

# Transition to CTE Teaching: Supporting Beginning Teachers Entering Through Alternative Routes

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**Southern Regional Education Board**

ACTE Convention, Las Vegas

December 2, 2010

3:15-4:15 p.m.



# A Highly-Qualified CT Teacher in Every Classroom

- Recruitment approach
- Induction program
- Requirements for teaching candidates
- Expectations for alternatively certified teachers
  - Meeting technical content standards
  - Completing formal mentoring program
  - Working toward a degree
  - Participating in professional training

# Alternative Licensure CTE Teacher Induction Model

“Increasing teacher quality is essential to improving the academic and technical achievement of CTE students.”

Project Proposal,  
2010

**SREB**



**NRC** **CTE**  
National Research  
Center for Career and  
Technical Education

# Induction for Early Career Teachers

“...so that CTE students are actively engaged in rich, academically rigorous activities in which they develop 21<sup>st</sup> century skills.”

Project Proposal,  
2010

- Comprehensive, fast-track induction model to build substantial teacher capacity earlier in the teacher's experience
- Evidence based, meets the requirements of Perkins IV, and answers the needs of the field
- Designed to impact competence, self-efficacy, and commitment to the field

# Challenges Addressed in the Model

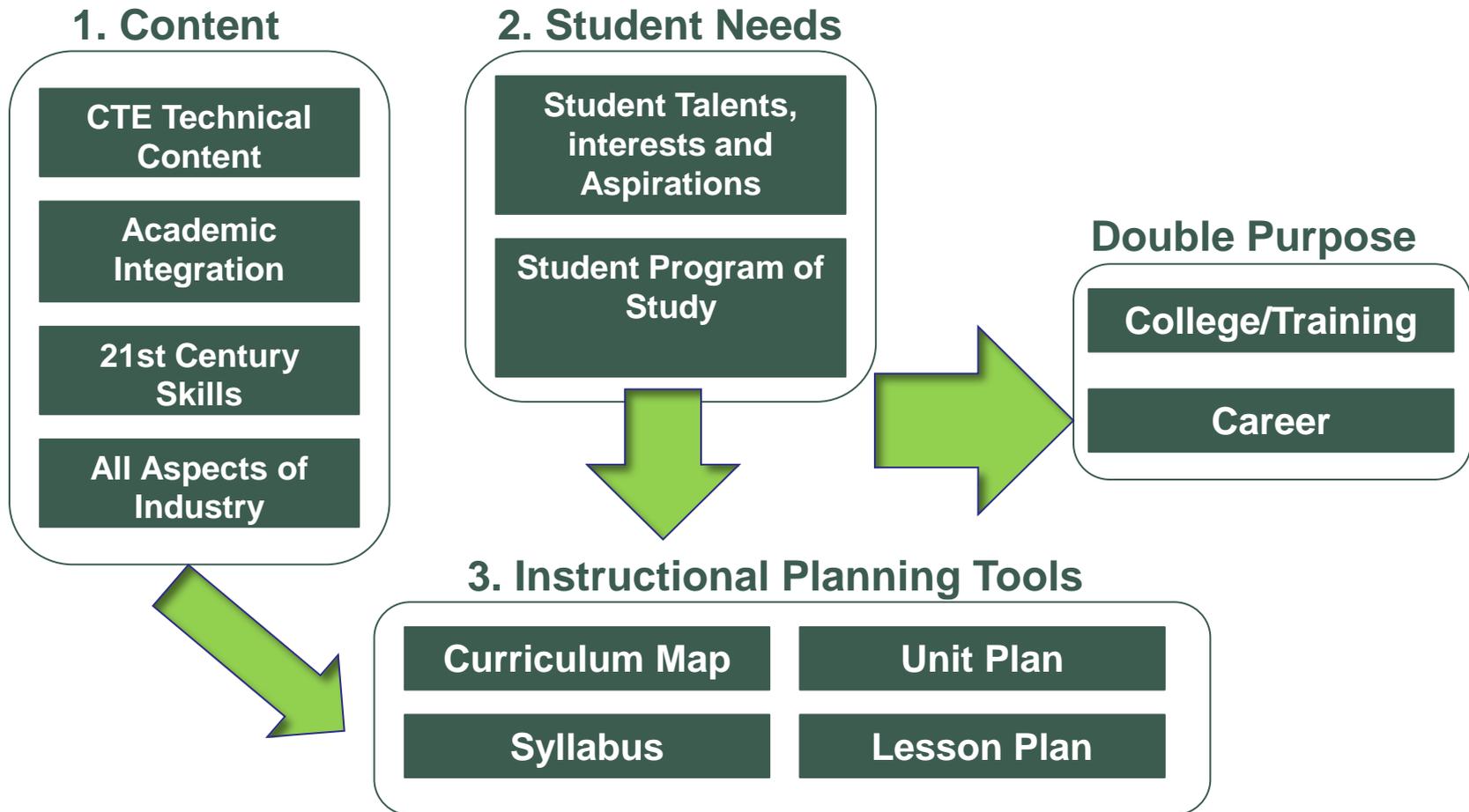
## Complexity of Nontraditional Entry into CTE Teaching

- Diversity of certification routes
- Increasing percentage of teachers entering through nontraditional routes
- Unique needs of beginning CTE teachers
- Teacher attrition
- Shortage of CTE teachers

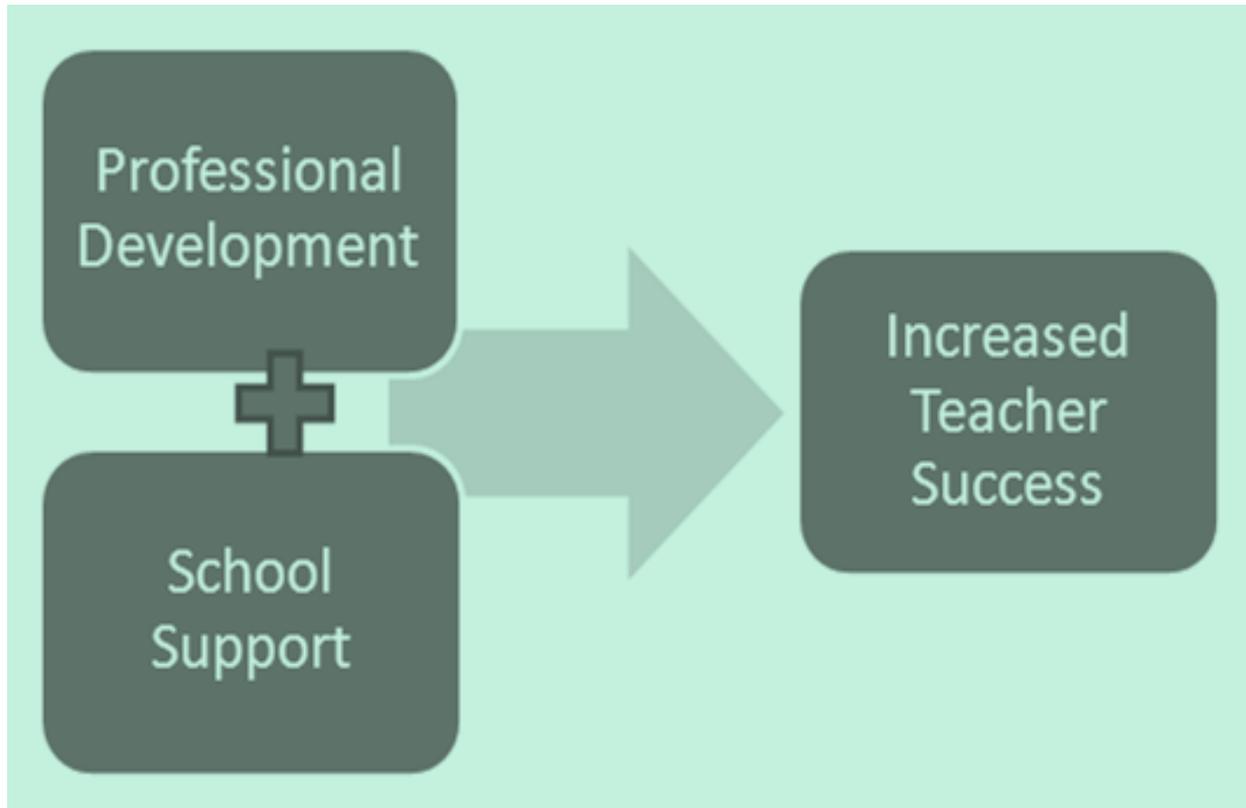
## Increased CTE Teacher Responsibility

- Challenges of the new mission—students college and career ready
- Student diversity
- Intellectual rigor
- Project- and problem-based learning
- Embedded academic content

# Essential Concepts for the Model



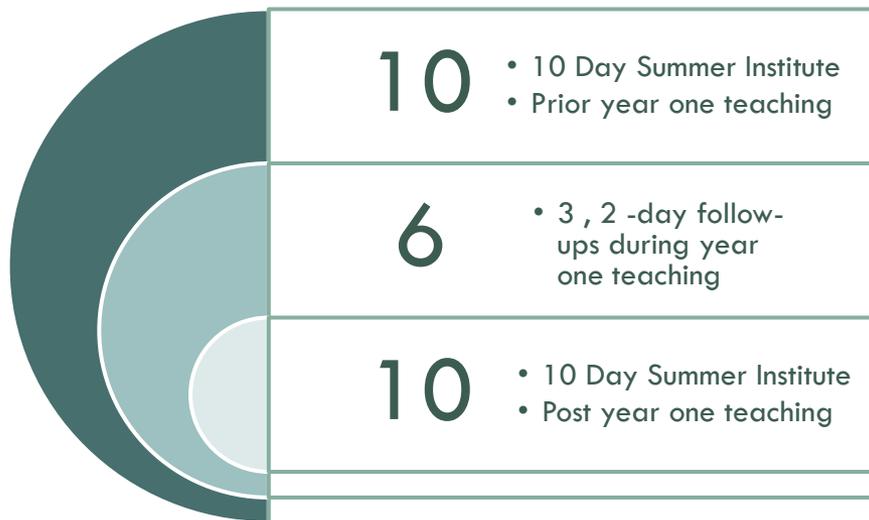
# Conceptual Framework



High-quality teacher training and support lead to increased teacher competency, self-efficacy, career commitment, and ultimately, improved student outcomes.

# Components of the Model

## High Quality Professional Development



## School Support

- ❑ On-site coaching visits from the professional development instructor
- ❑ Mentoring from a trained, experienced teacher
- ❑ Support from the building administrator
- ❑ Electronic communities of practice

# What Constitutes High Quality Professional Development?

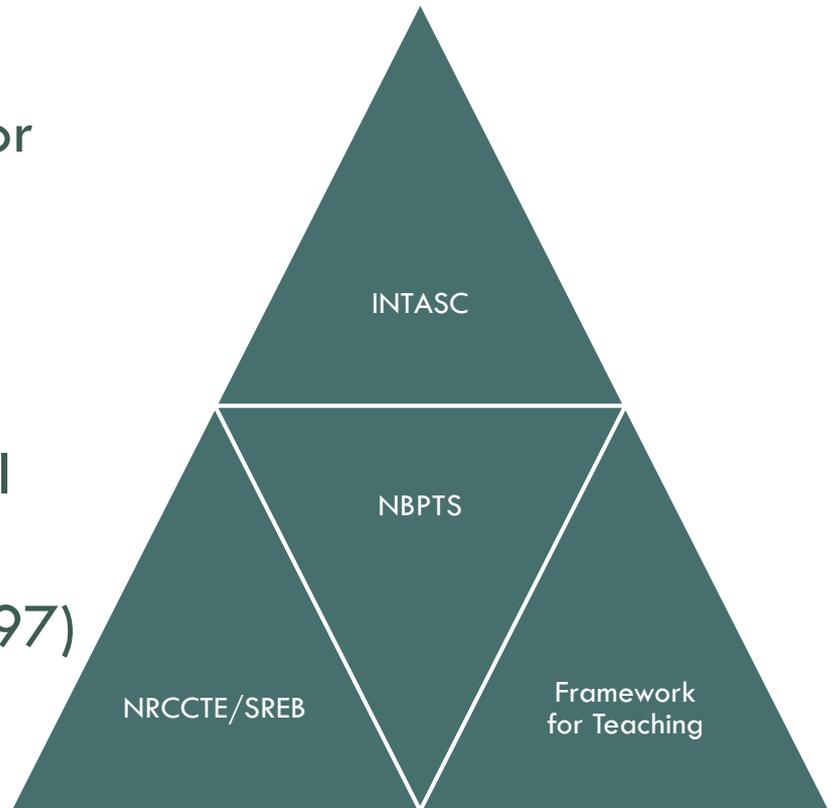
- Content driven by the research and needs of the field
- Time for reflection
- Substantive interaction and dialogue with peers
- Opportunities to apply learning to authentic problems of practice
- Over an extended period of time with opportunities for:
  - Application
  - Reflection
  - Feedback on implementation

# What Constitutes High Quality School Support?

- Local administrators and mentors trained in the professional development materials with custom-designed calendars of responsibilities
- Classroom visits from the professional development instructor
- Electronic networking through webinars and a website with the capacity for journaling, portfolios, and resources

# Research-Based Professional Development Content Alignment

- Interstate New Teacher Assessment and Support Consortium Model Standards for Beginning Teachers (1992)
- Framework for Teaching (Danielson, 1996)
- National Board for Professional Teaching Standards for Career/Technical Teachers (1997)
- SREB surveys of beginning teachers and NRCCTE studies



# Professional Development Content

## **Instructional Planning:**

Create short-term and long-term standards-based instructional plans based on the varying learning needs of students.

## **Research-Based Instructional Strategies:**

Use instructional strategies that actively engage students in learning and encourage the development of problem-solving, critical thinking, and teamwork skills.

## Teacher Competence

## **Classroom Assessment:**

Use formal and informal assessment strategies to evaluate student progress toward learning goals and provide feedback to improve student learning.

## **Classroom Management:**

Create a learning environment that encourages student motivation, positive behavior, and collaborative social interaction.

**Teacher Reflection:** Reflect, both individually and collaboratively, on the effects of instruction and use the reflective process to continually improve instructional practice.

# Highlights of Instructional Planning Module

- Content—technical, academic, and 21<sup>st</sup> century skills
- Focus on students and their needs
- Big six reading skills
- Numeracy—writing mathematics problems
- Curriculum map
- Course syllabus
- Unit plan with a project-based learning focus
- Lesson plan



# Highlights of Instructional Strategies Module

## Project-Based Learning

- Central to the curriculum
- Focused on real-world problems that lead students to the central knowledge and skills of an industry
- Involve students in intellectually challenging problem-solving and investigation
- Embed high-level mathematics and literacy
- Build self-direction and accountability

## Cooperative Learning

- Imitates real-life learning and problem solving
- Combines teamwork with **individual** and group accountability
- Working with diverse groups

# Highlights of Classroom Assessment Module

- Use of formative and summative assessment
- Rubrics to measure performance
- Written exams that model college- and career-readiness questions
- Embedded literacy and mathematics
- Portfolios to measure progress over time
- Balanced grading system—technical skills, academics, and 21<sup>st</sup> century skills

# Highlights of Classroom Management Module

## Prevention—

### Personalization and Motivation

- Know students well
- Create a climate of respect
- Rituals and routines
- First weeks of school
- CTSO
- Involving parents

### Intervention

- Rules and consequences
- One-on-one conferences
- Improvement contract
- Communication with parents

# What Have We Learned?

## Professional Development Content

- Clarification and organization of content
- Sequence and pace of content
- Emphasis on student needs, motivation, and classroom management
- Integration of academics
- CTE area-specific examples

## Professional Development Delivery

- Instructional delivery modeled throughout all modules
- Coaching during small group and individual planning times
- Opportunities to “teach-back” and reflect

# What Have We Learned?

## Support Component

- Importance of sustained, structured support
- Specialized training and materials for administrators and mentors—speaking same language

## Coordination with State Partners

- State policy context
- Coordination with all stakeholders
- Recruitment

# Iterative Development Research Cycle for the Induction Model

## Year 1: Field Test of Module Content

- Analyze Data
- Revise

## Year 2: Field Test of Full Induction Model

- Analyze Data
- Revise

## Year 3: State-Led Field Test of Full Induction Model

- Analyze Data
- Final Documents Published

# Challenges with Next Phases of Development

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- Diversity of audience and different stages of readiness
- Math and literacy skills of teacher-learners
- Sequence and pace—teaching for learning and not coverage
- Professional development sequence—length and number of sessions
- Building capacity of state partners

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## Professional Development - Publications

Castellano, M., Harrison, L., & Schneider, S. (2008). State secondary CTE standards: Developing a framework out of a patchwork of policies. St. Paul, MN: National Research Center for Career and Technical Education. ([PDF, 1,049KB](#))

Lewis, M. V., & Pearson, D. (2007). Sustaining the Impact: Follow up of Teachers Who Participated in the Math-in-CTE Study. St. Paul, MN: National Research Center for Career and Technical Education. ([PDF 1,139KB](#))

Stone, J. R., III, Alfeld, C. Pearson, D., Lewis, M. V., & Jensen, S. (2006). Building academic skills in context: Testing the value of enhanced math learning in CTE (Final study). St. Paul, MN: National Research Center for Career and Technical Education. ([PDF 3,181KB](#))

Stone, J. R., III, Alfeld, C. Pearson, D., Lewis, M. V., & Jensen, S. (2005). Building academic skills in context: Testing the value of enhanced math learning in CTE (Pilot study). St. Paul, MN: National

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# For More Information

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# Disclaimer:

The work reported herein was supported under the National Research Center for Career and Technical Education, PR/Award (No. VO51A070003) as administered by the Office of Vocational and Adult Education, U. S. Department of Education. *However, the contents do not necessarily represent the positions or policies of the Office of Vocational and Adult Education or the U. S. Department of Education, and you should not assume endorsement by the Federal Government.*