



UNIVERSITY OF
GEORGIA
Carl Vinson
Institute of Government
*Georgia Workforce and
Economic Resilience Center*

**GEORGIA'S
WORKFORCE
CONFERENCE**

Georgia's Model of Career Pathways in Life Sciences

Philip G. Gibson, Juan-Carlos Aguilar, Maria Thacker-Goethe, Mark Peevy, & Tamara Mandell



Carl Vinson
Institute of Government
UNIVERSITY OF GEORGIA

GEORGIA'S MODEL OF CAREER PATHWAYS IN LIFE SCIENCES

Rethinking Pathways to Industry Careers

November 12, 2024 ♦ Innovating Georgia's Workforce Pipeline Conference
UGA Carl Vinson Institute of Government



Georgia's Model of Career Pathways Panel

MODERATOR



**MARIA THACKER-
GOETHE**

*President & CEO
Georgia Bio*

mthacker@gabio.org

SPEAKER 1



TAMARA MANDELL

*Director
Biotility*

tmandell@cerhb.ufl.edu

SPEAKER 2



JUAN-CARLOS AGUILAR

*Director of Innovative
Programs and Research
Georgia Department of
Education*

jaguilar@doe.k12.ga.us

SPEAKER 3



MARK PEEVY

*Chief of Staff
Technical College System
of Georgia*

mpeevy@tcsg.edu



One Voice for Georgia's Life Sciences Sector

Georgia Biosciences 501c6 - EIN: 27-3855537

501c3 designation for workforce efforts, in process.

www.gabio.org

What is Georgia Bio

A non-profit, membership-based organization that promotes the interests and growth of the life sciences industry.

The state's largest, most influential, and only life sciences advocacy and business leadership organization which works to improve access to innovative technologies and grow Georgia's life sciences economy.

Founded in 1989 & volunteer led until 2005

What do we do?

- conducts business and economic development activities
- advocates on behalf of the industry on public policy matters
- educates the public about the benefits of life sciences research and product development
- provides a network for the exchange of ideas, information and opportunities.

Membership

- **Who?** Companies (start-up to the worlds largest biopharma companies), universities & colleges, research institutions, government groups, industry services partners, investors, and other industry associations
- **Cost:** Varies depending on # of employees in Georgia; Membership/Sponsor Packages Available

Inspire: Workforce Programming

- Biotech Teacher Training Initiative
- Equipment Depot
- Biotechnology Aptitude & Competency Exam (BACE)
- BioGENEius Challenge
- Visiting Scientist
- Atlanta summer biotech camp
- Frugal Science Academy

- YearUp Internship Coordination
- Onramp to Apprenticeships
- Career Center & Career Fair
- Biotechnology Aptitude & Competency Exam (BACE)



- Mentor Program
- Biotechnology Aptitude & Competency Exam (BACE)
- Career Center & Career Fair
- Visiting Scientist

- Leadership Training
- Mentor Program
- Customize industry trainings



OUR MISSION

To anchor a unified credentialing system within the industry by expanding state-level adoption of the Biotechnician Assistant Credentialing Exam (BACE).

“IMPLEMENTATION OF AN INDUSTRY-RECOGNIZED CREDENTIALING SYSTEM FOR BIOTECHNICIANS”

- NSF ATE, 3-Year Grant Awarded to Georgia BIO
- *Principal Investigators:* Philip Gibson (PI)
 - Bridgette Kirkpatrick (Co-PI), Tammy Mandell (Co-PI)
- *Target States:* Georgia, California, Texas, Washington, and Nebraska



Provides job candidates mechanism to showcase mastery of competencies and skills



Provides validated talent pool to benefit industry



Provides non-traditional entry points into meaningful career paths

BACE™

The BACE is a national industry-recognized exam that assesses core competencies and skills identified as valuable to the bioscience industries.

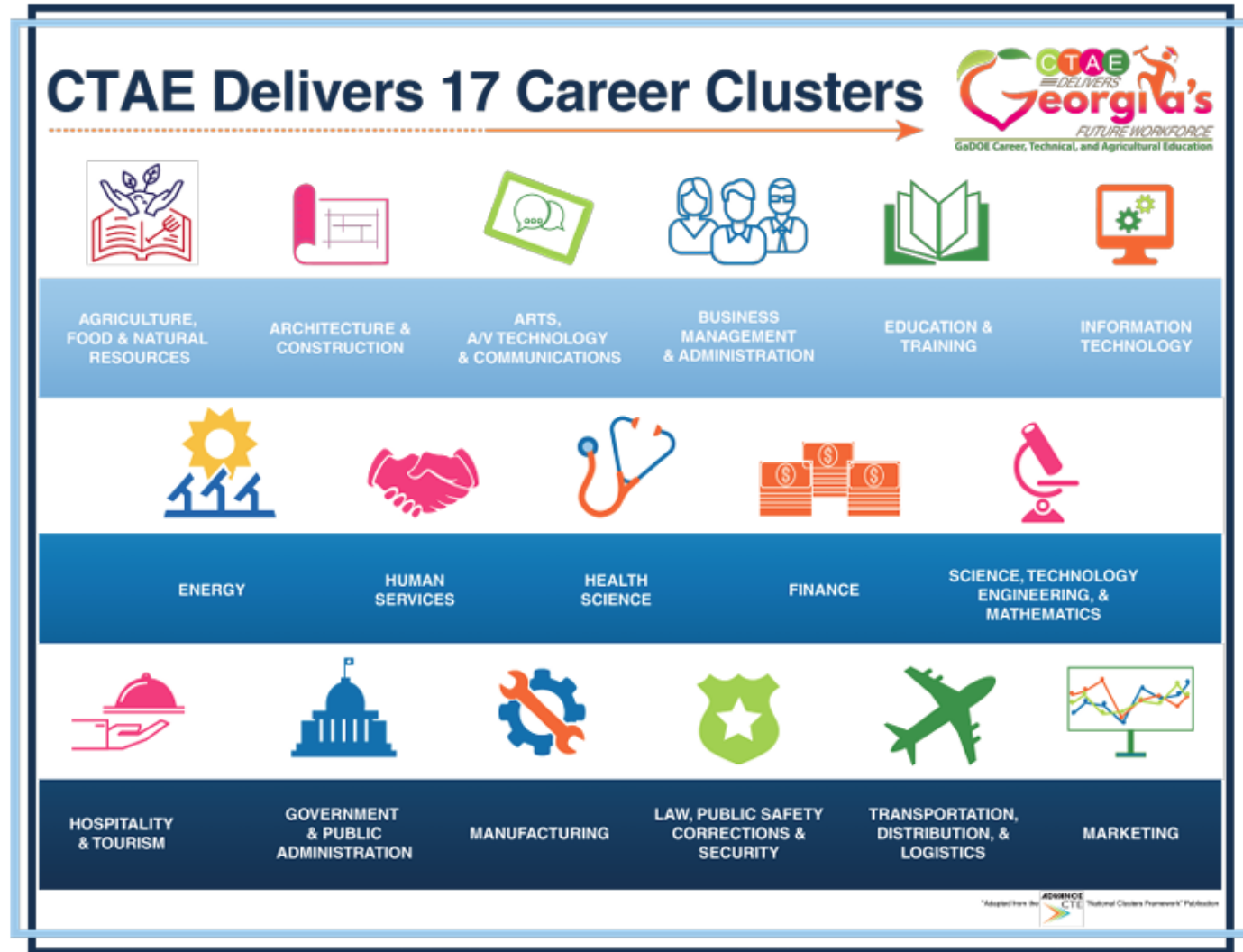
- Outcome of Bioscience Industry DACUM Analysis involving key stakeholders and subject matter experts
 - Accurately denotes the knowledge, skills, and abilities for technician-level responsibilities
- Framework maintained by National Advisory Board
- ISO/IEC 17024 Compliant
 - General requirement for bodies credentialing job-related standards

BACE SCOPE

- Credential earners possess the ability to seamlessly enter the workplace to be quickly trained on company-specific protocols relating to:
 - Research and Development,
 - Quality Systems,
 - (Bio)manufacturing,
 - and a variety of other positions.
- Additionally, they have demonstrated an aptitude for the work, and knowledge of working in a cGMP compliant environment.



Augmenting Careers Exposure in K-12 Education



- Georgia offers 17 Career, Technical and Agricultural Education (CTAE) career clusters.
- Each career cluster offers a variety of career pathways. There are 158 different career pathways.
- Each career pathway is made of three sequenced courses, culminating with work-based learning experiences.
- All pathways are aligned with the needs of industries in the economy of the state, region, Tribal community, or local area.
- All pathways culminate in the attainment of a recognized postsecondary credential.

November 14, 2024

Augmenting Careers Exposure in K-12 Education



Elementary school

Middle school

High school



- Develop of CTAE Elementary standards to allow elementary students to explore concepts and careers in the 17 Career Clusters.
- CTAE Middle standards are designed to help students to prepare them for choosing a high school career pathway.
- Selected CTAE courses can be used to meet the fourth credit requirements for graduation in science.
- Selected CTAE pathways, named CTAE+ pathways, can be used to meet the fourth credit requirement in mathematics, English language arts, and science.

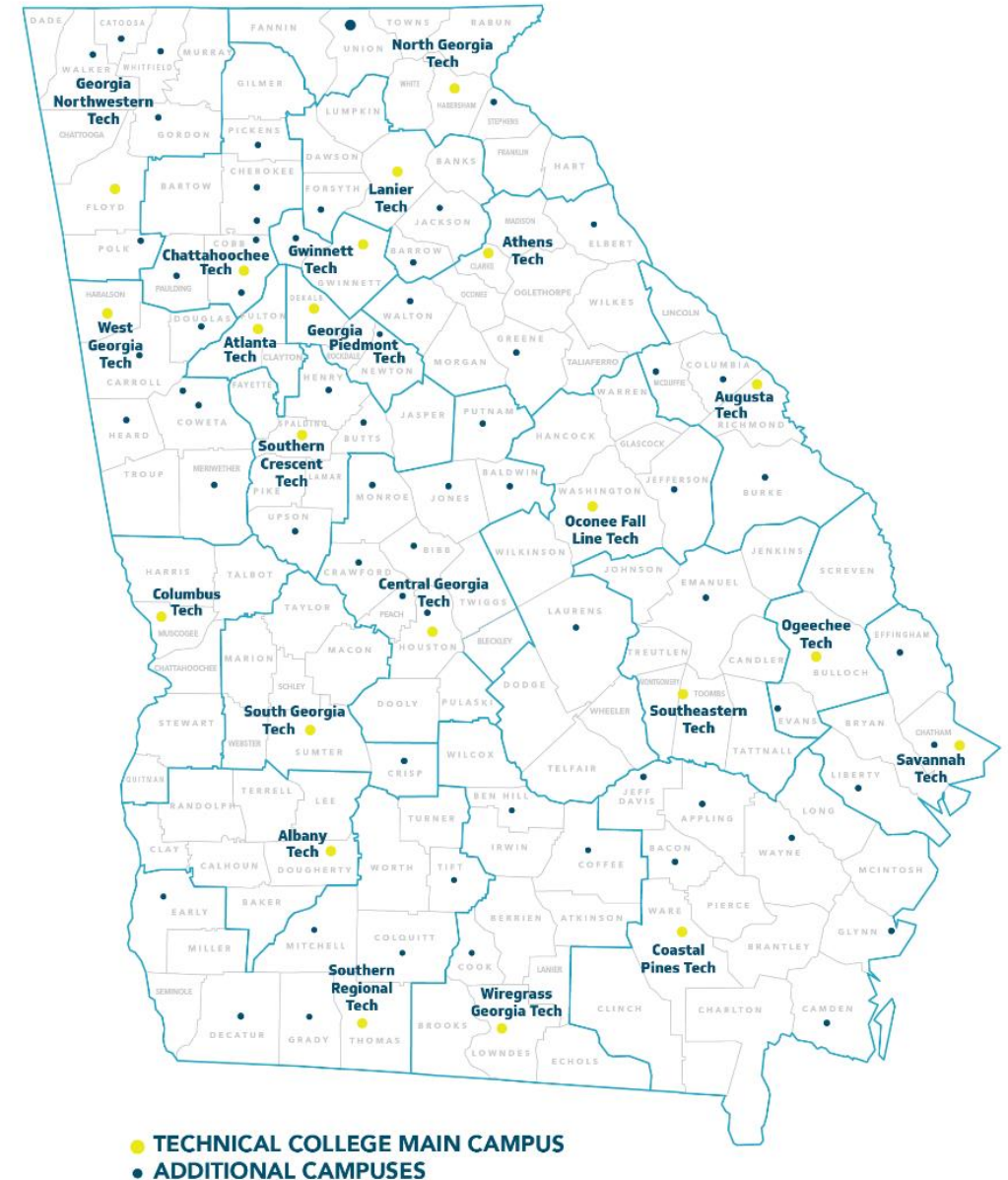
November 14, 2024

Our Mission

To recruit and grow a globally competitive workforce through education, training, and career services for Georgia businesses and industries.

Our Reach

- 22 Colleges
- 88 Campuses
- 35 Career Centers
- 3 Quick Start Training Centers



Our Impact

TOTAL SERVED IN AY24* **525,329**



ADULT EDUCATION



ECONOMIC DEVELOPMENT



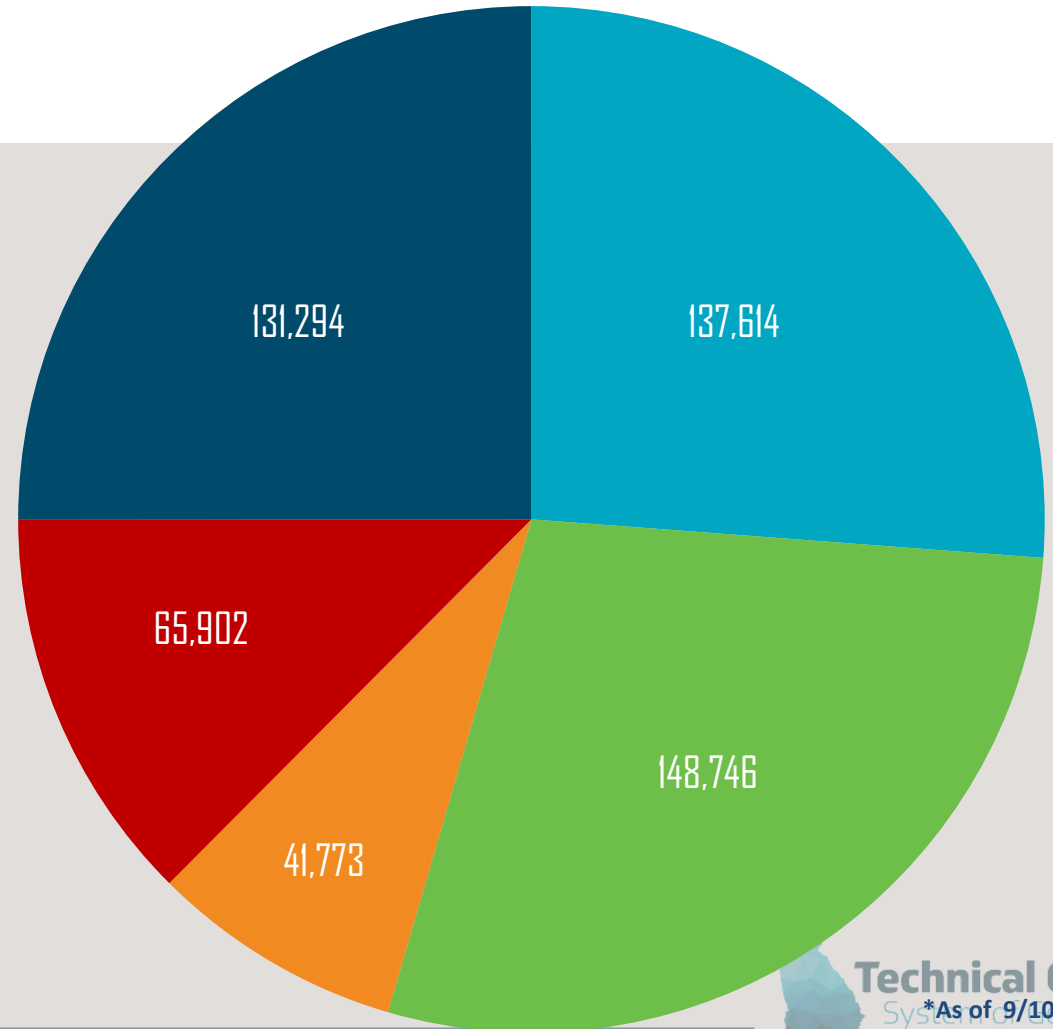
QUICK START



TECHNICAL EDUCATION



WIOA / EMPLOYMENT SERVICES



Program Offerings

- “Almost everything we do is STEM!”
- Various Award Levels (TCC, Diploma, AAS, and AS) allow for multiple pathways to a career
- Facilities and Labs are designed to meet industry need
- Programs are available to a wide variety of students (High School, Traditional, and Adult Ed)

Focus on High Demand STEM Careers

- Automotive (includes EV), Aviation, Computer Science/Cyber Security, Healthcare, and Manufacturing
- Investment in marketing, recruiting, expanding program access, and lab/classroom upgrades
- Year to Year Growth:
 - Automotive: 21.8%
 - Aviation: 24.3%
 - Computer Science: 12.2%
 - Healthcare (Nursing): 22.5%
 - Manufacturing: 13%

New Stackable Credential

- Automation and Robotics for Manufacturing-AAS
- Created with industry input
- Meets the needs of a wide-range of manufacturers
- Includes 4 TCCs within the degree program
- Roll-out includes connections to Secondary

Future Focus

- AI
- Stackable Credentials
- Micro-Credentials
- Remaining Flexible and Responsive

PANEL Q/A

- What is the current pathway into a career in the life science industry?
- How does Georgia respond to life science workforce needs?
- What role do
- Does our State **AUDIENCES QUESTIONS** which can be touted as wor
- Economic development relies heavily on an emerging workforce. How does Georgia promote its emerging workforce?
- How do the educational systems in Georgia collaborate?
- What role does credentialing play in meeting industry demands?

THANK
YOU!



Technical College
System of Georgia



Carl Vinson
Institute of Government
UNIVERSITY OF GEORGIA



GEORGIA BIO
The Life Sciences Partnership