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Vocational Education Awards 9/ 11/89 [OA 6268]

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((Grant))
September 7, 1989
Draft three

PRESIDENTIAL REMARKS: VOCATIONAL EDUCATION AWARDS
THE ROSE GARDEN
SEPTEMBER 11, 1989
11:15 A.M.

((Acknowledgements))

There's an old saying: The more things change, the more things stay the same. Well, today I'm going to talk about our rapidly changing workforce, and the simple, proven ways America is preparing for the future.

During the Administration of Abraham Lincoln, the government made a strong commitment to what most people now consider a current idea: vocational-technical education. By establishing the land-grant colleges -- the Agricultural and Mechanical, or "A & M" schools -- Lincoln ensured that Americans workers were on the cutting edge of new technologies. Sound familiar? Since the days of Lincoln, America has been concerned with competitiveness in the world marketplace of technology.

Lately, there's been a bad rumor going around that the work ethic is dead. It sure isn't -- not when so many of the best new jobs in the Nation are going to Americans educated in vocational-technical schools. Sounds to me like the work ethic is alive and well.

And it's going to stay that way: Eighteen of the 20 fastest growing occupations within the next decade require vocational-technical education, and jobs for technicians will grow 38 percent by the year 2000 -- the fastest of any major occupational group.

All across America, some 26,000 vocational-technical education institutions provide 16 million Americans with marketable skills in over 150 occupations.

These students will be the high-tech computer programmers and operators, equipment assemblers and communications specialists who stand at the cutting edge of our economy. As we rely more and more on automation in our industries, employers will be looking for smart workers who can communicate and solve problems, from monitoring production rates to repairing robots. These are people who are skilled on the production line and who know how to get things done -- one professor told Fortune magazine they were the new "blue-and-white-striped-collar-workers" of tomorrow.

Let's look at one of the benefits of vo-tech education: marketable graduates and lower unemployment. For example, one study found that graduates of Ohio vocational education programs earn 21 percent more money four years after graduation than high school graduates without such training. And unemployment is lower for vo-tech graduates than for those in the general work force who are the same age and have the same number of years of schooling. But even beyond the numbers -- if vo-tech education can help young Americans get a better start in life, then it has been an overwhelming success.

Here's another benefit: improved learning skills. Job training and academics are not contradictory. Actually, many people learn academic subjects better in the context of how to use them on the job. Students in a vo-tech school taking a

FORTUNE 6-19-89 p. 132

"Principles of Technology" course will learn about thermal resistance not from a lab experiment with beakers and test tubes, but from working with the insulation in a house. Vo-tech schools are leading the way in educational improvement and "applied academics."

Joyce Winterton 732-1984 American Vocational Assoc.

The partnerships that community colleges and vo-tech institutes have formed with businesses to provide retraining and up-to-date skills for their employees are essential. There are now 23 million adults who receive re-training through vocational-technical programs which allow them to get new or better jobs. The reality of life-long learning has arrived.

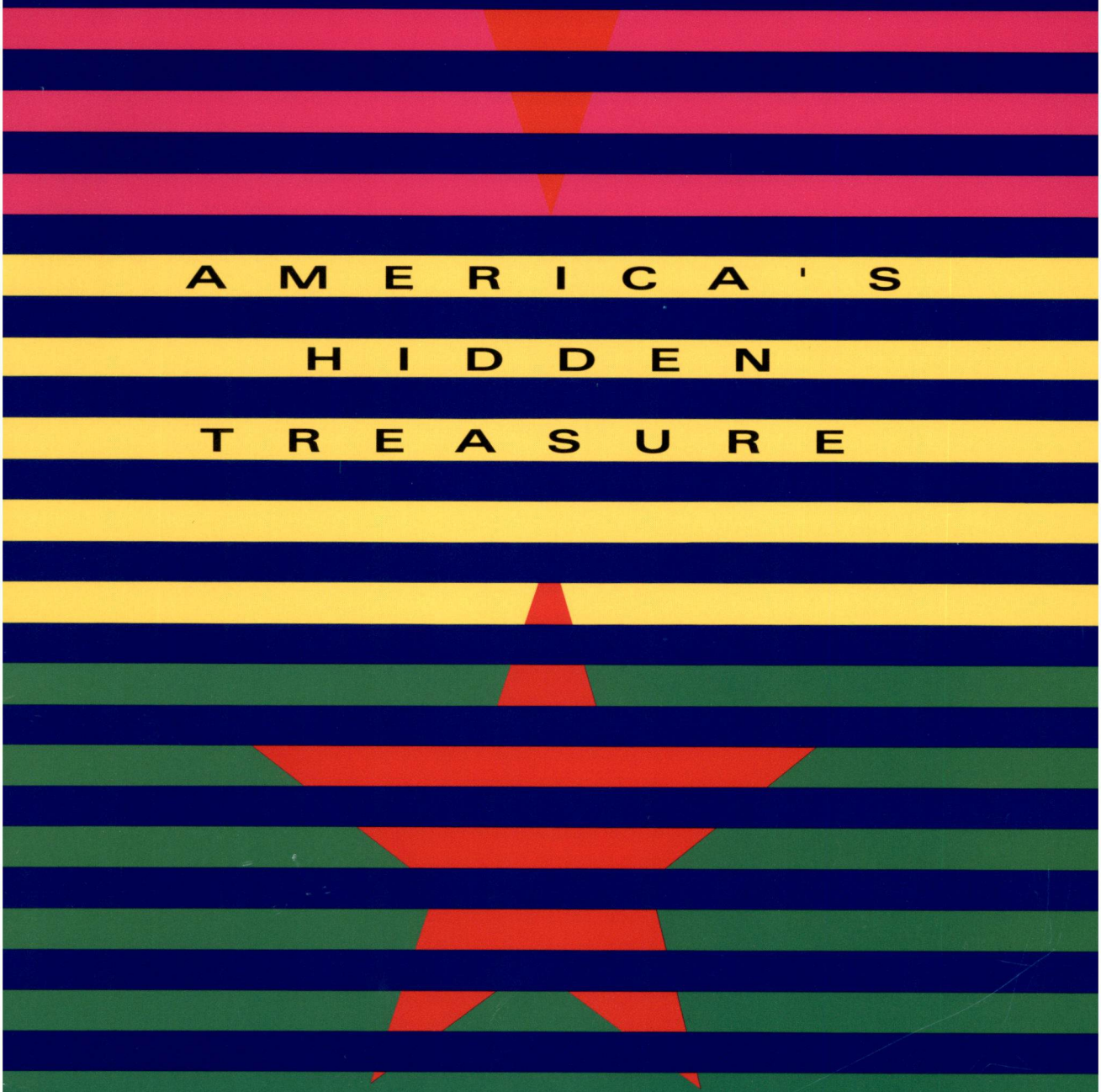
Building a worldclass workforce is a national priority. Improving America's capacity to educate and train workers is critical to the future of this country. That's why today we're presenting to you the American ~~Vocation~~ Success Awards for Vocational-Technical Education. You have become American success stories through your involvement in vocational-technical education. And you're building a better America every day.

Each of you has truly lived the American Dream, and each one of you deserves our congratulations and thanks for your work in vocational-technical education. God bless you all. Thank you.

And now, we'll be presenting the American Vocation Success Awards ...

# # #

AMERICA'S HIDDEN TREASURE



NATIONAL COUNCIL
ON
VOCATIONAL EDUCATION

1989

AMERICA'S HIDDEN TREASURE

THE URGENT NEED TO RECOGNIZE AND PROMOTE THE NATION'S VOCATIONAL-TECHNICAL EDUCATION SYSTEM

A REPORT TO THE AMERICAN PEOPLE

NATIONAL COUNCIL
ON
VOCATIONAL EDUCATION
1989

AMERICA'S HIDDEN TREASURE

THE URGENT NEED TO RECOGNIZE AND PROMOTE THE NATION'S VOCATIONAL-TECHNICAL EDUCATION SYSTEM

A REPORT TO THE AMERICAN PEOPLE

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AN OPEN LETTER TO THE AMERICAN PEOPLE

Dear Fellow Citizens:

The greatest resource in our Nation is our people -- the men and women who produce the goods and deliver the services that keep our economy running and provide so many benefits to the world. Today, our country competes head-on with other leading industrial nations. We must ensure that members of our workforce are well educated and well trained for the demanding requirements of today's technology-driven economy.

We have in America a wonderful treasure -- the vocational-technical education system. Unfortunately, it is a hidden treasure. Too few people know about or appreciate the value of this system. Too few educators, government officials, and even parents of school-age young people understand the high promise of a career that begins in vocational-technical school. The overwhelming majority of the best new jobs in America today are being filled by men and women educated in vocational-technical schools.

This report to the American people is intended to alert the public to the tremendous untapped potential of the vocational-educational system. Please think about the vocational-technical school in your own community, and see how it can help people to find excellent careers for themselves, even as it helps our Nation to maintain our position in the world economy.

Michael R. Farley
Chairman
National Council on Vocational Education

A note on the National Council on Vocational Education

The 17 members of the National Council on Vocational Education are appointed by the President to carry out the mandate of the Council. Congress established the Council under the Carl D. Perkins Vocational Education Act of 1984 to advise the President, Congress, and the Secretary of Education on a wide range of issues pertaining to vocational-technical education. Further information on the Council and the Perkins Act appears at the end of this booklet.

AMERICA'S HIDDEN TREASURE

Everybody in this country benefits from vocational-technical education, but most people know next to nothing about it, what it does, or how it works. Some people -- including some government leaders and even educators -- seem to care little about this wonderful and powerful resource that this Nation has. The National Council on Vocational Education calls vocational-technical education America's hidden treasure, because it's as good as the gold in Fort Knox -- and just about as far from public view.

Vocational-technical education is an important national treasure because:

Eighteen of the 20 fastest growing occupations within the next decade require vocational-technical education.

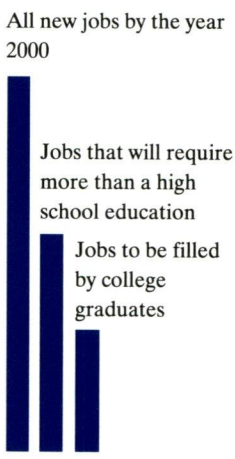
- Eighteen of the 20 fastest growing occupations within the next decade require vocational-technical education (the other 2 require a bachelor's degree).
- Vocational-technical education prepares students for 26 of the 37 occupations that the Bureau of Labor Statistics predicts will account for the largest number of new jobs by 1995.

All of these facts add up to a picture of vocational-technical education that differs dramatically from the stereotype of wood shop and auto mechanics. The American vocational-technical education system now in place can help to solve many of the social and economic problems of the Nation.

Spread across this Nation are some 26,000 institutions that teach vocational-technical education to more than 16 million students at any one time. They are learning skills that are critically important to the economic future of this country, important to every man, woman, and child in this country. These students are studying to become the high-tech computer programmers and operators, equipment assemblers, and communications specialists who will help lead this Nation into the 21st century.

Some people may still view vocational-technical education as something taught in a dingy print shop or metal shop or auto mechanics shop. That old stereotype -- vocational-technical education as dull and boring and leading to a dull and boring life -- just does not hold water any more, if it ever did.

Vocational-technical education today is as sparkling new and bright as the surface of a NASA rocket, which as a matter of fact was probably fabricated, assembled, and prepared for liftoff by graduates of vocational-technical education. In fact, on the NASA Space Shuttle program, there were five technicians employed for every engineer. Vocational-technical education offers a course of study that leads to exciting and financially profitable work. It opens wide the door of opportunity for millions of young people, displaced workers, and the handicapped to build rewarding and fulfilling lives for themselves and their families.



The value of this hidden asset can be seen daily in classified ads in the newspapers of the Nation. The ads call for applicants who are electricians, floral designers, glaziers (the workers who replace broken windows), legal secretaries, medical X-ray technicians, and printing press operators, to name just a few. This evidence shows that anyone who has a skill can find a job and will be employed if that skill matches the needs of today's economy. The jobs for people are higher skilled and better paying jobs; the lower skilled jobs can, in an increasing number of cases, be done by machine.

Typical classified ads also tell the story of modern-day vocational-technical education graduates at work:

- A wide variety of occupations -- many choices for the individual.
- Available jobs -- these people are in demand.
- Good pay and benefits, including profit-sharing and bonuses -- employers want these people.
- High skill requirements, including command of traditional academic subjects such as grammar -- these people are well educated.

The time has come for policymakers, decisionmakers, and educators to take a strong second look at vocational-technical education. A lot has happened since they may have last looked at this valuable national resource. Government leaders at all levels should also ensure that quality vocational-technical education programs are available to all students who want them. Although

these programs are effective and up-to-date in many places, some can be improved; Federal, State, and local government leaders should work to ensure that all such programs are of the highest possible quality.

The time has come, too, for parents and students themselves to take a strong second look at the benefits of vocational-technical education. The U.S. economy is headed down a track that will require millions of trained workers in the coming years. Business and industry are way ahead -- they know the value of vocational-technical education and support it enthusiastically.

As the want ads show, employers are eager to attract skilled workers and are willing to offer the security, pay, and benefits to recruit and retain those workers. Vocational-technical education is worth looking at. It's the wave of the future.

Vocational-Technical Education Has Important Consequences

Vocational-technical education graduates more than 2 million skilled workers each year.

The effect of vocational-technical education in this society is broad and deep. This educational system is helping the Nation to meet foreign competition through producing high-quality technically skilled workers (see below). It is helping to reduce the rate of illiteracy: 27 million adults in this country cannot read. And it helps to raise the general educational level of the population, which is important as the 21st century approaches.

Consider these facts about the Nation's vocational-technical education system:

- It graduates more than 2 million skilled workers each year.
- It provides 23 million adults with more than 43 million classes a year.
- Of all high school seniors who graduated in 1982, 97 percent took at least one vocational-technical education course.
- Forty-five percent of all vocational credits earned are earned by the top academic students.

Consider that students in this system increasingly go on to postsecondary education to acquire the high levels of skills needed in today's economy:

- 60 percent of all high school vocational graduates enter some form of postsecondary education.

Consider that the employment marketplace is attuned to the graduates of the vocational-technical education system:

- Most jobs require education beyond high school but do not require a bachelor's degree.
- Of the 1980 high school graduates who immediately entered 4-year colleges, fewer than one-sixth attained a bachelor's degree.

Vocational-Technical Education Helps America in International Competition

The United States faces stiff international economic competition. Foreign countries now manufacture major portions of industrial and consumer goods once manufactured in this country. In the case of some finished goods, including certain television products, the United States does not manufacture the product at all, but imports it from abroad. Foreign nations now challenge American business across a broad spectrum of economic activity -- and in some cases the foreign competitors are winning.

60 percent of all high school vocational graduates enter some form of post-secondary education.

The answer to this competition is not trade barriers. Free trade benefits both the United States and its foreign allies. Rather, the answer lies in improving America's capacity to meet foreign competition on its own terms -- in the efficient manufacture of high-quality goods.

Compared with other countries, the U.S. workforce competes well with white-collar and technical managerial counterparts in other nations. American schools turn out the highly skilled scientists, engineers, business managers, and financial experts who are vital to business success. In the production plant, however, American workers who are well prepared to compete with their foreign counterparts are in short supply.

The lesson is clear: government policymakers and educators must stop concentrating on preparing the technical and managerial elite. They must enlarge their vision to include the critical segment of the workforce who will handle the production phase of the competitive cycle. It is on these men and women that responsibility falls to maintain efficiency and quality in producing the goods and services that can compete effectively in the international marketplace. These workers will gain their skills in the Nation's vocational-technical education system.

Vocational-Technical Education Trains At-Risk Populations

An important and often overlooked contribution of the vocational-technical education system is the training of at-risk populations to become economically self-sufficient. This training enables people who might otherwise be deprived of the opportunity to work with satisfying and dignified ways to earn their own way.

Most jobs require education beyond high school but do not require a bachelor's degree.

Consider these facts:

- Vocational-technical education serves 3 million secondary and postsecondary disadvantaged and handicapped students each year.
- Eighty-two percent of the students served through disadvantaged and handicapped programs enter employment or continue their education on completion of their program.

A study in New York City conducted by the New York City Board of Education, Office of Education Assessment, found that the dropout rate for occupational (vocational-technical education) students was 4.7 percent, while the non-occupational education student dropout rate was 13.5 percent, nearly three times as high. The Council believes, as do those who conducted the study, that the rate is lower because the occupational education students have made a choice and have a purpose for their education.

Vocational-Technical Education Gives Employers the Skilled Workers They Want

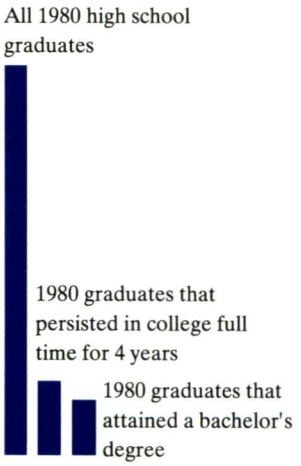
Correcting the mismatch between the labor pool and the future marketplace for employment requires measuring the needs of employers. What kinds of employees do American employers want?

In a recent report by the American Society for Training and Development and the U.S. Department of Labor, the answer came through loud and clear: employers want workers who have mastered not only the basic academic skills of reading, writing and arithmetic, but also much more. They want people who can learn on the job, master new skills, solve problems, work well with colleagues, and deal successfully with customers. This package of capabilities sounds like a course description for a quality vocational-technical program.

Specifically, the report, *Workplace Basics: The Skills Employers Want,* found that employers seek men and women with these attributes:

- Know how to learn.
- Can read, write and compute.
- Listen well and speak effectively.
- Can think creatively and solve problems.
- Take pride in their work, have good self-esteem, are able to set and meet goals, and manage their career well.
- Have good interpersonal skills, can negotiate with others, and are team players.
- Understands the importance of organizational effectiveness.

Every one of these skills is either taught as a matter of course or implied in classroom work or group projects in vocational-technical education.



A Quiz: Testing Your Knowledge of Vocational-Technical Education Today

The following self-test will give readers an idea of their knowledge of some of the current trends and directions in vocational-technical education. Directions: Match the number items on the left and right with the correct letter answer in the center.

_____ **1.** A vocational-technical education course that teaches how to apply principles of physics in completing tasks done on the job.

_____ **2.** A plan that articulates high school vocational-technical programs with a 2-year community college associate degree, and then a university bachelor's degree.

_____ **3.** A nonprofit organization that matches the needs of business and industry to education programs.

_____ **4.** The percent of jobs that, even by the year 2000, will require education beyond high school but not a bachelor's degree.

_____ **5.** A magazine that is mailed to parents and students to inform them about career opportunities.

_____ **6.** Courses developed by a consortium of States to help students learn the application of math and science principles in the real world.

A. 80%

B. Career Success

C. Small Companies

D. JTPA

E. Technology Exchange Center

F. A lot more than you think

G. Alliance for manufacturing productivity

H. Applied mathematics, applied biology, and chemistry

I. 2+2+2

J. 35%

K. 29%

L. Principles of technology

M. 50%

N. Health Services

O. Construction

P. Electronics

Q. Fortune 500

_____ **7.** An agreement with businesses and community colleges to transfer manufacturing technology from universities, large businesses, and government research to smaller companies.

_____ **8.** Most of the new jobs in this country are created by what type of companies?

_____ **9.** Vocational-technical education provides the majority of actual training for this program

_____ **10.** How many U.S. companies need and support vocational-technical education?

_____ **11.** An industry that is facing a shortage of qualified workers.

_____ **12.** The percentage of the high school graduating class of 1985 that will complete a bachelor's degree.

Answers are on page 16.

Scoring:

If you answered 10 to 12 correctly, you are well on your way to understanding the important role of vocational-technical education today.

If you answered six to nine correctly, you have some homework to do.

If you scored below five, you need help! Call or write the National Council on Vocational Education, your State Council on Vocational Education, or the State Director of Vocational Education.

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Tucson, Arizona

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* Appointed to the Council after October 1, 1988.

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The Carl D. Perkins Vocational Education Act and the National Council on Vocational Education

Vocational education has ranked high as a national priority for many years. Congress has long recognized the close relationship between vocational education and the strength of the Nation's economic base, and has used Federal leadership and financial resources to encourage and help the States to fulfill their primary responsibility to offer quality vocational education to all students across the country who need and seek such education.

In the Carl D. Perkins Vocational Education Act of 1984 (Public Law 98-524), named in memory of a distinguished Member of Congress who advocated expanded education programs, Congress created the National Council on Vocational Education and renewed a Federal commitment to assist States to expand and improve quality vocational educational programs. The Act is intended to ensure that individuals have access to quality vocational education, promote cooperation between public agencies and the private sector in preparing individuals for employment, and improve the academic foundations of vocational students. The Act is also aimed at retraining displaced workers in new skills, assisting the most economically depressed areas to raise their occupational competencies, improve the effectiveness of consumer and homemaking education, and strengthen research in vocational education.

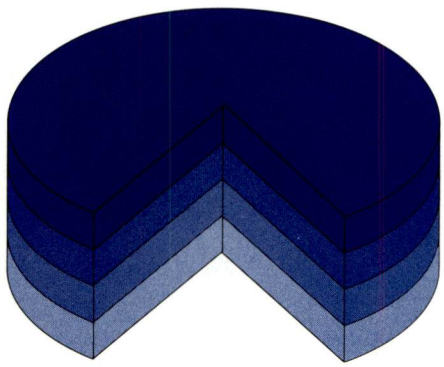
The Act requires that the Council consist of 17 members appointed by the President, of whom 9 shall represent the private sector. The current membership is drawn from widely diverse backgrounds in business, real estate, finance, government, education, communications, and public utilities and represents all regions of the country.

The Perkins Act mandates the Council to prepare this annual report, and to advise the President, Congress, and the Secretary of Education on:

- The effectiveness of the Vocational Education Act or its implementation in achieving its stated purpose, and in providing students with skills that meet needs of employers.
- Strategies for increasing cooperation between business and vocational education so that training is available for new technologies for which there is a demand.
- Implementation of the Perkins Act and of the Job Training Partnership Act, and on policies needed to expand and improve vocational-technical education programs (and apprenticeship programs) in order to build a coordinated capacity adequately to prepare America's workforce for employment.
- Practical approaches to retraining adult workers, and to enhancing education, business, and labor cooperation in retraining efforts.
- Effective ways of providing access to information regarding the market demand for skills that will enable State and local personnel to develop responsive vocational education curricula.
- Vocational education needs of the handicapped and the level of participation of the handicapped in vocational education programs.
- Types and levels of occupational competencies necessary for entry and sustained productive employment.

Previous Federal legislation authorized a National Advisory Council on Vocational Education. The Perkins Act changed the name, membership, and mandates of the Council, but retained the basic purpose -- to provide advice at the national level on vocational education.

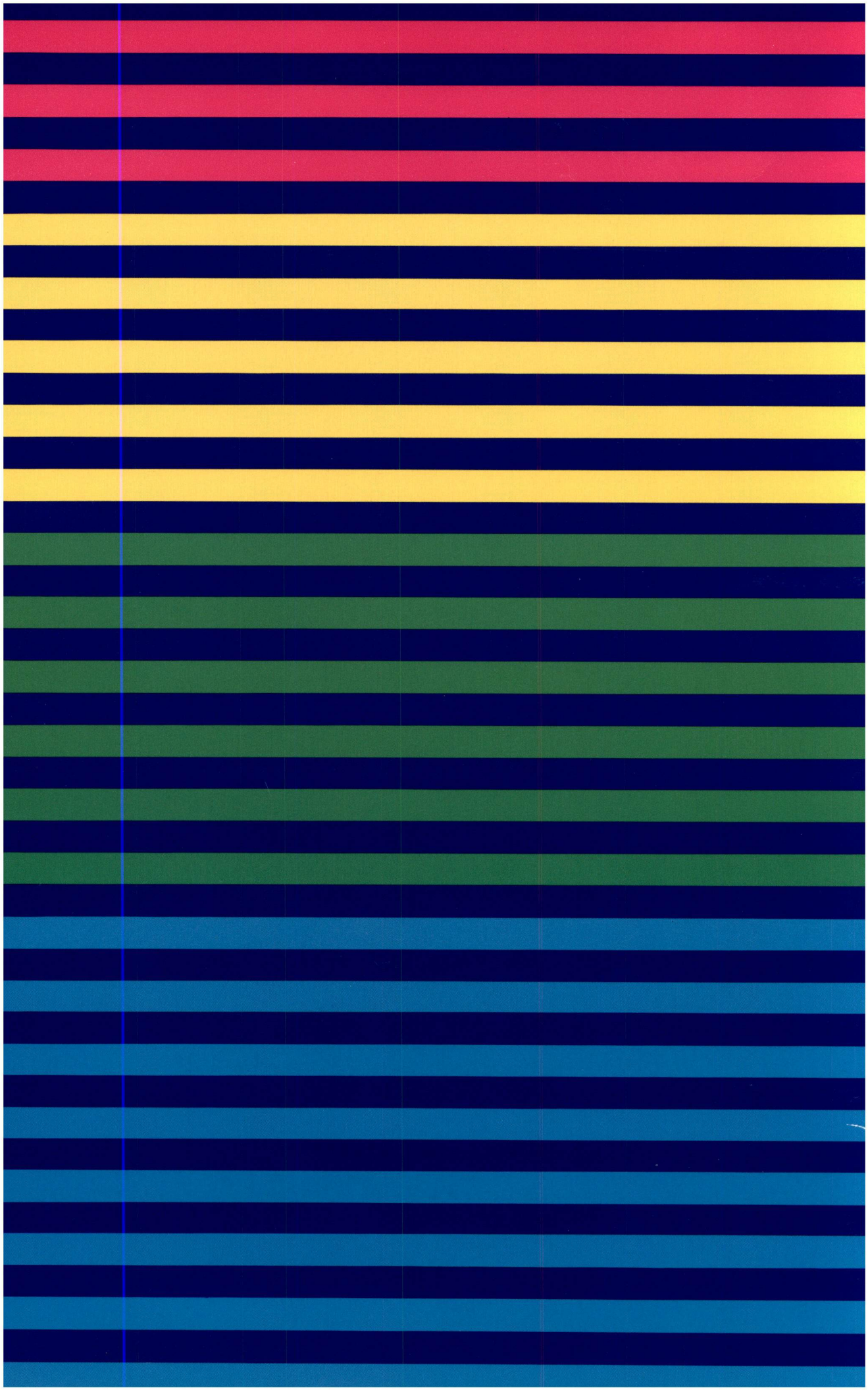
Opportunities for Vocational-Technical Education Graduates.

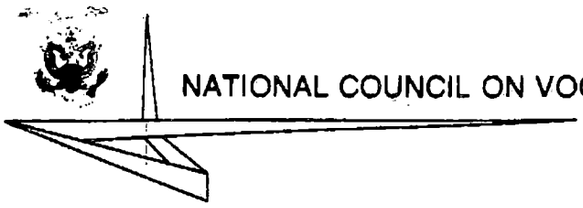


- A wide variety of occupations
- Available jobs
- Good pay and benefits
- High skill requirements

Answers to the Self-Test

1. L
2. I
3. E
4. A
5. B
6. H
7. G
8. C
9. D
10. F
11. N or O or P
12. K





NATIONAL COUNCIL ON VOCATIONAL EDUCATION

FACSIMILE MACHINE

TRANSMISSION COVER SHEET

DATE: 8/29/89

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FAX NO. ( ) 456-6218

FROM: Joyce L. Winterton
Executive Director
National Council On Voc. Ed.
PHONE NO. ( ) 732-1884
FAX NO. ( )

SUBJECT OF MATERIAL: Speech draft for Rose Garden Ceremony

NUMBER OF PAGES TO FOLLOW: 2

IF PROBLEMS DEVELOP WITH THIS TRANSMISSION, PLEASE CALL (202) 732-1884

SUITE 4080, 330 C STREET, S.W. WASHINGTON, D.C. 20202 (202) 732-1884

WHITE HOUSE ROSE GARDEN CEREMONY

SPEECH DRAFT

What we have achieved as a nation has been possible because of the diligence and vision of the people we are honoring today. The recipients of the American Career Success Award are individuals who set goals, and worked hard to reach those goals. They were wise enough to use vocational-technical education as a vehicle to transform their visions into realities. This vehicle has served them well as they established their career ladder to success. They are all distinguished leaders in their fields.

These ten awardees are role models for career success. They established a firm foundation of applying academic and technical skills. I hope their examples of success will inspire others. For example,

Building a worldclass workforce is a national priority. Improving the nation's capacity to educate and train workers is critical. Many of the industries represented in the audience today are experiencing a shortage of competent workers. America's vocational-technical education system is in place to respond to this shortage. It is important to note that 18 of the 20 fastest growing occupations within the next decade will require vocational-technical education. As a President who stresses education I want youth and adults to know that there are different routes in education to achieve success, all equally acceptable.

The National Council on Vocational Education in their recent report stated that, "vocational-technical education is America's hidden treasure, because it is as good as the gold in Fort Knox--and just about as far from public view." It is still surprising to many that through this system there are 16 million Americans obtaining

marketable skills in over 150 occupations. There are also 23 million adults who receive retraining through vo-tech programs which allows them to get new or better jobs. It is an important part of the education system striving to keep up with and ahead of the demand for skilled employees.

Tomorrow's jobs will continue to require a strong basic education along with specific occupational skills. The technical skills required in today's jobs are increasing daily so that during the 21st Century, most jobs will require a heavy ingredient of technical knowledge. Employees will need to know how to apply academic skills in more sophisticated applications. I commend vocational-technical education for its progressive leadership in developing "applied academic" courses where students can learn math, science, and communication skills in the context of how to use them on the job. The partnerships that community colleges and vo-tech institutes have formed with business and industry to provide retraining and up-to-date skills for their employees will continue to be essential. The reality of life-long-learning has arrived. Continuing education will be needed by all our workforce.

The individuals we are recognizing today demonstrate that vocational-technical education is more than an end in itself, but a stepping stone that provides expanded options for both secondary and postsecondary students, including:

- the knowledge and skills to go to work
- the opportunity to go on for further education
- a way to learn and apply the basic skills that will be needed on the job and in life
- the ability to be an entrepreneur and start a business
- an avenue to maintain up-to-date skills to remain employable

Through studying the success of our awardees and other leaders, we can identify what common ingredients led to their success. It is obvious that vocational-technical education was an important factor for our awardees today and many others. Potential students, parents, business and industry should be aware of what "quality" vocational-technical education offers and how it can benefit the country as a whole. I pledge my leadership and cooperation to insure a worldclass workforce for the United States. It is impossible to provide that workforce without acknowledging the role of vocational-technical education. As President of the United States, I am proud to highlight this role.

8/23/89
PAB

THE WHITE HOUSE

WASHINGTON

MEMORANDUM

Grant
Siv
DeCamp

TO: DAVID DEMAREST

FROM: JOSEPH W. HAGIN

SUBJECT: APPROVED PRESIDENTIAL ACTIVITY

EVENT: Vocational Education Award Ceremony

DATE: September 11, 1989 -- Monday

TIME: 4:15 p.m.

DURATION: 20 minutes

LOCATION: Rose Garden

ATTIRE: Business Suit

REMARKS REQUIRED: Yes

MEDIA COVERAGE: Open

FIRST LADY PARTICIPATION: No

ADDITIONAL INFORMATION:

CONTACT: _____, _____

TELEPHONE: OFFICE _____ HOME _____

NOTE: PROJECT OFFICER, SEE ATTACHED CHECKLIST

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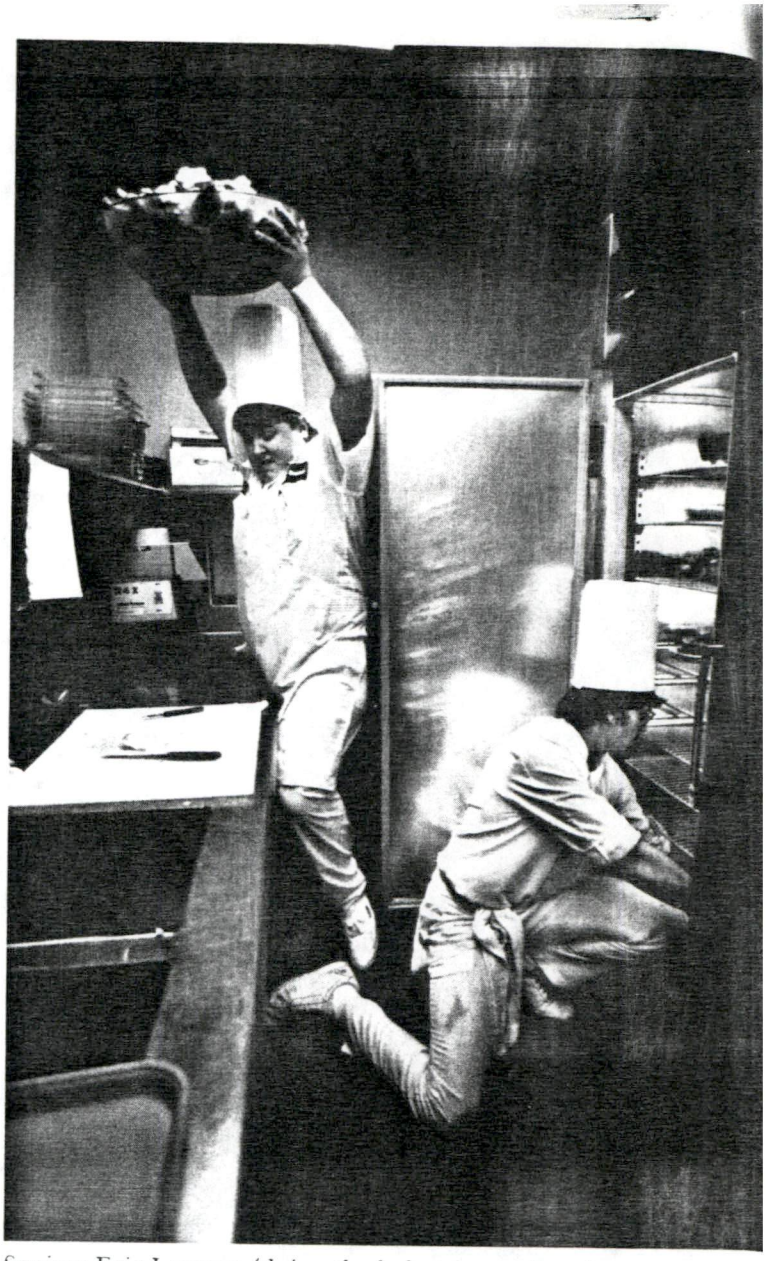
Smithsonian
5/88

By Jake Page

There's never a dull moment where teens learn a trade

Ohio's Great Oaks vocational system has come up with an astute mixture of academics, training and personal support—and it works



Seniors Eric Leasure (doing the balancing act) and Todd Danbury man the kitchen during after-school job.

Listen for a minute to Angie Smith.

She spoke with me just before graduating last year from the Scarlet Oaks School in Sharonville, Ohio, north of Cincinnati. As she talked she made graceful arcs around herself with her hands. At the time, she was holding down two consecutive jobs after school—both in clothing stores—and she was explaining how she got one of them.

"I went in and gave them my résumé and, of course, I had dressed right, like I wasn't wearing anything wild. . . . I was tidy, and I had an interview. And what I was really saying to the lady during the interview was: 'Look, I'm not just your average high school student. I'm a vocational cooperative student and that means I'm superior.'" This is a revolutionary attitude.

Among other things, one doesn't normally connect Ohio with revolutions. The big American one was largely an East Coast affair, that being where the Colonies were. And today it is a given that new ideas blow eastward on the prevailing California winds. But in a particular school system in the Cincinnati area—a district serving 37 high schools—20 percent of all juniors and seniors, 3,000 in all, are engaged in an educational program that is revolutionary by virtue of its concentration on some old, simple ideas—and a few new ones.

This is the Great Oaks Joint Vocational School District, which includes Angie's campus, Scarlet Oaks, along with three others—Diamond Oaks, Laurel Oaks and Live Oaks—and here they practice vocational education with a vengeance.

Jail. The awful dark, sooty place of old brick with greasy antiquated machines and dank halls. That has long been the image of the trade school. "If you don't shape up," the mythological schoolmaster's voice intones, "you're going to go to. . . ." Right. The vocational school. The place for dead-enders.

There has been an opposite way of thinking about vocational education, of course. During the Lincoln Administration, the United States Government made a powerful commitment to the idea, establishing the land-grant colleges—the A & Ms (for agricultural and mechanical). It was evident then that for the country to succeed, it would need a lot of people with a working understanding of new technologies. And there has long been a federal role as well as a state and local one in providing technical education for those who seemed

At Laurel Oaks campus, firefighting instructor John O'Rourke teaches rappelling—and trust—to a novice.

Cosmetology student Amy Duncan is guinea pig as Angel Gilpin gets hands-on training at head massage.

destined to go into trades rather than completing an academic high school or college career. Nevertheless, vocational education has generally taken a backseat in education budgets and in the dreams of parents for upwardly mobile offspring.

"In some parts of the academy," said William Bennett, U.S. Secretary of Education, to the members of the American Vocational Association in 1985, "there is sometimes condescension, sometimes a patronizing attitude, toward those who know how to do things." But not at Great Oaks. Here's Angie again, a year and a half into studying business management and marketing: "I decided to buy a new car. So I went down to the lot and told the salesman, 'Look, I've learned all the tricks and gimmicks you're going to use on me. I learned them at my school, so don't bother. I want that car over there and this is what I'm going to pay you for it every month. No more and no less.' "

After frantic discussions between the salesman and the manager in the back room, she drove off in her new car to the bank, walked in and talked her way into a $600 down payment for the car. No tricks, no con. Just knowing how to do things, and confidence.

Self-confidence and self-esteem seem everywhere as one wanders the halls of Scarlet Oaks School, a light-filled building of 310,000 square feet. It is an open place with many appealing aromas. One walks past the area set aside for chefs and bakers—an enormous kitchen, bigger itself than most cafeterias—and there is the smell of bread baking. Beyond is perfume: the beauticians' shop, set up complete with a waiting room. Elsewhere, there is the smell of newly cut lum-

Photographs by Lynn Johnson/Black Star

Fledgling firefighters are critiqued after a simulated search and rescue, done blindfolded, of fire victim.

Learning self-defense for law enforcement, William Chambers delivers blow to long-suffering Numb John.

ber from the cabinetmakers' area and a pungent whiff of ozone in the electricians' shop.

A group of students emerge from a door and move cheerfully down the hallway. Its walls are painted in primary-color supergraphics. They are clean as a whistle; no graffiti, no peeling paint. A visitor wonders if he is seeing the results of some kind of subtle mind-control techniques.

In the automotive laboratory, a handful of young men are up to their elbows dismantling a diesel engine. They look up. One of them, who seems to be in charge, says "Good morning" and they all return to work. "That's the foreman for the day," explains Tom Wyatt, the Scarlet Oaks principal. "They take turns. It's important that they know from the start what it's like. They won't be foremen right away once they're out in the real world, but they'll do better work if they know what a foreman's problems are firsthand."

Wyatt goes on to explain that the school receives many visitors, often people from local business and industry. "There are two things about that," he says. "When these kids are out of school, there are going to be plenty of distractions wherever they are working. We want them to get used to people coming and going. That's why all these learning areas and labs are wide open. And also, we keep telling them that any stranger walking around here might be a future employer. You don't want to be goofing off if the guy standing there might see you next across an employment desk."

The visitor hired a student on the spot

On one occasion, Wyatt says, a General Motors dealer walked through and stopped to watch an auto-repair class for a while. Then he picked out one student, a senior, hired him on the spot, and spent $10,000 of his company's money to send him off for advanced training in computer diagnostics. That, one realizes, is the subtle mind control at work.

Outside the cafeteria, on an easel, is a large, red sign announcing the "Employer of the Month." It is the Bonnie Lynn Bakery, and a few people have been asked to sit down for lunch to honor Bob Larson, the small chain's founder and president.

Preluncheon introductions are made by a dashing-looking man with a handlebar mustache and cowboy boots. This is Dr. Harold Carr, the superintendent of the entire Great Oaks district. He introduces two student bakers to Bob Larson and guilelessly describes to all the strategy of the occasion: "We like to honor our employers with these little lunches, to let them know how much we appreciate their help. It also helps keep them interested in us, and keeps their minds focused on our efforts here."

The meal, catered by student chefs and served by a

senior in food services, is a modest affair. Larson converses quietly with the two baking students and the only hitch is when the serving cart erupts with several trays of crockery, and dishes hit the floor with an endless clatter. Larson looks over at the superintendent and says, "Don't worry, Harold. That only happens when there's a guest like me."

There is a friendly collusion here, quite obviously, between industry and school. And it is a collusion that Harold Carr has fostered since his arrival in 1970, two years after the Ohio Legislature mandated that all high school students have available to them comprehensive vocational education. Carr was himself a product of vocational education—auto repair and machine trades—but he went on to college to study vocational ed. In 1975 he became superintendent.

"In those days," he says, "vocational education was the plague around here. We needed the cooperation of industry, but we simply had to prove ourselves before we could ask them for any help." With an annual levy called millage (a tiny—one could say acorn-size—tax on the assessed property value of homeowners in the district), what would later become the Great Oaks district was created in 1970 to serve as the vocational department for 20 school districts in Hamilton County and 15 in nearby counties. On land from the U.S. Health, Education and Welfare Department, as well as from an idle Air Force base and other sources, four campuses were built and operating by 1973. Today, they serve an area spreading across 2,200 square miles of southwestern Ohio. An educational octopus, its tentacles reach into the lives of students at 37 "home" high schools in 12 counties. Students are bused to one of the four campuses each day for their vocational and academic curriculum, returning to their home schools for extracurricular activities.

Local businesses began to notice

Over the past decade the new vocational system has gradually proved itself, as students won national competitions in areas like cosmetology. A digital computer was installed at one campus; today, virtually no Great Oaks student escapes without being computer literate. (No one graduates without knowing CPR and Red Cross techniques, either.) Businesses in the area began to take notice, not only of the high school program but of the rapidly growing adult education efforts.

In the afternoon around 3 o'clock, when the high school students have gone home, there is about an hour of quiet in the laboratories and work spaces of the campuses. Then they fill up with adult classes, men and women learning new trades, new careers. Assistant superintendent Rosemary Kolde explains that the key to success has been flexibility. "When we

Dental-assistant students Janet McFarland (holding drill), Dionna Mabry talk hygiene with preschoolers.

Meat-processing students slaughter a calf raised by farm-management students, who watch from above.

It's not easy being a teenager; Sandy Louk tries to pull herself together after a go-round with a teacher.

After Sandy quit the meat-processing program, Tim Hunter visited her home, persuaded her to come back.

found that people who wanted to retrain in one field or another would get off work at 2 A.M., we located instructors who would teach at those hours," she says. "We have to adapt our service to the needs of the community, whatever they are at any time of day."

Today, some 60,000 adults enroll annually in courses ranging from practical nursing to motorcycle safety to beekeeping to microcomputer accounting. There is a police academy run by retired Cincinnati cop Jim Combs. Local law enforcement agencies send recruits and veterans to Combs for training.

The Great Oaks system backs up its huge training investment by helping people find jobs. Next door to the Scarlet Oaks school is the Center for Employment Resources. For $85 (it costs about $300 privately) one can take a battery of tests and find out what kinds of jobs one may be suited for and where to look for them. The center, presided over by James E. Frasier, works both ends of the street. Its counselors hustle contracts with industry, often looking into a new job category and developing tests to find out what sort of person would function best in it. Then they find the people and, as needed, train them.

There's also an intelligent plan at Great Oaks to provide training for the vocational teachers themselves. Many of them were recruited from industry, and periodically they are sent back out on an "industry exchange," a week or so of work in their field to keep them in touch with the real world.

"For my last industry exchange I chose the hair salon at Saks Fifth Avenue in Cincinnati," says Mary Williams (p. 138), who has been teaching cosmetology at Scarlet Oaks since 1973. "It's a high-tech, high-fashion place; everything is really up-to-date." Williams worked there for a week, at the end of which the manager surprised her by announcing, "We'd like to keep you." She was flattered but, with the soul of a true teacher, had other ideas about who might end up where.

"At that time I had a student who I knew would fit in there; she had all the assets," Williams says. After reporting to the whole class about the salon and what was happening in the market, she asked the girl privately if she'd be interested in working there. "She was awed," says Williams. "Her response was, 'Omigosh, that's a big step! You think I'm that good, huh?' And I said, 'Yes, you're that good.' She's been working there two or three years now, and it's going really great. Now *she* comes back to talk to my classes about her work there."

Jake Page is a free-lance writer who lives in Virginia. In April, he reported on research efforts to preserve Brazil's tropical rain forests.

Taking a break between school and his job, young chef Eric Leasure kicks back in a corner of his bedroom.

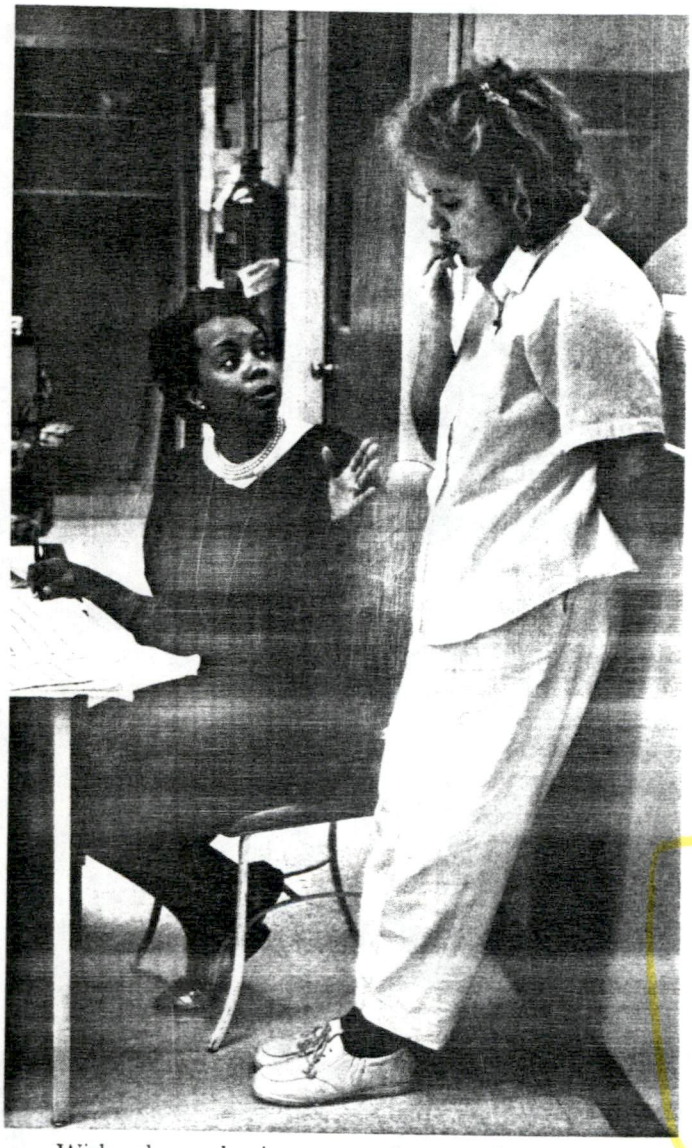
Great Oaks' "real world" attitude is found in the Scarlet Oaks approach to academics as well. In 1978, Carr and his associates persuaded the high schools to approve a major change in the school's program. Basically, the idea is to tailor the academic courses to the needs and interests of the students. Teachers are recruited who can teach math, science and English in synchrony with what the students are learning in their vocational programs.

The fundamentals of physics, for example, are taught when they apply to the work at hand. Most high school physics students learn about coefficients of heat expansion in a canned lab situation with a beaker of water. "Someone who is a welder confronting a steel pipe that is about to be heated to 1,000 degrees thinks about these formulas a lot differently," says Carr. "And he remembers it. There is absolutely nothing any student can't learn once he realizes he needs to know it."

David Nellis teaches science this way at Scarlet Oaks. Today, he's giving a class of chefs-to-be a bit of basic biology—cell organization and such, sometimes aided by computerized course work. Then he relates this information to the biology of nutrition, bringing in examples from fast-food chains like Wendy's, where there is a move toward whole-grain breads and certain kinds of health food. Next comes kitchen maintenance: the kids learn to Graham-stain cultures and are sent around the kitchen—which they are responsible for cleaning—collecting samples from the stoves, counters, refrigerators. "It's a very powerful lesson to see a culture grow under your eyes, when it was taken from a place you thought you had cleaned," he comments.

Nellis says that a lot of the kids he teaches were shortchanged in the home high schools, left behind academically and often socially. Here, chiefly because they are in the hands of their vocational teacher for two and a half hours a day, they simply don't get left on the side. It's not, he says, because of smaller class size—there are 20 juniors in food services, all working at the same time with a single instructor. The key seems to be the master-apprentice relationship that builds up, with the teacher helping at a more personal level when necessary.

"You never know with these kids what their needs are going to be on a given day," says Mary Williams. "They can't concentrate if they're into fighting with their moms and their boyfriends." On some days she goes in keyed up to do a fantastic job of teaching, and then someone comes in with a problem that has to be dealt with. "I have a good feel for my students," says Williams; "I know when something is going on with them." So she'll ask them if they'd like to talk, and they



With calm authority, cosmetology teacher Mary Williams reviews attendance with Laura Reckers.

usually say yes. Her advice is thoughtful. For instance, to a student who has lost interest in a course and wants to drop it, she'll say, "Somewhere down the road you'll use this. It's OK to be successful at something you don't want; it's kind of a discipline. Get yourself into a pattern of success."

"We know from the employers that they want kids with skills, sure, but mainly they're interested in good work attitudes," says Pete Kaufman, the commercial baking instructor. "We spend a lot of time in every program on safety and good work habits. We have incentives. If a senior keeps a B or A average and his attendance is 95 percent, he can go on early placement, get a job and still graduate. I keep hearing the work ethic is dead . . . . it doesn't need to be."

But the emphasis on work attitudes doesn't mean there's a shortage of fun. Student chef Eric Leasure (p. 132) will tell you, for example, that the hardest thing he's had to learn was ice carving—"where to cut with the chain saw, how much to take off with the ice pick." Last December he and a friend were assigned to do one in the shape of an animal. "We did what was supposed to be a donkey and it got messed up," he says; "it turned out to be a dog. But we used it at the Christmas banquet that we throw every year, and people thought it was neat."

Of course, it is not all rosy at Great Oaks. Kids can and do flunk. Rarely is someone expelled—the two grounds for expulsion are dealing in drugs and physical contact with a staff member. Like any group of teenagers, many are troubled to one degree or another. "It's hard to be a teenager today," says Kenneth Kay, the student advocate coordinator at the Scarlet Oaks campus. "There's 20 times the information there used to be, but the same lack of wisdom. A 15-year-old is still 15. It's not surprising so many kids are depressed." Kay used to work nearby in the juvenile court system where, he says, "I'd see kids who were already in deep. I wanted to work where I had a chance to keep them out of that situation, so I came here."

More income and higher employment levels

How well does vocational education work? Five years ago, a state-commissioned study by Ohio University, the first to use data from the Internal Revenue Service, found that graduates of Ohio vocational education programs earn 21 percent more money four years after graduation than high school graduates without such training. Further, unemployment is lower—especially in electronics, auto mechanics and health occupations—for vocational graduates than for those in the general work force who are the same age and have the same number of years of schooling.

Aside from statistics, success can also be claimed

Data-processing instructor Patrick Miller, at center, follows the reasoning of Kimberly McKenzie (left) and Shelonda Stewart as they try to create a graphic on the PC; think the problem through, he reminds them.

every time an individual student gets a strong start in his or her chosen career. One such is a recent graduate of Royal Oaks named Joe Vilvens. "My father was a trucker," he says. "I grew up with trucks, with diesels. Diesels aren't that complicated, but they're big. All the parts are enlarged." Joe, himself diesel-size, was uncomfortable at his home high school. He was something of a cutup; he once went to a Halloween party dressed as the Grim Reaper—and the teachers were unhappy.

Joe got his first job about a year ago after a phone call from a 1974 graduate of the diesel program at Great Oaks. This was Jay Goyert, a 28-year-old mechanic-entrepreneur who is now certified in three states to weld, plumb, electrify and otherwise maintain and rebuild such heavy equipment as the monstrous machines that retail in six figures and are used for road building. Goyert is a member of the Great Oaks Advisory Council, a large group of people who work in industries that range from standard-bred horse breeding and training to the Ford Motor Company. These advisers are asked to make sure that the school is teaching what the job markets—that is, they themselves—need. And, often as not, the advisers hire Great Oaks graduates. Goyert needed some help, so he called his alma mater.

"You know me," Goyert had said on the phone, and of course they did. "You know what I want in a mechanic." Scarlet Oaks selected Joe and sent him over for an early-placement interview. He was hired on the spot.

The arrangement was that Joe would attend his vocational and academic classes in the morning and report for work in the afternoon. His first day on the job, Joe recalls ruefully, he mismaneuvered a truck and "bent" a fence.

His second day was better. I followed him around that day to get a feel for the life of a vocational-ed student, and I was bushed by the time I bade him goodbye that evening. The day began at a few minutes before 8 A.M. in the diesel "lab," actually a section of the hangarlike garage at Scarlet Oaks. He spent a while helping to rebuild a ruined Cummins engine that was loaned to the school by an old trucker who didn't care when it was fixed but wanted it to be in working order eventually. The engine looked more

Both: Gordon Baer

Harold Carr, superintendent of the Great Oaks system, stops in at the medical assisting lab for a checkup.

Hunched inside the open jaws of a road-tractor cab, mechanics-to-be in the diesel lab work over an engine.

like a piece of petrified wood than like a precision machine. Three student teams had been working on it for several months, taking it apart and reassembling it, learning the techniques of replacing ring seals with a tolerance of five-thousandths of an inch. "By now," Joe told me, speaking of the work in the lab, "a lot of this is kind of boring."

Later that morning in a classroom upstairs, Joe was at the end of his English class. He had put the finishing touches on a research paper (most students tend to write about their vocational specialty, but Joe chose to write about musicians, being a drummer in his off time) and was doodling on a crossword puzzle in a workbook called "Building Word Skills." In a soft voice he chatted with me for a few moments about deregulation and less personal income for truckers and less money for maintenance, which is why, he says, some trucks aren't as safe as they should be.

His classes finished, Joe headed out to run several errands for his new employer. At 1 o'clock he pulled his 1978 Chevy truck into a large fenced yard behind a row of residential buildings. In the dusty yard there was a barnlike garage and an array of machines lazing about like an oversize Pleistocene football team waiting for the training staff. Joe surveyed the patients. Among them was a 941 Caterpillar dozer, disabled; and a Richman diesel auger machine that couldn't, for the time being, dig 250-foot-long holes horizontally through the ground because of electrical problems. It costs $85,000 to buy one of these augers and a lot more than that to obtain another rare species lolling in the yard, a cement-curb sculpturing device. There was an assortment of dump trucks and pickups that needed attention, including one that had had an electrical fire in the cab. Joe went into the garage. His employer had told him that the garage and the yard were now his office—he was to put in 40 hours a week there after school.

"They need this one first," said Joe, hopping up onto the front bumper of a GMC dump truck, opening the dusty hood with a clank and peering in at the rusty engine. Then he disappeared into the shadow under the hood, and sat on top of the engine. When I asked him about the problem, he said he didn't know yet. "But I wonder," he added, "why this wire isn't connected to anything."

Astride the diesel engine in the GMC, Joe was at home. He stayed in the yard till dusk, getting paid, getting school credit and getting things back on the road, a young man doing what he'd always wanted.

It's lunchtime at Scarlet Oaks and in a scene familiar at any high school, kids make a beeline for the cafeteria.

THE NEW, IMPROVED VOCATIONAL SCHOOL

Worried about a shortage of technicians? Can't find people who can communicate and solve problems? Alarmed about high school dropout rates? Here's hope. ■ *by Nancy J. Perry*

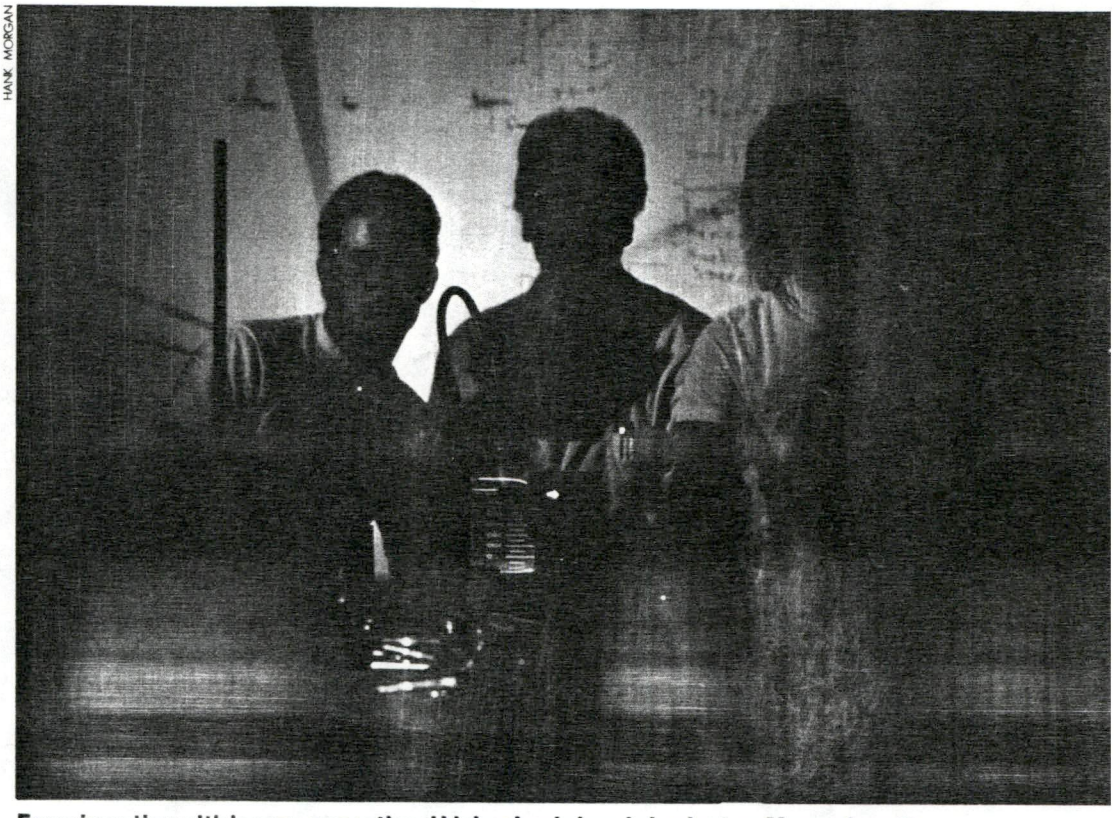
THE TEACHER CAPTIVATES the class as he paces back and forth, commenting, cracking jokes, asking questions. "Everybody loves a sincere speaker," says the wiry young instructor, immaculately dressed in tan pants, white shirt, and brown striped tie. "Have your facts straight. Don't go off on a tangent." In discussing the fear of public speaking, he suddenly yanks off his glasses, pretending that he can no longer see his audience, and says, "You folks look *scary* out there." The students guffaw. Now, choose one: You are in (a) a European business school, (b) an esteemed private college, (c) a corporate communications seminar.

Answer: a vocational high school. The teacher, Robert Moses, is an instructor at the Chicago High School for Agricultural Sciences, a "magnet" school set up to attract youngsters—87% of whom are black or Hispanic—from throughout the city. All carry a full academic load, including courses in a foreign language and computer technology, and 75% of the seniors have been accepted at four-year colleges. Dow Chemical has awarded scholarships and summer job guarantees to four of them. Why? Like most major corporations, Dow is looking for entry-level workers who can communicate, solve problems, work with technology, and learn quickly. Guess what? A new generation of vocational schools is beginning to turn them out.

In America vocational schools have long been written off as the ultimate oxymoron, emphasis on moron. Remember Bill Cosby's old routine on shop? In it he recalls, "A guy says, 'If you put a bullet in the furnace, it will explode.' This was the brightest kid in our class." No longer. Says John Furman, a training coordinator for General Motors: "I recently spoke to some vocational students who were using computers to simulate rocket launchings. It's not like in the Fifties, when they'd just be given a piece of wood to saw." Today some 26,000 public high schools, community colleges, and technical institutes offer vocational education. This story considers only publicly funded vocational education, not the myriad private training centers, which range from fly-by-night operations to Katharine Gibbs, a highly respected secretarial school.

REPORTER ASSOCIATE *Cynthia Hutton*

HANK MORGAN



Experimenting with lasers: a vocational high school class in Lexington, Massachusetts

For industry, vocational education could be a godsend. According to the Bureau of Labor Statistics, jobs for technicians will grow 38% by the year 2000—faster than any other major occupational group. As automation spreads, companies need smarter, more flexible employees who can perform a variety of tasks, from installing and monitoring welding robots to reprogramming them if production rates drop. Professor Ernest Lynton at the University of Massachusetts dubs this new breed "blue-and-white-striped-collar workers"—production employees who are paid to think.

COMPANIES CANNOT train them all. Says Jack Bowsher, a retired director of IBM external education: "When someone comes to work here, we double the cost of training, because we have to pay salaries too. More and more, industry is asking: 'How do we get people trained *before* we

JOHN S. ABBOTT

Former Toyota apprentice Kevin Spezzano now works in a Massachusetts dealership.

hire them?' Vocational schools do this."

American corporations have an important reason to help make vocational education better—self-interest. By working with local institutions on curriculum, by lobbying state education departments and local school boards for funding, by donating up-to-date equipment, by loaning employees to serve as teachers and mentors, companies can help guarantee themselves a better-trained, more productive work force.

OVER THE PAST five years, General Dynamics has hired 40 machinists for its Pomona, California, division from nearby vocational schools. Most have since been promoted, a few to salaried supervisor. "We don't have to look for top-grade machinists anymore," says John Whiteside, a vice president of human resources. "We think this is the best way to go."

Toyota, too, is revved up about American vocational training. Forecasting a need for 7,000 more mechanics by 1995, the company gives tools, cars, trucks, and scholarships to 55 U.S. vocational schools and colleges. In the past three years Toyota has hired over 500 graduates to work in dealerships.

Modern vocational education does something at least as important as train labor: It helps keep youngsters in school. Though only half of those who enter high school go on to higher education, American schools persist in treating non-college-bound students like second-class citizens. So, many drop out. Quality vocational programs can motivate students to stay in school—and maybe even go to college—by making academics more palatable and by providing highly marketable skills.

The revolution in vocational schools is part of the broader educational reform movement. Under pressure from academic proponents who want to strengthen the liberal arts curriculum in high schools, at least 43 states in the past four years have reexamined their vocational education policies. The results: Schools are experimenting with new teaching methods that integrate basic academics and hands-on learning. They are offering broad clusters of courses such as health sciences or electronics, instead of occupationally specific programs like brake repair. And they are forming closer ties to businesses and community colleges so that students can easily make the transition to work or college. Says John Bishop, a professor at Cornell University's School of Industrial and Labor Relations: "I think vocational education is doing a better job of what it's trying to do than academic classes are doing."

As the demand for skilled workers grows, improving the system of technological training becomes good economic as well as social policy. The 1984 Carl D. Perkins Vocational Education Act, which provides roughly $1 billion a year to improve the quality of secondary and post-secondary schools, is up for reauthorization this year. New amendments in the House version would add $200 million to encourage high schools and community colleges to create coordinated programs of instruction. Dubbed "tech prep" or "2+2," these promising programs would link the last two years of high school with the first two years of college.

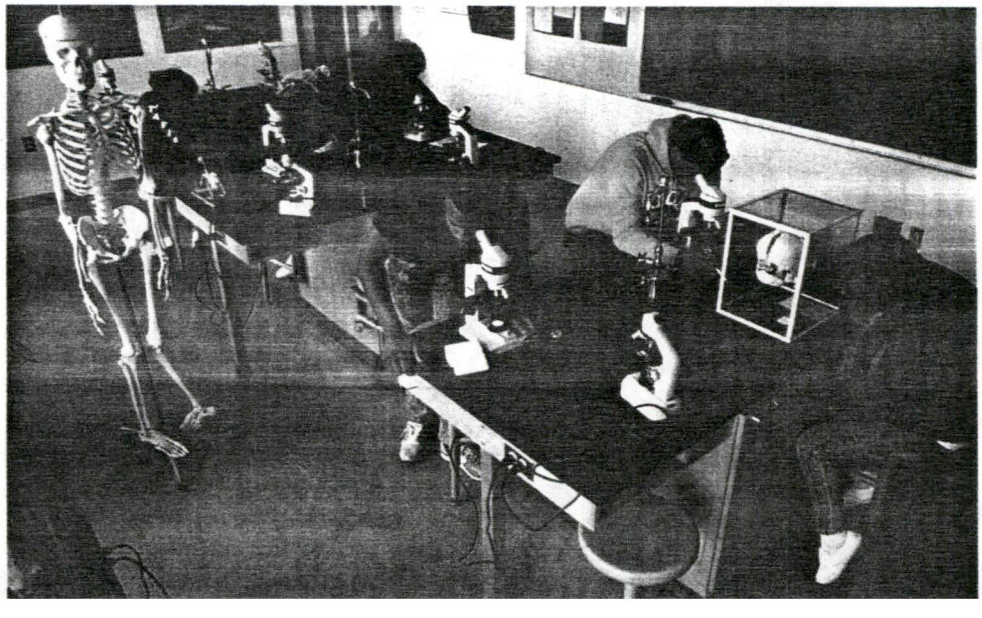
Though poor schools are still common, here's what good vocational education can do:

■ **Make academics relevant.** Within the graffitied halls of ivy, a debate rages: Is job-specific training valuable for high school students, or are they better off learning basic sciences, languages, history, and math? The question assumes that job training and academics are mutually exclusive. They are not. To the contrary, many people learn academic subjects better in a context they can understand. Says Joyce Schroeder, who teaches applied math to carpentry students at the Great Oaks Joint Vocational School district near Cincinnati: "We're talking about kids who hate math. But if you can show them they need it for blueprints, they'll do it."

Great Oaks is one of Ohio's 49 area vocational centers, multimillion-dollar technical complexes built to allow school districts to stretch their vocational education budgets by pooling money, equipment, and students. To make students at these centers more marketable, Ohio's Department of Education authorized a statewide applied academics program that puts more math, science, and communications into the vocational curriculum.

For example, Rosalie Bernard, an English teacher at Montgomery County Joint Vocational School outside Dayton, and Jim Frederick, an auto body instructor, team teach a course in communications—as it relates to auto body work. Students regularly give oral presentations on their job skills, perhaps explaining how to put on a fender.

Aspiring doctors and nurses at the Oakland Health Academy are boning up on anatomy.



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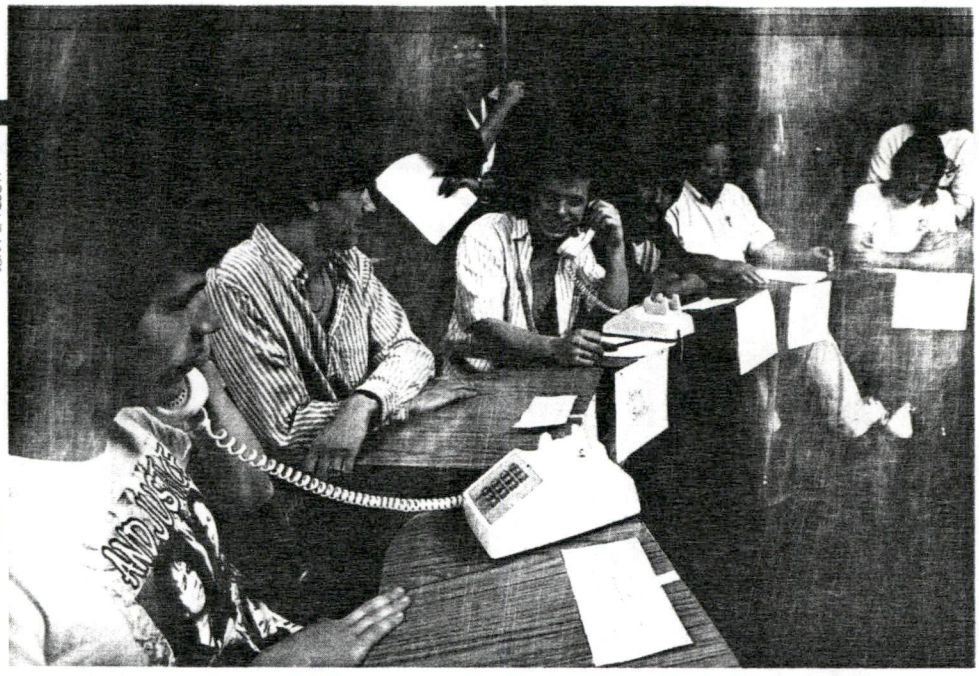


JOHN S. ABBOTT

Auto body students near Dayton learn customer service by simulating a day on the job.

Says Bernard: "Our advisory committee of shop owners and foremen told us the kids they are getting today are skilled, but they can't communicate. They don't know how to defuse customer anger. And that's the one thing the business community wants." Once each semester, the class simulates a typical day in an auto body shop, with customers calling, vendors complaining, and employees whining. "Who is your priority?" asks Frederick. Several boys respond with the correct answer: "The *customer*!"

One of the hottest vocational courses is Principles of Technology, taught in 1,200 schools in 47 states. It was developed by the the nonprofit Center for Occupational Research and Development (CORD) in Waco, Texas, in partnership with state vocational education agencies. The course teaches basic physics concepts, such as force and energy, through a series of hands-on experiments. For instance, students learn about thermal resistance by measuring the effectiveness of the insulation in their houses. This beats watching a teacher write equations on a blackboard. Says Dan M. Hull, president of CORD: "Only 12% of high school students study physics. Yet physics is the foundation of most new technologies. So we said, 'Let's take physics and put it in work clothes.' "

The "clothes" are expensive: Lab equipment for the course, which includes oscilloscopes and lasers, runs about $30,000 per school. But a study conducted by John Dugger, an associate professor of industrial education and technology at Iowa State University, suggests the investment pays off. Two groups of students—257 who were enrolled in Principles of Technology and 275 who were enrolled in a regular physics course—were tested on basic physics concepts at the beginning and end of their junior or senior year in high school. The mean score for the physics group rose 11 points, to 66. The Principles of Technology group improved their results by an average of 33 points, bringing their mean score to 81. Says Dugger: "If we could take the methods of vocational education and combine them with the content of academics, we could really make progress in education. Principles of Technology is doing some of that."

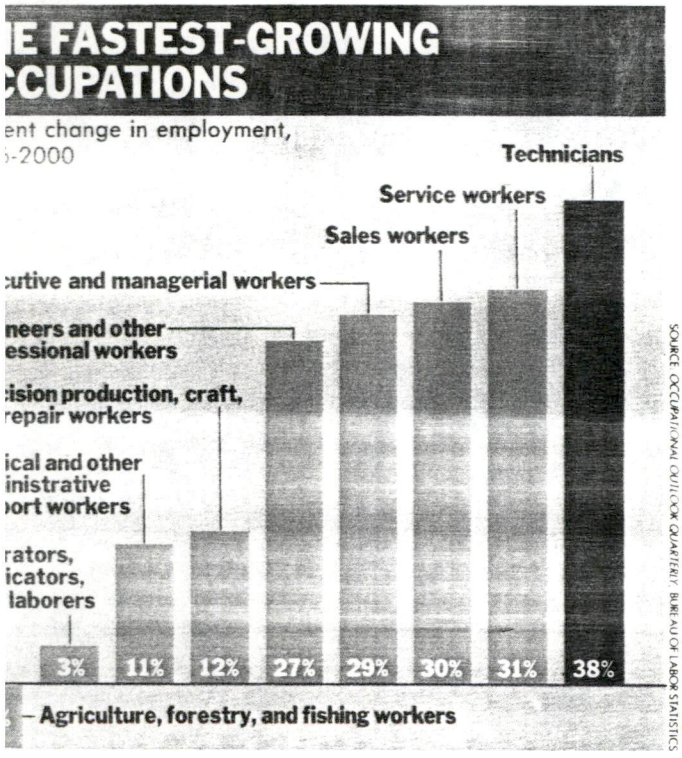
■ Keep kids in school. Some educators believe that reducing dropouts is the weakest justification for vocational education. In fact, it may be the strongest. One reason: A high school diploma raises earning power by almost 25%. Second reason: Close to 30% of labor force entrants through the year 2000 will come from racial and ethnic groups that have the highest dropout rates. Roughly 40% of blacks and 50% of Hispanics drop out of high school. The Bureau of Labor Statistics estimates that these groups will account for 45% of total labor force growth over the 1986-2000 period.

Proof that vocational education lowers the dropout rate is scant. But hear what Chris Horrocks, a student in a special electronics program for dropout-prone youngsters at Silver Creek High School in San Jose, California, has to say: "I *hated* school when I started high school. It was the worst thing in my life. Now I can connect schoolwork to my interest in computers. It gives a purpose to learning."

Vocational programs also offer many students the chance to prove they can excel at something and provide them with the attention they normally do not receive in large comprehensive high schools. Says Chris Beasley, an electronics student at the Montgomery County Joint Vocational School: "Here, the teachers *care* if we graduate."

To motivate "high-risk" kids to stay in school and, not unimportant, to meet the work force needs of local industry, in 1981 Hewlett-Packard and Lockheed Missile & Space Co. joined forces with the Sequoia Union High School District to start the Peninsula Academies. These three-year vocational programs in computers and electronics are taught in two high schools in Atherton and Redwood City, California. Some 40 local companies provide equipment, mentors, on-site labs, and summer jobs for students.

Now career academies—sometimes described as "schools within schools"—have spread throughout California: 18 academies in 16 cities offer similar programs. The



ıte's pending 1989-90 budget calls for nding 15 more. On average, academy stu- nts have higher attendance rates and ade point averages than their nonacad- ny peers do. They also drop out less. For e first group of students to complete three ears in an academy program, the statewide opout rate was 7.3%, vs. 14.6% for a con- ol group of nonacademy students.

What makes for a successful program? A ıpportive school district and a lot of in- ustry involvement. In Oakland, for in- ance, students enrolled in the Oakland lealth Academy at Oakland Technical ligh School go to one of seven local hospi- ıls to receive training on such equipment s radiology machines, which the school ould never afford.

Last year Oakland Health Academy raduated its first class. When the students tarted the program, their average achieve- nent test scores ranked in the 30th percen- ile nationally. Four years later, 98% of these students received diplomas, and 86% went directly to two- or four-year colleges.

■ Encourage post-secondary education. Fred Monaco, director of career and vocation education in Pittsburgh, has an arresting thought: "General education is the enemy." He's referring to the roughly 30% of high school students who take the general education, or general studies, program, picking up a math credit here, a woodworking elective there, and finding themselves at graduation equipped for neither college nor work. In Pittsburgh the school board recently decided to eliminate the general education curriculum altogether, after a study showed that these students dropped out at a rate five to six times higher than those in college-prep or vocational programs.

Opposition to general education is growing. Around the country, schools are trying to steer these students, who tend to consider the high school diploma the end of their formal education, into a new "technical track" that provides a clear path to college. The Perkins reauthorization bill, with its emphasis on 2+2 programs that link the last two years of high school and the first two years of college, could help the movement. Says Chuck Bradley, a manufacturing manager with Texas Instruments in Austin, Texas: "I'd like to see general studies dropped and 2+2 programs become standard."

Bradley is a member of an advisory board—its members come from 13 companies, including IBM, Lockheed, Motorola, and 3M—set up in 1986 to help the Leander school district and Austin Community College develop a tech prep curriculum geared to the needs of the local electronics industry. Now students at Leander High School can take two years of junior-college-level courses, AC/DC Electronics and Semiconductors. After graduating, a student who goes on to Austin Community College and takes a minimum of six hours

WEST GERMANY'S COMPETITIVE ADVANTAGE

■ A West German advertisement for Lufthansa airlines pictures a middle-aged mechanic and four young apprentices examining an airplane engine below the tag line "Whoever wants to fly high needs a solid foundation." The message: Companies that invest in the training of young people produce better workers—and higher-quality products.

Each year about 500,000 West German companies provide on-the-job training for 1.8 million teenage apprentices—a group comprising 6% of the work force—at a cost of roughly $10 billion. In the U.S., apprentices make up a mere 0.3% of workers. Says Janet Carlson, assistant superintendent of vocational education for Washington State: "We are committed to training people for college. They are committed to training people for work."

Roughly 70% of German high school students study a vocation. Based on their performance in elementary grades, most youngsters are sent to one of three types of secondary schools: *Gymnasium*, or college prep, which continues through grade 13; *Realschule*, a middle-level school that readies tenth-grade students for apprenticeships or further technical training; and *Hauptschule*, a lower-level school that prepares youngsters for apprenticeships that begin after ninth or tenth grade. The system is rigid, but not many students fall through the cracks: Fewer than 10% leave without a school or apprenticeship certificate.

Apprenticeships generally run for three years, and combine three or four days of on-the-job training with one or two days of classroom instruction at a public vocational school. Wages average $400 a month—less than journeyman pay. The government sets standards —curriculum guidelines and examination requirements—for 430 occupations. Companies are not obliged to hire the apprentices they train, nor are apprentices required to stick around once their contracts expire.

So why do companies bother? Tradition, for one thing. The German apprenticeship system dates back to the Middle Ages. In addition, German companies say that it offers the following advantages: Students learn good work habits on up-to-date equipment at a young age; employers train workers for future openings; and companies and students have three years to decide if the match is a good one. Hewlett-Packard's West German subsidiary takes in about 80 new apprentices a year, at an annual cost of about $5,000 each, and eventually hires almost all of them. Says Stephen Hamilton, a professor at Cornell University who is writing a book comparing job training in the U.S. and Germany: "There is an unchallenged belief in Germany that one of their main sources of international competitiveness is the apprenticeship program. They could be wrong, but they're not willing to abandon it and see what happens."

Hewlett-Packard apprentices in Stuttgart show off their work.

HANS JOACHIM VERHEYEN

of classes automatically receives an additional 12 hours of credit for the electronics courses. Says Elbert Marcom, assistant vice president for academic affairs at the college: "This creates excitement for secondary students, because they can see a four-year scheme. These kids are capable of handling much more technical material then we've been willing to admit."

■ **Provide jobs.** Ohio and Illinois need welders. The construction industry projects a serious worker shortage in the mid-1990s. Millions of jobs beckon high school graduates with skills. The diploma alone is not enough: Between 1967 and 1987, says the Bureau of Labor Statistics, high school graduates accounted for 60% of the growth in unemployment. According to a study by John Bishop at Cornell, vocational school alumni are less likely to be unemployed and earn 7% to 8% more than other high school graduates—but only if they find jobs in their field. The trouble is, about half do not.

Vocational education needs to be more market-driven: The schools should be supplying what the labor market demands. Under a new Illinois plan called Education for Employment, the state will provide funding for vocational schools only if they offer programs in job areas where workers are needed. Companies have been invited to the schools to look at the curriculums—some of which have not changed much since 1950. In the aftermath of the visits many obsolete courses have been dumped.

The matching of educational skills to the job market is critically important for blacks and Hispanics. Says Charles Benson, director of the National Center for Research in Vocational Education at the University of California at Berkeley: "I can assure you the federal government is *not* addressing the problem of steering disadvantaged people into careers with good job prospects."

Under the proposed Perkins legislation, most federal money would flow to areas with a high percentage of poor kids. Yet nothing in the bill ensures that those youngsters would get into high-quality programs. The government should set aside money to reward schools that successfully bring black and Hispanic youngsters into careers with promising futures.

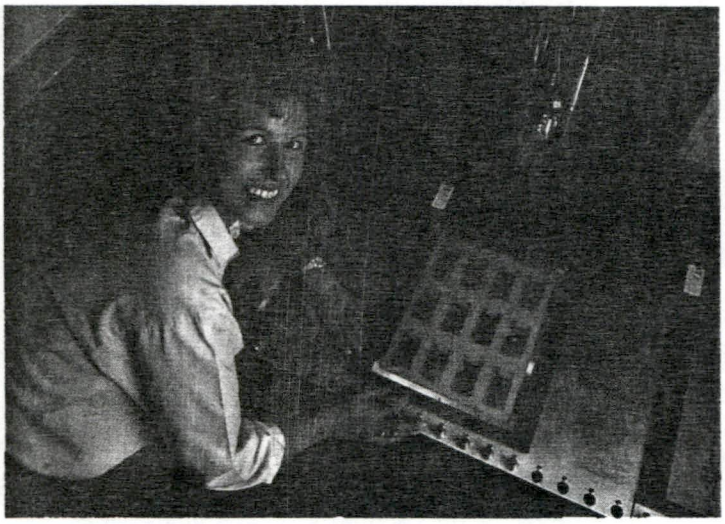
■ **Retrain older workers.** While companies can take comfort in knowing that vocational schools are beginning to roll out a new, 1990s line of employees, they still face the uneasy situation of what to do with the obsolete workers they already have. Says Ernie Morris, president of Fred Jones Manufacturing in Oklahoma City: "The single most important item in this country for the next ten years will be employee education and retraining."

Perhaps no vocational school has responded more aggressively to the needs of the burgeoning adult education market than Oklahoma City's $20 million Francis Tuttle center. Built in 1981 and supported by tax dollars from five surrounding school districts, Tuttle caters to a society of lifelong learners: Students range in age from 16 to 60. High school students attend free; full-time adults pay $365 a semester. Classes run from 7:30 A.M. to 10 P.M., six days a week, and new students are allowed to enroll each Monday. Last year 10,000 adults updated their skills at Tuttle.

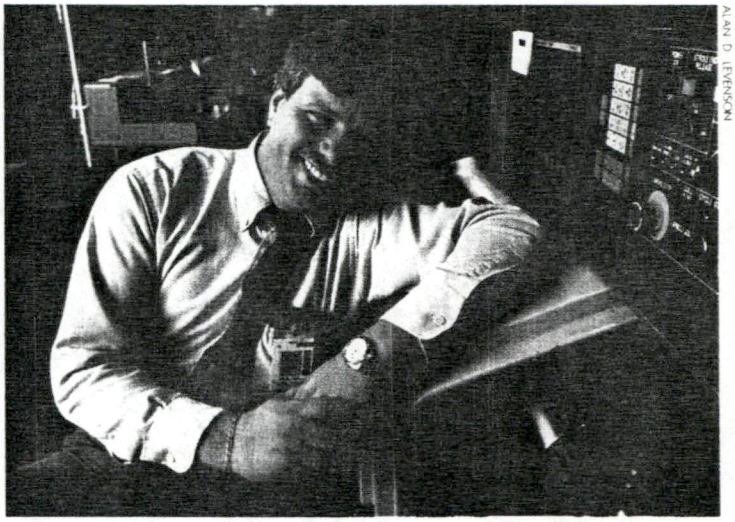
When a student signs up for one of Tuttle's 28 programs—whether it's building and grounds maintenance or instrumentation and control—he or she takes an aptitude test that determines the starting point. From there, the student sets his own pace in individualized instruction that combines textbooks and videos with hands-on labs. The reward for passing all the course requirements: a certificate of completion or, in some cases, an associate degree. Says Carol K. Blalock, who entered Tuttle at 45 to learn automated manufacturing and robotics after being laid off from her electronics assembly job at AT&T: "One reason I thought this was such a great program was that if you already understood something, you could whiz on through. I could get marketable skills in a shorter period of time."

To lure industry to Oklahoma, the state offers to train workers for new facilities at no cost to the company at technical centers like Tuttle. Laments James A. Caillier, president of Delgado Community College in Louisiana: "We're losing our industry to Oklahoma because they've done such a good job of packaging their technical programs."

The U.S. can no longer afford to squander its human resources. To better mine its talent, the country must adopt an education policy that acknowledges the vast diversity of its students and offers options suited to their individual needs and learning styles. Vocational education is one option—Toyota, IBM, and Lockheed are among the corporations that consider it a vitally important one. ■



DAN LAMONT—MATRIX



ALAN D. LEVENSON

Vocational training changed Clarice Kooistra from a gas pumper to a machine programmer, and helped Tim Titus become a supervisor.

NATIONAL COUNCIL ON VOCATIONAL EDUCATION

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TRANSMISSION COVER SHEET

DATE: 9-6-89

TO : MARY KATE GRANT
ROOM 117
OEOB
PHONE NO. ( ) 456-7943
FAX NO. ( ) 456-6218

FROM: JOYCE L. WINTERTON
EXECUTIVE DIRECTOR, NCVE
PHONE NO. ( ) 732-1884
FAX NO. ( )

SUBJECT OF MATERIAL: INFORMATION ON GENERAL ELECTRIC AND NORMA KAMALI

NUMBER OF PAGES TO FOLLOW: 5

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SEP 6 1989

AMERICAN SUCCESS AWARDS

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NORMA KAMALI

Norma Kamali is an internationally known and successful fashion and home furnishings designer. She attended the Fashion Institute of Technology, a well-known vocational-technical school in New York City. Ms. Kamali received two Coty Awards, the fashion industry's prestigious award, in 1981 for her sweatshirt collection and in 1982 for women's fashion design. In 1983, she was given the Coty Hall of Fame Award. Ms. Kamali produces two major clothing

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collections yearly plus video and films, furniture, and architectural projects from her stores to the building at 56th Street in New York City. She was a leader and innovator in the use of fashion videos. The New York Fashion group honored Ms. Kamali in a salute to women who have made a difference in the fashion industry. Norma Kamali is a wonderful example of success built upon an excellent education.

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CHARLES D. STRANG

Mr. Strang is Chairman and Chief Executive Officer for Outboard Marine Corporation, makers of Johnson and Evinrude motors as well as numerous recreational and commercial boat lines. He has worked as test engineer on experimental aircraft engines for Wright Aeronautical Corporation and on the early jet engines for NASA. Mr. Strang attended Brooklyn Technical High School where he took a combination of college preparatory and vocational-technical education courses. He continued his education at Brooklyn's Polytechnic Institute where he received a bachelor's degree in mechanical engineering. His experience also includes teaching at the Massachusetts Institute of Technology. A speed boat competitor since 1937, Mr. Strang's avid interest in outboard racing and personal achievement as a national champion driver introduced him to the leaders of the outboard industry. He entered the marine business through the Kiekhaefer Corporation. Mr. Strang has been successful in combining his knowledge, ambition and enthusiasm into a model career.

SEP 6 1989

GENERAL ELECTRIC - BRIAN H.ROWE

General Electric is a corporation which has enhanced and supported vocational-technical education over the years. Mr. Jack Welch is Chief Executive Officer for GE which is one of the largest corporations in the United States. General Electric has provided a career ladder opportunity for many employees and has demonstrated their commitment through financial resources and development of education and training programs. Brian H. Rowe who is receiving the award on behalf of General Electric is a Senior Vice President for GE Aircraft Engines in Cincinnati, Ohio. General Electric is an example of the commitment of corporations to vocational-technical education.

LAND-O-LAKES - RALPH HOFSTAD

Land-O-Lakes is a two billion dollar cooperative of dairy farmers (one of the largest in the U.S.). Mr. Ralph Hofstad is the President and Chief Executive Officer. Mr. Hofstad also served as Chief Executive Officer of Felco, an agriculture cooperative , in Ft. Dodge, Iowa. Felco became a division of Land-O-Lakes in 1970. Through Mr. Hofstads leadership, these corporations have established an impressive partnership with vocational-technical education in the midwest. Through needs assessments of private enterprise, programs were established at the local level throughout the upper midwest which were targeted to meet the workforce needs of business/industry. Vocational-technical education was thus able to provide students with the education and skills to build a career ladder of opportunity. Ralph Hofstad is an example of a successful corporate leader because he knows how to make things happen--a matchmaker for business/industry and vocational-technical education.

NATIONAL COUNCIL ON VOCATIONAL EDUCATION

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TRANSMISSION COVER SHEET

DATE: 9/5/89

TO : Mary Kate Grant
Rm 117
OEOB

PHONE NO. ( ) 456-7943
FAX NO. ( ) 456-6218

FROM: Joyce L. Winterton
Executive Director
National Council on Vocational Ed.

PHONE NO. ( ) 732-1884
FAX NO. ( )

SUBJECT OF MATERIAL: Information on awardees for September 11 Ceremony
(I will have the final information on Norma Kamali and General Electric tomorrow)

NUMBER OF PAGES TO FOLLOW: 5

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Male Vocalist of the Year in 1986 for the second consecutive year. Mr. Strait was involved in vocational-technical education in high school and active in the Future Farmers of America. He was on the FFA chapter livestock judging team, participated in the parliamentary procedure contest and received leadership training including public speaking. After high school, Mr. Strait joined the Army, taught himself how to play the guitar and formed a small country-swing band that played on the base. He then attended Southwest Texas State University where he graduated with a degree in agricultural education. He is a certified vocational agriculture teacher in Texas. Mr. Strait began managing a ranch and singing after hours. His "big break" into the music business came when the Houston Livestock Show and Rodeo called on him to fill in after a scheduled performer cancelled. When he is not singing, George runs a cattle ranch in southern Texas.

CHARLES D. STRANG

Mr. Strang is Chairman and Chief Executive Officer for Outboard Marine Corporation, makers of Johnson and Evinrude motors as well as numerous recreational and commercial boat lines. He has worked as test engineer on experimental aircraft engines for Wright Aeronautical Corporation and on the early jet engines for NASA. Mr. Strang attended Brooklyn Technical High School where he took a combination of college preparatory and vocational-technical education courses. He continued his education at Brooklyn's Polytechnic Institute where he received a bachelor's degree in mechanical engineering. His experience also includes teaching at the Massachusetts Institute of Technology. A speed boat competitor since 1937, Mr. Strang's avid interest in outboard racing and personal achievement as a national champion driver introduced him to the leaders of the outboard industry. He entered the marine business through the Kiekhaefer Corporation. Mr. Strang has been successful in combining his knowledge, ambition and enthusiasm into a model career.

GENERAL ELECTRIC - JACK WELCH

General Electric is a corporation which has enhanced and supported vocational-technical education over the years. Mr. Jack Welch is Chief Executive Officer for GE which is one of the largest corporations in the United States. General Electric has provided a career ladder opportunity for many employees and has demonstrated their commitment through financial resources and development of education and training programs.

LAND-O-LAKES - RALPH HOFSTAD

Land-O-Lakes is a two billion dollar cooperative of dairy farmers (one of the largest in the U.S.). Mr. Ralph Hofstad is the

President and Chief Executive Officer. Mr. Hofstad also served as Chief Executive Officer of Felco, an agriculture cooperative , in Ft. Dodge, Iowa. Felco became a division of Land-O-Lakes in 1970. Through Mr. Hofstads leadership, these corporations have established an impressive partnership with vocational-technical education in the midwest. Through needs assessments of private enterprise, programs were established at the local level throughout the upper midwest which were targeted to meet the workforce needs of business/industry. Vocational-technical education was thus able to provide students with the education and skills to build a career ladder of opportunity. Ralph Hofstad is an example of a successful corporate leader because he knows how to make things happen--a matchmaker for business/industry and vocational-technical education.

COLLEGES, Land-Grant. The land-grant colleges of the U. S. institutions of higher education established under the provisions of the Morrill Act of 1862 or financed to some extent by this and related federal laws. This legislation granted to each state 30,000 acres of federal land for each congressman from the state. The land was to be sold to provide an "endowment" for "at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

The climate within which the legislation was passed was conditioned by the growth, during the first half of the 19th century, of effective democracy, the influence of the middle class, industry, and commerce, and an increasing awareness of the importance of science and technology. These forces led to a significant protest against a system of higher education inherited from England that aimed almost solely at preparing well-to-do young men for careers as ministers, lawyers, teachers, and civil officers.

Important among those protesting was Jonathan Baldwin Turner, a New England farmer's son, who settled in Illinois as a college teacher and farmer after his graduation from Yale. From 1839 he vigorously advocated the establishment of universities for the "industrial classes" and detailed a blueprint for such institutions.

The First Morrill Act. A bill to provide federal aid to encourage the establishment of such institutions was introduced into the U. S. Congress by Representative Justin Smith Morrill of Vermont in 1857. Passed by the House (1858) and the Senate (1859) by narrow margins, the bill was vetoed by President James Buchanan, chiefly on grounds of cost and constitutionality. It was reintroduced by Morrill in 1861, passed both houses by large margins, and signed into law by President Abraham Lincoln on July 2, 1862.

Within a year of its passage, nine states had established colleges under the act, largely by assigning land-grant functions to existing institutions. These pioneering institutions included Iowa State, Kansas State, Michigan State, Rutgers (N. J.), and Pennsylvania State universities and the universities of Vermont, Minnesota, Missouri, and Wisconsin. By 1929, 20 states and territories had established colleges of agriculture and mechanic arts, and 31 others had assigned the functions to state or other institutions. Two states allotted federal funds to private institutions—New York to Cornell and Massachusetts to Massachusetts Institute of Technology. Following the passage of the Second Morrill Act in 1890, 17 agricultural and mechanical colleges for Negroes (one of which has since voluntarily relinquished its land-grant status) were established in the Southern states.

The Second Morrill Act. This act authorized continuing federal appropriations for the support of land-grant institutions. The framework for federal-state cooperation in establishing and operating these institutions was broadened with the passage, in 1887, of the Hatch Act, which provided federal aid for agricultural experiment stations at land-grant institutions. It was rounded out in 1914 by the Smith-Lever Act, which established the Cooperative Extension Service in agriculture and home economics at these institutions in association with the U. S. Dept. of Agriculture. Over the years annual federal appropriations have grown—to about $150 million in the mid-1960's.

Growth of Land-Grant Institutions. The new institutions developed slowly over the latter half of the 19th century. During this time they pioneered in a break with classical traditions. Beginning about 1900 land-grant institutions developed rapidly, partly as a result of direct federal support through the Second Morrill Act and an increasing acceptance by the states of their obligation to support such institutions. The programs were broadened and extended, with many agricultural and mechanical institutions developing into comprehensive state universities. By the mid-1960's, 37 of the nation's 68 land-grant colleges enrolled over 10,000 students each; the 68 institutions enrolled 17.5% of all students in higher education in the United States and awarded 20% of all bachelor's, 25% of all master's, 22% of all first professional, and 40% of all doctoral, degrees.

Often cited as the United States' single greatest contribution to higher education, the land-grant institutions, together with the state universities, pioneered important innovations in American higher education. These include the establishment of such concepts as public higher education at low cost; research as a legitimate function of higher education; public service and continuing education; and the elevation of the "useful" arts, sciences, and professions to academic respectability.

Recent Progress. Since World War II the land-grant institutions have taken the lead among American institutions in international cooperative programs, especially in agricultural and university development in the emerging nations. Through their instructional, research, and extension programs in agriculture, land-grant institutions have also been significantly responsible for the development in the United States of the world's highest agricultural productivity. In 1953 the National Manpower Council concluded that "the most important single governmental step in connection with the training of scientific and professional personnel was the Morrill Act of 1862, which laid the basis for the country's extensive state college and university system."

In 1887 representatives of land-grant institutions formed the Association of American Agricultural Colleges—the first association for institutions of higher education in the United States. Together with the National Association of State Universities (formed in 1895), it has played a leading role in higher education and was one of the founders of the American Council on Education in 1918. The two associations were merged in 1963 to form the National Association of State Universities and Land-Grant Colleges, which represents 99 state universities and land-grant institutions.

CHRISTIAN K. ARNOLD, *National Association of State Universities and Land-Grant Colleges*

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((Grant))
September 7, 1989
Draft two
A:votech

PRESIDENTIAL REMARKS: VOCATIONAL EDUCATION AWARDS
THE ROSE GARDEN
SEPTEMBER 11, 1989
11:15 A.M.

((Acknowledgements))

There's an old saying: The more things change, the more things stay the same. Well, today I'm going to talk about our rapidly changing workforce, and the simple, proven ways America is preparing for the future.

During the Administration of Abraham Lincoln, the government made a strong commitment to what most people now consider a current idea: vocational-technical education. By establishing the land-grant colleges -- the Agricultural and Mechanical, or "A & M" schools -- Lincoln ensured that Americans workers were on the cutting edge of new technologies. Sound familiar? Since the days of Lincoln, America has been concerned with competitiveness in the world marketplace of technology.

Lately, there's been a bad rumor going around that the work ethic is dead. It sure isn't -- not when so many of the best new jobs in the Nation are going to Americans educated in vocational-technical schools. Sounds to me like the work ethic is alive and well.

And it's going to stay that way: Eighteen of the 20 fastest growing occupations within the next decade require vocational-technical education, and jobs for technicians will grow 38

percent by the year 2000 -- the fastest of any major occupational group.

All across America, some 26,000 vocational-technical education institutions provide 16 million Americans with marketable skills in over 150 occupations.

These students will be the high-tech computer programmers and operators, equipment assemblers and communications specialists who stand at the cutting edge of our economy. As we rely more and more on automation in our industries, employers will be looking for smart workers who can communicate and solve problems, from monitoring production rates to repairing robots. These are people who are skilled on the production line and who know how to get things done -- one professor told Fortune magazine they were the new "blue-and-white-striped-collar-workers" of tomorrow.

Let's look at one of the benefits of vo-tech education: marketable graduates and lower unemployment. For example, one study found that graduates of Ohio vocational education programs earn 21 percent more money four years after graduation than high school graduates without such training. And unemployment is lower for vo-tech graduates than for those in the general work force who are the same age and have the same number of years of schooling. But even beyond the numbers -- if vo-tech education can help young Americans get a better start in life, then it has been an overwhelming success.

Here's another benefit: improved learning skills. Job training and academics are not contradictory. Actually, many people learn academic subjects better in the context of how to use them on the job. Students in a vo-tech school taking a "Principles of Technology" course will learn about thermal resistance not from a lab experiment with beakers and test tubes, but from working with the insulation in a house. Vo-tech schools are leading the way in educational improvement and "applied academics."

The partnerships that community colleges and vo-tech institutes have formed with businesses to provide retraining and up-to-date skills for their employees are essential. There are now 23 million adults who receive re-training through vocational-technical programs which allow them to get new or better jobs. The reality of life-long learning has arrived.

Building a worldclass workforce is a national priority. Improving America's capacity to educate and train workers is critical to the future of this country. That's why we're today presenting the American Vocation Success Awards ~~today -- because these individuals~~ have become American success stories through ~~their~~ your involvement in vocational-technical education. And now ~~they're~~ you're ~~making~~ building a better America even more of a success every day.

~~The award winners here~~ Each of your has truly ~~have~~ lived the American Dream and ~~Like Dorothy Holland, the first woman Vice President of Kraft, Incorporated and a former home economics teacher. Or Delbert Staley, a one-time telephone installer who, as Chairman of the~~

I can't

Nynex Corporation, has been named by Forbes magazine as one of the 50 most powerful people in corporate America ... Major General Joe Henry Engle, commander of two space shuttle flights and a former vo-tech student who has helped America realize the dream of space exploration ... and Joseph Semprevivo, a 17 year old vo-tech student who plans to be a doctor. Joseph is already Vice President of his own three million dollar company, producing 10,000 dietetic cookies per hour for national distribution.

I've only mentioned a few of the amazing people who are joining me here today. Each one of you deserves our congratulations and thanks, for your work in vocational-technical education. God bless you all. Thank you.

And now, we'll be presenting the American Vocation Success Awards ...

# # #

((Grant))
September 7, 1989
Draft three

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Each of you has truly lived the American Dream, and each one of you deserves our congratulations and thanks for your work in vocational-technical education. God bless you all. Thank you.

And now, we'll be presenting the American Vocation Success Awards ...

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