

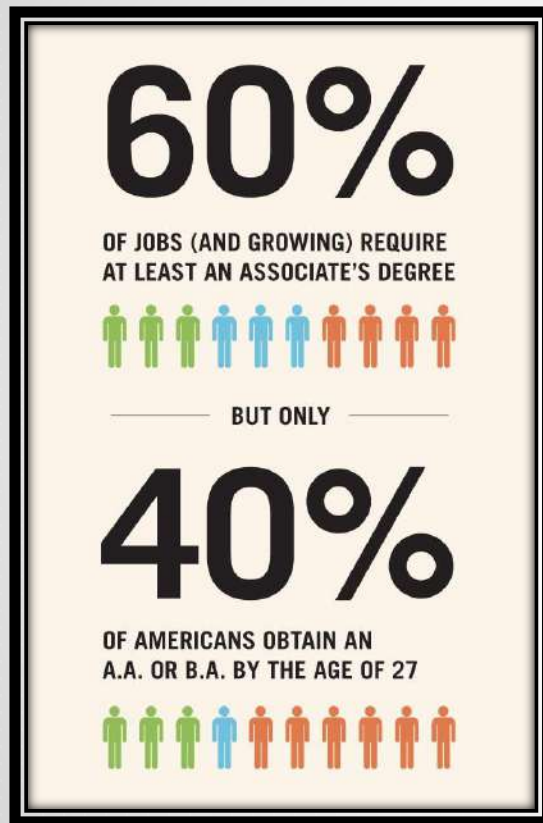
# **CAREER, TECHNICAL AND AGRICULTURAL EDUCATION**

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# EDUCATING THE WORKFORCE – NATIONAL PERSPECTIVE



*Pathways to Prosperity Report*, Harvard University, Graduate School of Education, 2011

- Most jobs (60%) will require **SOME** education or training beyond high school.
- A four-year college degree is not necessary for the majority of jobs (only 33% of jobs require a four-year or more college degree).
- There is a skills gap (plenty of jobs, but too few workers with needed skills).

## Sources:

Bureau of Labor Statistics Occupational Employment Statistics and Division of Occupational Outlook  
IES National Center for Education Statistics, US Dept. of Education Institute of Education Sciences, Digest  
of Education Statistics, Table 2: Enrollment in educational institutions, by level and control of institution:

Selected years, fall 1980 through fall 2009

*Pathways to Prosperity Report*, Harvard Graduate School of Education, February 2011

# WHY DO SO MANY STUDENTS LEAVE POST-SECONDARY EDUCATION?

## PREPARING TO JOIN THE AMERICAN WORKFORCE

**62%** MORE STUDENTS ARE ENROLLED  
IN POSTSECONDARY DEGREE-GRANTING  
INSTITUTIONS NOW THAN 30 YEARS AGO

 **1980**  
12.1 MILLION




 **2009**  
19.6 MILLION

BUT

“ON TIME” COMPLETION RATES ARE ALARMINGLY LOW







# GROWING AND DECLINING JOBS AND THEIR EARNING POTENTIAL

 Bachelor's or above    Associate's or some college    High School diploma or less









## HIGHEST GROWTH / LOWER WAGES

(Highest Median Wages as of May 2008: \$50,000)

-  Home health aids
-  Personal and home care aides
-  Skin care specialists
-  Physical therapist aides
-  Veterinary technologists and technicians
-  Dental assistants
-  Medical assistants
-  Physical therapist assistants
-  Self-enrichment education teachers
-  Compliance officers\*











## HIGHEST GROWTH / HIGHER WAGES

(Highest Median Wages as of May 2008: \$85,430)

-  Biomedical engineers
-  Network systems and data communications analysts
-  Financial examiners
-  Medical scientists, except epidemiologists
-  Physician assistants
-  Biochemists and biophysicists
-  Athletic trainers
-  Dental hygienists
-  Computer software engineers, applications
-  Veterinarians

## LOWEST GROWTH / LOWEST WAGES

(Highest Median Wages as of May 2008: \$26,200)

-  Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers
-  Semiconductor processors
-  Postal Service mail sorters, processors, and machine operators
-  Wellhead pumpers
-  Fabric and apparel patternmakers
-  Drilling and boring machine tool setters, operators, and tenders
-  Lathe and turning machine tool setters, operators, and tenders
-  Order clerks
-  Derrick operators, oil and gas
-  Desktop publishers

## LOWEST GROWTH / HIGHEST WAGES

(Highest Median Wages as of May 2008: \$50,020)

-  Shoe machine operators and tenders
-  Photographic processing machine operators
-  File clerks
-  Coil winders, tapers, and finishers
-  Sewing machine operators
-  Fabric menders, except garment
-  Textile bleaching and dyeing machine operators and tenders
-  Textile winding, twisting, and drawing out machine setters, operators, and tenders
-  Textile knitting and weaving machine setters, operators, and tenders
-  Textile cutting machine setters, operators, and tenders



# WHAT IS A PATHWAY?

3 high school courses in  
a related Advanced  
Academic, CTAE, Fine  
Arts, or Foreign  
Language



# WHERE DO I BEGIN?

- ▶ Elementary School exposes students to pathway clusters.
- ▶ Middle School explores pathways.
- ▶ High School provides training and certification in specific pathways.



# **CTAE CAREER PATHWAYS**

## **MIDDLE SCHOOLS**

- ▶ ARMS – Business & Computer Science, Engineering, Family & Consumer Science
- ▶ DMS - Business & Computer Science, Engineering, Marketing
- ▶ ELMS - Business & Computer Science, Engineering, Family & Consumer Science
- ▶ HMS - Business & Computer Science, Career Development, Engineering, Family & Consumer Science
- ▶ HCMS - Business & Computer Science, Engineering, Family & Consumer Science
- ▶ LGMS - Business & Computer Science, Family & Consumer Science, Public Safety
- ▶ LMS - Business & Computer Science, Engineering, Family & Consumer Science
- ▶ OMS - Business & Computer Science, Engineering, Public Safety
- ▶ SMS – Business & Computer Science, Career Development
- ▶ UGMS – Business & Computer Science, Engineering, Graphics Communications
- ▶ WMS – Business & Computer Science, Engineering, Family & Consumer Science

# **CTAE CAREER PATHWAYS HIGH SCHOOLS**

- ▶ Agriscience
- ▶ Allied Health
- ▶ Arch. Drawing & Design
- ▶ Audio-Video, Technology & Film
- ▶ Banking, Investing, & Insurance
- ▶ Business Accounting
- ▶ Early Childhood Education – Birth – 6 years
- ▶ Engineering & Technology
- ▶ JROTC – Air Force
- ▶ JROTC - Navy
- ▶ Law Enforcement Services
- ▶ Marketing & Management
- ▶ Nutrition & Food Science
- ▶ Programming & Gaming
- ▶ Small Business Development
- ▶ Web Design



# ACADEMY FOR ADVANCED STUDIES PATHWAYS

- ▶ Advanced Banking
- ▶ Automotive Maint. & Light Repair
- ▶ Carpentry
- ▶ Companion Animal Systems
- ▶ Personal Care - Cosmetology
- ▶ Culinary Arts
- ▶ Electrical
- ▶ Electronics
- ▶ Emergency Medical Responder
- ▶ Energy & Power
- ▶ Graphic Design
- ▶ Graphic Production
- ▶ Housing & Community Mgmt
- ▶ Marketing Promotions
- ▶ Masonry
- ▶ Mechanical Eng & 3D Design
- ▶ Mechatronics
- ▶ Pharmacy
- ▶ Phlebotomy
- ▶ Plumbing
- ▶ Programming & Networking
- ▶ Sports Medicine
- ▶ Surgical Tech
- ▶ Teaching K-12 as a Profession
- ▶ Veterinary Science
- ▶ Welding

# END OF PATHWAY ASSESSMENTS AND INDUSTRY CERTIFICATIONS

- ▶ Students who complete all three years of a CTAE pathway take End of Pathway Assessments (EOPA).
- ▶ Georgia Department of Education determines the list of test options.
- ▶ Grant funds pay for practice tests, study materials, and test purchase.
- ▶ Some EOPAs result in industry recognized certifications; others do not.
- ▶ All tests are purchased through independent testing agencies, based on national industry standards. They are not developed by educators.



# CTAE AND FOURTH YEAR SCIENCE

- ▶ The following CTAE courses fulfill the 4<sup>th</sup> year science requirement for graduation. Students do NOT receive duplicate credit in both areas on the transcript.
  - ▶ Advanced AC and DC Circuits
  - ▶ AP Computer Science
  - ▶ Animal Science and Biotechnology
  - ▶ Computer Science Principles
  - ▶ Food for Life
  - ▶ Food Science
  - ▶ Plant Science and Biotechnology
  - ▶ Programming, Games, Apps and Society
  - ▶ Sports Medicine



# CAREER TECH STUDENT ORGANIZATIONS

- ▶ Agriculture - The National FFA Association (FFA)
- ▶ Architecture, Automotive, Cosmetology, Construction, Graphic Arts, Public Safety, Welding - Skills USA
- ▶ Business - Future Business Leaders of America
- ▶ Culinary Arts, Family & Consumer Science and Early Childhood Education - Family, Career, and Community Leaders of America (FCCLA)
- ▶ Engineering & Manufacturing - Technology Student Association (TSA)
- ▶ Health Science - Health Occupation Students of America (HOSA)
- ▶ Marketing - DECA (Marketing Student Association)
- ▶ Naval and Air Force JROTC (NJROTC, AFJROTC)
- ▶ Teaching as a Profession – Future Georgia Educators

<http://www.gactso.org/>

# WORK-BASED LEARNING

*375 students in Work-Based Learning throughout the county applying knowledge learned in the classroom to their work-site assignment. Learning valuable soft skills that will transfer to ANY future career.*



- The pinnacle experience for a pathway student!
- Available to students in all pathways (Academics, CTAE, Fine Arts, Foreign Language)
- Application process in March of each year – school-based