# State System Strategies to Align Academic Programs with State Workforce Needs

Presenters

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# Highlights from a Comparative Case Study: Georgia and Tennessee

## Aligning Academic Program Approval with State Workforce Needs

Dissertation Research Completed by Dr. David Tanner



## **Georgia Public Higher Education**

## **University System of Georgia**

- 19 Regents Appointed by the Governor
- 26 Institutions

## **Technical College System of Georgia**

- 22 Board members appointed by the Governor
- 22 Colleges

## **Tennessee Public Higher Education**

# Tennessee Higher Education Commission (THEC)

• 7 by the Governor and 6 by the Legislature

#### University of Tennessee Board of Trustees

- 10 of 12 appointed by Governor
- 4 Universities, 1 Center, and 2 Institutes

### **Tennessee Board of Regents (TBR)**

- 12 of 19 appointed by the Governor
- 13 Community Colleges / 24 Colleges of Applied Technology (TCATs)

## **Local Governed Institutions**

- Each institution has a board with 8 of 10 appointed by Governor
- 6 Universities

# Governance impacts how programs are developed and approved to meet a statewide industry need



# **Contributions to Program Approval Research**

- 1. The research provides new insights into HOW and WHY states change program approval processes and forms. Driving force: Speed to market and alignment with workforce needs
- 2. State system governance impacts the speed and scope of a state's ability to meet an employers need for new academic programs. Georgia's governing board structure enables more rapid development and approval of new programs for whole industries or occupation groups.
- 3. The research highlights the role state systems can serve in talent development by being a central contact point for employers, translating employer's needs into what faculty need to create the curriculum, and coordinate a state approach.
- 4. The research provides clarity that institutions must front the money to start new programs because of the lag in state appropriations in both performance based and enrollment based formulas. The lag in funding is an added incentive for institutions to only propose new programs that are financially viable.
- 5. The research confirms the important role of faculty in developing the curriculum, teaching, and assessing learning.

## **Suggestions for State Systems**

**Single Point of** Employers and industry leaders want one point of 1. contact in higher education Contact 2. Forecast talent demand in coordination with the Forecast state economic development agency and other Demand partners 3. Employers need help translating their needs into **Translate Need** something faculty can use to create a program and its curriculum Share 4. Employers expect public institutions in the same state to share their curriculum with other public Curriculum institutions in the same system Support 5. Higher education system staff can support faculty Faculty in developing programs that help fill labor gaps

## **University System of Georgia (USG)**

All 26 institutions governed by the Board of Regents (BOR), which establishes policy & exercises fiduciary oversight of the USG.

- Elects college/ university presidents
- Allocates funds to institutions
- Leads standing committees





## The "Playbook" Process

Talent development playbooks - written for institutional leaders and administrators, deans, program directors, and teaching faculty provide a structure and outline key considerations for institutions seeking to gauge the viability of launching programs in high-demand career areas.

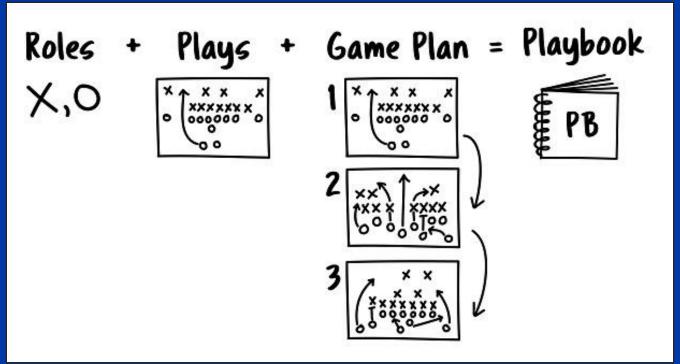
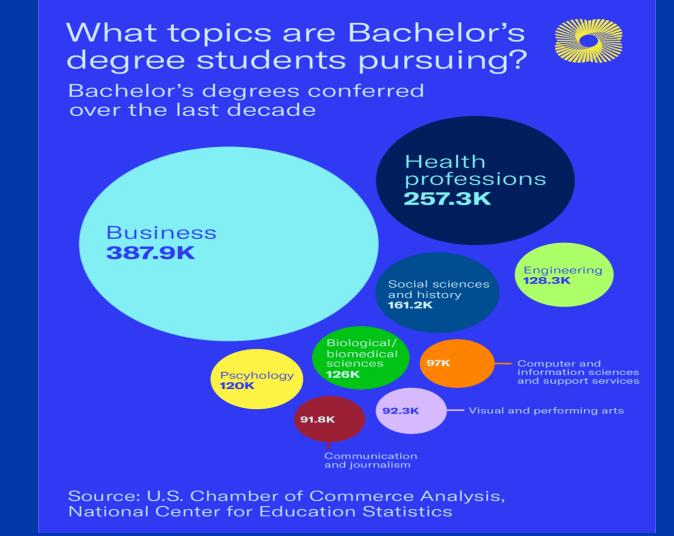


Image from https://helpjuice.com/blog/business-playbook



## **Existing Programs: Demand (Student)**





## **Existing Programs: Demand (Employer)**

## America's most in-demand jobs



Projected number of new jobs from 2021 to 2031

#### Entry Level Education Required: Master's Degree



#### Entry Level Education Required: Bachelor's Degree



Georgia Department of Labor USG Academic Innovation Department – Art Recesso



# The FinTech Talent Development Playbook Example

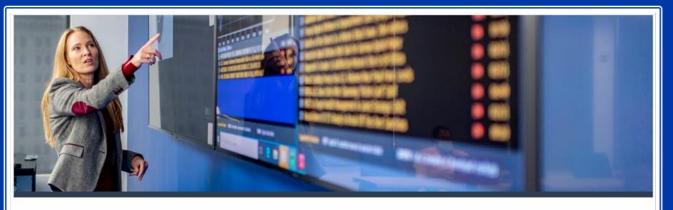




## USG Strategic Plan (2024-2029)

## ✓ Student Success

- ✓ Responsible
  Stewardship
- Economic Competitiveness
   Community Impact



## Economic Competitiveness Goal

The University System of Georgia will play a critical role in developing the talent and knowledge for current and future industry needs in the state of Georgia and beyond.

## Initiatives

GENERAL EDUCATION/CORE CURRICULUM	+
COLLABORATIVE PROGRAMS AND COURSES	+
INSTITUTIONAL AND COMMUNITY-BASED ENTREPRENEURSHIP EFFORTS	+
RESEARCH ENGAGEMENT	+

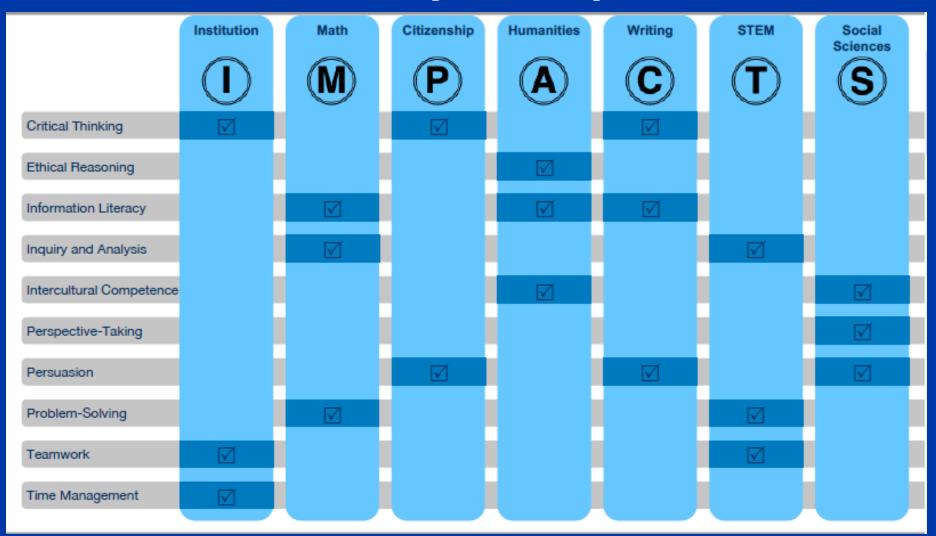


## **General Education Refresh**

Core IMPACTS	Area Shorthand	Credit Hours
Institutional Priority	Institution	At least 3 credit hours
Mathematics & Quantitative Skills	Mathematics	At least 3 credit hours
Political Science & U.S. History	Citizenship	At least 3 credit hours
Arts, Humanities & Ethics	Humanities	At least 6 credit hours
<b>C</b> ommunicating in Writing	Writing	At least 6 credit hours
Technology, Mathematics & Sciences*	STEM	At least 7 credit hours*
Social Sciences	Social Sciences	At least 3 credit hours



# **Career-Ready Competencies**







## Tennessee Board of Regents

Dr. Jothany Reed, Vice Chancellor for Academic Affairs



#### 

1. Chattanooga	8
2. Cleveland	9
3. Columbia	10
4. Dyersburg	11
5. Jackson	12
6. Motlow	13
7. Nashville	

8. Northeast 9. Pellissippi 10. Roane 11. Southwest 12. Volunteer 13. Walters

#### abla colleges of applied technology

1	I. Athens
2	2. Chattanooga
3	3. Crossville
4	4. Crump
1.5	5. Dickson
36	5. Elizabethton
5 6	7. Harriman

8. Hartsville 9. Hohenwald 10. Jacksboro 11. Jackson 12. Knoxville 13. Livingston 14. McKenzie

15. McMinnville 16. Memphis 17. Morristown 18. Murfreesboro 19. Nashville 20. Northwest 21. Oneida/Huntsville 22. Paris 23. Pulaski 24. Shelbyville

# WE POWER TENNESSEE



TBR community colleges are open-access colleges that serve students of all backgrounds and circumstances.



# WHO WE SERVE



Half of our first-time students are low-income students.

**√**=

**60%** of first-time students are academically underprepared.



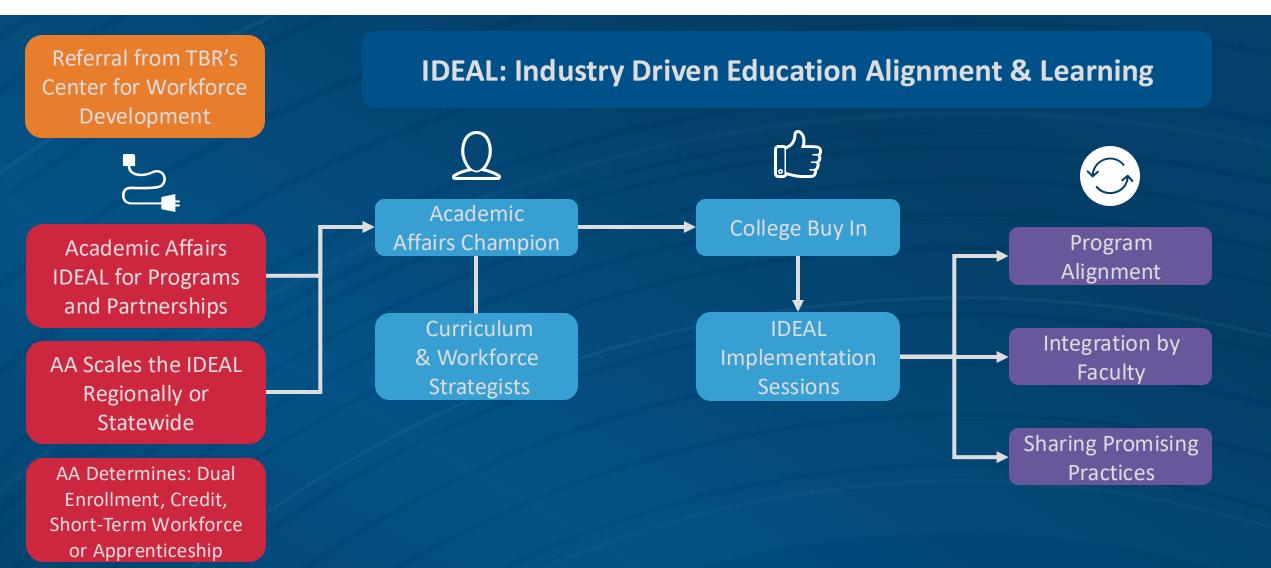
**30%** of our students are adults ages 23+.

# Scan here to see the **TBR Strategic Plan COMMUNITY & OPEN** COMPLETION WORKFORCE ACCESS **DEVELOPMENT**

# STUDENT SUCCESS & WORKFORCE DEVELOPMENT



# tbr) The IDEAL Workforce Model





# **The IDEAL Outcomes**

#### Amazon – Industry Driven

- 1) 12 community colleges
- 2) 16 technical colleges
- 3) Minimum of 32 faculty trained
- 4) Minimum of 5,000 students prepared for careers in IT
- 5) Integrating AWS into IT program curriculum

#### **Forestry Partnership**

19 colleges working with Tennessee Forestry Association to:

- 1) Expand the A.S. in General Studies with a concentration in Forestry
- 2) Creating a new A.A.S in Forestry with an embedded Forestry Technician Certificate
- 3) Expanding the TCAT Diploma in Farming Operations Technology & Forestry and Agriculture Technology
- 4) Creating a Forestry TechnicianApprenticeship (can be offered at both TCAT and CCs)



# **Advanced Manufacturing Pathway**

#### High School Dual Enrollment Opportunities

Advanced Manufacturing Cluster

- Industrial Maintenance Technology
- Mechatronics
- Welding

Technical Certificates & Diplomas/Apprenticeships

Advanced Manufacturing Technology Certificate

Advanced Electric Vehicle Production Technician Certificate

Master Robotics Automation Engineering Technician Diploma Associate Degrees/Apprenticeships

AAS in Engineering Systems Technology

AAS in Mechatronics Technology Mechanical or Electrical Engineering

**Bachelor Degrees** 

#### **Career Alignment**

Electrical and Electronics Engineering Technician

Mechanical Engineering Technician



# **33 New Articulation Agreements** from TCATs to Community Colleges

#### Advanced Manufacturing

- Industrial Maintenance (IM)
- IM Automation
- Mechatronics
- Advanced Manufacturing Technology
- IM Integrated Automation
- IM Mechatronics
- Industrial Electrical
  Mechatronics
- Industrial Electricity
- Aviation Maintenance Technology
- Welding Technology

#### Construction, Engineering & Architecture

- Computer Aided Design
  Technology
- Building Construction
  Technology
- Machine Tool Technology
- Tool & Die Machining
- CNC Machining
  Technology
- Advanced Manufacturing Education
- Manufacturing
  Tachnology
- Technology
- Industrial Maintenance Technology

#### Health Sciences

- Dental Assisting
- Emergency Medical Technology
- Surgical Technology
- Health Information
  Management Technology
- Pharmacy Technology
- Phlebotomy Technology
- Patient Care Technology/Medical Assisting
- Nursing Aid
- Practical Nursing

#### Information Technology & Office Technology

- Administrative Office
  Technology
- Computer-Related Programs
- Health Information
  Management Technology
- Articulations provide up to 45 credit hours upon transfer.

## SERVING INDUSTRY



## 2,000

COMPANIES SERVED WITH WORKFORCE TRAINING

## 1,027,159

WORKFORCE INDUSTRY TRAINING CONTACT HOURS COMPLETED

## 250+

APPRENTICESHIPS STARTED IN ADVANCED MANUFACTURING



## COMMITMENT TO QUALITY

 Our program warranty represents the System's commitment to the quality of our technical education programs.







