivity, employment, energy, health, the environment and other current concerns. It is precisely because such concerns are so closely related and must be dealt with at all levels -- national, state, and local -- that technology transfer becomes especially important.

Technology transfer involves the flow of useful scientific information and technological know-how from where it is generated, to where it can be applied successfully to benefit people. In the case of intergovernmental transfer we are talking primarily about the potential availability to state and local government of benefits that can be derived from the results of Federally supported R&D. As you know, that support is now running close to $30 billion annually. And about 40 percent of it is devoted to domestic and civil areas in which state and local governments have substantial interest, involvement and responsibility. As President Carter has observed, state and local governments have the service delivery responsibility for most of the Federal government programs that do not involve space and national security.

Yet paradoxically, the involvement of state and local government officials in establishing R&D agendas, research programs, or decisions as to how the work is to be conducted, and its results disseminated, has been small. Nor has the Federal government or the private sector been quick to encourage such involvement.

The basic problem has been recognized for some time and the Federal government has undertaken a number of programs to address it. Over the last several years, The National Science Foundation has been a leader in developing innovative experimental approaches. It has helped to establish, and has worked with, national and regional networks to deal with mutually-shared problems that science and technology can help solve. NSF also established science advisory mechanisms in a number of city halls and state capitols. In another Federal effort the Department of Defense and NASA have been active in promoting the "spin off" of technologies that had been conceived for military and space applications. These efforts have lead to such things as light weight body armour for police officers and improved breathing apparatus for firemen.

In spite of these programs, there is a widespread feeling that we have not made the progress needed. Among other things, our experiences have lead to the realization that while you can do successful research and develop new technologies, their effective application rarely flows automatically or easily. Even making new information public and widely available has had its difficulties.

There is no one group to be faulted for this situation. We all share some degree of responsibility for science and technology not having been brought more effectively to the service of our cities and states.

Many scientists have viewed local government problems as mundane and not worthy of scientific attention. While at the same time local officials often considered science too esoteric and removed from their immediate concerns.

Business and industry, discouraged by the lack of aggregated markets, have been reluctant to make appropriate R&D investments for technologies to meet the growing needs of what could be an important group of customers.

At the same time the Federal government generally has directed only a small amount of funds and other resources toward directly meeting the science and technology needs of state and local government.

I have been dwelling mainly on our past problems. However, I am hopeful the situation will change. This is due, in part, to the efforts of the Congress and the Administration in a strong move to strengthen intergovernmental technology transfer.

The new Congressional effort goes back to the legislation that established my office. That Act, the National Science and Technology Policy, Organization and Priorities Act of 1976, also established in my office an Intergovernmental Science, Engineering and Technology Advisory Panel (ISETAP). It was to be composed of the Director of OSTP, who would serve as chairman, the Director of the National Science Foundation (NSF), and at least ten members representing the interests of State and local government. Such a panel was created and is at work today. I chair it, with Governor James Hunt of North Carolina serving as Vice Chairman. Nineteen state and local officials, together with Richard Atkinson, Director of NSF, comprise the membership. Mayor Dennis Lynch from Pawtucket, Rhode Island, who is here today is also a member of the Panel.

The Act specified three very important purposes of the Panel: to identify and define civilian problems at the state, regional and local levels that science, engineering and technology might assist in resolving or ameliorating; recommend priorities for addressing such problems; and advise and assist the Director of OSTP in identifying and fostering policies to facilitate the transfer and utilization of R&D results so as to maximize their application to civilian needs.

Over the course of the past two years this is exactly what ISETAP has been up to. Let me give you a brief idea of what has been involved, and some of the things we have accomplished.

The distinguishing characteristic of ISETAP is that it provides state and local governments an opportunity to have their needs considered at R&D <u>policy</u> levels where the advice can contribute to the <u>design</u> of R&D itself.

A major activity for ISETAP has been identifying and setting priorities on problems facing state and local governments -- problems that might be usefully addressed by science and technology. Many such problems were identified and priorities established by ISETAP working in close cooperation with the state and local government, public interest groups, and the various networks and innovation groups, such as the New England Innovation Group. This group, by the way, has been most helpful to ISETAP, and I would like to acknowledge that help with many thanks at this time.

The American Association for the Advancement of Science with the assistance of the National Science Foundation is conducting a series of workshops to identify the potential contribution science and technology can make to resolving these problems and to identify new R&D necessary. These activities are helping a number of Federal agencies restructure their research and development agendas to make them more effective in terms of state and local needs.

We have learned a great deal about how to achieve a better dialouge between the Federal agencies and state and local governments. We will build upon this to establish a permanent mechanism for incorporating state and local problems into the Federal research agenda setting and budgeting process.

ISETAP activities have already lead to some tangible results. For example, one of its task forces, chaired by Governor Richard Lamm of Colorado, conducted a study of the potential uses and benefits to state and local governments of the Landsat satellite systems. The recommendations from that study were, in my view, instrumental in the President's decision to guarantee the continuity and availability of remotely sensed earth resource data through the 1980's.

Another example of ISETAP's effectiveness is its work to improve the service of the National Technical Information Service to state and local governments. NTIS is the Federal government's storehouse of technical information. In response to ISETAP's urging, NTIS has hired a person whose full time responsibility will be to get more information of value to state and local government officials into NTIS and to make this information more accessible.

Let me briefly mention a few efforts that are currently underway in response to the identified priority problems. In the health and human resources areas, a number of problems relating to the planning, evaluation and delivery of services to the elderly were identified, and a workshop in elderly services research, involving scientists working in this area, has been held. The results of that workshop have already been used by officials within the Department of Health, Education and Welfare's Administration on Aging in developing research plans for next fiscal year. And HEW's National Center for Health Services Research is scheduling a series of workshops for state and local government officials to share research findings that could help these officials provide better long-term care for the elderly.

The disposal of hazardous municipal and industrial wastes and the siting of new waste disposal facilities are issues of increasing concern to state and local governments across the country. An ISETAP Task Force is currently conducting a major study to define the scope of the problem from the state and local government perspective, and to recommend appropriate Federal action to address the issue. Although state and local governments have the primary responsibility in combatting the problem, the Federal government has to develop programs as well. But to do this effectively the Federal government has to have substantial input from state and local officials in developing an effective Federal response. Thus, ISETAP has prepared a questionnaire soliciting views from state and local officials on the problems they face. We would like to have your views. If you will contact my office, my staff will send you a questionnaire.

The Energy Task Force on which Mayor Lynch serves, is undertaking a study on the recovery of energy and other resources from solid wastes. No doubt this is a topic of special interest to many of you. In fact, it is one of the priorities that came out of the New England Innovation Group. And I am sure there will be an opportunity for you to share your views with ISETAP on this issue.

While ISETAP has achieved some significant results to date, we can still do more. The Panel recently recommended that more attention be given to identifying and consolidating existing scientific knowledge that could help state and local officials address problems.

Frequently, State and local officials are confronted with serious situations where action must be taken quickly. Many of these "emergency" situations have substantial scientific or technological components: identification and treatment of improperly disposed hazardous wastes; asbestos in public buildings, particularly schools. Often within a period of months, a number of governments must act on similar situations.

The full range of existing knowledge is rarely accessible in a usable form to help State or local governments meet these emergencies within the necessary time-frame.

ISETAP is therefore working on ways to identify rapidly emerging problems with substantial S&T components; to evaluate existing information and then to present options to help State and local governments. I think this idea has substantial merit and I am asking the Panel and the Federal R&D agencies to come up with the details on this approach. I am asking that this be accomplished by this summer.

In all these efforts one of our overall objectives has been this: because State and local governments are essential to the attainment of domestic objectives, we need to weave science and technology into the fabric of intergovernmental relations. A stronger sensitivity in Federal R&D decisions to science and technology as an important new tool in State and local governments must be developed.

In closing let me refer to the President's Message on Science and Technology sent to the Congress three days ago. In that Message the President recognizes both the importance of, and the difficulties involved in, harnessing our national capability in science and technology. He sees the solution, however, in cooperation. He states:

> "Equally as important as the substance of our science and technology policies is our strategy for managing it and ensuring its vitality. This task is a challenging one because of the diversity of the participants -- business and industry, universities, the Federal agencies, government at all levels, and the public. Each sector has distinct goals and objectives and special institutional qualities. Yet each can work with the others in a lively process of cooperation, so long as some independence is assured and our policies are adaptable to each."

In my remarks today I have addressed one important area of that process of cooperation. I have tried to give you a broad overview of our Federal interest in the problems of state and local governments -- of what we might do, and are doing, together, to bring more science and technology to bear on them. This is an important part of our overall National science and technology policy. The strength of our economy -- of our country -- depends in large measure on the health of our states and cities. If our citizens can lead safe, sound, secure lives where they live and work, if they can have the fullest confidence in the leaders of their state and local communities, then we will have a firm foundation from which to launch new efforts to remain a strong and productive Nation. And from that we can grow in the most desirable ways. We can meet all external challenges with the strength and confidence of the great country we are, and the world expects us to be.

This is what we must do. I am sure that if we all work hard together -- the Federal Government, our state and local governments, our universities, our industries, and all our people -- we will succeed in meeting all these needs and expectations.