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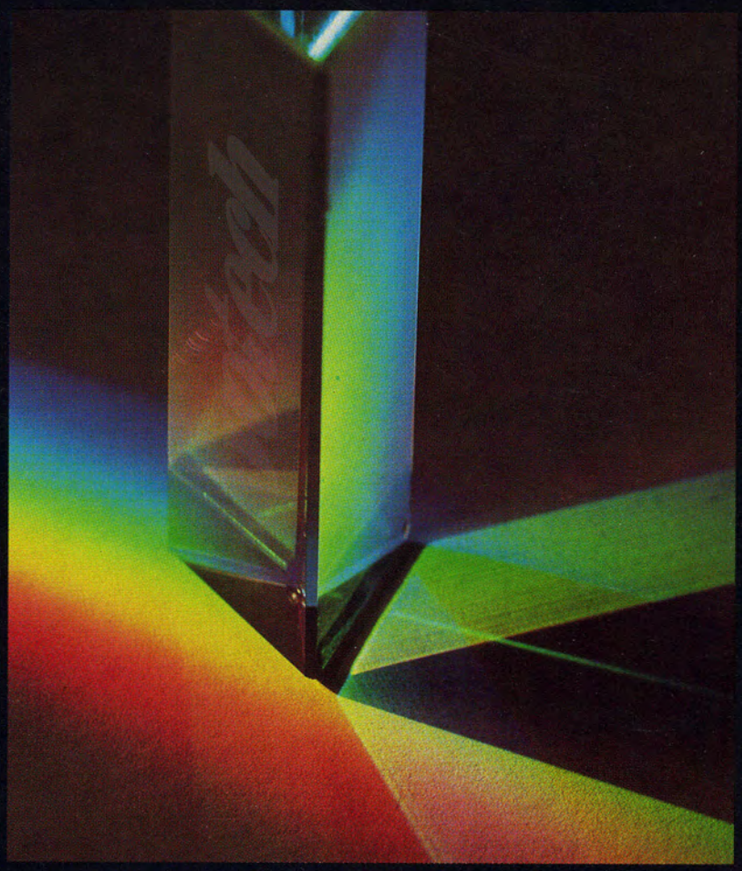

Serving Oklahoma's Diverse Education and Economic Needs

OKLAHOMA DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

VISION STATEMENT

We want to be known as a great agency, full of energetic, committed, sensitive people who know our purpose, are committed to our customers, do not act like bureaucrats, operate as a team, with an ear to the present and an eye to the future.

MISSION STATEMENT

We administer, coordinate, and support a comprehensive system of vocational and technical education. Our purpose is to provide dynamic and visionary leadership, assure standards of excellence, and provide relevant programs, services, and activities to individuals, schools, businesses, industries, and other agencies of government. We strive to create a working environment that will help attract and retain exceptional individuals and allow them the opportunity to excel.

Roy Peters, Jr.
State Director

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The Honorable David Walters
Governor of Oklahoma

The State Board of Vocational and Technical Education

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Executive Officer

Sandy Garrett
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Welcome to the pages of a new publication of the Oklahoma Department of Vocational and Technical Education. In past years, the state vo-tech agency has published an annual report, replete with facts, figures, and pie charts illustrating our growth and direction.

This year we bring you *Spectrum*, which takes you closer to the diverse people and dynamic programs that are the core of what we do and why we do it. This publication is filled with stories about what makes Oklahoma's system of vocational education among the premier systems in the nation.

As you read about efforts to rejuvenate rural communities, an award-winning child care program, a day care program for the elderly, and the growing cooperation between vocational education and the worlds of higher and common education, we hope an image of a vital, progressive, and expansive education system will emerge.

Our traditional annual report returns next year and will be published bi-annually, alternating years with *Spectrum*.

Roy Peters, Jr.

Roy Peters, Jr.
State Director

Intergenerational day care

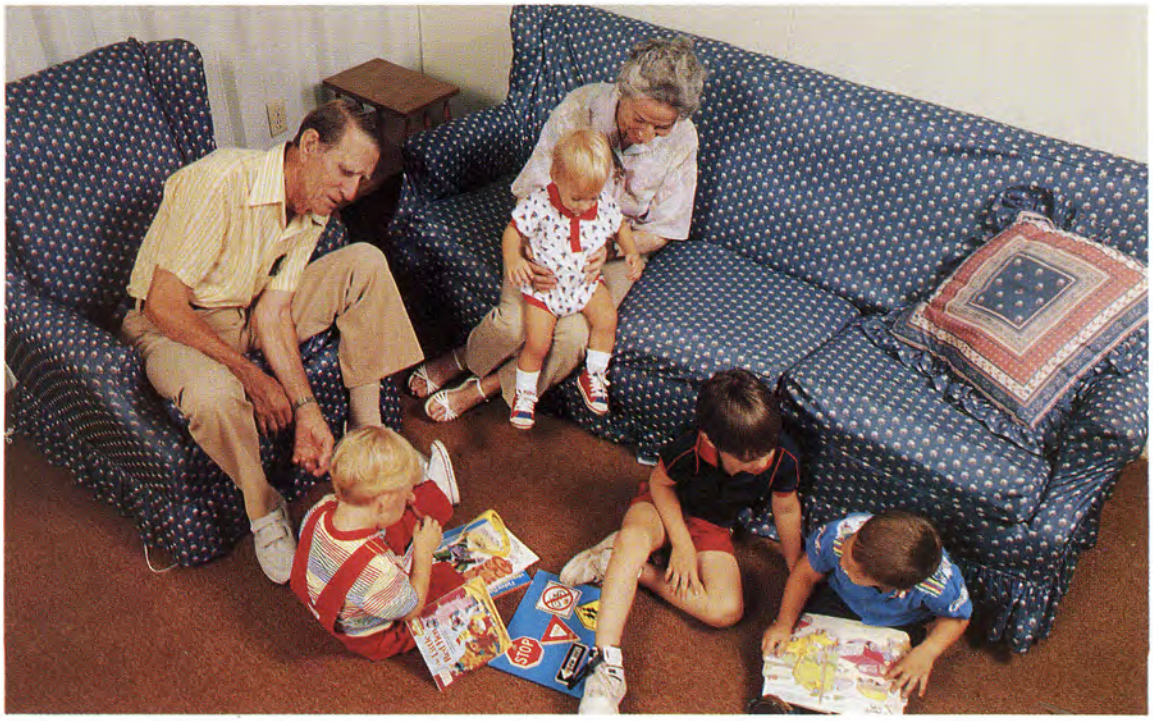
An elderly man sits silently and gazes out the window with his eyes fixed on thin air, thinking about the good old days or trying to remember who will be picking him up at the end of the day. Was it his son who said he'd be by at 2:30?

Suddenly, his gaze is broken by a boy—about 4 or 5 years old, he figures—who strolls by and, on tiptoes, peers back from the other side of the pane. They both grin, shyly at first. The man rises and smoothes his silver hair with one hand, waves and points to the front door with the other. Come on in, the man says with his eyes.

The beginning of another special friendship at Canadian Valley Area Vo-Tech School's new Intergenerational Day Care program.

The unique program (believed to be the first of its kind in an academic setting) pairs children with the elderly a few hours a week for social, educational, and recreational activities.

They blow bubbles outdoors—the children do most of the blowing with gentle guidance



Eileen Williams and Tyler Hill enjoy storytime together.

and well-kept secret tips from folks who are expert bubble blowers from way back. They play the parachute game, making a circle and bouncing a beach ball on a stretched-out parachute, trying to pop it to the ground by the other team's feet.

Most importantly, the Elder Care director says, they learn about each other—the young discovering what it means to grow older and the elderly rediscovering the excitement kids find in everyday life.

"At first the children were so shy," said Lenora Swanson, Elder Care program director. "Now they're always asking 'When are we going to Elder Care to play the beach ball game?' "

Canadian Valley offers both a Child Care program and an Elder Care program in which students learn about human development, meeting the needs of special age groups, first aid, nutrition, guiding behavior, and managing day care centers. The Child Care program is for children from 6 weeks to 5 years old; the Elder Care program is for adults age 60 and older.

The time that the two groups spend together is the Intergenerational Day Care program, usually run by both Swanson andthe children's program director, Linda Laverty. Most people regard Intergenerational as a two-generation program, but Swanson says it reaches beyond that.

"Most of our students are teens and that brings in a third generation."

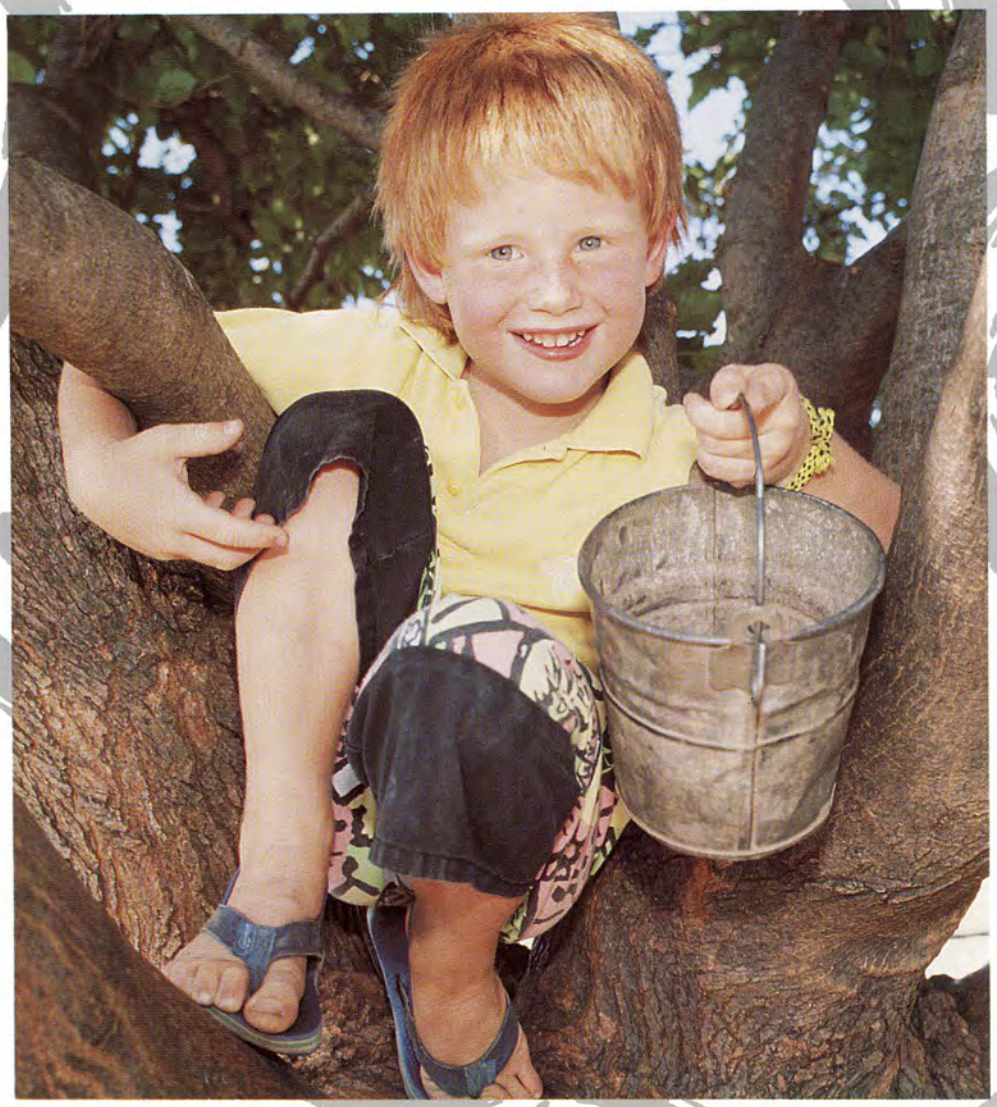
Swanson, a registered nurse, began specializing in caring for the elderly when her father was diagnosed with Alzheimer's, a disease that strikes the elderly and erodes the short-term memory function. More than 50 percent of adults in day care programs have Alzheimer's, she said.

Some people may be nervous, even afraid, to interact with an elderly person who has a tough time remembering what happened five minutes or five hours ago, Swanson said.

Maybe that's because they haven't taken a good close look at the person, the individual—like the boy peering through the window nose to nose with a silver-haired man.

"These children are learning that an older person can have balance and hearing problems or forget things, but they're still good for hugs and kisses and that special relationship." ▲

Award winner



Since the Child Care program at Kiamichi Area Vo-Tech School in McAlester was recognized by the U.S. Department of Education as one of the top 10 vocational programs in the nation last year, the phone hasn't stopped ringing.

"We've received calls from as far away as the Virgin Islands," said Rebecca Nichols, Child Care program coordinator at Kiamichi. "We have received requests from all over the United States on how to establish this type of educational and training program," she said.

The McAlester program has offered instruction in child development, provided educational environments for children and prepared graduates to work in the child care profession for two decades. It also provides day care services, and in the 1990-91 school year increased enrollment to 21 children—up from 16 the previous year.

"These programs represent the highest standards of excellence in vocational education," then U.S. Education Secretary Lauro Cavazos said of the top 10 programs

at a November 1990 press conference.

"They integrate applied academics and basic skills instruction with intense occupational training. They meet the needs of local businesses and have demonstrated success in placing students in jobs. They are models for the nation," Cavazos said.

Sam Wilson, regional representative for the U.S. Secretary of Education, traveled to McAlester to present the prestigious Secretary's Award to the vo-tech school.

The education and training the students receive at Kiamichi is critical, Nichols said.

"Our students have to be substitute parents so our training has to be very special. This is a real honor for us."

Students in the program study the growth and development of children and how to prepare developmental child care environments. They also learn to develop an educational curriculum for the young students and focus on nutrition, health, and safety. The child care students are preparing for careers as private nannies, day care teachers, and elder care workers, or will go on to college to become child psychologists or elementary school teachers.

"Working with children from birth to the time they start school requires special training. That's a very important period in the life of children because they learn so much," Nichols said.

Kiamichi's Child Care program was selected as one of the nation's best vocational programs because of its flexibility and its goal to meet industry demands.

"This is a growing industry and we are working hard to meet the needs of industry by providing skilled graduates. Our program also meets a variety of learner styles because we use a variety of instructional techniques."

Secondary and postsecondary enrollment reached 100 percent—80 students—in the Kiamichi Child Care program for the 1991-92 school year, Nichols said.

The Child Care department also includes Clarice LaGasse, instructor and coordinator of Child Care Industry Training; Phyllis Harmon, lead teacher in the Child Development Center; and Dorothy Adcock, assistant teacher and cook.

Judging for the national recognition program was based on how well schools integrated academic and vocational programs, set objective standards to measure students' competency levels, and evaluated progress in attaining basic skills and training. Programs also were judged on working relationships with secondary and postsecondary schools and job placement rates for graduates.

Finalists completed the extensive application process and received on-site visits by representatives from the U.S. Department of Education.

During fiscal year 1991, the Kiamichi Vo-Tech School's Child Care program served 40 adult students and 42 high school juniors and seniors. More than 85 percent of the Child Care program graduates are placed in jobs in the field, while 10 percent continue their education. ▲

Rural Development

Small-town Oklahoma shrinks yearly as residents young and old flee to cities and suburbs in search of better jobs and economic stability.

While rural Oklahoma may have its weaknesses, it has many strengths—its people possess a solid work ethic, imagination, and a staunch determination.

So, what is lacking? It is neither commitment nor courage, but instead a strategic plan for success, a plan that identifies resources and harnesses the involvement of all townspeople to focus on rural development.

The Rural Development Task Force at the Oklahoma Department of Vocational and Technical Education is building a network to centralize efforts and formulate such a plan. The group was formed to examine ways to improve economic development efforts within rural communities. It includes representatives

Downtown Holdenville, with its contrast of old and new buildings, is the target of economic development efforts by local residents in cooperation with the Oklahoma Department of Vocational and Technical Education in Stillwater.

of the state agency's Business and Industry Services, Agricultural Education, Vocational Home Economics, and Research divisions.

The task force has developed a rural-based strategic plan to steer small communities back on track. The plan relies upon the Young Farmers of Oklahoma, an active organization in many Oklahoma communities, as its backbone.

Three Oklahoma communities—Holdenville, Leedey, and Ryan – were selected to test pilot the newly developed strategic plan. Each town was chosen because of its rural location, cooperation of a strong YFO program, and local schools' commitment to agricultural education.

The pilot projects have been in operation for about a year and have been successful, said Greg Dewald, the state vo-tech agency's rural economic development and in-service specialist.

"It's amazing what you can do in a short time by stirring up ideas and having a common vision," said Dewald.

The three projects are as diverse as the communities themselves. At Holdenville, where catfish farming and processing has become an important cash crop but is limited by an inadequate water supply, the group has constructed a needed water line.

With support from Holdenville's First National Bank, the community established a farmer's market. It is working with Tyson Foods Inc. to help establish a feed mill and two local hog farms valued at more than $2 million. Holdenville's next project is to re-open a local sale barn.

"Just because we have reached our initial goals doesn't mean we'll quit. We are continually setting new, higher goals," said Dale Turner, Holdenville Young Farmers advisor.

At Ryan, citizens are constructing community greenhouses to produce bedding plants for resale locally and nationwide. Project leaders are conducting a survey to determine the town's needs and strengths and plan to build a community building. To fill vacant houses, the community is developing a brochure to lure retirees to "Come Back to Ryan."

"This project has brought key people together and our community has felt a coming together," said Bob Waitman, Ryan Young Farmers advisor.

"There is no more talk of our community drying up and blowing away. Instead, people are excited about what the project can do for the community," said Waitman.

At Leedey, the new laundry and dry cleaning service the task force helped establish is going well, said Lyle Rounds, Young Farmers advisor. The Young Farmers chapter is also helping to get a newly built nursing home up and running and staffed with qualified and trained local residents. A fishing tournament sponsored by the Young Farmers is also in the works.

"Rural development projects such as these will be the lifeline for this community," said Rounds. "Without increased rural development, the life expectancy of a small town is short," he said.

Dewald said rural development is not a quick fix. It requires setting and following through with long-term economic goals—the first step toward long-term stability.

"The initial goal of our rural development effort was to see what could be done locally to stimulate rural development," Dewald said.

"We have just seen the tip of the iceberg in what can be accomplished locally with rural development, but it takes the commitment and effort from the entire community."

Just as the quiet windmills of the plains coax the wind into the flow of life-giving water, the rural development effort can provide rejuvenation with rural jobs that can relieve economic stress and give small-town Oklahomans an economically sound reason to put down rural roots. ▲

Bid Assistance

More than $1 billion in government contracts has been awarded to Oklahoma companies through the Oklahoma Vo-Tech Bid Assistance Network since it was begun five years ago.

The network consists of centers at 24 area vo-tech schools across the state, and it strives to help state firms land government contracts, providing jobs for Oklahomans.

"The Bid Assistance Centers teach small companies how to successfully compete for government contracts," said Denise Agee, coordinator of the Oklahoma Bid Assistance Network. The network is headquartered at the Oklahoma Department of Vocational and Technical Education in Stillwater.

In 1991, some 1,294 government contracts totaling nearly $340 million were awarded to Oklahoma companies. Since 1986, about 6,000 contracts totaling $1.1 billion have been awarded to Oklahomans. Contracts have been awarded in a wide range of areas including manufacturing, construction, and service.

Most of the companies assisted are mom-and-pop operations that already are successful with commercial contracting and are eager to branch out into government work, Agee said.

Harold Hite, owner of Stillwater Precision Tool and Die, is one of the network's satisfied customers. His three-employee firm has been awarded two government contracts and is continuously searching for more opportunities through the network, Hite said.

"We dealt strictly with the private sector until we were awarded the government contract to make a riveting tool for Tinker Air Force Base," Hite said. "The government contract gave us a long-term manufacturing commitment."

Jo Knight, bid assistance coordinator at Tri County Area Vo-Tech School in Bartlesville, helps local businessman Robert Blackman gather information for a government contract application.

The Bid Assistance Center provided information about the bidding process, reference manuals, and interpretation of government and contract terminology, he said.

"Without the center's assistance, I wouldn't be involved in government contracting, and that's the bottom line."

Donald Petzold, co-owner of a newly formed Altus grounds maintenance company, said he would still be farming if not for the network. His company, formed just over a year ago, landed a major grounds maintenance contract for Altus Air Force Base.

"The network gave invaluable help with the essential paperwork to obtain the contract.

"It doesn't matter how good your bid is. If the paperwork isn't done right, you don't have a chance," Petzold said.

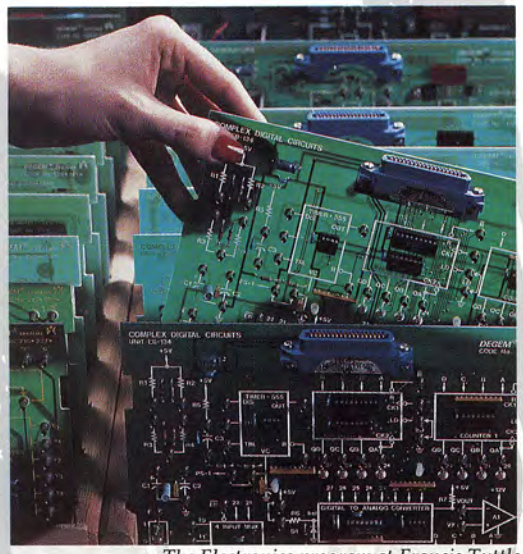
The $670,000 contract is for three years and was awarded to the Altus company in July. The company now employs 13 workers and is responsible for mowing more than 2,000 acres and providing general grounds maintenance at the Air Force base.

Previously, the contract was held by an out-of-state vendor, Petzold said.

The Bid Assistance Network trains Oklahoma businessmen to do what these companies have done—diversify through government contracting, Agee pointed out. The program's ultimate goal is to provide Oklahoma business owners the support and training needed to be successful in the government marketplace. Bid assistance centers offer instruction in basic research, marketing, and bidding strategies unique to government contracting.

"On-time delivery of quality products is absolutely critical in government contracting," Agee said. ▲

Tech Prep



The Electronics program at Francis Tuttle Vo-Tech Center in Oklahoma City is a popular part of the school's Tech Prep program

The Oklahoma Department of Vocational and Technical Education is helping six area vo-tech schools build bridges—Tech Prep bridges that connect secondary and postsecondary education by making the journey easier for students and for the educational institutions.

These Tech Prep partnerships between area vo-tech schools, local school districts, and community colleges are encouraging secondary school students to take organized, sequential courses of study to prepare for today's demanding workplace and to ease the transition into institutions of higher learning if they decide to continue their technical education.

In July 1991, each of these partnerships received a $150,000 grant from the Oklahoma Department of Vocational and Technical Education to set up Tech Prep programs.

As these partnerships progress through the first year of this three-year project, the Instructional Services division of the state vo-tech agency will work closely with each to conduct appropriate workshops and seminars. A collection of committees—leadership, implementation, curriculum development, evaluation, and information and promotion—have been designated within each consortium. The committees will plan, develop, and implement the Tech Prep program. All committees include representatives from secondary institutions, two-year postsecondary institutions, and business and industry.

TECH PREP PILOT SITES

FRANCIS TUTTLE VO-TECH CENTER,
Oklahoma Community College, the University of Oklahoma, and Putnam City, Deer Creek, Crescent, Edmond, and Western Heights school districts.

"CREATE: Consortium to Restructure Education through Academic and Technological Excellence." This 4+2+2 Tech Prep Education program is directed by Jan Powell and Carla High of Fancis Tuttle Vo-Tech Center and includes the following programs:

- Industrial Electronics
- Computer-Aided Design/Drafting
- Manufacturing Technology
- Microcomputer Specialist Emphasis
- Electronics
- Office Administration

METRO AREA VO-TECH SCHOOL,
Oklahoma State University Technical Branch in Oklahoma City, and Oklahoma City, Millwood, and Crooked Oak school districts. "Project SOAR: Success Opportunities through Articulated Resources." Metro's 4+2+2 Tech Prep Education program is directed by Don Connel, OSU-OKC, and includes these programs:

- Heating, Ventilation and Air Conditioning
- Electronics/Avionics

CADDO-KIOWA AREA VO-TECH SCHOOL,
Redlands Community College in El Reno, and Eakley, Washita Heights, Oney, Verden,

Carnegie, Cyril, Binger, Anadarko, Apache, Cement, Gracemont, Hydro, Hinton, Lookeba-Sickles, Mountain View-Gotebo, Fort Cobb, and Riverside Indian school districts.

"Caddo-Kiowa 4+2 Tech Prep/Associate Degree" is directed by Glenda Taylor and Tom Wiechel, both of Caddo-Kiowa Area Vo-Tech School, and includes these programs:

- Business and Office
- Data Processing
- Electronics
- Food Service
- Child Care
- Health Career Occupations

CENTRAL OKLAHOMA AREA VO-TECH SCHOOL,

Oklahoma State University, OSU/Okmulgee, and Sapulpa, Bristow, and Morris school districts. "World-Class Graduates ... For a World-wide Market" is Central Vo-Tech's Tech Prep program being directed by Dr. Robert E. Klabenes, Linda Avant, and Phil Waul, and includes the following programs:

- Industrial/Engineering Technologies
- Hospitality Services
- Electronics
- Drafting
- Printing
- Culinary Food Service
- Business Data Processing
- Air Conditioning and Refrigeration

Students in Gary Flowers' Electrical Trades class at Kiamichi Area Vo-Tech School in Poteau experiment with robotics similar to the technology being used in local industries.

KIAMICHI AREA VO-TECH SCHOOL,

Carl Albert State College, and Arkoma, Heavener, Panama, Pocola, and Poteau school districts.

"Eastern Oklahoma Tech Prep 2+2" is directed by Garry Ivey at Carl Albert and includes these programs:

- Industrial Management
- Business Management

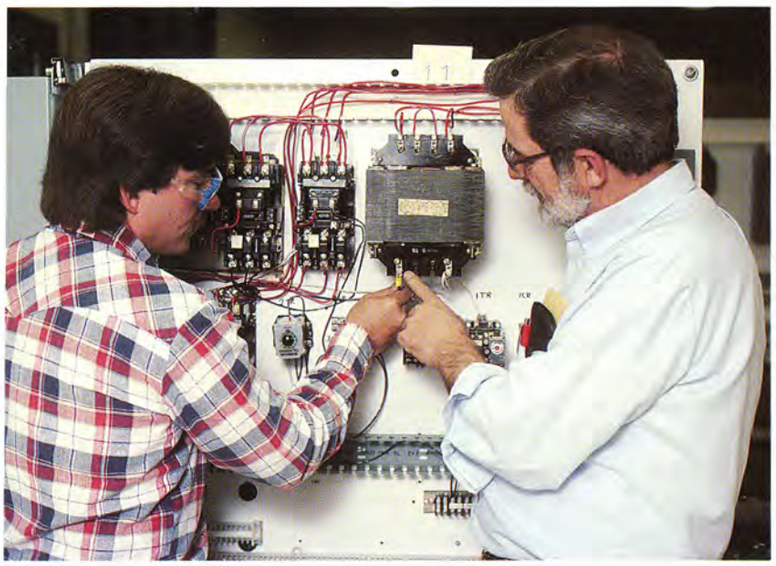
TULSA COUNTY AREA VO-TECH SCHOOL,

OklahomaState University, and Tulsa Junior College and Broken Arrow, Berryhill, Tulsa, Glenpool, Jenks, Sand Springs, and Union school districts.

"Tech Prep for Tulsa." John Hunter, Tulsa Vo-Tech administrative assistant, and Flo Potts, TJC, are co-directors of the Aviation Maintenance program involved in the Tech Prep partnership.

James Breger, a senior at Putnam City West High School, adjusts controls on an electronics trainer at Francis Tuttle Vo-Tech's High-Tech Center.

Applied Academics



Principles of Technology student Richard Jopson and instructor Ben Gaddis work together on a programmable controller interface at Tulsa County Area Vo-Tech School's Southeast Campus.

There is a quiet but desperate rumbling about the need to improve the way in which science and math are taught in our nation's schools. Report after report notes that while interest in science is strong among elementary school students, it drops dramatically at the middle school level.

Still more reports point directly to the crux of the problem: Science and math too often are taught at arm's length, with students expected to absorb dynamic concepts by staring (at teachers, textbooks, etc.) rather than by doing.

The National Academy of Sciences states in a 1990 report that "[science] curricula and textbooks are typically exercises in memorization rather than an intellectual voyage of exploration—an unproductive system."

That unproductive system is taking its toll on the economy—the nation's and Oklahoma's. When high school or college graduates walk onto a job amid high-tech machines, mechanized production systems, and complex computer networks with no firm grasp on how science works—on how nature and those things produced from nature interact—we all suffer.

The Oklahoma vocational education system is on the vanguard of an educational movement that is making significant strides toward bridging the gap between abstract educational concepts and practical skills. The movement is called Applied Academics, and it is the root of what vocational education has always been about. As one Oklahoma vocational educator put it, "If students can't apply what they've learned, then it's a pretty good bet they haven't learned it."

Working closely with the Texas-based Center for Occupational Research and Development (CORD), Oklahoma vocational educators have taken innovative secondary school science and math curricula from the drawing board to the vocational classroom. Ninth-graders are studying applied math, applied physics, and applied chemistry and biology. Lin Friedemann, coordinator of instructional services for the Oklahoma Department of Vocational and Technical Education, said the word "applied" is interpreted by many educators as "watered down, less challenging, remedial." That's a hasty and false assumption, Friedemann said.

"These applied courses are not easier than traditional math or biology courses. Applied Academics emphasize hands-on learning—lab work, experimentation, and computation," she said.

" 'Applied' also means that the study of scientific concepts is directly linked to specific jobs. For example, a Principles of Technology (applied physics) student at an area vo-tech school would spend several school days figuring the efficiency of an electric pump—from algebraic calculation to successful lab demonstration—because mastering this skill is essential to his or her success as an electrical technician."

Applied Academics are emphasized in the ninth and tenth grades, Friedemann said, to provide a solid base for higher-level science and mathematics courses taken during the last two years of high school.

"National testing of vocational students has proved that they can successfully complete higher-level science and math classes after having a strong foundation in the ninth and tenth grade," she said.

The Oklahoma State Board of Education in November 1991 asked the Regents for Higher Education to accept Applied Math I and II as equivalent to Algebra I and II for college entrance purposes, and requested that four applied science courses be accepted as meeting laboratory science requirements.

In a resolution to the regents, the state school board noted that applied courses have been proven to meet the expected learner outcomes for traditional math and science courses now required for college entrance.

State Superintendent of Public Instruction Sandy Garrett, in a letter to the higher education chancellor, noted "the shift in emphasis in Oklahoma is from classes to outcomes and we believe this resolution supports that premise."

Dr. Ann Benson, an assistant state director at the state vo-tech agency, said average test scores rose at two high schools after the infusion of Applied Academics.

At Comanche High School in Oklahoma City, the average ACT score for non-core, or general track, students soared from an average 16.8 in the 1986-87 academic year to 19.0 in the 1990-91 academic year—after the school infused Applied Academics.

Of the 21 non-core Comanche High School students who took the ACT test, 19 had taken one or more Applied Academic courses, Benson said.

At Woodward High School, a battery of tests from the National Assessment for Educational Progress revealed that vocational students achieved a 3.3 point gain in reading comprehension, a 6.8 point gain in math, and a 13.2 point gain in science.

While mastery of scientific concepts in a practical context is the primary purpose of Applied Academics, the hands-on learning opportunities are changing how many students *feel* about science and math.

The Southern Regional Education Board reports that in one school district in which applied math was offered, 23 percent more students than the previous year went on to study algebra and 81 percent more enrolled in geometry.

"Those are significant results. That says to me that applied math is more interesting, more appealing to students," Friedemann said. "Any time a student learns to like learning, that's success."

In a prison chapel converted into a classroom, Rick Abare discovered that the key to his freedom rests in his own hands. Turning the key requires a willingness to accept responsibility for his actions and to give others the respect he wants to be shown.

For Abare—one of 15 inmates at Ouachita Correctional Center in Hodgen, Okla., who spent three August days looking at their fears and their hopes—being willing means discovering choices.

"It's what we have inside of us. We have the tools," Abare said. "If we choose to use them, we can make things happen."

Making things happen takes the courage to look inward at character defects and take a step, no matter how frightening, to turn defects into assets.

"Walking into something that feels uncomfortable—getting out of my comfort zone—that's something I haven't been willing to do before. I'm learning that it might hurt for a second now but walking through it is going to benefit me," said Abare, a 33-year-old Alaska native who was arrested and incarcerated on his first trip "to see what the lower 48 [states] were like. I ran into a 'wreck,' [prison jargon meaning legal trouble]".

Looking at current realities, creating a vision of change, and forming an action plan to make a new reality are the cornerstones of *Changing Directions by Breaking Barriers*, a goal-setting and self-esteem training program being pilot tested at Ouachita Correctional Center.

For two and a half days, 15 minimum-security inmates who are also students at the Ouachita Vo-Tech Skills Center worked with corrections officials, prison administrators, vocational education officials, skills center staff members, and with each other to begin breaking barriers that exist inside prison walls. Together, they talked openly about barriers they will encounter "on the outside."

Breaking Barriers is a video-based educational curriculum developed by The Pacific Institute, a Seattle-based corporation that helps individuals realize their professional and personal potential.

"This is a true partnership between the agencies, staff, and inmates who genuinely, sincerely want things to get better," said state Vo-Tech Director Roy Peters, Jr. "The inmates, who want to improve their quality of life, find a better way to *do* rather than *not* being able to do," Peters said.

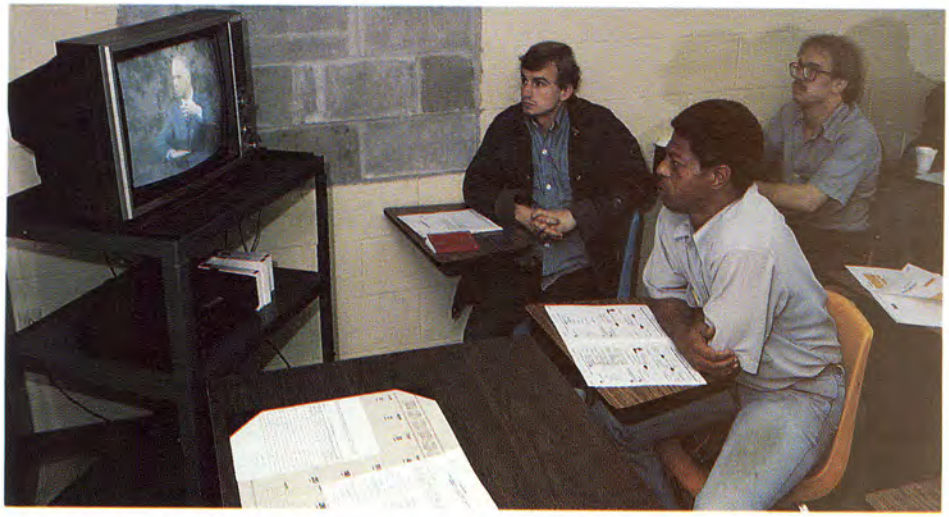
Evelyn Campbell, Ouachita Vo-Tech Skills Center director, said that the program brings a new dimension to the skills center.

"We have been involved in training minds and training hands and now, with this, we'll be changing hearts. We are excited about being the pilot program in the state. We are thrilled about the possibilities," Campbell said.

Teaching inmates to take responsibility for their actions and to realize they can control their lives by setting new patterns when they are released could have a "tremendous impact on Oklahoma's economy," said Dr. Tom Friedemann, assistant state director for area vo-tech schools and skills centers.

It costs Oklahoma taxpayers $15,000 a year to incarcerate one inmate, Friedemann said. A program such as *Breaking Barriers*, which combines the efforts of the Department of Corrections and the Oklahoma Department of Vocational and Technical Education, turns tax-users into taxpayers. The vo-tech programs offer inmates opportunities to learn a new skill or enhance

Breaking



Ouachita Vo-Tech Skills Center students watch a videotape portion of the Changing Directions by Breaking Barriers *program at the Ouachita Correctional Center in Hodgen. The students are inmates at the minimum-security facility.*

an existing one, he said. "If you work on skills and not attitude, you really haven't accomplished anything with an inmate," Friedemann said.

Sen. Larry Dickerson, Poteau, noted that the success of *Breaking Barriers* at Ouachita and other skills centers in the future will be bolstered by the spirit of cooperation between the state corrections and vo-tech education agencies.

"The reason it works so well is the high degree of cooperation between vo-tech and corrections," Dickerson said.

Rep. Jim Hamilton of Heavener agreed. "On any given day, more than 600 inmates are involved in vo-tech training within 13 correctional centers across the state," Hamilton said.

David Myers, a Pacific Institute Seattle associate, said the inmates initially were apprehensive about the program. After about an hour, "They had seen enough to take ownership in their ability to make changes in their lives. The key is that they are accountable and they know that now. For some of them, they know it for the first time in their lives," Myers said.

For Abare, those options include treating others with respect, getting released from prison, attending welding school, and making his way back to his home in Alaska.

By taking welding classes at Ouachita Vo-Tech Skills Center and participating in the *Breaking Barriers* training program, Abare said he now sees that he can control his own life.

"I needed it," he said, referring both to the *Breaking Barriers* program and to the time he has spent behind bars. "I needed to clean my act up. I've always been a thinker and once I opened myself up to [the program], I realized a person really can do the things he wants," he said.

Of the approximately 500 inmates at Ouachita Correctional Center, 150 are enrolled in vo-tech classes. Studies show that inmates are 200 percent less likely to return to a life of crime—and back to the penal system—if they receive vocational training while incarcerated, corrections officials said. ▲

Incubators

Small but strong businesses are hatching across Oklahoma, being nurtured and nestled in a network of business incubators operated under the auspices of the Oklahoma Department of Vocational and Technical Education.

The incubator centers create an "artificial environment that is an intermediary between the developing business and the real world," said Clark Miller, business development specialist for the state vo-tech agency.

In that artificial environment, fledgling businesses operating on a shoestring start-up budget enjoy the economic security of sharing expenses on services such as bookkeeping, clerical and secretarial work, consulting services, advertising and marketing, telephone equipment, photocopying, computing, and building security.

Such safe nesting allows time for small businesses to strengthen and grow, to adapt and perfect, Miller said. According to Control Data Corp. of Minneapolis, 80 percent of all new businesses fail within the first three years. However, 80 percent of the businesses that incubate the average one to three years survive the litmus-test period.

Oklahoma's vo-tech system houses scores of small businesses in incubator programs at 11 sites statewide.

While the incubator centers allow tenant businesses to share facilities and resources while trying their wings, Miller says vo-tech's role in the partnerships is to emphasize the technical training available to small business owners at incubator sites and nearby area vo-tech schools.

Self-Employment Training, Business Development, and Small Business Management programs as well as Bid Assistance centers, teach budding entrepreneurs how to handle a business from the initial planning process through day-to-day operations.

Ron Scantlin and his invention, a unique boat cover he calls the Scant Kap.

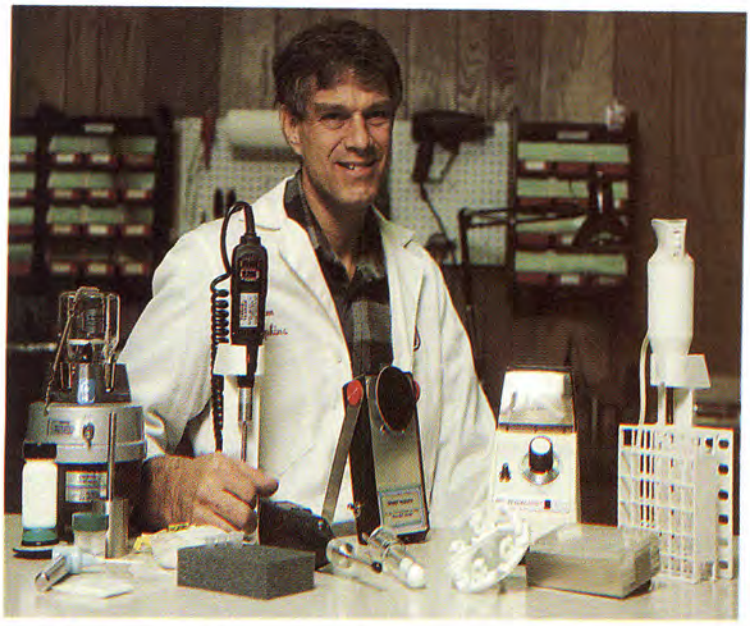
Nearly five years ago, tournament fisherman Ron Scantlin sketched the beginnings of a business idea on a paper napkin as he sat in a restaurant. Today, that idea is known as the Scant Kap—a boon to fishermen and a boost to Scantlin's entrepreneurial spirit.

The Scant Kap is a custom-built, aerodynamic fiberglass shell that is mounted on a boat trailer and raised and lowered hydraulically to protect the boat and its contents from weathering, thieves, and vandals.

Scantlin, a Texas native, moved to Oklahoma after he began developing his business idea and has since called the Sooner state's vocational education system "a tremendous treasure."

After a year and a half of research, Scantlin sought the assistance of Don Pfannesteil, coordinator of Central Oklahoma Area Vo-Tech School's Small Business Management program in September 1989. Together, they mapped out a business plan and moved Scantlin's business from his Sapulpa residence to a Central Vo-Tech incubator Facility.

Scantlin's original business plan projected he would employ three to four production workers, construct 391 Scant Kaps and reach a gross sales mark of $800,000 the first year. Reality exceeded those calculations and Scantlin's blooming business employs nine people and annual sales were estimated at $1.7 million the first year.



Tim Hopkins opened BioSpec Products, Inc., with assistance from the business incubator at Bartlesville's Tri County Area Vo-Tech School.

Tim Hopkins' decision to open his own company was not in the plan, but when the opportunity arose he took advantage of it.

As manager and research scientist at Phillips Petroleum Co. in Bartlesville, Hopkins was, among other things, an inventor. And that's what he did. He invented a unit that would break up miordial cells; it was a product that Hopkins felt had sales potential. When Phillips decided not to use the unit, Hopkins built a business around it—his own business.

"I knew the product had to be useful to the biotech and biomedical areas," he said.

After advertising the device, Hopkins received several orders—he was in business.

Today his company, BioSpec Products, Inc., sells small laboratory equipment to biotechnical and biochemistry industries throughout the United States and in several foreign countries.

After eight years of successfully operating the company out of his home, Hopkins turned to the Business Incubator Center at Tri County Area Vo-Tech School in Bartlesville.

"Although I may not be a typical case, the incubator gave me what I needed: space to allow my company to grow," Hopkins said. "Everyone has unique needs, and the center can help them with those. Mine just happened to be space."

The company has grown about 25 percent since its founding in 1979. However, Hopkins cautioned, merely using the center does not guarantee success. The entrepreneur must have a true commitment and the financial backing needed to make the company succeed, he said.

BioSpec Products, Inc., has moved out of the Business Incubator Center into its own 6000-square-foot building and has recently established a second business to manufacture a compact snow sled called the Snow-Seat. It will be sold in stores next winter.

BioSpec Products, Inc., has three employees and conducts business worldwide. "The incubator center is something any entrepreneur should look into," Hopkins advised. "They have nothing to lose, only something to gain—good advice and guidance, and good people to work with." ▲

Gold Star Award

Identifying Oklahoma's finest area vo-tech schools through a stringent yet equitable process that would honor the best and brightest is the goal of the Gold Star Schools Recognition Program.

The Gold Star program was begun in 1990 to encourage area vo-tech schools to become full-service institutions that serve secondary school and adult students and provide training and education opportunities for business and industry, said Dr. Tom Friedemann, assistant state director at the Oklahoma Department of Vocational and Technical Education.

"We want to promote leadership and excellence through motivation rather than mandate," Friedemann said.

In August 1991, five exemplary Oklahoma area vo-tech schools received the Gold Star Award for excellence from the Oklahoma Vocational-Technical Education Council.

Central Oklahoma, Canadian Valley, Francis Tuttle, Moore-Norman, and Wes Watkins area vo-tech schools were honored during an Oklahoma Vocational Association awards banquet in Tulsa.

Vo-tech schools were evaluated on stringent criteria in seven performance areas: program standards and staff credentials; student services; public relations; sending-school relationship; professional activities; business and industry services; and special populations and ancillary services.

Moore-Norman Area Vo-Tech School Superintendent Frank S. Coulter called the recognition "a pat on the back for the board of education, administrators, instructors, and every staff member who plays a role at Moore-Norman Vo-Tech.

"We continually focus our efforts on meeting the needs of students and the business communities we serve," Coulter added. "We have pledged to evaluate these needs and to be willing to adapt our services as these needs change."

The Gold Star Award is modeled after a South Carolina economic development incentive program that encourages county governments to motivate communities to attract new business and industry. On a 1985 business trip, Friedemann learned about GREAT, the Governor's Rural Economic Activity Trophy, awarded annually to South Carolina counties that met prescribed criteria.

"I thought at the time that we could adopt a similar program for area vo-tech schools that would go beyond the scope of accreditation and focus on the 'extras' that help a school meet the total needs of its community," he said.

John Hopper, Central Oklahoma Area Vo-Tech School superintendent, said the Gold Star Award is a symbol of the school's dedication to excellence and devotion to students, staff, and local citizens.

"Being recognized as a Gold Star school is an exciting honor and sends a message to our community and the entire state that Central Vo-Tech is a world-class institution preparing students for the worldwide marketplace," Hopper said.

For Bruce Gray, superintendent at Francis Tuttle Vo-Tech Center, being a first-round winner issues a challenge to grow and progress even more.

"When you hear employees at Francis Tuttle talk about excellence, they talk about an ideal, that point of perfection that can never truly be reached," Gray said. "We see that as a

challenge to keep striving, keep leaning toward that perfect point. That's what this special recognition has inspired in us as well."

Earl Cowan, superintendent at Canadian Valley Area Vo-Tech School in El Reno, said being recognized as a Gold Star school is both a reward for past performance and an incentive for future achievements.

"To be among the 'best of the best' in a vocational education system recognized as a national leader is exciting," Cowan said.

Wes Watkins Superintendent Jim Moore said the Gold Star Award "shows our patrons that we're really concerned about quality vocational education. It's a message to our students that we want to provide the best learning environment."

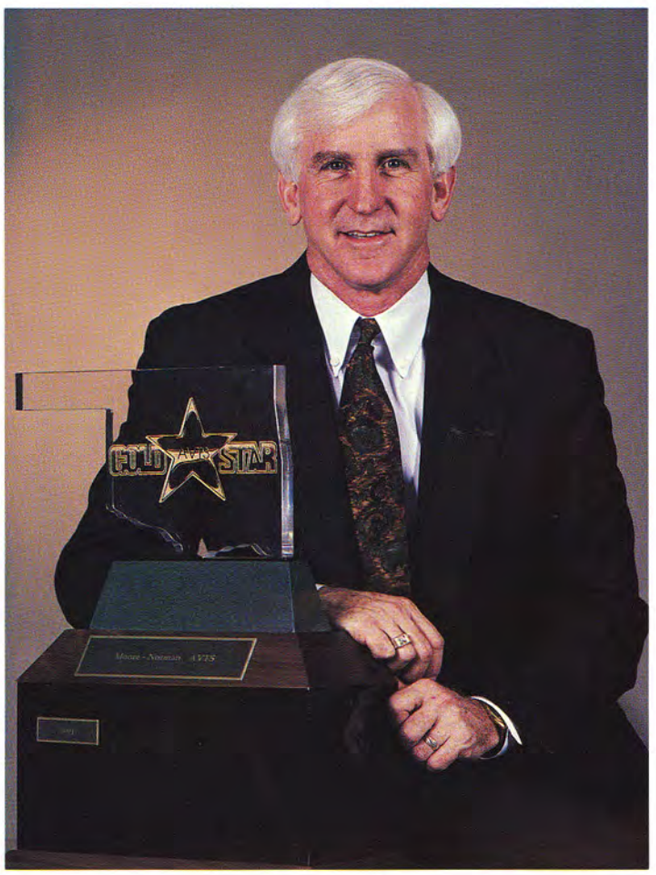
The special recognition has had the greatest impact on the people that make Wes Watkins Area Vo-Tech School outstanding, Moore said.

"It's motivated everyone—from top to bottom. We've implemented the Gold Star Award into our strategic plan, making it a permanent goal. We're educating the community members about the significance of the award.

"We are the smallest and newest area vo-tech school in Oklahoma, and this honor illustrates that quality is not judged in size or dollars," Moore said.

Although only five area vo-tech schools were deemed Gold Star schools in the in augural year of the program, Friedemann said the application process and criteria are extremely challenging—and for a reason.

"This is a prestigious honor and should only be given to those schools that have genuinely strived to achieve excellence—those that have gone above and beyond the call of duty," he said. ▲



Frank Coulter, superintendent at Moore-Norman Area Vo-Tech School, says the school received the Gold Star Award for being responsive to the needs of students and business.

Moore-Norman AVTS

Wes Watkins AVTS

Cooperative Enrollment Agreements

Hundreds of Oklahomans are getting more for their educational dollar through cooperative enrollment agreements between area vo-tech schools and junior and community colleges.

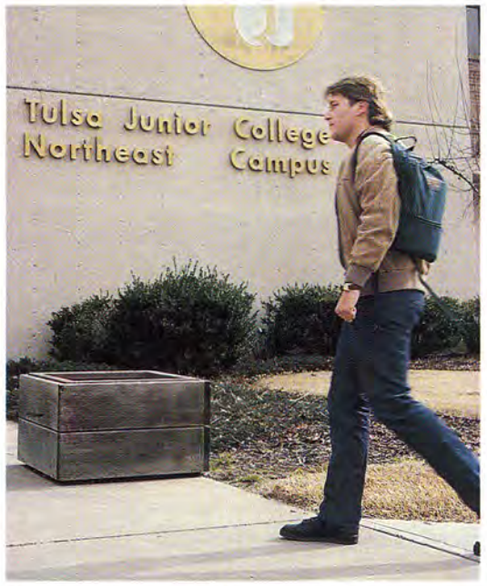
Under a cooperative enrollment agreement, institutions with associate degree programs grant college credit for technical training received at a local area vo-tech school. The agreements maximize the use of existing facilities and equipment while offering students a more efficient path to an associate degree without duplicating coursework or programs.

The agreements were begun by the Oklahoma Department of Vocational and Technical Education in 1987 with the creation of an advisory committee that formulated a statement of cooperation between the two education systems.

Cooperative enrollment agreements are in place between the 12 area vo-tech schools and ten Oklahoma junior or community colleges in the specified program areas:

- Canadian Valley Area Vo-Tech School
- El Reno Junior College
  - *Commercial Arts*
  - *Computer Science*

- Central Oklahoma Area Vo-Tech School
- Oklahoma State University, Okmulgee
  - *Business Education*
  - *Computerized Office Technology*
  - *Business Computer Application*
  - *Electronics 1 & 2*
  - *Electronic Field Service Technology*
  - *Industrial Technology-Automation*
  - *Commercial Electricity*
  - *Drafting*
  - *Printing*
  - *Marketing*

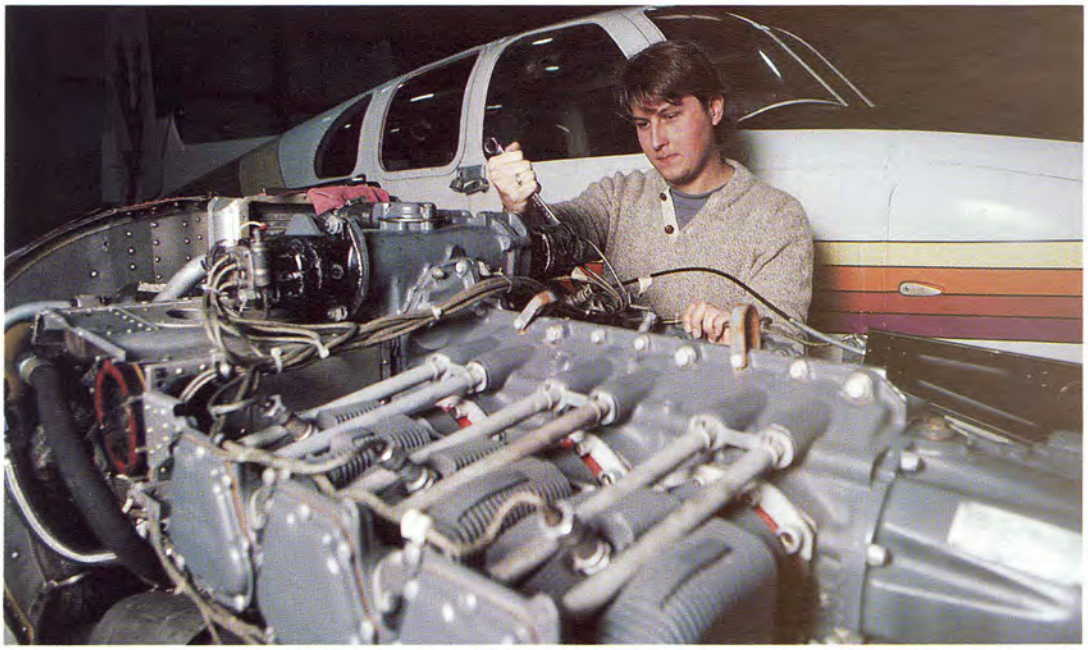


David Hodgpath is taking advantage of cooperative enrollment by working on an associate's degree at Tulsa Junior College...

- Francis Tuttle Vo-Tech Center
- Oklahoma City Community College
  - *Computer-Aided Design*
  - *Industrial Electronics/ Microcomputer Technology*
  - *Manufacturing Technology/Computer-Integrated Manufacturing*
  - *Manufacturing Technology/Computer Numerical Control Technology*

- Moore-Norman Area Vo-Tech School
- Oklahoma City Community College
  - *Automotive Technology*

- O.T. Autry Area Vo-Tech School
- Phillips University
  - *Business Education*



...while receiving related technical training in Avionics at Tulsa County Area Vo-Tech School's Airpark campus.

- Tri County Area Vo-Tech School
- Wesleyan College
  Clothing Production Management
  Paralegal Studies
  Secretarial Science
  Computer-Aided Drafting and Design

- Kiamichi Area Vo-Tech School
- Carl Albert State College
  Computer Design and Application
  Business and Office
  Practical Nursing
  Industrial Electronics

- Caddo-Kiowa Area Vo-Tech School
- Redlands Community College
  Business and Information Processing

- Wes Watkins Area Vo-Tech School
- OSU, Okmulgee
  Computerized Information

- Tri County Area Vo-Tech School
- OSU, Okmulgee
  Design Drafting Technology
  Technical Illustration

- Tulsa County Area Vo-Tech School
- Tulsa Junior College
  Aviation Maintenance Technology

- Pioneer Area Vo-Tech School
- Northern Oklahoma College
  Machine Tool, Beginning and Advanced
  Industrial Materials
  Material Testing
  Robotics
  Computer Numerical Control;
  Computer Assisted Design/Computer Assisted Mechanical

- Mid-Del Area Vo-Tech School
- Rose State College
  Electronics Technology
  Drafting Technology

Letting You Know . . .
Our Students Know

Better jobs, better starting salaries for workers, and a reliable source of quality employees—these are just a few of the benefits of three national industry-approved craftsmen certification programs at work in Oklahoma's vocational education system.

The certification programs are underway in graphic arts, building trades, and automotive service technology programs. Industry sponsors are the Graphic Arts Education Council for graphic arts, Associated General Contractors for building trades, and the National Institute for Automotive Service Excellence for automotive service technology.

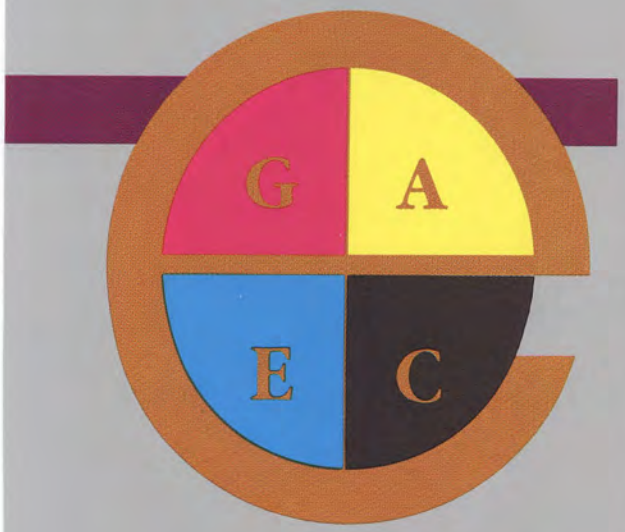
"Business and industry have played crucial roles in developing standards for these programs," said Dr. Roy Peters, Jr., Oklahoma's director of vocational and technical education. "They make on-site visits to the program to assure the standards are met."

Industry's concerns surfaced when business leaders looked to the late '90s and foresaw a severe shortage of skilled workers.

"The industry certification assures employers that vocational programs are teaching students the skills they will need to succeed in the workplace," Peters said.

Larry Cox, president of PennWell Printing Co. in Tulsa, said the aging work force in the printing industry and the technical skills required of tomorrow's printers prompted the printing industry to get involved in industry certification.

"Where are we going to be able to find our workers in the future?" Cox asked. "I don't think we're going to have enough people to hire in a few years—not just in terms of bodies but in terms of the level of their education. The technical knowledge required of the work force will make the coming shortage even more acute," Cox said.



Cox and other Oklahoma printers were the driving force in establishing the Graphic Arts Education Council, a statewide affiliate of the Printing Industries of America and a key to the acquisition of industry accreditation for the graphic arts program at Central Oklahoma Area Vo-Tech School in Drumright. Central's Graphic Arts program is the first to be nationally accredited by the PIA.

The GAEC has set a long-term goal to help all 22 Oklahoma vo-tech printing programs to become certified, Cox said.

The council also raised—and spent—more than $60,000 to recruit students into graphic arts programs statewide. It established a placement service for graphic arts graduates and is offering graphic arts instructors summer internships in the field, providing a rare opportunity for classroom teachers to share information with and learn from industry leaders.

Both the AGC (construction) and ASE (automotive) groups certify instructors and students. Students completing an AGC-recognized program achieve craftworker certification when they pass a series of nationally validated competency tests, while students seeking ASE certification must accumulate two years of on-the-job experience.

AGC's tests measure knowledge and skill in eight areas of residential carpentry, commercial carpentry, and brick and stone masonry. After passing the tests, students receive certification cards that register them for employment referral services at participating AGC offices nationwide.

"The AGC certification program elevates the status of our industry," said John Friedemann, national training director for the AGC. "The program is an impartial measure of assurance that students are competent in one or more specialized areas."

Seven Oklahoma construction trades programs and more than 60 instructors have been nationally certified. "That is far more certified teachers than any other state," Friedemann said. ASE has certified 17 Oklahoma automotive service technology programs and 36 others are working toward certification, said Ivan Armstrong, state supervisor of trade and industrial education for the Oklahoma Department of Vocational and Technical Education.

All three national certification programs will soon be joined by others, including a certification program for welding students sponsored by the American Welding Society. ▲

What Others are Saying About Oklahoma Vocational Education

"I had to see for myself what [Oklahoma area vo-tech schools] were like, what they were teaching, how they were run and administered, and whether they were as good as everyone said. And so far I'd say that they are. I've been very impressed with what I've seen."

Betsy Brand, Assistant Secretary
Vocational and Adult Education
U.S. Department of Education

"The question of the 1990s may well be how to retool today's worker for tomorrow and Oklahoma's vo-tech education system is a real strength. You have the finest vo-tech system in the country. We need something similar nationwide—a demand-driven system that can prepare people for jobs."

Pat Choate
Washington, D.C., futurist
***and author of* Agents of Influence**

"Indian Meridian Area Vo-Tech School is one of the principal reasons we located here [Stillwater]. I think they are remarkable. We've not seen anything like them anywhere else."

Bill Adams
Chairman and President,
Armstrong World Industries
Lancaster, PA

"The really good thing about the Oklahoma vo-tech system is that local administrators and state officials participate with local business in the development of curriculum and training programs."

Mickey Thompson
Vice President of Economic Development
Tulsa Metropolitan Chamber of Commerce

"Just to meet today's need for skilled workers, vocational programs will have to grow dramatically. Ten years from now, any state that has not built a modern vocational education program will be scrambling to catch up with its more farsighted neighbors."

"The Oklahoma vo-tech system is the best system in the United States, bar none."

Marvin Cetron
forecaster and author of
Schools of the Future, Jobs of the Future

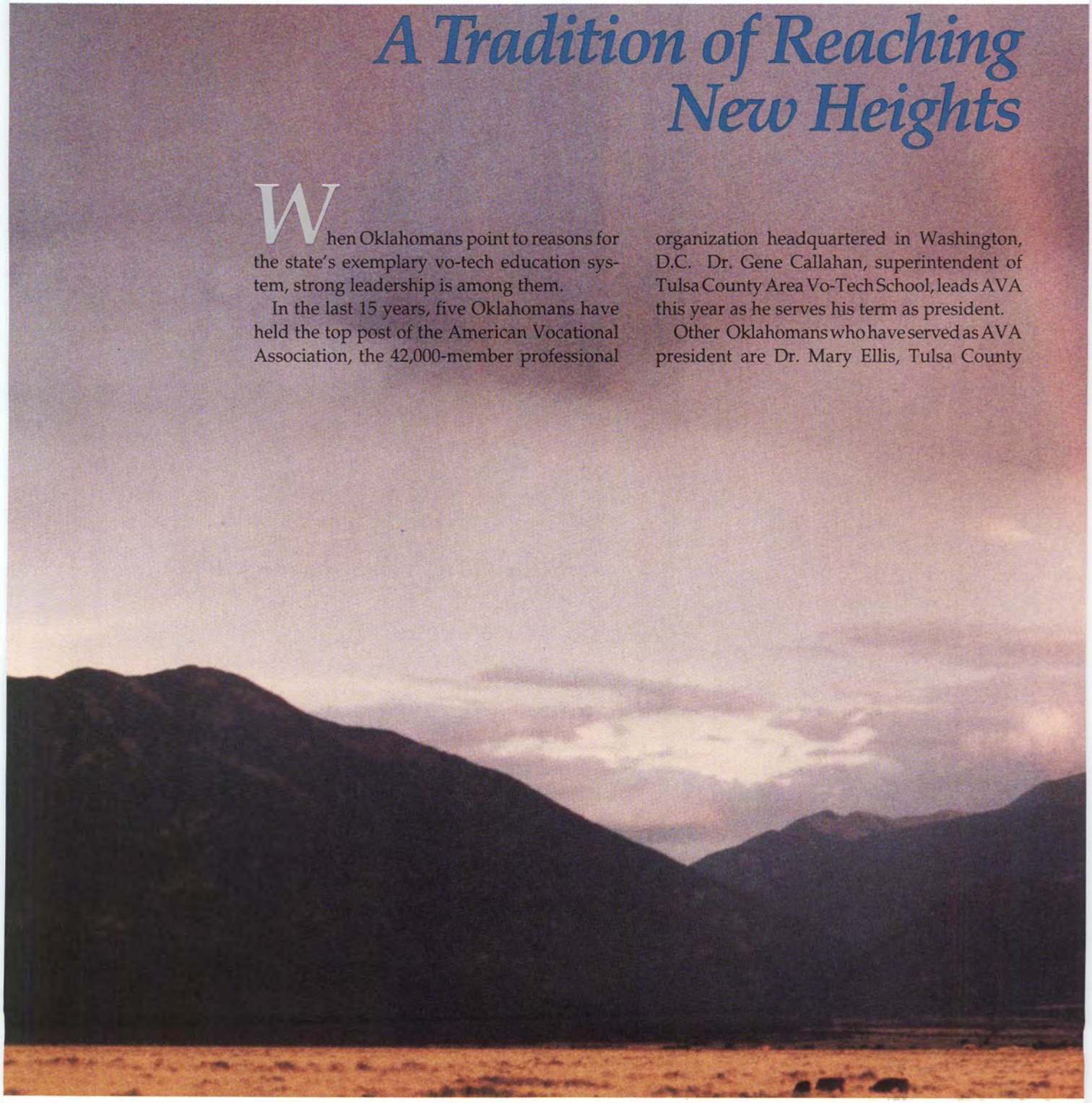
Oklahoma Vocational Educators:

A Tradition of Reaching New Heights

When Oklahomans point to reasons for the state's exemplary vo-tech education system, strong leadership is among them.

In the last 15 years, five Oklahomans have held the top post of the American Vocational Association, the 42,000-member professional organization headquartered in Washington, D.C. Dr. Gene Callahan, superintendent of Tulsa County Area Vo-Tech School, leads AVA this year as he serves his term as president.

Other Oklahomans who have served as AVA president are Dr. Mary Ellis, Tulsa County



Area Vo-Tech School associate superintendent for Business and Industry Services; Victor Van Hook, former deputy state vo-tech director; Dr. Chuck Hopkins, assistant state director for supportive services; and Dr. Francis Tuttle, former state vo-tech director.

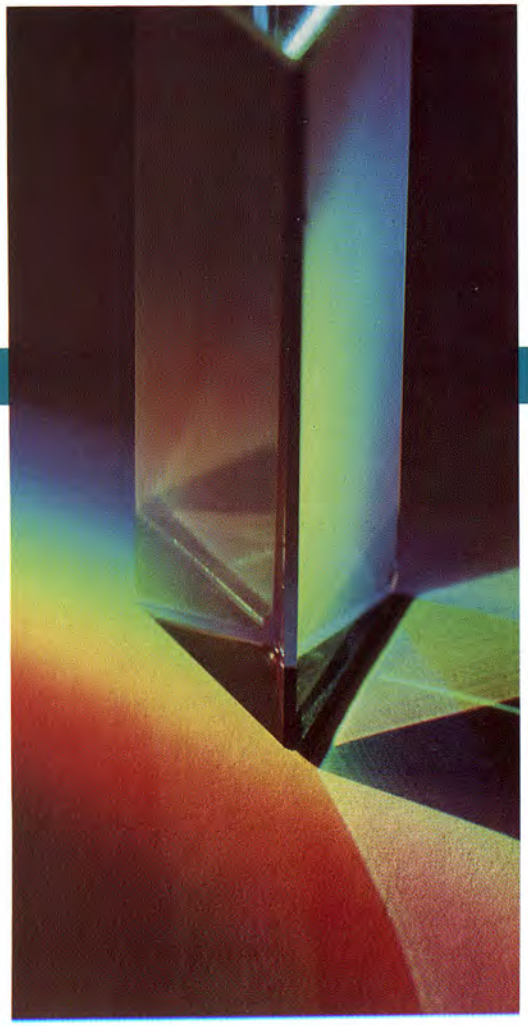
This year, Oklahoma vocational educators also are serving as presidents of a variety of professional organizations associated with AVA: Edna Ruth Mahaffey, state supervisor of vocational home economics, is president of the National Association of Supervisors of Vocational Home Economics; Eddie Smith, state supervisor of agricultural education, is president of the National Association of Supervisors of Agricultural Education; and Dr. Roy Peters, Jr., state vo-tech director, is president of the National Association of State Directors of Vocational-Technical Education.

Oklahoma's vocational education students are following in the footsteps of present and past leaders by serving in their own organizations. This year, Oklahoma students are serving as national presidents of Future Business Leaders of America (FBLA) and Health Occupations Students of America (HOSA).

Tonya Kymes, a practical nursing student at Pontotoc County Skills Development Center, is president-elect of HOSA for the 1991-92 academic year. Angela Cain, a Moore High School business student, is national FBLA president.

In all, Oklahoma's eight vocational student organizations—including Phi Beta Lambda (PBL) for adult business students—have heralded 13 national presidents during the last decade.

Oklahoma's national presidential heroes of vocational education are Wes Crews, Edmond, DECA, 1981-82; Zachary Rhodes, Oklahoma City, DECA, 1985-86; Craig Wortham, McAlester, Vocational Industrial Clubs of America, 1986-87; Christi Favor, Tulsa, FBLA, 1985-86; Forrest Pollock, Oklahoma City, FBLA, 1981-1982; Mike Stansell, Stillwater, PBL, 1990-91; Rae Lynne Bell, Bokoshe, Future Homemakers of America/Home Economics Related Occupations, 1987-88; Robert Stokes, Wyandotte, Technology Student Association, 1984-85; Jeff Short, Weatherford, TSA, 1978-80; Kelly McLoud, Shawnee, HOSA, 1982-83; and James B. Tomlin, Shawnee, HOSA, 1983-84. ▲



Visionary state leaders, dedicated educators, and cooperative business leaders have worked shoulder to shoulder to ensure that Oklahoma's most valuable resource—its people—have the tools and opportunities they need to succeed in the rapidly changing world of work. That cooperation has paid off. In fiscal year 1991, nearly 400,000 Oklahomans chose vocational education courses to learn a new skill or enhance an existing one.

The Oklahoma Department of Vocational and Technical Education is proud of its accomplishments but realizes that there is still much work to do to prepare our young people for tomorrow's workplace and to retrain today's employees to work with new and emerging technology.

Now is not the time to rest. We are continuing our efforts to revitalize rural Oklahoma communities and attract new business and industry to our state while supporting existing businesses in their own efforts to expand. We are sharpening our focus on secondary school students by emphasizing applied academics and career planning through Tech Prep. We are exploring exciting relationships with higher and common education, realizing that together we can produce graduates with a wide spectrum of skills and career possibilities. ▲

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