



# Transitioning our Current Workforce into the Workforce of Tomorrow

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A Briefing on Current Efforts in Workforce Development  
within Transportation Systems Management and Operations

**RISE TO THE CHALLENGE**

ISO 9001:2015 Certified | Employee-owned Since 1988



# 1983 versus 2023



# Typical Skill Sets for Traffic Signal Field Techs

Yesterday.....

Signal  
Mechanics

Trade/Vocational  
Schools  
Apprenticeships

Entry Level  
Mechanically  
Inclined

Today.....

ITS Field  
Technicians

4-year degree  
IT Certifications

2-5 years  
Superior  
Computer skills



# CASE STUDY 1; Traffic Operations for the City of Chattanooga, TN



# Challenges & Opportunities in Chattanooga, TN



Work with HR to develop new job descriptions and benchmark them in the pay scale.



Hire new staff to replace retiring staff. 4 of 5 key members within.

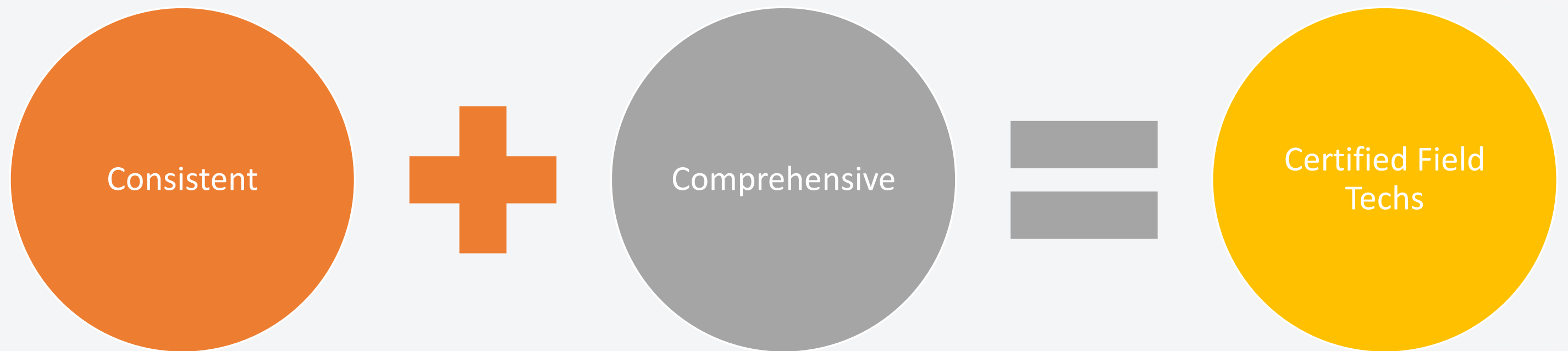


Moved from Dept of Public Works to Technology Services.



Implemented a new Standard Operating Procedure & Strategic Plan based in TSMO.

# CASE STUDY 2; Georgia DOT Traffic Signal Technician Training



# Coursework for GDOT Traffic Signal Technician Training

## Level 1

Day 1

NEC, MUTCD, OSHA, GDOT Specs

Day 2

Basic Construction, Definitions & Terminology, Detection, 332, Meter, Grounding and Bonding.

Day 3

Traffic Signal Controller, Input & Output Files, Conflict Monitor, Maintenance

## Level 2

Day 1

Controller Hardware, Input & Output File tracing, Power Distribution, Auxiliary files

Day 2

Advanced Troubleshooting, Communications overview, Reading plans, and CEI overview.

## Level 3

Day 1

Advanced Traffic Signal Controller Functionality, Concepts of Advanced ITS features, Concepts & Definitions, Red, Yellow, & Ped Clearance calculations, & MaxTime

Day 2

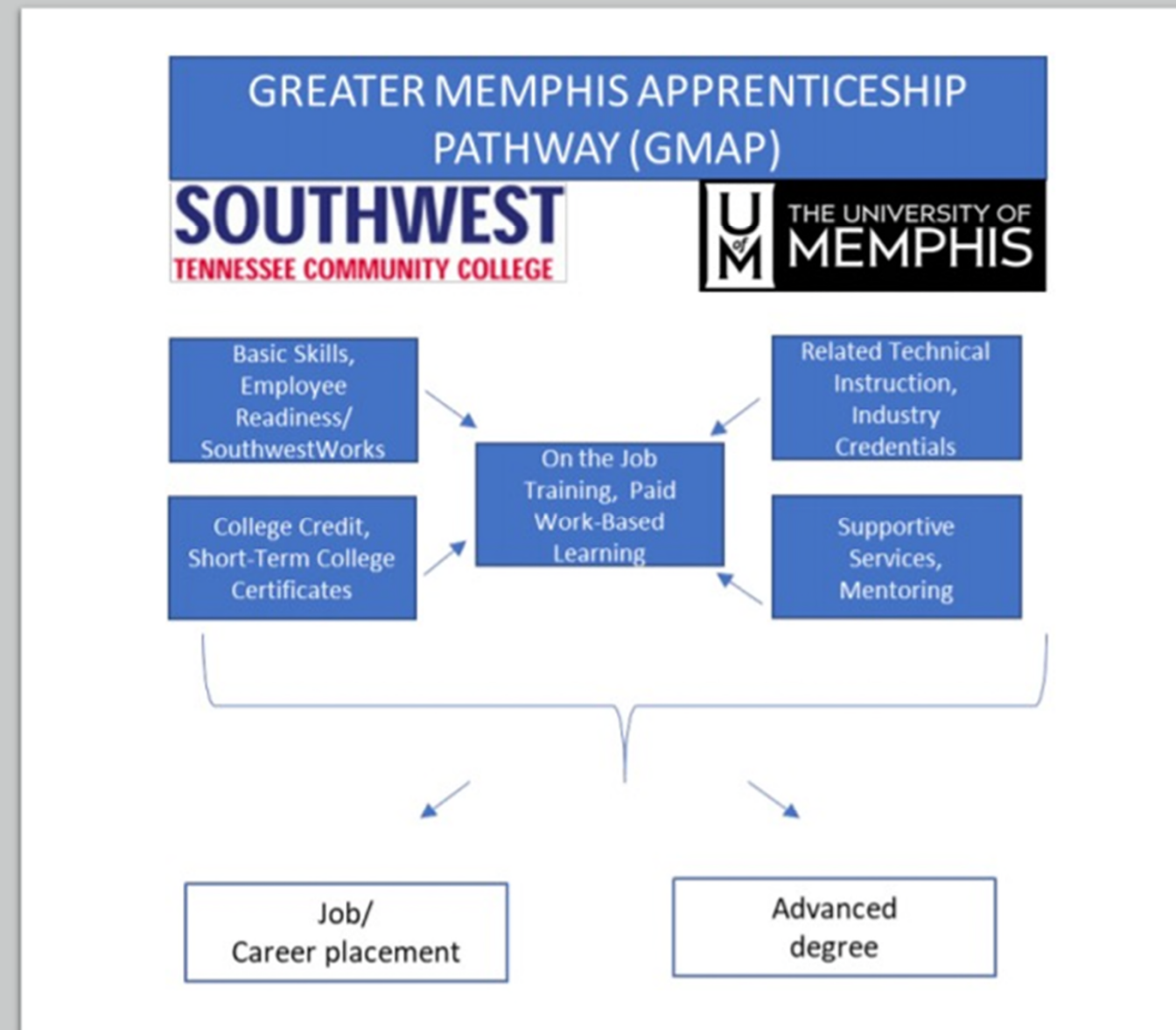
Backing up & Downloading Databases, Updating Firmware, Utilizing MaxTime



# Greater Memphis Apprenticeship Pathway (GMAP)

## Program Overview

- The Greater Memphis Apprenticeship Pathway Program
  - U.S. Department of Labor grant-funded project
  - Led by Southwest Tennessee Community College (SWTCC)
  - Unifying theme across the project is that of transformative technologies
  - Four-year project goal to engage at least 800 students in project activities



Slide courtesy of Dr. Stephanie Ivey and Michael Rebick



# Other Efforts in Tennessee

- Tennessee Traffic Signal Users Group. (TTSUG)
  - ▶ Collaborative effort between, academia, TDOT, local agencies, consultants & contractors.
  - ▶ Building technical programs and presentations for smaller rural communities.
- UTK Center for Transportation Research and Tennessee Technical Assistance Program (TTAP) continue to develop content for all staffing levels.



# Questions?

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