Career and Technical Education: Illinois' Pathway to Success

by Lola Lucas

There are many pathways to success.

The fastest growing and best paying jobs require post-secondary education but college is not the only answer. In fact, every year many students drop out because they've been told to "go to college" as if that were the end in itself. That lack of clarity leaves them saddled with student loan debt but no credential to increase their earnings or even giving them an improved likelihood of employment.

Entering the workforce has many options between short-term on-the-job training and a graduate degree. Career and Technical Education (CTE) connects rigorous academics with hands-on learning by linking the last two years of high school with study at two-year colleges, vocational schools or apprenticeship programs. Students

A person with an associate degree or two year credential will earn, on average, over **$5,000** a year more than one with just a high school diploma.

Those with a CTE-related associate degree or credential will earn between **$5,000** and **$15,000** more a year than a person with a humanities or social science associate degree.

Source: http://www.isbe.net/career/pdf/CTE_fact_sheet.pdf

need to make the decision to enter CTE before 10th grade in order to coordinate junior and senior years of high school with a post-secondary program.

CTE has had other names in the past such as Tech Prep and Education to Careers. It is similar to recent STEM (science, technology, engineering and math) initiatives because CTE relies on a core of math, science, communications and technical subjects. In addition, real world experience, either through summer jobs or work during the school year, enhances the education. College credit is also earned while preparing for a well-paid career. A certificate or associate's degree can be the foundation of a bachelor's degree if the student wishes to go onward. Otherwise it's an entry-level credential for employment in a technical field.

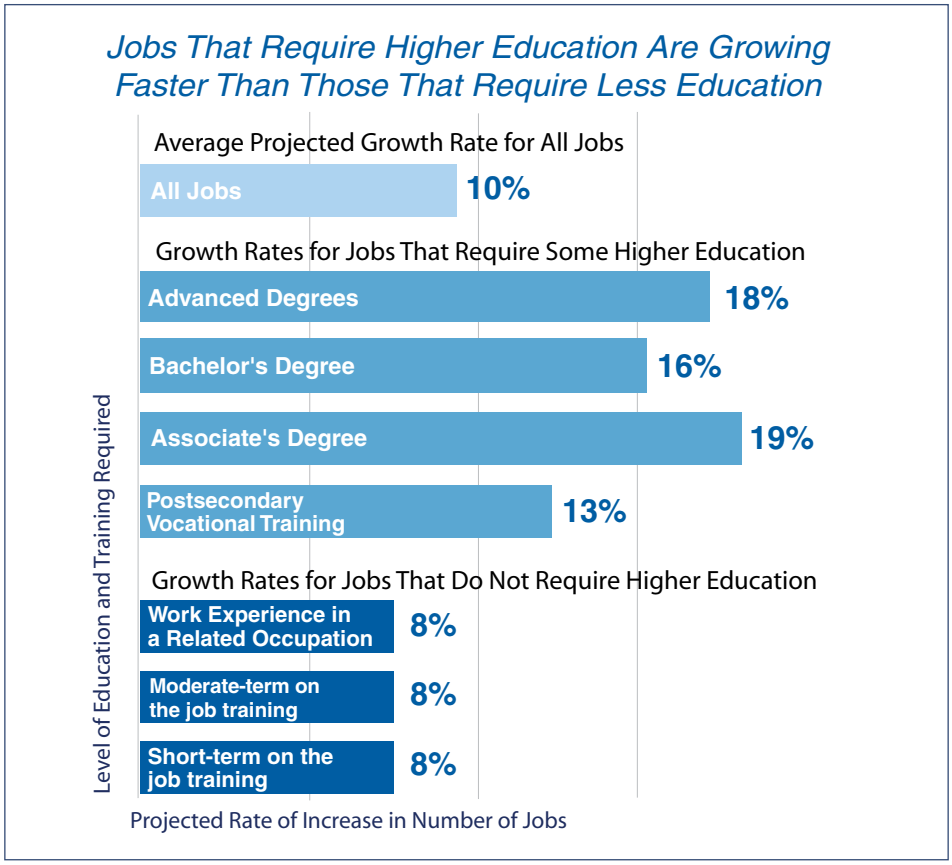
Skilled workers are in considerable demand—in fact, employers say they cannot find enough people with required skills for current openings. They are looking for computer literacy, the ability to function well on teams, think creatively, communicate ideas, and exhibit leadership. Employers prefer to hire people who have already proven that they fit into the organization so it's quite common for CTE students to be hired by the companies where they've worked as part of their studies. Students are involved with CTE programs at banks, insurance companies, farms, retail stores, restaurants, hospitals and many types of manufacturers.

CTE offers training in five major career clusters with many specialties within each group as defined by the Illinois State Board of Education and the Illinois Community College Board:

- Agriculture
- Business, Marketing and Computer Education
- Family and Consumer Sciences
- Health Science Technology
- Technology and Engineering Education (Industrial)

Importantly, students in CTE programs are less likely to drop out of high school. With a clear goal ahead of them they understand how their classroom education relates to the future they want for themselves.

U.S. Secretary of Education Arne Duncan served for eight years as the CEO of the Chicago Public Schools. He is familiar with the challenges faced by both students entering the world of



Source: IDES Long-Term Employment Projections, 2008-2018

work and also employers' needs for a skilled workforce. His remarks on the release of the "Pathways to Prosperity" report from the Harvard Graduate School of Education can be found at **http://www.ed.gov/news/speeches/new-cte-secretary-duncans-remarks-career-and-technical-education**. He said, in part:

> *At the national level, our vision for transforming CTE contains a number of the elements that Chicago and other districts have begun putting in place. But our goals are even more ambitious. In the new CTE we are working towards, all CTE programs would serve as viable and rigorous pathways to postsecondary and career success.*
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> *...from 2008 to 2018, about two-thirds of the job openings in the U.S. will require at least some postsecondary education and training. Fourteen million of those job openings will be in the middle-skill occupations, filled by workers with an associate's degree or occupational certificate.*
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> *To be a winner in the future, President Obama has urged every American to get at least a year of higher education or post-secondary career training. "Whatever the training may be," the President says, "every American will need to get more than a high school diploma."*

In effect, the President has suggested that every American earn a minimum of two pieces of paper—a high school diploma, and a degree or industry-recognized certification. In the years ahead, young adults are likely to need those two credentials to secure a good job. That will become the ticket to success and a positive future.

The Illinois Department of Employment Security (IDES) helps students find out how to get that ticket. The Career Information System (CIS) is produced by the IDES and is at **www.ides.illinos.gov/careerinfo**. CIS offers two versions, one for high school and college students and the other, CIS Job Seeker, for adults with work experience. Both have a search box at the top right corners. Enter CTE then check the box for Full Text Search. That produces a list of 97 occupations within CIS out of 560 which can be prepared for with Career and Technical Education programs. Using the same method shows 40 occupations with apprenticeship training. See also *Career Pathways* under the Occupations tab in CIS.

Our communities need people with a wide variety of skills and training to keep the economy going: cutting hair, putting out fires, fixing cars, installing plumbing and taking x-rays are some of the many examples of CTE. Using CIS helps students discover their educational options, including CTE, and chart a pathway to future workplace success.

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CTE & CIS

CIS lists 97 occupations where training can be done through CTE:

Advertising Salespeople
Aircraft Mechanics
Airplane Pilots
Automobile Mechanics
Bakers
Bookbinders and Bindery Workers
Bookkeeping and Accounting Clerks
Bricklayers and Stonemasons
Broadcast Technicians
Buyers and Purchasing Agents
Camera Operators
Chefs and Dinner Cooks
Child Care Workers
Communications Equipment Mechanics
Computer Operators
Computer Security Specialists
Computer Support Specialists
Dental Assistants
Dental Hygienists
Dietetic Technicians
Electricians
Emergency Management Specialists
Emergency Medical Technicians
Engineering Technicians
Executive Secretaries
Farm Equipment Mechanics
Farmers and Farm Managers
Fashion Designers
Film and Video Editors
Fire Fighters
Floral Designers
Food Scientists
Forklift Operators
Funeral Directors
Graphic Designers
Hairstylists and Cosmetologists
Health Information Technicians
Heating and Cooling System Mechanics
Heavy Equipment Mechanics
Heavy Truck Drivers
Home Electronic Repairers
Hotel and Motel Managers
Industrial Electronics Repairers
Industrial Production Managers
Insurance Adjusters and Examiners
Insurance Agents
Interior Designers
Janitors
Landscapers and Groundskeepers
Legal Secretaries
Licensed Practical Nurses
Machinists
Manicurists
Marketing Managers
Massage Therapists
Medical Assistants
Medical Equipment Repairers
Medical Laboratory Technicians
Medical Secretaries
Meeting and Convention Planners
Millwrights
Numerical Control Machine Operators
Nursery Workers
Nursing Assistants
Occupational Therapist Assistants
Office Managers
Operating Engineers and Construction Equipment Operators
Page Layout Workers
Paralegals
Pharmacy Technicians
Photographers
Physical Therapist Assistants
Police Patrol Officers
Printing Press Operators
Radiation Therapists
Radiologic Technologists
Registered Nurses
Respiratory Therapists
Restaurant Managers
Sales Managers
Sales Worker Supervisors
Secretaries
Security Guards
Sheet Metal Workers
Sheriffs
Skin Care Specialists
Social and Human Service Assistants
Statistical Clerks
Surgical Technologists
Surveying and Mapping Technicians
Teacher Aides
Tool and Die Makers
Tour Guides
Travel Agents
Veterinary Technologists and Technicians
Welders and Solderers
Welding and Soldering Machine Operators

CIS lists 40 occupations where training can be done through apprenticeships:

Auto Glass Installers
Automobile Mechanics
Bakers
Boilermakers
Bookbinders and Bindery Workers
Bricklayers and Stonemasons
Cabinetmakers
Carpenters
Cement Masons
Drywall Finishers
Drywall Installers
Electricians
Elevator Installers and Repairers
Floor and Carpet Layers
Glaziers
Heating and Cooling System Mechanics
Heavy Equipment Mechanics
Hoist and Winch Operators
Industrial Machinery Mechanics
Insulation Installers
Kitchen Helpers
Landscape Architects
Line Installers and Repairers
Machinists
Millwrights
Numerical Control Machine Operators
Operating Engineers and Construction Equipment Operators
Painters
Paving Equipment Operators
Plasterers
Plumbers and Pipefitters
Precision Assemblers
Printing Press Operators
Roofers
Sheet Metal Workers
Stationary Engineers
Structural Metal Workers
Tile Setters
Tool and Die Makers
Tool Grinders