GEORGIA DEPARTMENT OF EDUCATION

We will lead the nation in improving student achievement.

ANNUAL REPORT 2007

CTAE
Career, Technical and Agricultural Education

CTAE

Making a Difference in Georgia

GEORGIA DEPARTMENT OF EDUCATION

Kathy Cox, State Superintendent of Schools

Dear friends,

Thank you for taking the time to learn more about our Career, Technical and Agricultural Education (CTAE) programs.

In Georgia, our vision is to lead the nation in improving student achievement and we are doing that by providing a rigorous and relevant education for all of our students. Georgia's CTAE programs are a large part of making that vision a reality.

CTAE programs not only provide our students with the skills and knowledge they need to prepare for their careers, they provide a real-life connection with what is taught in our core classes of Mathematics, Social Studies, Science and English. Our CTAE classes also encourage students to be critical thinkers and problem solvers, which are crucial skills in the 21st century.

I am proud that over the past six years, we have worked together to improve our CTAE programs by developing strong performance standards and logical career pathways. As you will see in the pages of this report, our CTAE programs are preparing today's students to be the workforce of tomorrow like never before.

Please join me in thanking the students, teachers and support groups that make Georgia's CTAE programs among the best in the nation.

Sincerely,

Kathy Cox

Kathy Cox

CTAE

Career, Technical and Agricultural Education

Annual Report 2007

FROM THE STATE DIRECTOR....

First I want to offer my congratulations to the many Career, Technical and Agricultural Education professionals in Georgia for a very successful year. It is our pleasure to highlight the important features of the FY07 School Year.

With the vision of creating a secondary profile of career readiness for Georgia, the Career, Technical and Agricultural Education (CTAE) Unit of the Georgia Department of Education (GaDOE) coordinates the activities of middle and high schools in providing students with training that leads to economic growth and empowerment. It is very evident through the many accomplishments in this report that the profile is beginning to take shape.

The Career, Technical and Agricultural Education Unit is committed to providing Georgia students with career awareness, workplace readiness, and skills needed to secure and maintain employment in the world of work. Students are being given the opportunity to explore real career options through the implementation of career pathways.

By collaborating with local school systems, parents and business partners, the state Career, Technical and Agricultural Education office oversees the administration of all public secondary schools in the 180 school districts of the state that offer seamless education to Georgia students. Our local school systems take pride in providing student training with up-to-date technology. We believe in restructuring the curriculum to meet the needs of the current workforce. Data presented in this report depicts improvements in different aspects of the CTAE objectives.

It is exciting to see the levels of progress that are occurring as we attempt to bring together the results of all local systems. The Workforce Development from a secondary perspective is alive and well. I am looking forward to seeing the subsequent reports as the implementation of Career Pathways becomes a reality.

Sincerely,

James R. Woodard

Career, Technical & Agricultural Education: *Making a Difference in Georgia*

The Georgia Department of Education administers the state's secondary career, technical and agriculture education programs. The Career, Technical and Agricultural Education (CTAE) Division of the Georgia Department of Education (GaDOE) has 180 local systems and 37 consortia. The Georgia Department of Technical and Adult Education, now the Technical College System of Georgia (TCSG), is the sole administrator of postsecondary programs. As the state of Georgia strives to lead the nation in student achievement, the GaDOE and the TCSG are committed to providing quality technical and career education programs at both secondary and postsecondary levels. These two agencies work collaboratively to ensure that academic skills, technical skills and workplace readiness skills are addressed. Georgia schools are charged with the responsibility of meeting the objectives of the No Child Left Behind (NCLB) Act. Industries and businesses in partnership with GaDOE and TCSG work collaboratively in establishing and improving Career and Technical Education (CTE) curriculum standards. Georgia is a "50/50" state, which means that all grant awards received through Perkins, with the exception of awards for State Institutions, are equally divided between GaDOE and TCSG for implementation and improvement of CTE programs. The Georgia CTE system is continually upgraded to provide high quality educational experiences that provide both youth and adult learners with seamless transitions among the state's education and training systems and into the high-skilled, high-wage workplace. Programs are closely aligned to technical and academic knowledge and skills, workplace aptitudes and continuous learning skills that are valued by employers and are needed for successful entrepreneurship.

2006-2007 GEORGIA CAREER, TECHNICAL and AGRICULTURAL EDUCATION

63% of all Students in Grades 9–12 statewide (309,320) and **54%** of all Students in Grades 6–8 statewide (210,068) enrolled in one or more CTAE course.

ENROLLMENT BY GENDER IN MIDDLE AND HIGH SCHOOLS

- Male 52%
- Female 48%

ENROLLMENT BY RACE

- Black 42%
- Hispanic 7%
- White 47%
- Other 4%

DIPLOMA TYPE EARNED BY CTAE HIGH SCHOOL COMPLETERS

- College Prep 51%
- Technical/Career 25%
- Dual Seal 24%

Total number of students is the **unduplicated count:** Each student is counted once; although he/she could be enrolled in more than one CTAE program area.

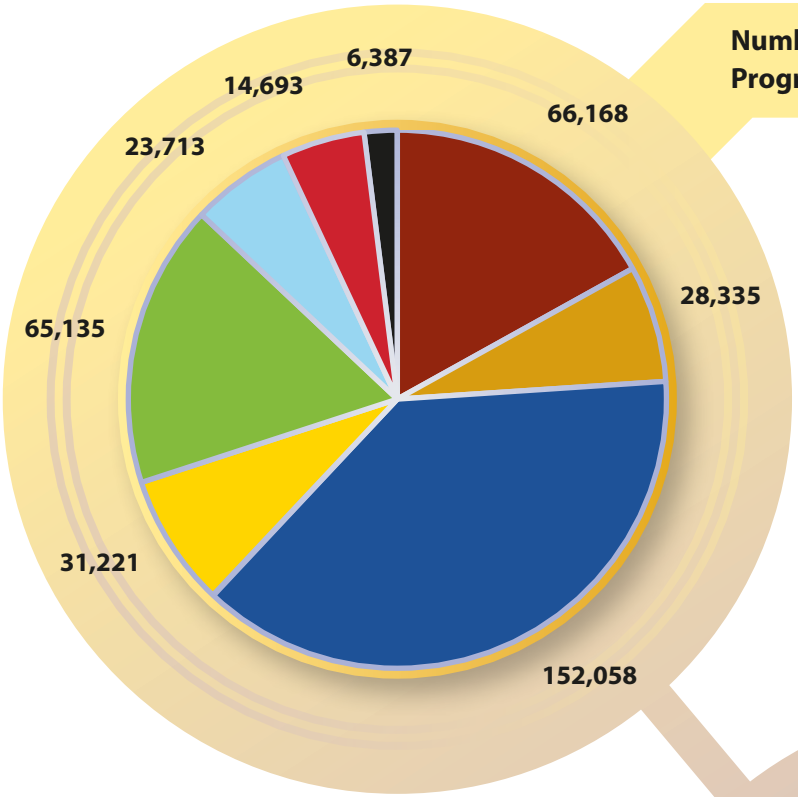
NOTE: Data presented in this document originated from the Georgia Career, Technical and Agricultural Education 2006–07 data tables and the Perkin's Consolidated Annual Report FY 2007.

Numbers of Teachers and Industry-Certified Programs

Program Area	Number of Certified CTAE Teachers FY2007		Number of Industry-Certified Programs
	High School	Middle School	N=406
ACCT	882	N/A	101
AGED	432	56	22
BCS	1923	431	131
ENGR	687	N/A	34
FACS	839	265	1
HCSTE	222	N/A	46
MKT	168	N/A	71
CCAE	254	N/A	N/A

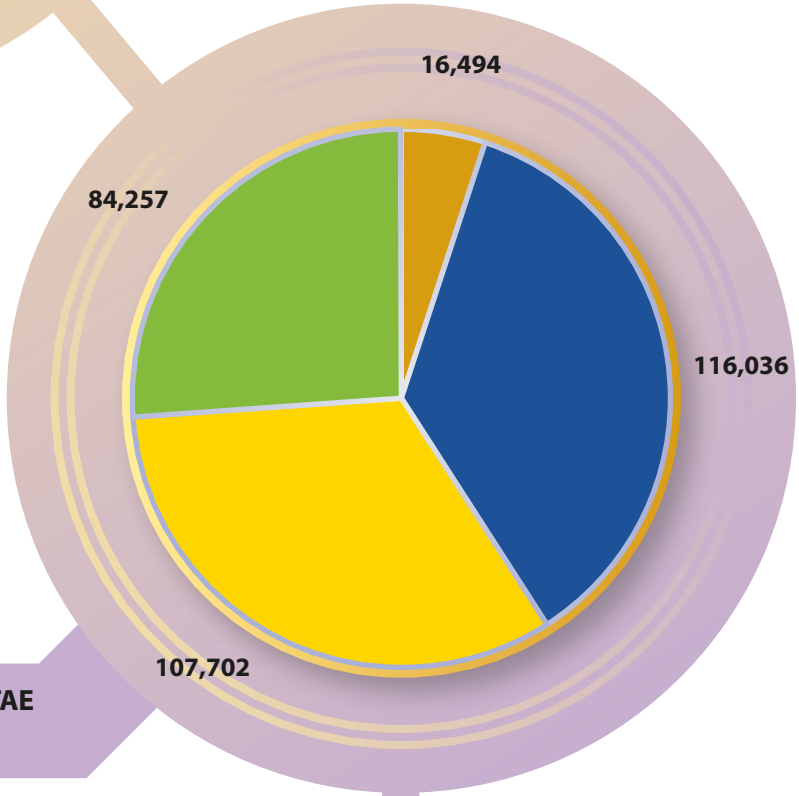
Source: Teacher numbers from GaDOE Classified Personnel Information

Number of Students Enrolled in Each CTAE Program Area Grades 9–12 in 2007



ACCT	66,168	FACS	65,135
AGED	28,335	HCSTE	23,713
BCS	152,058	MKT	14,693
ENGR	31,221	CCAE	6,387
TOTAL	387,710		

Number of Students Enrolled in CTAE Program Areas Grades 6–8 in 2007



AGED	16,494	ENGR	107,702
BCS	116,036	FACS	84,257
TOTAL	324,489		

Unduplicated count for each program area: Students could be enrolled in more than one program area; therefore counted more than once across program areas.

CTAE PROGRAM AREAS

ARCHITECTURE, CONSTRUCTION, COMMUNICATION & TRANSPORTATION (ACCT) 2006-2007

Enrollment by Gender in Grades 9–12 (Unduplicated Count)	Male **46,548** (70%) Female **19,620** (30%)
High School Students Enrollment in Architecture, Construction, Communication & Transportation Education in FY2007	**Pathway-Related Courses Enrollment 61,870** ▪ Construction **13,075** (21%) ▪ Transportation Logistical Operations **8964** (15%) ▪ Transportation Logistical Support **8964** (15%) ▪ Broadcast Video Production **8563** (14%) ▪ Engineering Drawing & Design **6357** (10%) ▪ Graphic Communication **5804** (9%) ▪ Diversified Cooperative Training **5341** (9%) ▪ Metals **3636** (6%) ▪ Flight Operations **873** (1%) ▪ Aircraft Support **178** (0%) ▪ Heating, Ventilation, Air Conditioning, & Refrigeration **115** (0%) **Other ACCT Courses** ▪ 44,907
Number of Industry-Certified Programs	Construction/Metals/HVACR **30** (7%) Engineering, Drawing, & Design **22** (6%) Graphic Communications **24** (6%) Transportation (Automotive) **25** (6%) % = of all industry-certified programs

Duplicated count: Students could be counted more than once within and between program areas depending on their enrollment in Pathway-Related courses.

ARCHITECTURE, CONSTRUCTION, COMMUNICATION AND TRANSPORTATION (ACCT) programs equip students with the knowledge, skills, and attitudes necessary for successful employment in the trade and industrial field and for further education. Programs of instruction are offered in Communication Technologies, Personal Services, Protective Services, Construction Technology, Mechanical Occupations, Automotive Technology, Diversified Cooperative Training, Precision Production Occupations, and Manufacturing Sciences. Trade and Industrial Education programs include three major components: classroom/laboratory experiences, work-based learning, and the youth organization, Georgia SkillsUSA (VICA).

AGRICULTURE EDUCATION (AGED) 2006-2007

Enrollment by Gender in Grades 6–12 (Unduplicated Count)	Male **27,911** (62%) Female **16,918** (38%)
High School Student Enrollment in AGED Courses FY2007	**Pathway-Related Courses – 24,476** ▪ Agriscience **6908** (28%) ▪ Agriculture Mechanics **6073** (25%) ▪ Forestry/Natural Resources **3101** (13%) ▪ Plant Science/ Horticulture **8394** (34%) **Other AGED Courses** ▪ **17,332**
Grades 6–8 Student Enrollment in AGED Courses FY2007	**17,801**

AGRICULTURE EDUCATION (AGED) is composed of three distinct, yet interrelated areas. Two basic components are classroom and laboratory experiences. Both classroom and laboratory instruction are put to use in the Supervised Agricultural Experience (SAE) component of the program. In this approach, students work and learn in a real-life situation where they obtain on-the-job skills. The third component, the Future Farmers of America (FFA) organization, provides an avenue for developing leadership skills. As an integral, intracurricular component of the agricultural education program, the FFA has numerous systems to deliver instruction in leadership.

"Your career preparation has to start in high school, because if you wait until after graduation to develop skills and find out what you like to do, then it is too late."

Paula Verden, Graduate, Riverdale High School, Riverdale

BUSINESS & COMPUTER SCIENCE (BCS) 2006-2007

Enrollment by Gender in Grades 6–12 (Unduplicated Count)	Male **139,549** (52%) Female **128,545** (48%)
High School Student Enrollment in Business and Computer Science in FY2007	**Pathway-Related Courses Enrollment 62,603** ▪ Small Business Development **21,532** (34%) ▪ Financial Mgmt. – Services **13,262** (21%) ▪ Financial Mgmt. – Accounting **12,900** (21%) ▪ Interactive Media **11,981** (19%) ▪ Computing **2928** (5%) **Other BCS Courses** ▪ **168,654**
Grades 6–8 Student Enrollment in BCS Courses FY2007	**127,405**

BUSINESS and COMPUTER SCIENCE (BCS) programs prepare students to become productive members of the business community and to enter a postsecondary institution after graduation. Students develop competencies in areas of instruction such as finance, legal operations of business, administrative support, information management, international business, entrepreneurship, and management. Business and Information Management programs consist of three components: classroom/ laboratory experiences, which provide instruction that meets industry-validated standards; work-based learning directly related to classroom instruction in the form of internships, cooperative education, school-based enterprises, and youth apprenticeship; and the career and technical student organization FBLA, which provides co-curricular activities within the program area to enable students develop teamwork and leadership skills.

ENGINEERING & TECHNOLOGY EDUCATION (ENGR) 2006-2007

Enrollment by Gender in Grades 9–12 (Unduplicated Count)	Male **82,817** (60%) Female **56,106** (40%)
High School Student Enrollment in Engineering & Technology Education in FY2007	**Pathway-Related Courses Enrollment – 37,081** ▪ Engineering **19,007** (51%) ▪ Energy Systems **16,215** (44%) ▪ Manufacturing **1127** (3%) ▪ Electronics **732** (2%) **Other ENGR Courses** ▪ **5255**

ENGINEERING and TECHNOLOGY EDUCATION (ENGR) is designed to develop technological literacy as part of all students' fundamental education through an activity-based study of past, present, and future technological systems and their resources, processes, and impact on society. Technology Education utilizes computer and educational technology in the delivery of content related to systems of communication, energy/power-transportation, production, and bio-related technologies.

FAMILY AND CONSUMER SCIENCES (FACS) 2006–2007

Enrollment by Gender in Grades 6–12 (Unduplicated Count)	Male **58,478 (39%)** Female **90,851 (61%)**
High School Student Enrollment in Family & Consumer Sciences Courses in FY2007	**Pathway-Related Courses Enrollment – 76,997** ▪ Foundation of FACS 27,425 (36%) ▪ Family Services 21,576 (28%) ▪ Nutrition & Wellness 15,293 (20%) ▪ Interior Design 5148 (7%) ▪ Consumer Economics 4230 (5%) ▪ Professional Foods 3325 (4%) **Other FACS Courses** ▪ **16,683**
Grades 6–8 Student Enrollment in FACS Courses FY2007	**90,999**

FAMILY AND CONSUMER SCIENCES (FACS) prepares students for postsecondary education and careers in the business related aspects of family and consumer sciences. It provides opportunities to develop the knowledge, skills, attitudes, and behaviors that students need to become responsible citizens and leaders and to manage the challenges of living and working in a diverse global society.

HEALTHCARE SCIENCE EDUCATION (HCSTE) programs are designed to provide students with competencies to facilitate a smooth transition from secondary education to entry-level careers, postsecondary education, and lifelong learning. Integrated academics are essential elements of Healthcare Science Technology Education, with emphasis on the application of math, science, reading, writing, and communication. Problem solving and decision making are vital components of the Health Science Technology Education curriculum.

HEALTHCARE SCIENCE EDUCATION (HCSTE) 2006-2007

Enrollment by Gender in Grades 9–12 (Unduplicated Count)	Male **3990** (17%) Female **19,723** (83%)
High School Student Enrollment in Healthcare Science Technology Education Courses FY2007	**Pathway-Related Courses Enrollment – 67,173** ▪ Therapeutic Services **19,730** (29%) ▪ Medical Services **18,570** (28%) ▪ Emergency Medical **14,927** (22%) ▪ Health Informatics **13,946** (21%)

MARKETING, SALES AND SERVICE EDUCATION (MKT) is designed to prepare students for postsecondary education and careers in marketing, management and entrepreneurship. Students develop knowledge and skills in the foundational areas of marketing (economics, human relations and business basics) and the functional areas of marketing (product and service planning, marketing-information management, purchasing and pricing, selling and promotion, risk management, financing and distribution/logistics), as well as in international marketing, management and entrepreneurship.

MARKETING, SALES AND SERVICE EDUCATION (MKT) 2006–2007

Enrollment by Gender in Grades 9–12 (Unduplicated Count)	Male **6155** (42%) Female **8538** (58%)
High School Student Enrollment in Marketing, Sales & Service Education Courses FY2007	**Pathway-Related Courses Enrollment – 27,927** ▪ Fashion Marketing **9917** (36%) ▪ Marketing & Management **9152** (34%) ▪ Marketing Promotion Communication **8228** (30%)

COORDINATED CAREER ACADEMIC EDUCATION/PROJECT SUCCESS (CCAE/PS) 2006–2007

Enrollment by Gender in Grades 9–12 (Unduplicated Count)	Male **3436** (54%) Female **2951** (46%)
High School Student Enrollment in the 3 CCAE Courses in FY2007	▪ Coordinated Career Academic Ed. **3773** (53%) ▪ Project Success **1893** (27%) ▪ Career Technical Instruction **1412** (20%)

COORDINATED CAREER ACADEMIC EDUCATION/PROJECT SUCCESS (CCAE/PS) The mission of CCAE/PS is to provide educational and occupational services to assist students in becoming responsible, productive citizens. Through participation in the CCAE/PS support services, students in grades 9-12 learn about the world of work and employment skills they need to be successful. Throughout their school years, students need the opportunity to develop a reservoir of information, attitudes and experiences that will serve as a substantial base for decision making when they reach points in their lives at which education or career decisions must be made.

JUNIOR RESERVE OFFICERS TRAINING CORPS (JROTC) offers the opportunity for high school students to be enrolled in a citizenship program that falls under the umbrella of the Career, Technical and Agricultural Education Division at the Georgia Department of Education. JROTC courses may apply to satisfaction of the credit and concentration provisions of Technology/Career preparatory diploma requirements. Students may also pursue the College Preparatory Diploma or a Dual Seal Diploma while enrolled in JROTC programs.

JUNIOR RESERVE OFFICERS TRAINING CORPS (JROTC) 2006–2007

High School Student Enrollment in JROTC-Related Courses in FY2007 by Type of Service	▪ U. S. Army **20,376** ▪ U. S. Air Force **7514** ▪ U. S. Marine Corps **1763** ▪ U. S. Navy **7414**
Scholarship awards earned in FY 2007	▪ **$18,858,707**

Thousands of Georgia students in middle schools, high schools, colleges, and universities participate in career and technical student organizations (CTSOs). These groups bring together students with shared career interests and connect them with teachers, community leaders, and local business people who serve as mentors, role models, and, often, employers offering internships and part– and full-time job opportunities.

Career Technical Student Organizations	CTAE Area	FY2007 Membership
Georgia SkillsUSA (VICA) members participate in local, state, and national activities provided through trade and industrial, technical, and health occupations courses and programs.	Architecture, Construction, Communication & Transportation	**6170** (9% of all students enrolled in ACCT)
The **FFA** is an integral component of the agricultural education program. It is the student development and leadership application piece for agricultural education.	Agriculture	**25,554** (57% of all students enrolled in AGED)
Future Business Leaders of America (FBLA) is a student organization for all middle and high school students participating in business programs.	Business and Computer Science	**20,543** (7% of all students enrolled in BCS)
Family, Career and Community Leaders of America (FCCLA) is a national student organization that helps young men and women become leaders and address important personal, family, work, and social issues through family and consumer sciences education.	Family & Consumer Sciences	**27,789** (19% of all students enrolled in FACS)
DECA is specifically designed to provide activities for students to learn marketing, management, and entrepreneurial skills that will prepare them to pursue a career in the field of marketing.	Marketing, Sales & Service	**7335** (50% of all students enrolled in Marketing Education)
Georgia Technology Student Association (GA TSA) is committed to providing students with opportunities to excel and advance as part of their instruction in technology education.	Engineering & Technology	**21,716** (16% of all students enrolled in Engineering & Technology Education)
The mission of **Health Occupations Students of America** (HOSA) is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill and leadership development of all health occupations students, therefore, helping the students to meet the needs of the health care community.	Healthcare Science Technology	**4294** (18% of all students enrolled in Healthcare Science Technology Education)
Georgia Career Student Association is all about helping students reach their potential. Through participation in the Coordinated Career Academic Education (CCAE) program, and/or Project Success program, students learn about the world of work and the employment skills they need to be successful.	Coordinated Career Academic Education	**6425*** (105% of all students enrolled in CCAE. **Students may maintain club membership after completing the 3 Courses required for the program.)*
The **Career and Technical Instruction** program is designed to support students with disabilities enrolled in Career, Technical and Agricultural Education classes. The CTI program provides students with disabilities at the secondary level entry-level job skills in broad or specific occupation clusters.	Coordinated Career Academic Education	5612 Students

CTAE Achievements in 2006-07

Academic Achievements of Students with a CTAE Concentration in High School:

- **79%** earned passing grades in four or more CTAE courses
- **85%** passed the high school graduation test
- **77%** completed requirements for a Dual or Technical Career High School diploma
- **90%** met NCLB standards in reading/language arts (based on results of GA High School Graduation Tests)
- **71%** met NCLB standards in mathematics (based on results of GA High School Graduation Tests)

Graduation Rate for CTAE Concentrators:

- **88%** of CTAE concentrators graduated compared to Georgia's overall rate of 72% in 2007

Career Achievements of CTAE Graduates:

- **73%** of students graduating with a Dual or Technical Career High School diploma were employed or in postsecondary technical education 3 months after graduation
- Junior Reserve Officers Training Corps Scholarships awarded to CTAE students totaled $18.9 million, an increase of **70%** in one year

CTAE Program Achievements:

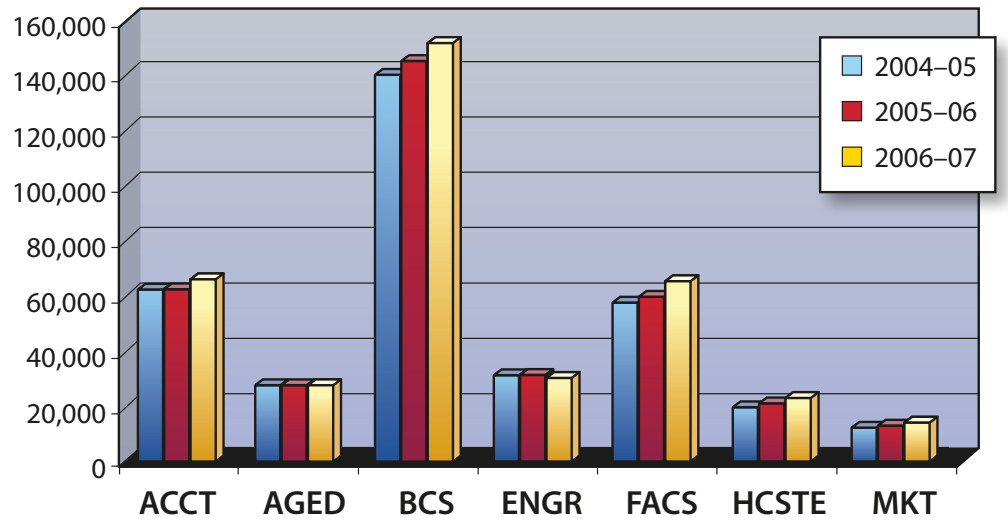
- Statewide results for CTAE students met or exceeded the federal benchmarks for Georgia in five of the six performance categories from Federal legislation
- **406** CTAE programs throughout the state have Industry Certification
- Enrollment in Healthcare Sciences and Marketing programs grew by **10%** from last year (consistent with job growth trends in health care industry)
- **63%** of all high school students and **54%** of all middle school students were enrolled in CTAE classes in 2006-07

Source: FY07 Perkins Report for Georgia, Executive Summary and data tables

CTAE Trends and Impacts in the Past Three Years:

- High school student enrollment in CTAE classes → increased by **10%**
- Hispanic student enrollment in CTAE classes → increased by **24%**
- African-American student enrollment in CTAE classes → increased by **9%**
- Students graduating from high school with dual diplomas (both technical-career and college prep) → increased by **19%**
- Students graduating from high school with technical-career diplomas → increased by **7%**
- Dual diplomas as a percent of all high school diplomas → increased from 22% to **24%**
- CTAE high school programs with **increased enrollments** in the past 3 years include:
  - Healthcare Science Education (**16%** growth)
  - Marketing Education (**15%** growth)
  - Family & Consumer Sciences (**11%** growth)
  - Business & Computer Science (**9%** growth)
  - Architecture, Construction, Communications, Transportation (**6%** growth)
  - Agriculture Education (**2%** growth)
- Industry contributions to Career & Technical Student Organizations → increased from $314,000 in 2005 to **$545,000** in 2007

CTAE High School Program Enrollment: Three Year Trends



ACCT = Architecture, Construction, Communication, & Transportation

AGED = Agriculture Education

BCS = Business & Computer Science

ENGR = Engineering & Technology

FACS = Family & Consumer Sciences

HCSTE = Healthcare Science Technology Education

MKT = Marketing Education

CTAE Supports the Georgia Economy

Equipping Georgia's workforce and industries to compete in the global marketplace requires a strong career and technology focus throughout the state's education system. Georgia Department of Education's CTAE is part of an integrated network of state departments and programs that serve Georgia's new, expanding, and existing industries by offering training and developing solutions to the challenges facing Georgia's businesses. The primary mission of this network is creating a skilled workforce to meet state workforce needs.

The CTAE system is designed, in concert with the Governor's Office of Workforce Development, State Workforce Investment Board, the state's colleges and universities, the Governor's Centers of Innovation, and other groups, to help develop a well educated, technically trained, and highly competitive workforce in Georgia that will be widely recognized as the best in the nation. An important partner in this integrated workforce development network is the Georgia Department of Labor (GDOL) through its One-Stop Centers. By linking CTAE to the broader Georgia workforce development effort, both students and adults can explore career options available in the state and ensure that their training, skills, and experience prepare them to move into a satisfying and rewarding career in Georgia.

CTAE has historically provided students with the high-quality education necessary to prepare for career opportunities in the Georgia economy. While CTAE has been successful, emerging technologies and evolving employer expectation to have a highly qualified, motivated, and reliable workforce demand that Georgia strategically retool CTAE to meet projected economic growth. Georgia's career and technical education programs are closely aligned to the technical and academic knowledge and skills, workplace aptitudes, and continuous learning skills that are valued by employers and are needed for the successful entrepreneur.

The dynamic Georgia economy depends on a high-tech, highly skilled workforce. Unfortunately, some employers cannot find enough skilled workers in state, so they often recruit from other states, regions, and even countries to fill high-paying positions located right here in Georgia. The state of Georgia is unique in its support of postsecondary education options through the HOPE Program with HOPE Grants available for training at technical colleges and HOPE Scholarships available for technical college as well as college and university degree programs. HOPE also provides assistance for secondary students who participate in postsecondary programs while in high school. High school students and other Georgia residents are encouraged and supported by the statewide network to train or re-train for a broad array of occupations to meet the workforce requirements of the growing Georgia economy.

"Linking classroom learning to real-world earning opportunities available in the state will help the state grow its own highly skilled workforce, attract future economic development, and ensure that every student is prepared to build a rewarding future right here in Georgia."

—Kathy Cox, Georgia Superintendent of Schools

The Commission for a New Georgia identified six Strategic Industries as critical to Georgia's economic well being:

Aerospace

Agribusiness

Energy and Environmental

Healthcare and Eldercare

Life Sciences

Logistics and Transportation

To support the growth of these industries and encourage new companies to invest and build in the state, Georgia established six Centers of Innovation. Each of the centers support joint industry-university applied research, providing incubation services to technology start-up companies, and providing entrepreneurial training and outreach to its region. By closely aligning some CTAE curriculum with these centers, Georgia's students will be better prepared to pursue in-state high-paid careers.

- Agriculture Innovation Center, Tifton
- Life Science Innovation Center, Augusta
- Middle Georgia Innovation Center for Aircraft Lifecycle Support, Macon/Warner Robins
- Information and Technology Innovation Center, Columbus
- Maritime Logistics Innovation Center, Savannah
- Manufacturing Excellence Innovation Center, Gainesville

"I support CTAE because I believe that the greatest gifts we can give to our children are information about how the real world works and the skills and preparation they will require to enter the working world. This is what CTAE is all about—enabling our kids to compete in a global economy and seize the opportunities that the world presents."

Martin Williams, Public Information Officer, Cartersville Police Department

Workplace Skills Students Need

The CTAE reengineering process involved asking the leaders of Georgia's Innovation Centers what skills and knowledge were needed to produce a successful Georgia workforce. These skills are integrated into the Peach State Career Pathways. The leaders identified seven essential competency areas:

- **Entrepreneurship**
- **Marketing Strategies**
- **Problem-Solving Skills**
- **Business Plans**
- **Teamwork**
- **Leadership**
- **Sales**

Georgia Workforce Trends Impact CTAE Focus

When it comes to Georgia's economy, the one constant is change. Technological advances, a growing and aging population, and new business innovations will change the types of goods and services that Georgians need and will also change the kinds of jobs required to support the economy. ***Georgia Workforce Trends—Analysis of Long-Term Employment Projections to 2014***, a product of the Georgia Department of Labor, highlights the most significant trends in Georgia's industry and occupation employment growth. The top jobs in today's marketplace will go to graduates with postsecondary technical training. So while a four-year college degree can provide a wealth of career opportunities, it is not the only path to future success. According to the Bureau of Labor Statistics, by 2008, careers requiring two-year degrees are projected to grow at twice the rate of the overall job market. Students with associate's degrees can continue their education and earn a bachelor's degree, often with an employer reimbursing them for all or part of their tuition, books, and fees. In Georgia, of the top ten occupations projected to be the fastest growing through 2014, only two—Respiratory Therapist and Computer Software Engineer—require more than a two-year degree. High school students can pursue many postsecondary training options to give them a head start on their career plans.

The dynamic nature of Georgia's economy and the changing demands for skilled workers by employers are reflected in ***Georgia Workforce Trends***, which is updated every two years. The projections are a vital tool in aiding decision-makers as CTAE plans for the future related to a variety of activities including career counseling, education planning, and policy-making. The Peach State Career Pathways identified for CTAE reflect state-wide and regional workforce needs that are current as well as those projected for the future economy.

Georgia Workforce Trends— Highlights 2004 to 2014

Industry Employment Will Grow

- Total employment in Georgia is projected to grow by 18.2% with 770,000 new jobs.
- Over 90% of job growth will be in the services-providing sector.
- Professional and business services and healthcare and social assistance will account for over 37% of all job growth.
- The construction industry will increase by 21%.
- Manufacturing will hold steady.
- Administrative and support services will increase.
- Health services will account for one in every twelve jobs.

Number of Jobs will Grow

- Employment will grow in occupations in every education and training category.
- Workers with more education will earn more and be employed in fastest growing occupations.
- All education and training categories will grow faster than average, led by jobs requiring an associate's degree.
- Six of the twenty fastest growing occupations will be in healthcare; five will be computer-related.
- Occupations requiring short-term or moderate-term on-the-job training will account for the majority of job openings.
- Retail salespersons, customer service representatives, and registered nurses will gain the most new jobs.
- Registered nurses, general and operations managers, elementary school teachers, and tractor-trailer truck drivers will be among the twenty occupations with the most annual job openings.

CTAE Impact on Georgia Workforce FY 2007

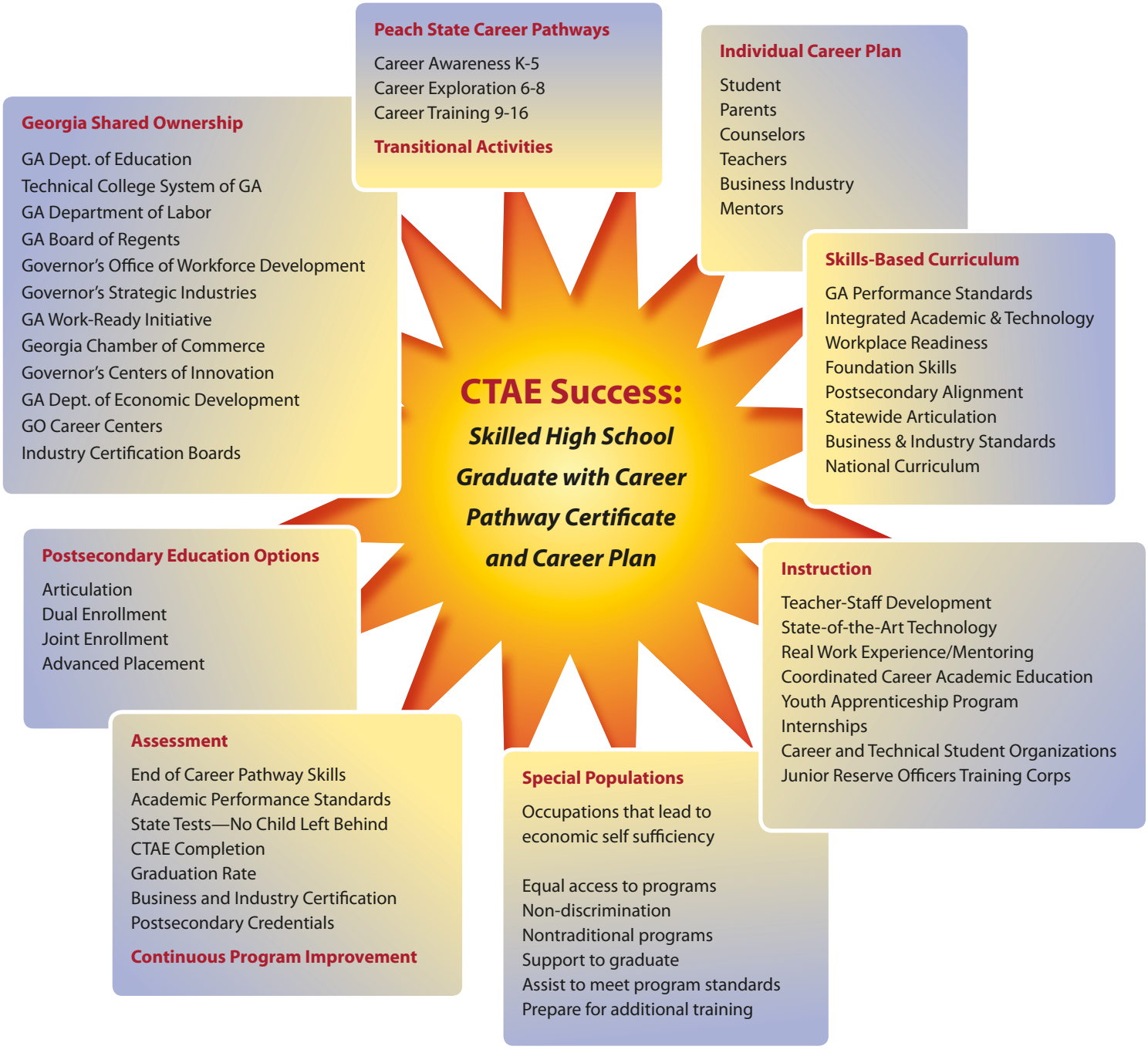
- High school students enrolled in large numbers in classes for career areas projected to expand through 2014, including Family and Consumer Sciences, Healthcare Science Technology, Business and Information Technology and Architecture, Construction, Communication, and Transportation
- CTAE career areas include 406 Industry Certified Programs.
- The number of high school students enrolled in CTAE classes has increased over the past three years including over two-thirds of all Georgia high school students (309,320 CTAE students in FY 2007).
- Based on 710 surveys of employers employing apprentices through the Youth Apprenticeship Program:
  - Over 98% of employers would recommend the program to other companies.
  - Over 96% of employers agreed that students performed at the expected level, understood written instruction or materials at expected level, and exhibited satisfactory communication (verbal and written) skills.
  - Over 94% of employers agreed the program was beneficial to their company.
  - Employers also agreed students exhibited satisfactory problem-solving skills, demonstrated computer skills at the level expected, identified alternate solutions to problems, and used math at the level expected.

Georgia CTAE—Reengineering for the 21st Century

The ongoing vision for CTAE retains its challenging curriculum, yet expands the scope to ensure that every Georgia student graduates from high school with the academic skills, hands-on experience in real work environments, and intensive career guidance required to succeed in college and/or employment.

Central to CTAE is shared ownership across educational and economic development entities to support economic development in Georgia and ongoing research on employment and economic trends to determine pathways needed to meet high-skilled, high-wage, or high-demand occupations.

The reengineering of CTAE concentrations, curriculum, Individual Career Pathways, and assessment is a thoughtful evolution that will continue to unfold logically over the upcoming years. Guided by current and projected economic growth in Georgia, the goal is to create Peach State Career Pathways that encompass academics, technology and workplace skills, postsecondary training, and industry certification and lead to employment in support of Georgia's growing economy.



Roadmap to Reengineering CTAE for the 21st Century

Program Concentration		Architecture, Construction, Communications & Transportation	Engineering & Technology	Business & Computer Science	Marketing, Sales & Services	Family & Consumer Sciences	Healthcare Science	Agriculture	Government & Public Safety	Arts & Humanities
Related Governor's Strategic Industries		Aerospace Energy & Environmental Logistics & Transportation	Aerospace Agribusiness Energy & Environmental Healthcare & Eldercare Life Sciences Logistics & Transportation	Aerospace Agribusiness Energy & Environmental Healthcare & Eldercare Life Sciences Logistics & Transportation	Aerospace Agribusiness Energy & Environmental Healthcare & Eldercare Life Sciences Logistics & Transportation	Agribusiness Healthcare & Eldercare	Healthcare & Eldercare Life Sciences	Agribusiness Energy & Environmental	Aerospace Agribusiness Energy & Environmental Healthcare & Eldercare Life Sciences Logistics & Transportation	
CAREER PATHWAY	**Phase I** **Development 05–06** **Training 06–07** **Implementation 07–08**	Transportation Logistical Operations (Ground/Marine)	Engineering	Small Business Development	Marketing & Management		Therapeutic Services–Nursing	Agriscience		
		Transportation Logistical Support (Ground/Marine)		Computing						
	Phase II **Development 06–07** **Training 07–08** **Implementation 08–09**	Flight Operations	Energy Systems	Financial Management – Accounting	Fashion Marketing	Early Childhood Education	Therapeutic Services–Emergency Services	Forestry/ Natural Resources		
		Aircraft Support	Manufacturing	Financial Management – Services	Marketing Communications & Promotion	Culinary Arts	Therapeutic Services–Medical Services	Plant Science/ Horticulture		
		Engineering, Drawing & Design	Electronics	Interactive Media		Education & Teaching	Health Informatics			
		Construction				Nutrition & Food Teaching				
	Phase III **Development 07–08** **Training 08–09** **Implementation 09–10**	HVACR		Administrative/ Information Support	Travel Marketing & Lodging Management	Consumer Services	Biotechnical Research & Development	Animal Science	Public Safety	Visual Arts
		Metals		Computer Network Systems	Sports & Event Marketing	Family/Community Services	Diagnostic Services	Agricultural Mechanics		Performing Arts
		Graphic Communications				Interior & Fashion Design	Personal Care Services Cosmetology	Agribusiness Management		Journalism
		Visual Communications								Foreign Language
		Broadcasting & Digital Media								

Centers of Innovation (http://www.georgia.org/Business/Innovation)

Designed to enhance long-term economic opportunities for Georgians, nourish the state's homegrown industries, and encourage new companies to invest and build in the state.

Life Sciences Innovation Center – Augusta, GA
Manufacturing Excellence Innovation Center – Gainesville, GA
Maritime Logistics Innovation Center – Savannah, GA
Agriculture Innovation Center – Tifton, GA
Information Technology Center – Columbus, GA
Aerospace Innovation Center – Warner Robins, GA

Governor's Strategic Industries (http://www.newgeorgia.org/taskforces/strategicind.shtml)

Aerospace • Healthcare & Eldercare • Agribusiness • Life Sciences • Energy & Environment • Logistics & Transportation

CTAE

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