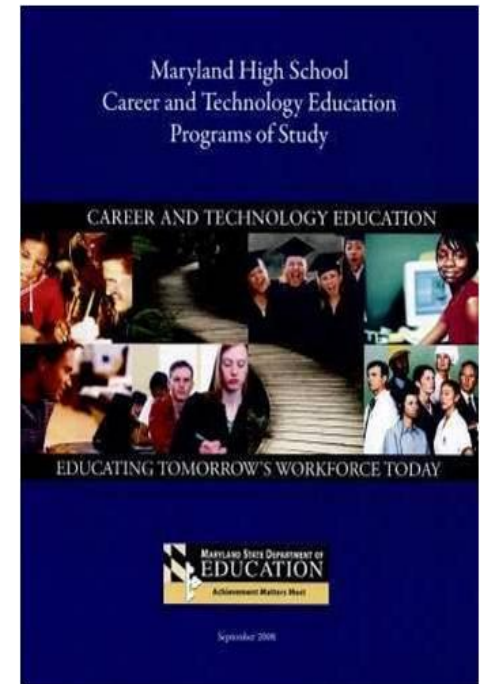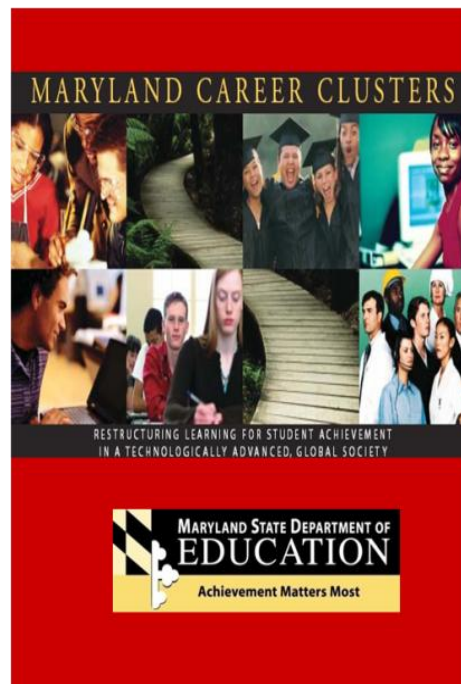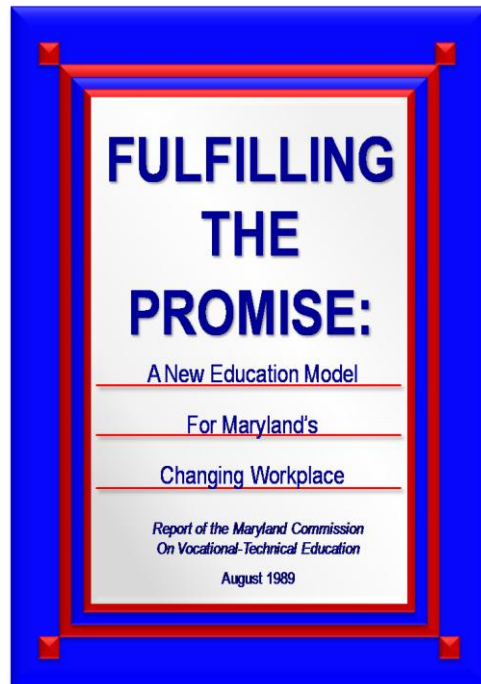# Maryland New CTE State Programs of Study

Preparing Tomorrow's Workforce….Today

Maryland CTE is a Critical Component of Education Reform

Rigor/Relevance Framework

Evaluation	6	
Synthesis	5	
Analysis	4	
Application	3	
Understanding	2	
Awareness	1	

High Rigor Low Context — *AP Math*

High Rigor High Context — *MD's New CTE*

Low Rigor Low Context — *Arithmetic*

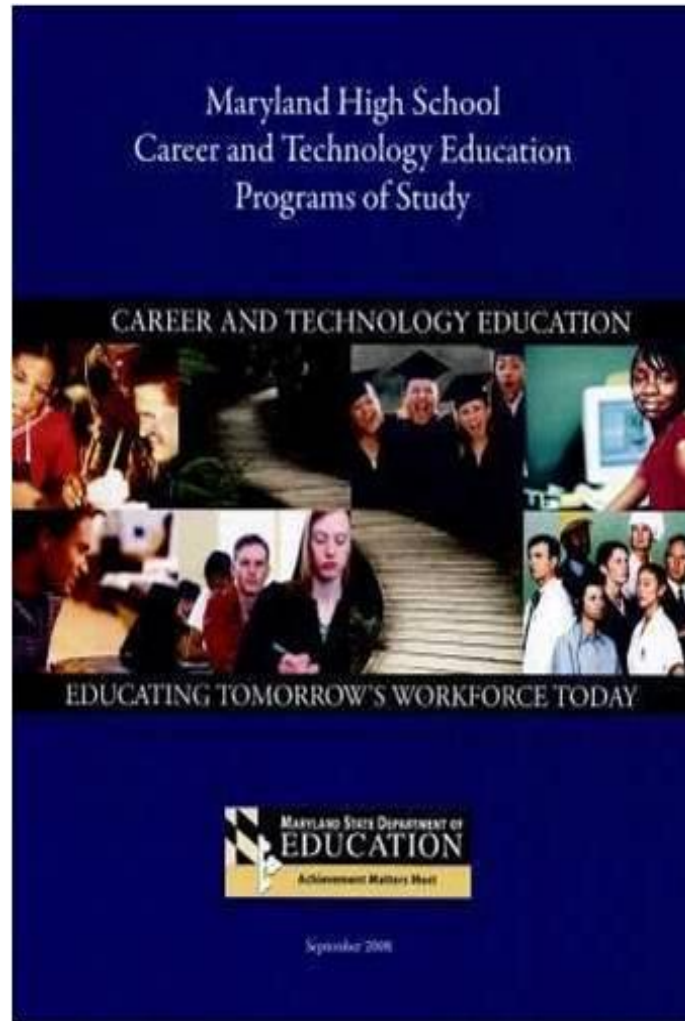**Low Rigor High Context** — *Old Voc Ed*

1. Knowledge
2. Apply in Discipline
3. Apply Across Disciplines
4. Apply to Predictable Situation
5. Apply to Unpredictable Situations

Maryland Secondary State CTE Programs of Study

Maryland High School
Career and Technology Education
Programs of Study

CAREER AND TECHNOLOGY EDUCATION

EDUCATING TOMORROW'S WORKFORCE TODAY

MARYLAND STATE DEPARTMENT OF
EDUCATION

September 2008

- Arts, Media, & Communication
- Business, Management & Finance
- Construction & Development
- Consumer Services, Hospitality, & Tourism
- Environmental, Agricultural, & Natural Resources Systems
- Health & Biosciences
- Human Resource Services
- Information Technology
- Manufacturing, Engineering & Technology
- Transportation Technologies

4

CTE "Value-Added" Features

- College Preparatory Academic Curriculum

- A minimum of 4 credits in a CTE Program of Study

- Work-based Learning Opportunities

- Course and/or Program Assessments

- Industry Recognized Certifications/Licenses

- Early College Credit – CTE Program Articulation

- Comprehensive System of Career Development

- Career Technology Student Organizations

- Business-led Program Advisory Committees

Student Expectations

- **Graduation Pathway Option:** Students complete a State-approved CTE Program.

- **Program Sequence:** A CTE Program is a Sequence of Courses that Results in an Industry Certification and/or Early College Credit

- **Career Development:** With Guidance, Every Student has a Career and Academic Plan Prior to Grade 9 that is Updated Annually
  - Students Identify CTE Programs Aligned with their Interests, Skills, Knowledge and Goals

- **Rigor & Relevance:** Students Take Higher Level Academic Courses in Conjunction with a CTE Program of Study (e.g. Honors and AP)

- **Career & College Ready:** Students Can Complete a CTE Program AND Meet College Admission Requirements

Why Career & College Prep?

Of all pre-college curricula, the highest level of math one studies in secondary school has the strongest continuing influence on bachelor's degree completion.

Finishing a course ABOVE the level of Algebra 2 more than doubles the odds that a student who enters postsecondary education will complete a bachelor's degree.

C. Adelman – USDOE - Answers in the Tool Box
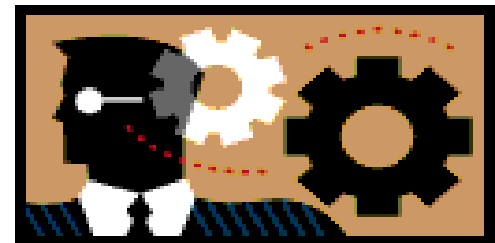
"New" CTE Programs

❖ Students apply knowledge and skills through activities, projects & problem-based learning

❖ Participate in challenging inquiry-based instruction

- Design Solutions to Problems

- Present Independent, Mentored Projects

- Research & Write Technical Reports
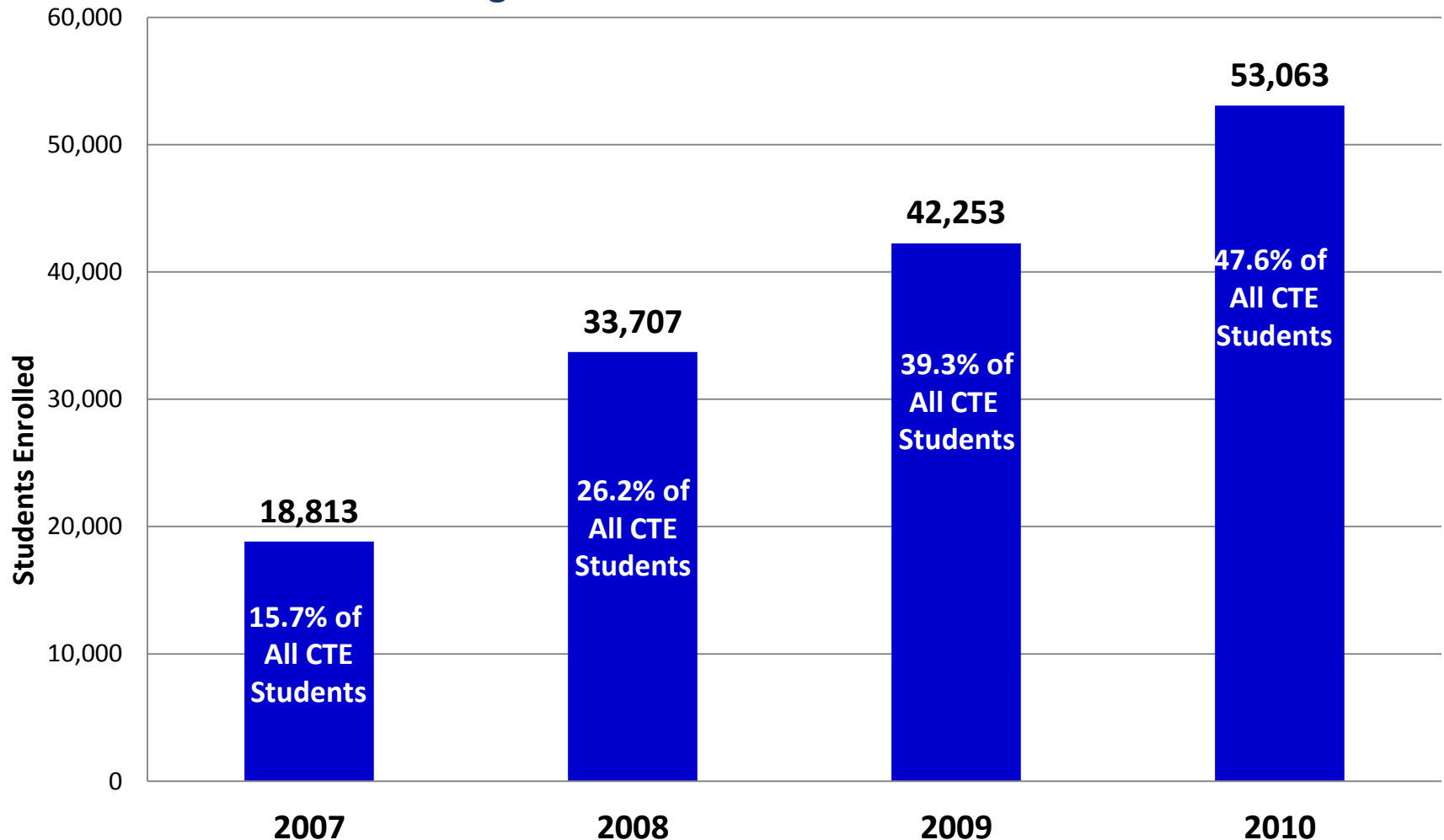
- Collaborate on teams

Quick Facts About CTE

❖ CTE = Career and Technology Education

❖ 117,339 Students Enrolled in Grades 10-12

❖ 38 State Programs of Study

❖ 57,548 Graduates - 11,404 (19%) CTE Graduates

❖ 52% of the CTE Graduates are "Dual Completers" – both college and career ready

Based on 2011 CTE Data
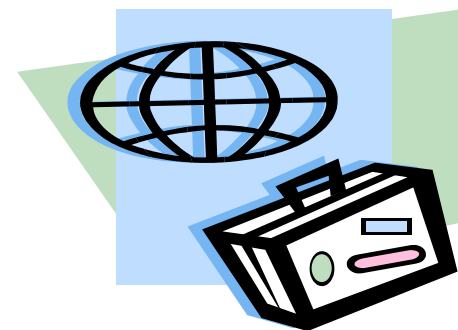
State Designed
CTE Programs of Study (POS)

Increasing Enrollment in State POS: 2007-2010

Bar chart. Y-axis: **Students Enrolled** (0 to 60,000).

- **2007:** 18,813 — 15.7% of All CTE Students
- **2008:** 33,707 — 26.2% of All CTE Students
- **2009:** 42,253 — 39.3% of All CTE Students
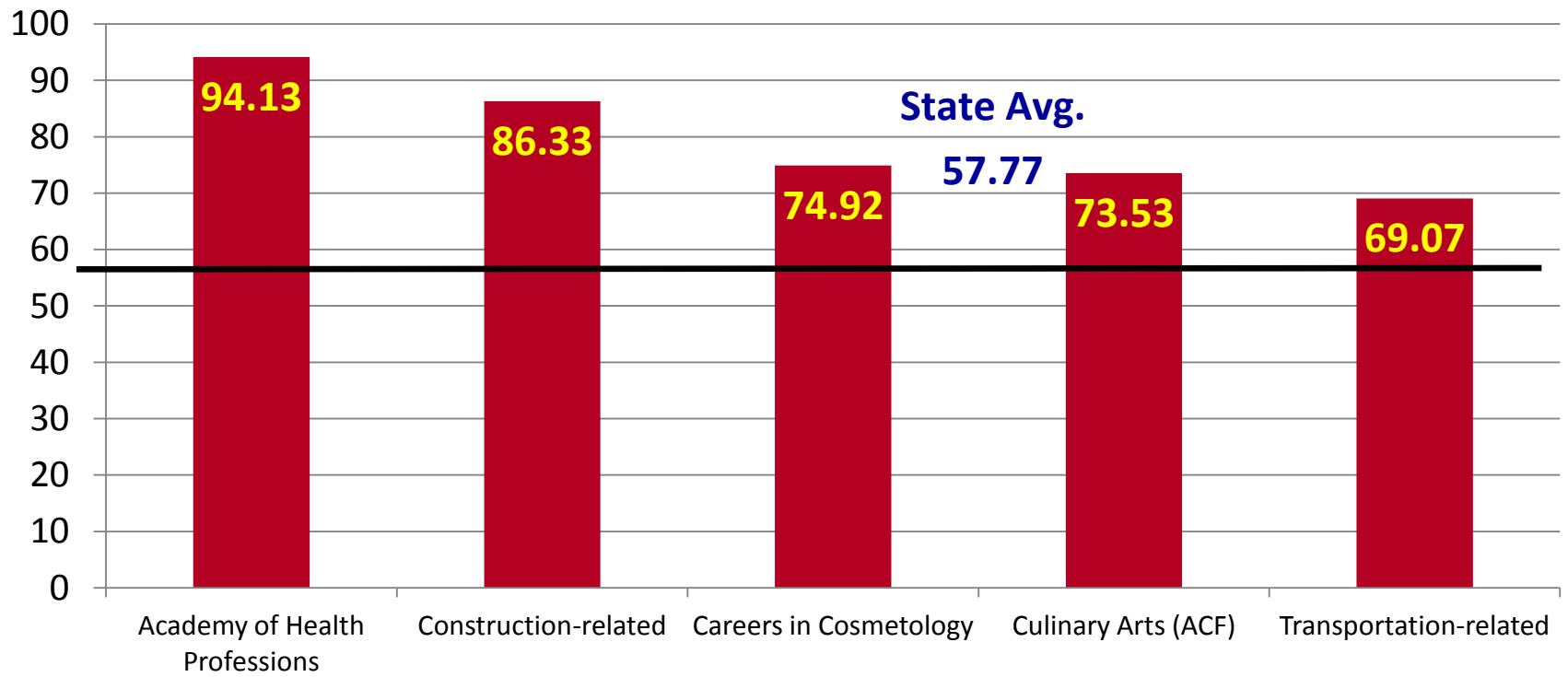- **2010:** 53,063 — 47.6% of All CTE Students

Getting Results:
CTE Graduation Rate

**Comparison of 2010 Graduation Rates
Grade 10-12 for All Students vs. CTE Students**

	All Students Grade 10-12	All CTE Concentrators Grade 10-12
	91.34	99.15
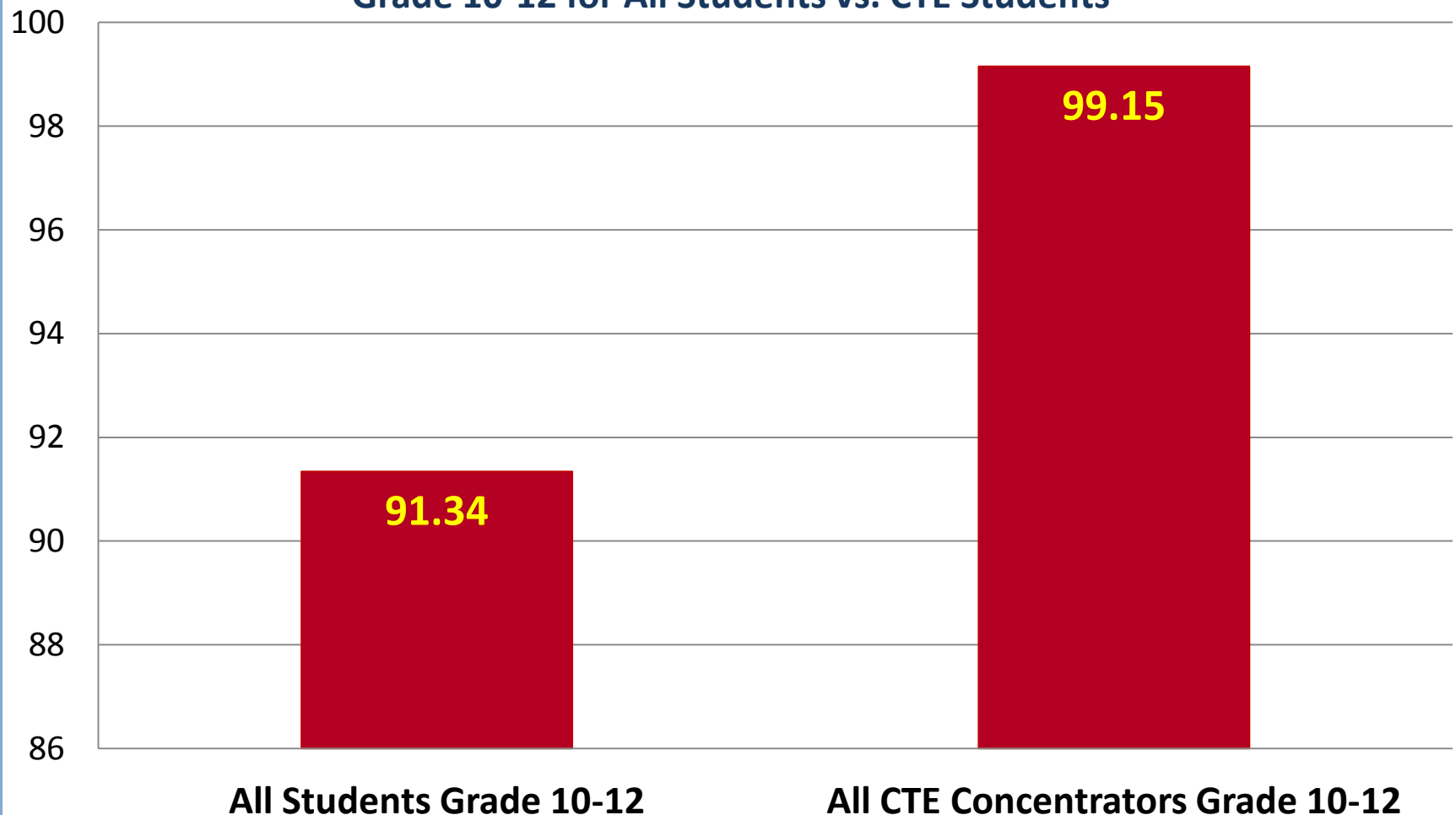
CTE Results: Advanced Technical Skills

Percent of Students Earning Industry Certification (12th grade status)

State Avg. 57.77

Category	Percent
Academy of Health Professions	94.13
Construction-related	86.33
Careers in Cosmetology	74.92
Culinary Arts (ACF)	73.53
Transportation-related	69.07

CTE Recognized in Valued Measures

- State Stat and *Managing For Results*
  - *Participation and performance of all high school student subgroups in challenging instructional programs --* Dual Completion (CTE/USM)

- Education Week – *Quality Counts - # 1 in Public Education Four Years in a Row!*
  - *#1 in* **Transitions & Alignment***, aligning preK-12 standards with early learning & college and career expectations. Score/Grade: 96.4%/A*

- Workforce and Economic Development– *Skills2Compete*
  - *Increasing the number and percent of CTE students earning industry certification related to their technical program of study*

Getting Results

- Organizing into cluster teams and evaluating staff using a matrix-management approach

- Developing partnerships with representatives from secondary, postsecondary and industry for program improvement

- Identifying "affiliates" to support curriculum and professional development for CTE teachers

Getting Results

- Aligning state and federal resources to support implementation of CTE state programs of study
- Using performance data for continuous improvement
- Disseminating policies and procedures for CTE programs

- Appointing a state CTE program review panel representing state agencies, secondary and postsecondary educators

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Maryland State Department of Education
www.marylandpublicschools.org

CTE Programs of Study – "Blue" Book

http://www.msde.maryland.gov/NR/rdonlyres/FCB60C1D-6CC2-4270-BDAA-153D67247324/28306/CTEBook2011PDFVersion.pdf