A partnership between the federal government and state and local education agencies is required to solve existing problems in vocational education. The federal government's strategy involves directing money to underserved populations; encouraging planning at all levels to produce more employable graduates; promoting research and demonstration of effective educational models; and establishing programs to employ and stimulate employment of youths and adults. The federal government discharges its responsibilities by supervising the state planning system, implementing the National Occupational Information Coordinating Committee, establishing state research coordinating units, sponsoring research and demonstration activities through a contract with the National Center for Research in Vocational Education, and administering the Youth Employment and Demonstration Projects Act. States must plan, develop, and disseminate occupational and career information, encourage innovative practices, and provide a general system of fiscal and program accountability. Local school districts must develop planning and working linkages with the community, provide feedback, and operate programs and delivery services. Three areas for improvement are cooperation among education providers, flexibility in programming, and involvement in occupational development. The scholar should evaluate, conduct research, assess the federal strategy, and redefine vocational education within the broad structure of education, training, and work. (YLB)
VOCATIONAL EDUCATION AND FEDERAL PRIORITIES

by

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THE NATIONAL CENTER MISSION STATEMENT

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs
PREFACE

The National Center for Research in Vocational Education is pleased to have Dr. John Ellis share his thoughts on "Vocational Education and Federal Priorities." As Deputy Commissioner for Educational Programs, Dr. Ellis is responsible for all educational programs in the U.S. Office of Education.

He supervises the Bureau of Elementary and Secondary Education, Bureau of the Handicapped, Bureau of Indian Education, Bureau of Student Financial Assistance, Bureau of Higher and Continuing Education, Bureau of Occupational and Adult Education; the ten Regional Offices throughout the United States; and the Special Programs of Bilingual Education, Teacher Corps, Career Education, Right to Read, Arts and Humanities, and Affirmative Action.

In his presentation, Dr. Ellis emphasizes the strong demand for schools to improve and extend the benefits of education to groups that have been bypassed historically: minorities, women, handicapped persons, people of limited English-speaking ability, and the poor.

He also discusses the relationship among local, state, and federal governments, assesses how each is meeting its separate responsibilities, and suggests directions they might take in the future. His advice to vocational educators is to provide greater flexibility in programs, to take a more active role in job planning and job development, and to redefine "vocational education" in order to determine how it fits into the broader picture of education, training, and work.

Dr. Ellis received a B.S. in history and political science from Bowling Green State University, an M.A. from Case Western Reserve University, and a Ph.D. from Harvard University.

Prior to coming to the U.S. Office of Education, Dr. Ellis was Superintendent of Schools in Columbus, Ohio. He supervised a school system with 100,000 pupils; 8,000 school personnel; 170 schools; and an operating budget of $117 million.

Once again, the National Center is pleased to present Dr. Ellis and his lecture, "Vocational Education and Federal Priorities."

Robert E. Taylor
Executive Director
The National Center for Research in Vocational Education
I am delighted to be at the National Center for Research in Vocational Education at Ohio State University. This is homecoming because my six years as Superintendent of Schools in Columbus were among the most exciting and enjoyable in my life. I recall with appreciation the assistance that was provided by this center as we reconstructed the vocational education program in Columbus through four new city-wide career centers and many additional programs. It was a productive and professionally stimulating period.

Some of you have asked how I like being a bureaucrat. Washington is an exciting place and I find my schedule filled with more challenges than I have time to take. President Carter's commitment to education is clearly reflected in major increases in his education budget proposals and his drive for a new Department of Education. It is a good time to be part of the Washington scene.

Bureaucrats have a difficult time and they do some things other than creating more forms and requesting additional paper work. They must support the Administration's position regardless of personal feelings. Some time ago an Office of Education official was presenting the rationale for a major budget reduction to a congressional committee. The chairperson became exasperated and exclaimed, "That doesn't make any sense at all. In fact, it's stupid." The beleaguered bureaucrat stammered, "I know sir, but that's our policy."

Today I want to explain our policy on vocational education. Fortunately, times have changed and the current proposals for improvement are those that most educators can support enthusiastically. While I have some differences with a few funding levels, I can say unequivocally that this Administration has a strong commitment to education, and, despite generally tight restraints, education is doing very well.

As an administrator with general responsibility for more than 100 Office of Education programs, I often am asked by vocational educators, as I am by practitioners in other fields, just where the programs that help support their activities stand on my list of priorities. It is a legitimate but difficult question to answer.

One measure of priority, of course, is the time and effort a subject receives. I can tell you that no legislation has recently occupied more attention than the enormously complex new vocational education and youth employment laws.

Another measure of priority is the budget. I can point to a budget request of $635 million for vocational education as evidence of our commitment. That happens to be the fifth largest expenditure in the education budget, behind elementary and secondary education, mainly Title I compensatory programs, student financial assistance, impact aid and education for the handicapped. Vocational education is the only specific educational approach to receive federal support of this magnitude; it is also the only form of education to have its own deputyship in our organizational structure.

On the other hand, it has been pointed out that appropriations for vocational education have been less than 50 percent of authorizations. The fact that we have not filled the deputyship
for occupational and adult education has also been raised. I can assure you on the latter point that we have invested a lot of energy in seeking a new deputy and we are hopeful that the latest search will be successful.

As a member of this Administration, I have to respond to many issues being raised about education in the press, by citizen groups, and by the Congress. In those terms, no issue has a higher priority than the necessity for schools to prepare people adequately so that they can function effectively in the adult working world. Education, the nation’s largest enterprise at $142 billion, is widely perceived as not producing what it should.

Public schools are clearly in trouble. We read in newspapers and professional journals about the drop in student achievement scores. We hear laments about the number of high school graduates who can’t read above a sixth grade level, who can’t handle basic mathematics, who can’t express themselves in standard English.

Nowhere is the demand stronger for schools to improve than among the groups that have been historically bypassed: minorities, women, handicapped persons, people of limited English speaking ability, and the poor. They know they have lost in the job marketplace, and they see the education they received or did not receive as a chief cause of their condition.

I’ve been an educator for many years and I know the public perception of educational failure is inaccurate in many respects. I tend to be highly supportive of the schools and believe they are not given sufficient credit for the excellent work they do. Schools have had their successes, some of them under extremely difficult conditions. However, it is clear that responding to new requirements and aspirations has not been easy for us, and it is equally clear that the public expects us to do something about it.

Congress and the Executive Branch have agreed on a number of basic strategies in recent years to help the schools in their role as preparers of employable adults. There are four parts to that strategy:

- Directing money to underserved populations
- Encouraging planning at the local, state, and national levels to produce more employable graduates
- Promoting research and demonstration of effective educational models
- Establishing specific programs to employ and stimulate the employment of youths and adults

The interest we have in vocational education and the support the federal government provides, while important, are insufficient to solve the problems that exist. Clearly a partnership with state and local education agencies is required. Federal officials recognize that education is primarily a state and local responsibility which calls for each level of government to perform important functions. Our partnership, which in some ways is just beginning, promises to be extensive and constructive. Today I would like to look at the elements of that partnership, assess how we are meeting our separate responsibilities, and explore some directions we might take in the future.
Elements of the Federal Strategy

The first part of the federal strategy, in vocational education as in other fields, has been to make sure that monies reach underserved populations. The major way Congress chose to do this was by requiring the states to set aside a portion of their vocational-education grants for various target groups. Since the Education Amendments of 1976, the states have been required to match these set asides with their own funds. I know some states are having a hard time doing this, and are pointing to the 1:8 overmatch of state to federal funds for overall vocational education as evidence that the concept should be revised.

The second part of the federal strategy is based on the notion that effective planning can help schools produce more employable graduates. State planning requirements are infused throughout the 1976 Vocational Education Amendments. Planning to reduce sex bias and meeting the needs of handicapped people are vital parts of this effort. Another aspect of the importance attached to planning is the creation of the National Occupational Information Coordinating Committee (NOICC).

NOICC addresses a problem that has been troubling vocational educators for many years: How to get accurate data on where and what types of occupations are available in today’s labor market, and how we can project future trends.

Obviously this information could be very helpful to program planners in order to cut back training for skills that are no longer very marketable and to substitute new programs—in health care and energy technology, for example—that will meet the strong market demands projected for these fields in coming years. Students clearly need the same information if they are to make informed judgments in preparing for a marketable career.

The idea of NOICC is that any individual in the country should be able to sit down at a computer terminal in a high school, college, library, or any other place; punch in his/her request; and get facts and figures on present or projected career opportunities, in that community or anywhere in the nation. If NOICC works, planners of all kinds and students will be working from a common data base for the first time, using common terminologies and standards.

The third element of the federal strategy is to promote innovative approaches to education, particularly as it relates to the world of work and especially for underserved populations. The Vocational Education Amendments require the states to devote 20 percent of their basic grants to program improvement activities such as teacher education, exemplary programs, guidance and counseling; and curriculum development. There is also a direct federal research and development program.

The nationwide system of state vocational education research coordinators and this National Center for Research in Vocational Education are important parts of that strategy.

Finally, the new Youth Employment and Demonstration Projects Act (YEDPA), in addition to offering job programs, is intended to test various demonstrations linking education and employment. A significant amount of money will be devoted to work-education projects involving school youth. The prime sponsors and local education agencies have begun agreements implementing these activities.
The Federal Responsibility

Let us look at how the federal government is discharging its responsibilities in these areas.

Supervising the state planning system is our major lever for carrying out the intention of Congress under the Vocational Education Amendments. It is our responsibility to help the states develop good plans, to approve them before they go into operation, to assist in their implementation, and to evaluate their effectiveness periodically.

I think we have had both successes and failures in our initial review of the plans. I know we required that the plans be sent to us last July and that we approved the last two of them just a few weeks ago. Our program would undoubtedly say that this shows how tough we've been in trying to determine whether the state plans carry out the intention of Congress. I am sure many states would say we've been dragging our feet and not meeting our responsibility to give them speedy evaluations and strong technical assistance. Meanwhile, some interest groups are saying that the states are not doing all they should under the law, and that we're not doing much to change the situation.

As with so many other things in government, the answer is probably all of the above— and more. I am anxious to hear what you have to say about our activities in this area. But I do want to add a word of caution: This is an extremely difficult responsibility for us to perform. The negative sanctions at our command can only impede the flow of money to those who need it. Our positive intervention will inevitably be seen as too much by some and too little by others. Overseeing these plans requires a fine art of balancing, and the balance point may differ from case to case.

A second major part of the federal responsibility involves implementing NOICC. Given the fact that NOICC's mission is very complex and requires the cooperation of four governmental entities, I think it has made a promising start. The national committee's skeleton staff has held regional meetings for officials of all the states and has sent representatives to the Pacific Trust territories and other outlying areas. NOICC's first mission was to tell those officials about the proposed network—how to participate and what federal assistance is available, both financial and technical, to help them set up their own system and join the national network.

We have two immediate hurdles to overcome. By the end of the summer, we hope to get a permanent staff on board. By the end of September, we hope to publish a design for an Occupational Information System, including the data sources that will be made standard components of the system.

On a longer-term basis, we will have to fine-tune the components of the system continually. We also will encourage the states to develop systems to assure that up-to-date information is made available to students as it is to planners. Neither of these tasks will be easy to accomplish and we will have to watch developments closely.

The third federal responsibility is to encourage research and demonstration of innovative educational models. I think it is fair to say that in no field has the Office of Education set up as intricate a system of research, evaluation, and dissemination as we now have in the area of vocational education. The state Research Coordinating Units that we used to fund under our discretionary authority are now part of the law. Under our new contract with this National Center for Research in Vocational Education, we will be sponsoring applied research, evaluation, dissemination, and demonstration activities. Under our central research and development
program, we are funding projects this year, for example, to develop individualized vocational education plans for handicapped youngsters, to design materials for training Native Americans, to determine how to develop credentials for a person's experience as a homemaker, and to evaluate the quality of vocational education programs in state prisons.

The big new area of federal involvement in research and demonstration will be the administration of YEDPA. On March 15, 1978, Secretary of Labor, Ray Marshall, and Secretary of HEW, Joseph Califano, signed an interagency agreement under which they agreed:

- To establish an interagency coordinating panel comprised of six Labor and six HEW representatives.
- To provide information for local school systems on the requirements of the new legislation, with the assistance of the state education agencies.
- To develop new education-work models and disseminate these approaches to local school districts and CETA prime sponsors.
- To work cooperatively with local education agencies in developing procedures for awarding academic credit for work experience, again with the involvement of the state education agencies.
- That the National Institute of Education, with Department of Labor funds, will duplicate in four cities a model work-education program it funded in Philadelphia called the Career Intern program.
- That the two departments will work together with local work-education councils comprised of members from business, labor, schools, and manpower agencies.

Since the agreement was signed, we have been working with the Council of Chief State School Officers on the issue of program quality. The Council of Chief State School Officers has approved a working document which calls for extensive participation by state education agencies in working with the Department of Labor to provide technical assistance to local school systems faced with responsibilities for awarding educational credit for work experience.

It is encouraging that the level of cooperation between the Department of Labor and HEW is rapidly improving. Assistant Secretary of Labor, Ernest Green, and Commissioner of Education, Ernest Boyer, have met on several occasions to plan for greater cooperative efforts. Labor clearly recognizes that education must be an important part of the work effort and we recognize that we have a responsibility to help. Labor officials have asked the Office of Education to consider assisting them in improving the education component of several current programs. For example:

The Job Corps

The Department of Labor operates about 120 centers which will have residential facilities for 44,000 students. The Labor Department is discussing with OE the possibility of designing and testing educational approaches in Job Corps Centers. The purpose would be to determine ways to better educate the trainees, particularly in the areas of basic skills development and career exploration.
Summer Programs

The Department of Labor runs summer programs for approximately 700,000 students. It would like to establish better ways of linking those programs to year-round programs in schools. We are discussing the possibility of having OE cooperate in a demonstration effort at ten to fifteen sites in which OE would concentrate on the education component of the summer programs and test the impact of the educational efforts.

Youth Incentive Entitlement Projects

We also are discussing the possibility of working with the Department of Labor on its entitlement program, which has provided approximately $115 million to fund seventeen projects that provide public and private sector jobs for about 19,000 young people. We are considering a project in six sites that would test the appropriate education-work mix required for an effective program.

The goals of all three cooperative efforts would be to improve the education components of present programs, to gain new insights into the best approaches, and to build better linkages between education and the world of work. It is a significant effort that can augur well for American education as two federal departments with major responsibilities cooperate with one another in an effort to better serve the clients rather than simply serve themselves.

In addition to the activities just enumerated, the Office of Education is in the process of designing a request for proposal for technical assistance to states and localities involved in implementing YEDPA. Funds will be targeted to build the capacity of state education agencies to help local education agencies establish agreements with prime sponsors and ensure program quality for local YEDPA activities. The request for proposal also will deal with the important topic of academic credit.

This should not suggest that I am wholly satisfied with our performance. We have been very slow to mobilize the staff and resources that we need to implement cooperative relationships. We need to move more quickly in the future. But I'm convinced that we are beginning to do what needs to be done and that solid results will occur.

The State and Local Responsibility

The states and local education agencies are, of course, central to the strategy of helping education become a better preparer. Education is essentially a state and local responsibility and when you work at the federal level it is easy to lose sight of this fact.

The states have at least four basic functions: (1) to plan; (2) to help develop and disseminate occupational and career information; (3) to take the lead in encouraging innovative practices; and (4) to provide a general system of fiscal and program accountability.

The local school districts have the most important and difficult job. They have to develop the planning and working linkages with the community, both in the public and private sectors. They have to provide feedback on what works and what doesn't work to state and federal policy makers. Most of all, they are the front line in operating programs and delivering services that are structurally sound and preparing youths to take their place in society. They should remember that building relationships with the private business sector may well be the most productive long-term approach.
By and large, I think both the states and the schools are doing a creditable job under very difficult circumstances. Many exciting ideas are being tried. However, we need to experiment more wisely than is now the case.

There are three areas in which I hope to see more activity: (1) cooperation among education providers, (2) flexibility in programming, and (3) involvement in occupational development.

Cooperation among Education Providers

There are many excellent examples of cooperation between public schools and other entities. However, the fact is that local education agencies and other providers have too often been tripping over each other, especially since education and work became a "hot item." There has been too much competition for money and too many duplicated services. Some diversity is healthy, but better cooperation and coordination are now essential.

Local education agencies need to work more closely with CETA prime sponsors, with community colleges, and even with proprietary schools to coordinate their offerings and to arrange for transfer credits. It should be typical and easy, not unusual and difficult, for a student to get high school credit for a night course in air conditioning repair at the local community college. All the agencies which will be in the movement toward lifelong learning must be able to carve out roles for themselves without viewing each other as interlopers on their own special territory.

Vocational educators too often have viewed CETA as an enemy because they see $3.5 billion going into job training programs outside school channels, and because they see CETA prime sponsors hiring vocational instructors away from schools and community colleges. Education can ill afford such divisiveness. Vocational educators must be willing to seek out new ways of experimenting with and cooperating with the CETA programs.

Flexibility in Programming

There needs to be much greater flexibility in what is taught, how it is taught, and where it is taught. For example, we will certainly look increasingly toward life and work experience as a teacher. This is not simply a matter of awarding some elective credit points for work experience—that is a matter of recognizing that basic skills and other skills can also be learned on the job. Vocational educators have probably done a better job than other educators of getting out of the school setting for some courses and of involving practitioners from various fields as advisors and instructors. But more needs to be done.

At their best, programs will be fashioned that incorporate into the work experience the reading, writing, computation, and employability skills that are necessary to a good education. We also need to develop relationships to have an open entry and exit system so that a student can move between the systems with convenience and without feeling that they are two unrelated worlds. I hope many of the best YEDPA projects will develop in this way.

Additionally, curricula should be reexamined in the interests of flexibility. Let's take welding, for example. There are programs in agricultural welding, technical welding, and trade and industrial welding. I realize that there are important differences in these areas, but I suspect that there are large areas of similarity as well. It seems to me that there have been too few attempts to break through the compartmentalization, to reduce separate prerequisites and curricula when it is possible to do so.
I would also like to see more experiments mixing in school and out of school youth in training programs, in combining older and younger students in the classroom, in introducing greater flexibility in course length and hours, and in seeking more education work assignments in the private sector, to name just a few possibilities. I am not suggesting that there is an absolute value in tearing down every tried and true teaching method. However, it is clear that the traditional ways are not working with too many students. I believe that unnecessary requirements and artificial barriers which contribute to the problem should be lifted.

In concentrating on new approaches it is important to be aware of results of current research. In looking at evaluations of federal programs it appears that the following three major situations tend to contribute to success.

1. When the teacher has clear objectives and the students understand them
2. When there is an apparent structure to the approach
3. When sufficient time is spent on the task (It is becoming clear that interruptions in the teacher's schedule divert time from task, and that major attention should be given to preserving teaching and learning time.)

Involvement in Occupational Development

Finally, I hope vocational educators will take a more active role in job planning and job development. In turn, I hope that you can take what you learn about conditions and requirements in the field and feed this knowledge into your curriculum and guidance activities. I was glad to hear that this National Center recently sponsored a conference on the subject of involvement in job development.

One element that educators can contribute to the occupational development process is job enrichment. This generation of students is demanding a level of intellectual and emotional satisfaction from their work that is unprecedented. The potential is very great to incorporate non-remunerative rewards into the jobs served by vocational education, and educators ought to be an important part of that effort. Furthermore, the movement to reduce the forty-hour week produces some interesting challenges for educators as we build meaningful work experiences and have the work be compatible with increasing leisure time.

The Responsibility of Scholars

The last group that has a major responsibility in the field of education and work is the thinker: the researcher, the scholar, the planner.

We need you to help evaluate what works, what doesn't work, and why. We also need more fundamental research to help provide the pillars of knowledge upon which we can build our structure.

We need you to help us assess the basic elements of the federal strategy itself. For example, do we really know that planning at any level will result in better vocational education, either in terms of quality or in terms of increased employability? If such a relationship can be defined, can we develop workable standards that would let the federal government know what to look for in a good state plan, and how to improve a bad one?
The federal commitment to occupational planning also should be subjected to your scrutiny. I instinctively believe in its value; however, we need to explore the legitimate concerns that have been voiced about relying too heavily upon occupational projections in determining what courses will be offered. Are the projections accurate enough to support such efforts? If not, rather than remaining in a constant turmoil to keep up with the job market, would it be more worthwhile to isolate and foster the elements of vocational education that teach the basic skills of employability?

This brings me to the last area in which I believe your help is vital. Vocational education badly needs to redefine what it is and how it fits into the broader picture of education, training, and work. You may see things differently, but I sense a profound discomfort in the field. Frankly, each year at appropriations time, vocational education tends to describe itself as though it were the only segment of the educational system that is relevant to the real world. Now, I sense that vocational educators are worried about congressionally imposed accountability measures and conflicting studies about the employability of vocational graduates in relation to graduates of other types of programs.

It is clear that vocational education has felt threatened by the competition of other education providers in areas such as adult education, lifelong learning, and career education, and by the proliferation of CETA programs.

In a very real way, I think this discomfort is misplaced. The vocational approach will have a secure place in the educational system if vocational educators are willing to break out of the traditional patterns which, while effective with some pupils, have not served large sections of the population well.

Your enrollments have risen dramatically so you can rightly view past accomplishments with pride and confidence. The states substantially overmatch the federal contribution. CETA's two or three month single skill training efforts can complement rather than compete with your activities. The defensive reaction, born partly out of a feeling of lower status when compared with other forms of education, should no longer cripple the psyche of vocational educators because excellence in vocational education is clearly becoming a predominant trend. I recall being stopped on the streets of this city by parents who said with tears in their eyes, "Thank you for saving my son, or my daughter. They used to hate school. They love their new career program." Some of these young people came from suburban districts with excellent schools, but those schools just did not speak to their needs. So I know from personal experience the excellence that exists in vocational education and the beneficial impact it can have on students. To some extent, the problems of youth in the marketplace that are perceived by some as reflecting badly on the schools are the product of economic conditions for which education cannot reasonably be called to task.

But if you cannot be held accountable for the marketplace, then how are you to be judged? For what results can you be held accountable? What is a graduate of a vocational course of study supposed to know, and what should he or she be able to do? What will a vocational student need to know in the year 2000? Is vocational education "job training" by another name? Is it basic education by another methodology? Is it employability education? If vocational education sees its unique mission as conferring employability skills, then what are those skills and how can we design curricula to teach them effectively? How can the vocational community work effectively with Department of Labor programs, community based programs, and those efforts that employ nontraditional approaches?

These are just a few of the questions that I hope you will address.
I believe the current concerns about education provide us with an auspicious occasion to stimulate progress. With the help of all the partners—the federal government, the states, the local education agencies, employers, and the scholars—we have a time when new relationships can be forged and major breakthroughs in methodologies and attitudes can occur.

Certainly the American people expect results. Congress and President Jimmy Carter have spoken of the importance of linking education and work. Commissioner Boyer in his address to the National School Boards Association said:

I'm convinced it's time for our schools to confront the subject of vocation as a profoundly serious course of study. It's time for students to understand that work, for most of us, is an expression of who we are and where we fit. "I work, therefore I am" may overstate the case, but it speaks to our condition.

There is no form of education that has more to offer in meeting these challenges than vocational education. Vocational education won't be the only approach used or the only recipient of funds. But I can assure you that in addressing this important area of public concern, you have a firm place in our priorities. I believe that defining the linkage between education and the world of work will be among the most exciting tasks to confront educators in this decade. Some mistakes will be made along the way, but this should not deter us from acting.

Franklin Delano Roosevelt hit the mark when he said:

Governments can err. Governments can make mistakes. But the divine leader measures the sins of the cold blooded and the sins of the warm hearted on different scales. Better the occasional sin of a government operating in a spirit of charity, than the sin of a government frozen in the ice of its own indifference.

I wish you and your associates in this National Center every success because we have significant issues with which we must deal, and we have human and educational needs that remain untouched. Your creative efforts can affect the course of education for generations.
QUESTIONS AND ANSWERS

Question: What are ways that we can better communicate our needs with general educators and others we work with?

That's a question that drives to the heart of the communication issue. How do we understand our fellow professionals and recognize how we can help one another? First, I think we have to establish the means by which to communicate, but I don't know that we have an appropriate methodology in education. Let me speak first to a more general model. Recently, I visited the Mayo Clinic and saw a training program for physicians that I thought was exemplary. The clinic includes many different specialties. Every day at 10:10:30 a.m. the physicians, regardless of where they are assigned, report to a conference room for inservice activities. They do two things. First, they analyze a case drawn at random from the files—the diagnosis, the prognosis, the treatment, and the results. They have a gloves-off analysis of how they provided services to the patient. This shows how different specialties impinge on an individual as a whole person and how the clinic personnel can be more effective. I haven't seen this very frequently in education.

Secondly, each of these physicians has a specialty. They are required to know the frontier of knowledge in that specialty. They have to stand before their colleagues and explain the boundaries of knowledge, the latest developments, and the leading researchers. In this way they help one another learn. They also build relationships so that in working with a patient they feel comfortable to call upon other colleagues to help.

In education we need a similar model. Too often in education we perform in isolation. We stand in front of our class but welcome no one except an occasional visitor. We define our programs so rigidly that we permit only certain students to enroll. A nonvocational student is not welcome in a vocational class. I think our definitions and our structure get in the way. We have to develop some methodologies for getting together to look at the student as a person, be less rigid in how we define our courses and course offerings, and work on activities that can be more universal. Unfortunately, I think vocational education tends to be a little bit too dogmatic in the way it defines terms. I would encourage more flexibility. I say that in the spirit of affection because I think, despite the criticisms, you are achieving enormous results.

Question: How do we effectively communicate the impact and benefits of vocational education to various decision-making levels and bodies which have an impact on our future?

There's no easy answer to that. It's the difficult process of constant communication on a one-to-one or personal basis using specific examples plus the mass media efforts. I find that when I work with members of Congress, they are uninterested solely in abstractions—truth, beauty, and justice. We can all agree these are marvelous virtues, but how do we implement them when it comes to a person? And more specifically, what will they mean in the individual congressional district? I have observed that educators do an excellent job, in the main, of working with state legislatures, but they don't maintain sufficient contact with national officials. Much of the work of Congress occurs in
committees, and much of the committee information is provided through national research projects and through national constituency organizations. But insufficient information is transmitted through the practicing educator who can give a real life example.

Thus, you simply have to spend time—have breakfast, lunch, or dinner—with members of Congress when they come home to districts. You need to communicate the essential concerns you have. Explain the impact of legislation on their district, in human terms. Get some students and parents to join you in communicating. Do it in a supportive way, not a negative way. No one likes criticism. Members of Congress are particularly sensitive to voter approval, and rightfully so, because that is the system by which they are judged. So when you are somewhat critical in whatever you say, they understandably are not particularly receptive; Diplomacy is called for. I find that too few people do the hard work of constant communication on a person-to-person basis. Letters, books, or brochures, while important, are insufficient.

Secondly, I think you ought to tune in to the national dissemination network that is sponsored by NIE and the U.S. Office of Education. We do have state facilitators and demonstrators, and we are beginning to learn how to disseminate information in a major way. I visited the Far West Regional Laboratory and was tremendously impressed with a lot of the things they are doing, such as activities in the area of women's equity. We find, though, that sending a pamphlet, brochure, or booklet to implement a program is totally inadequate. You need personal attention; the reinforcement of someone giving instructions, encouragement, and explanations as a fellow human being, especially someone who already handled those problems. That's the essence of the Teacher Centers—the new federal program we have instituted—designed by teachers, for teachers, led by teachers. I think you have to adapt a variety of strategies, but none will permit a shortcut.

Additionally, we don't attend to the serious communication problems that require daily attention. Let me give you one small example. When I was an elementary principal, I checked on myself through a simple process I called C.O.S.T. I wrote down all the names of the teachers. At the end of each day I asked myself how often I had met each of these faculty members and what the nature of that meeting was. I assigned four points for every honest compliment I paid that person. Three points were assigned for an observation in which I visited a class; one point for a salutation; and two points if I had talked with the teacher. Now that wasn't an elaborate system, but it enabled me to remind myself of the level of communication I had with each person for whom I was responsible. I found that I tended to neglect some and give a lot of attention to others. I found that the physical layout of the building interfered with my ability to have contacts with some people. The system and the points are relatively unimportant. What matters is that you give the topic attention and do something to improve communication. If you want to communicate, you have to have contacts.

Question: An R&D agency must be held accountable for spending and for dealing with intermediate agencies such as teacher educators. It is difficult to get ideas supported because of the need to show an immediate impact and all the procedures that must be followed. How do we show evidence of impact on intermediate agencies so that it reaches learners? How can one be assured that USOE or NIE will be more receptive to this impact and that it has impact on classroom learning?

My personal philosophy is to take risks much more than the normal bureaucrat. Nevertheless, we have to function within a system and remain loyal to it. We have to organize our operations within the laws and the procedures. Government imposes too many restrictions and too many safeguards. We have too little trust. Whenever I am with a group to resolve or define something, I
try to focus on results and to have a clear definition of purpose. Results have to be communicated in plain English. I'm optimistic, although you need to keep trying and arguing.

We have an excellent Commissioner of Education, Ernest Boyer, who is receptive to new ideas. Also, President Carter has spoken of his hope that some of the difficult issues can be addressed. So I believe that with good ideas and going to the right people you can get things done. But to suggest that it is easy would be foolish. The nature of government, its quest for accountability, and the need for a number, a voucher, an evaluation, and an audit tends to restrict creativity.

In conclusion, some of you have asked me if I am hopelessly frustrated or if I am delighted to be where I am. I'd like to tell a favorite Washington story. It concerns the bureaucrat who is out in the jungle. To his great alarm, he finds himself being pursued by two lions. He begins to run frantically and the lions begin to close the gap. They get closer and closer and are about to strike. In a moment of desperation, he remembered his early training in Sunday School and breathed a prayer, "Dear Lord, please make these lions Christians." Lo and behold a miracle occurred. The lions paused in mid air—fell to their knees, folded their hands, and said, "Dear God, Bless this food of which we are about to partake." That's life in Washington most of the time. But there are days when the lions aren't hungry and substantial progress can be made. It can be frustrating, but nothing significant is ever easy.