

DOCUMENT RESUME

ED 271 577

CE 044 674

**AUTHOR** Walter, Franklin B.  
**TITLE** Vocational Education and the Public Schools: A Chief State School Officer's Perspective. Occasional Paper No. 117.  
**INSTITUTION** Ohio State Univ., Columbus. National Center for Research in Vocational Education.  
**PUB DATE** 86  
**NOTE** 17p.  
**AVAILABLE FROM** National Center Publications, National Center for Research in Vocational Education, 1960 Kenny Road, Columbus, OH 43210-1090 (OC117--\$2.75).  
**PUB TYPE** Viewpoints (120)  
**EDRS PRICE** MF01/PC01 Plus Postage.  
**DESCRIPTORS** \*Educational Development; \*Educational Improvement; Educational Needs; Job Skills; \*Job Training; Postsecondary Education; School Business Relationship; Secondary Education; Skill Development; \*State Programs; \*Statewide Planning; \*Vocational Education  
**IDENTIFIERS** \*Ohio

**ABSTRACT**

Ohio's commitment to vocational education is stronger than ever. Vocational education programs in Ohio reflect the fact that not all high school graduates go on to higher education; job training programs offered in Ohio schools provide young people with marketable job skills. To determine these skills, the Ohio Department of Education (ODE) makes a strong effort to communicate with business and industry and make changes in vocational programs. Ohio's vocational education programs reflect the state's understanding that the nation's economic performance can be enhanced if job training programs are tailored to meet economic needs. To combat the nation's decline in international trade, vocational education will have to emphasize state-of-the-art technologies and emerging skill areas to produce workers technically equal or superior to foreign workers and emphasize the development of good work attitudes to produce American workers psychologically prepared to meet the highest standards of productivity. Throughout 1986 the ODE will pursue such state-level objectives as meeting vocational education needs of special populations, implementing a statewide core competency testing program, and creating a vocational education leadership academy.  
(YLB)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*



ED271577

# Vocational Education and the Public Schools: A Chief State School Officer's Perspective

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

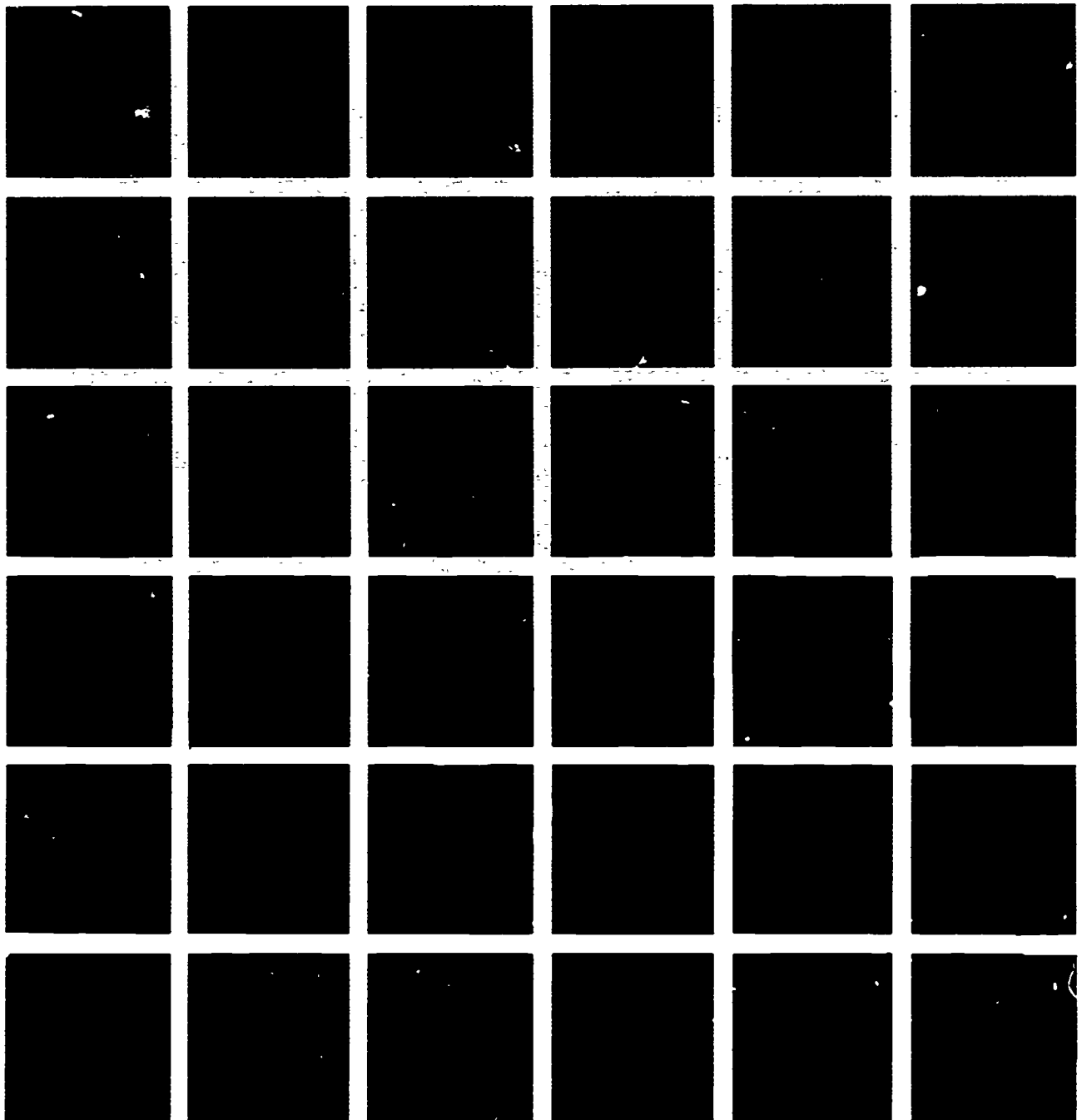
"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

*ACRVE*

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC) "

Franklin B. Walter  
Occasional Paper No. 117



0E044674

## 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
- Providing information for national planning and policy
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

For further information contact:

Program Information Office  
National Center for Research  
in Vocational Education  
The Ohio State University  
1960 Kenny Road  
Columbus, Ohio 43210-1090

Telephone: (614) 486-3655 or (800) 848-4815  
Cable: CTVOCEDOSU/Columbus, Ohio  
Telex: 8104821894

The Lecture Series at the National Center for Research in Vocational Education was established to provide a forum for discussing current issues confronting educational research and development among distinguished professionals and National Center and Ohio State University staff. **Points of view or opinions do not necessarily represent official National Center or Ohio State University position or policy and no official endorsement of these materials should be inferred.**

**VOCATIONAL EDUCATION AND THE PUBLIC SCHOOLS:  
A CHIEF STATE SCHOOL OFFICER'S PERSPECTIVE**

**Franklin B. Walter  
Superintendent of Public Instruction  
Ohio Department of Education**

**The National Center for Research in Vocational Education  
The Ohio State University  
1960 Kenny Road  
Columbus, Ohio 43210-1090**

1986

## FOREWORD

It would be an understatement to say that the role of vocational education in the public schools is an issue in which the National Center has a keen interest. In the fall of 1984, with funding from the United States Department of Education, the National Center-sponsored National Commission on Secondary Vocational Education issued its report, *The Unfinished Agenda*. Throughout the work of the commission, several assumptions emerged clearly, three of which bear on today's topic: (1) Recent national study reports had not dealt adequately with vocational education. (2) Secondary students are a very diverse group, and thus no single prescription can be effective for all. (3) Education goes beyond the school to encompass home, community, and workplace.

Franklin B. Walter, Superintendent of Public Instruction in Ohio, has distinguished himself in Ohio and the nation as an educator. Before joining the Ohio Department of Education as Assistant Superintendent in 1968, he served as superintendent of two local school districts in the state. He was appointed to his present position in 1977.

Dr. Walter earned a Ph.D. from The Ohio State University and has served as a lecturer and consultant for many state and national organizations. He has received many honors and awards and has served on numerous boards and commissions. He is currently president of the prestigious Council of Chief State School Officers.

On behalf of the National Center for Research in Vocational Education and The Ohio State University, I am pleased to present this lecture by Dr. Franklin B. Walter.

Robert E. Taylor  
Executive Director

## **VOCATIONAL EDUCATION AND THE PUBLIC SCHOOLS: A CHIEF STATE SCHOOL OFFICER'S PERSPECTIVE**

Orwell's "1984" has come and gone. Reality was, in many ways, much different from the projections of that thought-provoking work. We have crossed the midpoint of the 1980s and are planning for the 1990s and the next century.

The future college graduates of the 21st century are already in our schools. Today's preschoolers are the new century's first high school graduates. Harold Hodgkinson, scholar-in-residence at the American Council on Education, in examining the implications of demographic trends for schools in the 21st century, makes some surprising observations.

There is a tendency to think of the typical American family in terms of an old Norman Rockwell magazine cover: the working husband, the housewife at home, and two school children. Today that description fits only seven percent of American households. Consider the implications of these realities about today's children:

- 14 percent are illegitimate
- 40 percent will be living with a single parent by their 18th birthday
- 30 percent are latchkey children
- 20 percent live in poverty
- 15 percent speak in other languages
- 15 percent have physical or mental handicaps
- 10 percent have poorly educated parents.

The education enterprise must change dramatically to prepare adequately the young people who come to our doors so their lives may be rewarding, so they may participate fully in our democracy, and so we may have a competitive work force.

The learning enterprise, as described by economist Antony Patrick Carnevella, is multifaceted, broad in scope, and responsive to various perceived needs. Education and training are delivered through an elementary and secondary education system that invests \$144 billion annually. In Ohio alone, we invest more than \$27 million of the taxpayers' money per day to educate our nearly 2 million elementary and secondary students. As a nation, we invest \$94 billion in postsecondary education. Employee informal training programs cost business and industry \$180 billion per year. Employee formal training costs \$30 billion, and the government invests \$5 billion annually in personnel development. One in every eight working Americans participates in formal training courses each year.

Economic and technological changes have demanded the expansion of the learning enterprise. Such education and training have an impact on production and employee promotion. Research shows that the productivity return for on-the-job training was 12.6 percent for those who were college educated and 19 percent for those without college. Obviously, there are substantial benefits for those involved in our educational programs.

The concern about our nation's educational system and its ability to provide the education and training needed for a competitive work force prompted more than 30 significant national studies on education. It has been almost 3 years now since the National Commission on Excellence in Education electrified America with its ominous report *A Nation at Risk*. That report—and the others that followed it—helped to generate a massive reform movement in education that is still sweeping through our schools.

For the most part, the educational reports of 1983-84 were quite comprehensive. Close attention was given to curriculum development, student achievement, school finance, school organization, and a host of other pressing issues. Nevertheless, there was one vital component of instruction that was largely overlooked—vocational education. This oversight was regrettable because vocational education has a very clear and direct relationship to the future well-being of our society.

Here in Ohio, no one needs to be reminded about vocational education's importance. Our state has been a leader in this area of instruction since 1956, when the general assembly designated vocational education as a unit to be covered under the foundation funding program. Today, 30 years later, our commitment is stronger than ever.

In fiscal year 1985, expenditures for vocational education in our schools totaled about \$205 million. In fiscal year 1986, that figure will be \$223.8 million. That does not include additional dollars that will be spent on vocational education equipment replacement (\$5.1 million), postsecondary vocational education programs (\$9.9 million), and vocational education matching funds (\$1.7 million).

Adequate funding for vocational education is critical. A strong financial base is a prerequisite for the development of strong programs. Even so, it is the thinking—the philosophy—underlying our programs that is the key to their success.

Our vocational education programs reflect the basic fact that not all high school graduates can or want to go on to higher education. Some prefer to seek jobs immediately after graduation. Only about 20 percent of the jobs require a college degree. Accordingly, job training programs offered in Ohio schools provide young people with marketable job skills. That means that when a young person completes a job training program, he or she can enter the work force with a skill that directly corresponds to an identified need in our economy.

Determining what skills are "marketable" is not an easy task. Skills, attitudes, and values required for productive employment are basic in current job training programs. Given the dynamic nature of our economy, jobs can literally be here today and gone tomorrow. With this in mind, the Ohio Department of Education makes a strong effort to communicate with business and industry about both current and future job priorities. As these priorities become clear, changes are made in our vocational curricula.

Because cooperation between the private sector and the educational community is so vital, the Ohio Department of Education has given representatives of business and industry a voice on a

number of state-level educational commissions. Business people have been quite willing to help us because they know that our schools are the wellspring for tomorrow's work force. They know that the men and women who will sit in their offices and board rooms during the 21st century are sitting in classrooms today.

The cooperation between our schools and the private sector brings a rich dividend for vocational students. Most obviously, they benefit from acquiring proficiency in a worthwhile job. In a broader sense, however, vocational education is a life-expanding experience for students. It gives them a clearer picture of the promises and pitfalls that our world has to offer. Similarly, it furnishes them with a deeper insight into their own potential as human beings. The self-awareness a student gains from vocational education can become a source of self-confidence and motivation and, in fact, a challenge.

Ohio's vocational education programs also reflect our understanding that the nation's economic performance can be enhanced if job training programs are tailored to meet economic needs. Currently, America's biggest economic problem is the budget deficit. When President Reagan came to the White House in 1981, the national debt was \$1 trillion—"If you piled up that money in \$1,000 bills," he told Congress, "you would have a pile 67 miles high." Today the debt has doubled.

International trade may well be our second biggest economic problem. It is a sad fact that the United States is now taking a beating in many international markets that were once dominated by American manufacturers. Consider this for a moment: for 2 decades after World War II, American productivity increased more than 3 percent per year. In 1960, we had about a 25 percent share of the world market in manufactured goods. In the U.S. market, American companies produced 95 percent of the autos, steel, and consumer electronics sold.

Between 1973 and 1977, the growth in productivity decreased to about 1 percent per year and in 1979, productivity fell 2 percent. In 1979, our world manufacturing share slipped to just over 17 percent; in that year, U.S. companies' share of the domestic market dropped to only 70 percent in autos, 86 percent in steel, and less than 50 percent in consumer electronics. Japan alone produced 40 percent more automobiles than the United States (and took over as the number 1 auto producer) in 1980.

In the 1980s, the nation has had to struggle with a shrinking margin of technological superiority and diminished gains in productivity. Just last year, while U.S. manufacturing productivity was growing by 3.5 percent, Japan was experiencing a 9.5 percent increase in output per hours worked; West Germany's increase was 4.7 percent.

Recent data are more encouraging, but the gap remains. Vocational education is not a cure-all for our economic problems, but it is an essential component. Analysis of data available as far back as 1919 consistently shows that human factors are the major source of growth in individual earnings, institutional productivity, and national income. First, by emphasizing state-of-the-art technologies and emerging skill areas, vocational education programs can turn out workers who are technically equal or superior to workers in other countries. Second, by emphasizing the development of good work attitudes (pride in achievement, work ethic, willingness to exceed minimum expectations), vocational education programs can ensure that American workers are psychologically prepared to meet the highest standards of productivity.



The strength of the U.S. economy has always resided in the strength of its citizens. If those citizens are confident, motivated, and skilled in the right areas, the dangerous trends we see today can be reversed.

Throughout 1986, the Ohio Department of Education will be taking steps to build upon the successes that have already been achieved in vocational education. During the new year, the department will seek to organize "kitchen cabinets" consisting of private sector representatives who have expertise in specific vocational areas. Information and advice provided by these cabinets will help the department respond to new issues in vocational education. Other state-level objectives that will be pursued include—

- meeting the vocational education needs of special populations,
- implementing a statewide core competency testing program for all students enrolling in job training programs,
- creating a vocational education leadership academy,
- expanding vocational education program options,
- clarifying the impact of the Gramm-Rudman legislation.

We can all be pleased with the effectiveness of vocational education programs. Drawing on our previous successes, we must move ahead with programs that will help put people back to work and restore economic edges we enjoyed in earlier years.

Demographic changes, as pointed out by Hodgkinson, and the changes that are taking place in business and industry clearly make it imperative to intensify our efforts to identify clearly the changes that must be made in our vocational education delivery system. I would offer the following observations:

- Job training programs must remain a vital part of the high school curriculum for many students.
- Jobs of the future will require greater academic ability and increased productivity.
- Our highly technical national defense system is dependent upon well-educated personnel; hence, vocational education will continue to be vital for national security.
- Intensified international economic competition demands a more highly trained work force.
- Adult programs must be examined and reexamined as the demand for retraining accelerates.
- Literacy is a prerequisite for employability and, therefore, assistance even at the pre-school level must be provided for the intellectually disadvantaged.
- A new federal commitment to vocational and career education must be generated through the joint effort of the business community and the education community.

- Sacred cows that are barriers to relevant vocational education must be identified and eliminated.
- The salary, education, training, and retraining of classroom teachers must be dramatically improved.
- Leadership to address the needed changes in the education enterprise must emerge.

The great jurist Oliver Wendell Holmes once observed that "the most important thing in this world is not so much where we stand, as in what direction we are moving." With help from caring and capable people like you, we can keep vocational education moving in the right direction and open up new horizons for future generations to pursue.

## QUESTIONS AND ANSWERS

Franklin Walter

**Question:** Recent research completed here at the National Center has indicated that today's youth are graduating from high school without the employability skills required to navigate the labor market, that is, search for a job and then survive at that job for at least a 6-month period. Now, these youth are graduating from the general track as well as the vocational track. Can you explain if and what the school systems of Ohio are doing to alleviate this problem and through what subject courses? Is it an English course or a social studies course, and what is the state policy on that? And second, the transition from school to work is especially difficult for handicapped youth. Can you describe any programs that the state is implementing at the state level that would assist handicapped youth make the transition from school to the world of work?

First of all, in terms of our career education programs, which we have begun in the elementary school, we are teaching young people about the world of work. That means we are focusing on what kinds of skills are necessary to get a job and keep a job, how to apply for a job, and what is required in terms of meeting employers' expectations. Career motivation comes at the elementary level, the orientation at the junior high or middle school level, and work experience exploration at the 9th- and 10th-grade levels. The actual work experience exploration comes at the 11th- and 12th-grade levels. These programs are already in place and we are making real long-term gains.

The program that we have to work directly with intellectually disadvantaged youngsters is called Jobs for Grads. It has been very successful in Cincinnati and we are currently working with the other large cities of the state to implement Jobs for Grads. Very simply stated, it is a program where an employment counselor is identified to work with 30 high school seniors who potentially would have problems with employability. During their senior year and 9 months after their senior year, that counselor works with the students in a Jobs for Grads program. Their success rate is very high. This past week Dr. Parks and I worked with the superintendents in large cities and attempted to work through the Job Training Partnership Act (JTPA) to utilize some of those resources and expand that program.

There is no question that the issue that you raise is very basic in terms of resolving the problem. There are 3.2 million young people age 18 to 21 who are functionally illiterate in the United States, according to the best data that are available three million of them—besides being currently unemployed have never held a job at any time. Part of the problem of getting a job must be related to the literacy issue as well as to the techniques one uses to get a job. Another related thing we are doing is placing much greater emphasis in kindergarten and preschool programs on early identification of youngsters who are intellectually disadvantaged.

**Question:** You identified one of the most critical concerns today in America, that is, the dropout question. I am concerned with finding out more about how we can help other states, since Ohio seems to be a leader in keeping the dropout rate low. Can you identify some strategies that we could share and could you tell us more about why these strategies are so successful here in Ohio?

We have a theory on why the dropout rate has been low, but I do not know how we can really test that theory. Essentially it is this: During the last half of the 1970s, we looked at what was happening, and we saw an increase in the number of dropouts in Ohio. During 1975, 1976, 1977, 1978, 1979, and as we shaped our blueprint for the 1980s (our master plan for the 1980s), one of the priorities was to decrease the number of dropouts. And in doing that, we gathered data from each district concerning its dropout rate, and found some interesting things. Some districts did not know there was a problem. You do not deal with a problem if you do not know that it exists. The data were there, but they were not put together to show the dropout rate. We then publicized the districts with the highest and lowest number of dropouts, and recently gave every district information concerning its relationship to the state average. So we first approached it from that dimension—information and awareness—in establishing priority. The second thing that many districts did that I think was probably the key after we began to talk about it, was to contact homes if students were absent from class. Absence relates very directly to dropping out of school. When you find youngsters who are absent a great deal, it is not long before these students become potential dropouts. Concurrently, our attendance rate has gone up. We now have the lowest dropout rate and the highest daily attendance rate we have ever had. This is because of the attention we have focused on the problem and because we have been working on it. We have shared those data.

The other thing that we have not done, and one of the things that has been very difficult politically not to do, is agree to a statewide test to force students out of school. If you have a test, in order for it to be a good test, you have to cause someone to fail. So when you design a test, you decide how many people you want to fail. You can design your test to prove that 10 percent of the testtakers should not graduate from high school. I personally resisted that a great deal, politically at considerable risk, because I think our task is to educate youngsters, not to sort them. The schools that have high dropout rates or increasing dropout rates are in the states that have imposed many additional graduation requirements.

**Question:** One of the points you made toward the end of your speech related to looking at some of the sacred cows that appear in vocational education. Would you share with us what you feel some of those sacred cows are?

That is a high-risk question. I recently visited a school in Athens, Ohio, and after I visited a third-grade classroom there, the teacher said, "Do any of you students have questions that you'd like to ask Dr. Walter?" Well, they all got up out of their seats and came running up around me. A little girl said, "How's come we don't have any hot water in the restroom?" That seemed like a reasonable question for the state superintendent to answer. I was trying to think of a good answer, so I said, "Don't you have any hot water in your restroom?" She said no and another little girl said, "The boys have hot water in their restroom," and another little girl said, "That's not fair." I said, "Why isn't it fair?" She said, "Dr. Walter, did you ever see a 9-year-old boy that had clean hands?" The reason I tell you that story is that I always get tough questions. Incidentally, I bet that water has been fixed, just because the matter was brought to my attention; the superintendent who was with me did not know about the problem. So sometimes just raising the issue like the dropout question does help in creating a solution.

We probably have not recently reassessed time requirements in vocational education as much as we should. I think it is one thing that we need to look at. Second, I think that we need to look very seriously at the whole related area of what we teach, who teaches the related course, and whether or not there are some other kinds of academic things that ought to be included. We are beginning to do these things, so they are not things that we have never discussed before. Third, I think that, to the extent that we possibly can, we need to get away from that attitude of "we" and "they" in our educational family. We are the academic educators, and they are the vocational educators. We are all dealing with boys and girls, young men and young women, and I think that one of the things we have to do is think objectively about them. Fourth, we have to look again at the whole area of small schools and the limitations that are placed on them in terms of curriculum. We have to find some ways to assist them so they do not feel that they have to guide people out of vocational education in order to maintain their academic program.

**Question:** What role do you think vocational education plays in lowering the high school dropout rate, and what role do you think that it can play? If there is discrepancy between the two, how would you go about reducing that discrepancy?

If our data are correct, we will have as low a dropout rate as any state except the very agricultural states this year. Our data indicate that we have about an 18 percent dropout rate compared with the national average of about 28 percent. We see a very significant difference in terms of dropout rate, and I think our vocational education programs have been very instrumental in helping us reduce that rate. I know from talking with youngsters who are in vocational education programs that many of them develop a sense of pride and a positive feeling of self-worth that they simply never had because they had not experienced any kind of success in school. So although we do not have very good data, there certainly appear to be some things that make a difference in the lives of students in vocational education; things which give them great pride.

I don't know how many of you have actually visited vocational secondary classes lately, but the youngsters are so proud of what they do. And it makes me feel very good. I was recently in a cosmetology class, and the young woman who cut my hair was so proud of what she did that I left there with a wonderful feeling about it. She said, "I simply was not making it and I was thinking about dropping out of school. I was even wondering why I was alive." She added, "I decided to take cosmetology. Now I know that I can do something." And she could; she was excellent. "And I know that I've got a job when I get through," she added. There is just no question of vocational education's value, but we do not have any good data to show that it has significantly reduced the dropout rate.

**Question:** Dr. Walter, you mentioned a number of the implications that have arisen from the Commission on Excellence report—the changing graduation requirements that have occurred throughout the United States and some of the changes that have resulted. I wonder if you could talk about the influence from the colleges and universities that are increasing graduation requirements as that affects the programs that are offered, and particularly as you relate it to the fact that 50 percent of the young people in Ohio go through college preparatory programs and 50 percent go through vocational programs. If we do raise the college entrance requirements, what are the implications then for those people that will not have the credentials to enter the colleges and will not have completed the vocational programs either?

First of all, we know that as far ahead as we can look, only 20 percent of the jobs will require a 4-year degree, and that is fairly optimistic. You have to stretch those figures to come up with 20 percent. We also know that the technical programs increasingly require academic preparation. So

when we say about 50 percent of students are in college preparatory programs, we are talking about both technical college programs leading to 2-year degrees and about 4-year colleges. You have recently seen what the dropout rate is at The Ohio State University. The newspaper has stated how many freshmen enter and how many leave by the end of the first year. Those figures are rather typical of most of the state universities I would assume, with one or two possible exceptions. The data that are available (and I wish I could cite the study), show that 1 or 2 years of college do not make a great deal of difference as far as employability is concerned. For minority youngsters, the degree really makes the difference. Even 3 years of college does not seem to make as much difference as it should for minority youngsters. So, youngsters who move into higher education and then do not complete it do not necessarily enhance their opportunities for employability to the extent that one would think. We have to be concerned about that.

Second, even with the increased requirements for entering colleges that we are hearing about, the alternative ways of getting a degree remain viable options for a lot of youngsters. We only have 2 million students who fall into the category of typical 18- to 22-year-old full-time college students. There are 14 million in college and only 2 million of them are in that age group. Typically, we are seeing people enter into college part-time and take some other approaches rather than the regular 4-year program. I think that trend is going to continue to evolve.

The colleges and universities also have to deal with the public policy issue that is different from that of elementary and secondary schools. I find myself vacillating on what I believe about it. We believe that every youngster should be able to complete high school. Young people are required to attend school through age 18 unless they have a job. We have programs for handicapped youngsters who cannot succeed in regular programs because of their handicaps. And we have put in place a delivery system that attempts to serve 100 percent of the youngsters through graduation, and that, I believe, is a public obligation. Now the question is, is there a public responsibility to guarantee anyone a college education? There is no compulsory college attendance law; college has not been looked upon as something everyone aspires to. Therefore, it seems to me that we have a different set of circumstances in terms of whether or not we have an obligation to guarantee everyone a college education. If we take the position that certain standards must be met to receive a college education, then obviously not everyone is going to meet those standards. So you come back to the final question—What are realistic expectations for those who would earn an academic degree in college? And I do not think we have answered that as public policy. I think that issue has to be thought through.

## LEADERSHIP SERIES IN VOCATIONAL AND CAREER EDUCATION

- Campbell, Anne. *Vocational Education in an Information Age: Society at Risk?*, 1984 (OC 99—\$3.00).
- Carnevale, Anthony P. *The Real Supply-Side Economics*, 1982 (OC 80—\$1.90).
- Champagne, Audrey. *Teaching for Workplace Success*, 1986 (OC 113—\$3.00).
- Coffey, Osa D. and Carter, Dianne. *Improving Corrections Education: Two Perspectives for Voc Ed*, 1986 (OC 111—\$4.25).
- Craig, Paul G. *Structural Changes in the Economy and Future Job Prospects*, 1983 (OC 92—\$2.50).
- Crandall, Jo Ann. *Directions in Vocational Education for Limited English-proficient Students and Adults*, 1985 (OC 109—\$3.50).
- Daggett, Willard R. *Strategic Vision and Planning: Keys to Educational Improvement*, 1984 (OC 100—\$3.00).
- Dunne, Faith. *Places in the System: New Directions for the Vocational Education of Rural Women*, 1985 (OC 108—\$2.75).
- Edwards, Kenneth R. *The Perspective of Organized Labor on Improving America's Productivity*, 1983 (OC 89—\$2.50).
- Elliman, Peter J. *Critical Issues in Vocational Education: An Industrialist's View*, 1983 (OC 95—\$2.50).
- Field, Ronald H. *State Legislative Perceptions of Vocational Education*, 1984 (OC 102—\$2.75).
- Frey, Donald W. *The Economy, Productivity, and Training—A CEO's View*, 1983 (OC 88—\$2.25).
- Glaser, Robert. *The Nature of Expertise*, 1985 (OC 107—\$3.00).
- Glover, Robert W. *Apprenticeship in the United States: Implications for Vocational Education Research and Development*, 1980 (OC 66—\$1.90).
- Hampson, Keith. *Trends in Manpower and Educational Development: A British Perspective*, 1985 (OC 104—\$2.75).
- Harman, David. *Adult Education in the United States: Its Scope, Nature, and Future Direction*, 1985 (OC 105—\$2.75).

- Hayes, Chris. *Four National Training Systems Compared: Achievements and Issues*, 1986 (OC 114—\$2.75).
- Hemmings, Madeleine B. *Next Steps in Public-Private Partnerships*, 1984 (OC 103—\$3.00).
- Hodgkinson, Harold. *Guess Who's Coming to Work*, 1986 (OC 116—\$3.00)
- Hopkins, Charles O. *A National Prospectus on Vocational Education: Its Impact on Research and Leadership Development*, 1982 (OC 85—\$2.25).
- Kaagan, Stephen. *Education for Work, K-12*, 1986 (OC 115—\$2.75).
- Knutton, Harry. *Vocational Education for a Changing Society*, 1982 (OC 81—\$2.20).
- Lindeman, Anne. *State Concerns in the Future Development of Vocational Education*, 1984 (OC 98—\$3.00).
- Lloyd, Kent. *The Federal Perspective on Vocational Education's Role in Economic Revitalization and Productivity*, 1983, (OC 91—\$2.50).
- Loose, Gert. *Towards a Cross-National Model for Cooperation in Vocational Education: Implications for Research and Development*, 1982, (OC 87—\$3.25).
- Miller, Edward D. *The Role of Student Organizations in Vocational Education*, 1983 (OC 94—\$2.25).
- Miller, Thomas W. *The Business and Industry Perspective on U.S. Productivity: Implications for Vocational Education*, 1982 (OC 82—\$2.50).
- Parnell, Dale *A National Human Resource Development Policy: The Role of Postsecondary Vocational Education*, 1982 (OC 83—\$2.25).
- Poulard, Othello W. *The Expanding Role of Community-Based Organizations: Implications for Vocational Education*, 1983 (OC 90—\$2.25).
- Rosenfeld, Stuart. *Vocational Education and Economic Growth Connections and Conundrums*, 1986 (OC 112—\$3.00).
- Rumberger, Russell. *Demystifying High Technology*, 1984 (OC 97—\$2.50).
- Shields, Dorothy. *Organized Labor's Linkage with Vocational Education*, 1986 (OC 110—\$3.00).
- Silberman, Harry F. *Determining Goals for Vocational Education*. 1983 (OC 96—\$2.75).
- Steiner, Gerhard. *Current Problems in Vocational Education in Switzerland: Report on a National Research Program*. 1983 (OC 93—\$2.75).
- Super, Donald E. *New Dimensions in Adult Vocational and Career Counseling*, 1985 (OC 106—\$3.50).
- Tucker, Alvin. *The Role of Education in National Defense*, 1982 (OC 86—\$2.25).



Walter, Franklin B. *Vocational Education and the Public Schools: A Chief State School Officer's Perspective*, 1986 (OC 117—\$2.75).

Watkins, Wesley W. *The Entrepreneurs of Entrepreneurship*, 1982 (OC 84—\$2.25).

Worthington, Robert M. *Vocational Education in the United States: Retrospect and Prospect*, 1984 (OC 101—\$3.00).

#### ORDERING INFORMATION

All prices include postage and handling. When ordering use series numbers and titles. Orders of \$10.00 or less will be accepted on a cash, check, or money order basis only. Purchase orders will be accepted for orders in excess of \$10.00. Please make check or money order payable to: **The National Center for Research in Vocational Education**. Mail remittance and/or purchase order to: National Center Publications, The Ohio State University, 1960 Kenny Road, Columbus, OH 43210. (Prices subject to change.)