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# So What Exactly Does “College and Career Ready” Mean?

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Michigan Career Education Conference  
January 31, 2011

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# John L. Williams, Consultant

## Ed-Connect, Inc.

- Taught English/Psychology
  - Assistant Principal/Athletic Director
  - Principal, Chelsea HS (12 years)
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# Not your Grandparents “3R’s”

- **Rigor** : All students need the chance to succeed at challenging classes.
- **Relationships** : All students need adult mentors who know them, look out for them.
- **Relevance** : Courses and projects must spark student interest and relate clearly to their lives in today’s changing world

Schools must choose “All of the Above”!

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# NGA Honor States Program Objectives

- Decrease 9<sup>th</sup> grade retention
- Decrease overall dropout rates
- Increase high school graduation rates
- Increase student rigorous course selection
- Increase AP test-taking rates
- Increase preparedness for post-secondary
- Increase college-going rates
- Increase college graduation rates

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# Defining College Readiness #1

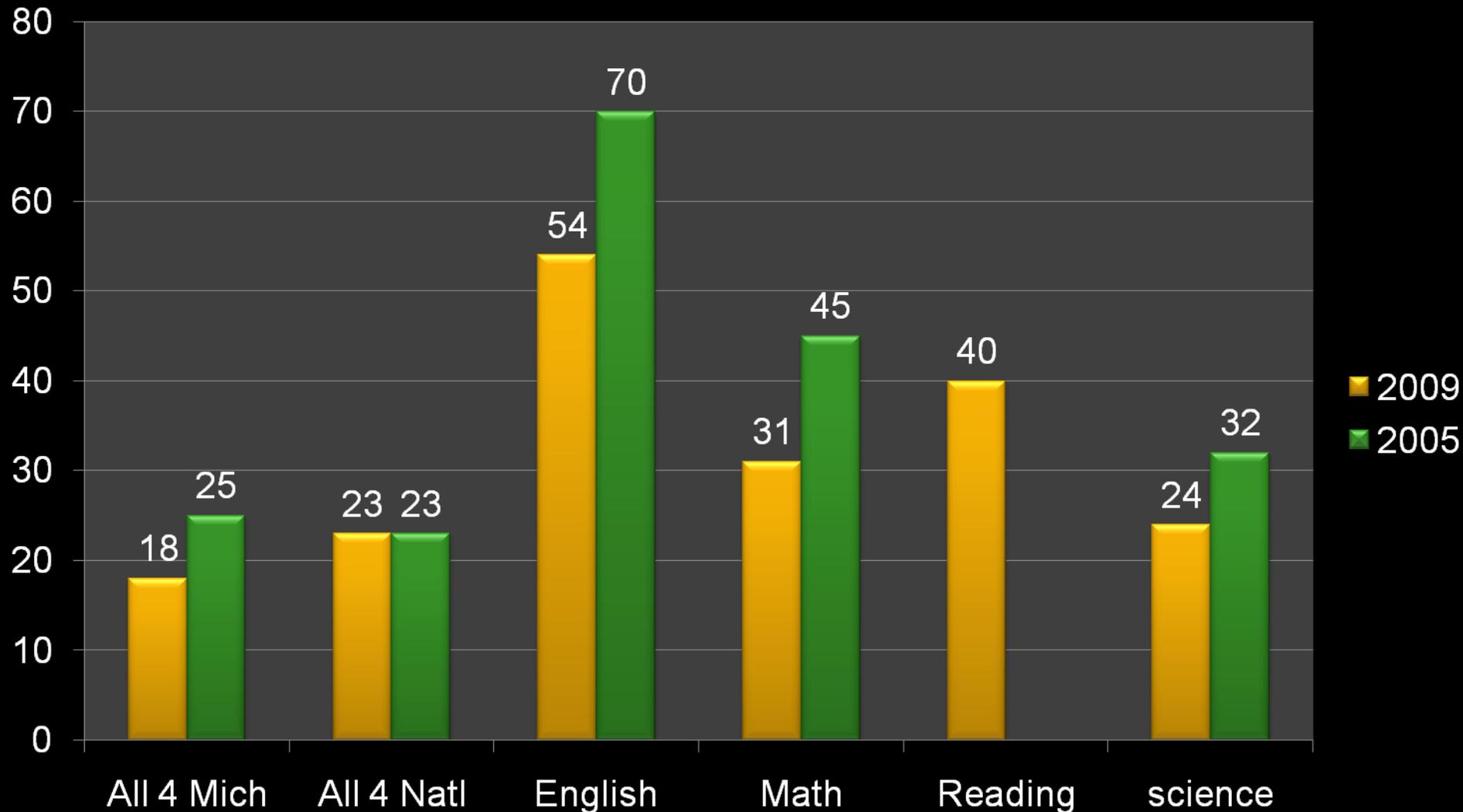
- Jay Greene – Manhattan Institute (2003)
    - Minimum qualifications for least selective college
      - HS diploma
      - Basic reading skills
      - Least burdensome courses
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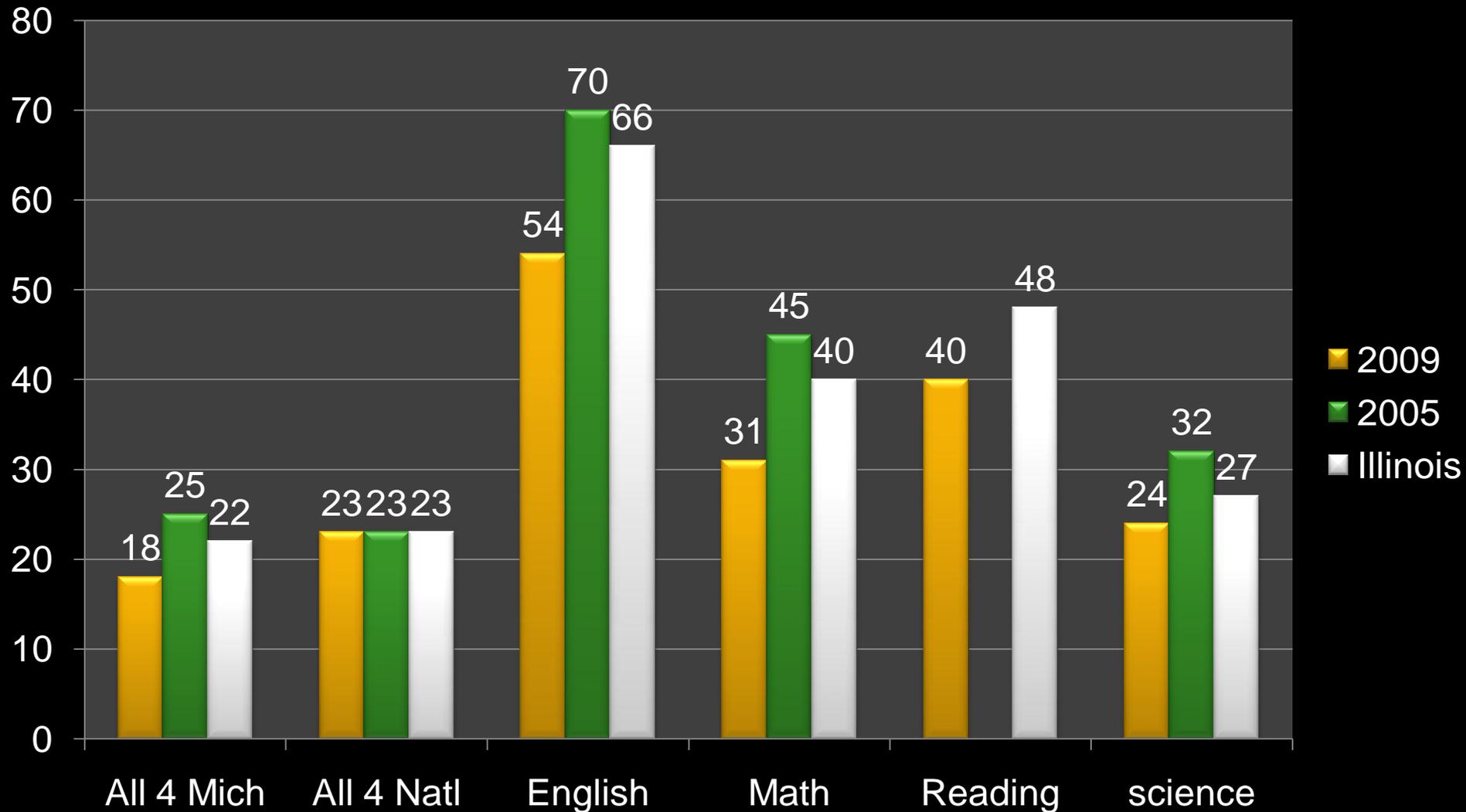
# Defining College Readiness #2

- ACT Assessment Benchmarks
    - Linking college performance to student test scores
    - Surveying instructors on student expectations
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# Michigan ACT-Tested Graduates Likely to be Ready for College-level Work (in percent)



# Michigan ACT-Tested Graduates Likely to be Ready for College-level Work (in percent)



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# U.S. Has High College Remedial Rate

- 46% of recent HS grads take at least one “developmental” class at 4 yr universities.
  - 64% of recent HS grads take at least one “developmental” class at 2 yr colleges.
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# Basic Skills: Pipeline or Pipedream

- 76 of all collegiates offer at least one
- 98 % of community colleges
- Up to 80% of first-time community college students take at least one
- Remedial-Basic Skills-Developmental-Pre-Collegiate
- Pedagogy: If students don't understand it, say it louder, say it slower!

Rose Asera

Carnegie Foundation

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# Standards-Based School Reform . .

- . . . Ignores the fact that many students are simply not engaged sufficiently by academic study. If allowed to remain unmotivated and disengaged, these students risk failing in high school or dropping out, thus short-circuiting their chances for future success.

Mary Visher

Phi Delta Kappan



**“High school is like a  
pumpkin...**

**it just rots away after  
Halloween!”**

**-- Maine high school student**

# Student Dis-Engagement

- The Journal of School Health documents that 40% – 60% of all students are chronically disengaged from schools.
- The 2006 National Academy of Science report found that many high schools fail to provide a healthy social environment or one conducive to learning, and that studies should be more relevant to student's lives to motivate them to learn.

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# Defining College Readiness #3

- Determine College Expectations (David Conley – Univ. of Oregon)
    - Habits of Mind
      - Critical thinking, reasoning, problem-solving
    - Key Content Knowledge
      - Essential knowledge in core subjects
    - Academic Behaviors
      - Reading comprehension, time management, note-taking
    - Contextual Skills
      - Admissions, placement testing, finances, academic norms
-

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**Reading, math and science are the foundations of student achievement. But to compete and win in the global economy, today's students and tomorrow's leaders need another set of knowledge and skills. These 21st century skills include the development of global awareness and the ability to collaborate and communicate and analyze and address problems. And they need to rely on critical thinking and problem solving to create innovative solutions to the issues facing our world. Every child should have the opportunity to acquire and master these skills and our schools play a vital role in making this happen.”**

MICHAEL DELL, CEO, Dell, Inc.

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# AMA Employer Survey - 2010

*Has your organization measured these skills and competencies during annual performance reviews?*

<b><i>Skill</i></b>	<b><i>Agree/Strongly Agree</i></b>
Critical thinking	72.4%
Communication skills	80.4%
Collaboration/teambuilding	71.2%
Creativity and innovation	57.3%

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# AMA Employer Survey - 2010

*How do you believe your organization will view these skills and competencies in the next 3-5 years?*

<i>They will become less important</i>	0.6%
They will remain the same	22.5%
They will become more important	75.7%
No opinion	1.1%

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# AMA Employer Survey - 2010

*Please rate the following education systems for their abilities to prepare students in the 4Cs to ensure those entering the workforce are proficient in these areas:*

## **Above Average/Excellent**

K-12	10.9%
Trade schools	13.7 %
Two-year colleges	18.7%
Four-year colleges	48.9%

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# What Does the Future Hold?

***“The future ain’t what it used to be.”***

***Yogi Berra***

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# What Motivates The “Net” Generation?

- Accustomed to instant gratification and “always-on” connection
  - Use the web for 1) extending friendships, 2) interest-driven, self-directed learning, and 3) as a tool for self-expression
  - Constantly connected, creating, and multitasking in a multimedia world—everywhere except in school
  - Less fear and respect for authority—accustomed to learning from peers; want coaching, but only from adults who don’t “talk down” to them
  - Want to make a difference and do interesting/worthwhile work
-

# Meeting The New Education Challenges: From Education 2.0 to Education 3.0

- *From narrow focus on “Timeless Learning” (academic content that has stood the test of time):*
  - Rigor is content mastery (getting more right answers)
  - Studying existing content by disciplines
  - Learners working alone & in competition
  - Motivated mainly by extrinsic rewards (grades)
  - Taught by isolated content experts through memorization/recall
  - Assessed mainly by multiple choice, computer scored tests
  
- *To mastering the **competencies** of “Just-in-Time Learning”*
  - Rigor is figuring out the right question/problem to be solved
  - Exploring new questions/problems within & across disciplines
  - Learners working in teams
  - Motivated more by intrinsic rewards (pride in mastery, contributing)
  - Taught by teamed coaches through exploration & discovery
  - Assessed through auditing strategies, portfolios, & exhibitions of mastery (merit badges)

# What is The “Global Achievement Gap”?

The Global Achievement Gap is the gap between what even our *best* schools are teaching and testing

Versus

The skills *all* students will need for careers, college, and citizenship in the 21<sup>st</sup> century

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# The Seven Survival Skills for Careers, College, And Citizenship

1. Critical Thinking and Problem-Solving
2. Collaboration Across Networks and Leading by Influence
3. Agility and Adaptability
4. Initiative and Entrepreneurialism
5. Effective Oral and Written Communication
6. Accessing and Analyzing Information
7. Curiosity and Imagination

from *The Global Achievement Gap: Why Even Our Best Schools Don't Teach The New Survival Skills Our Children Need—And What We Can Do About It*, by Tony Wagner (Basic Books, 2008)

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# What Oakland County Employers Want

- Reading comprehension
  - Critical thinking
  - Active learning
  - Problem sensitivity
  - Active listening
  - English language
  - Attention to detail
  - Dependability
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# Key Competencies

- 1 Action Oriented
- 2 *Dealing with Ambiguity*
- 3 Approachability
- 4 Boss Relationships
- 5 Business Acumen
- 6 Career Ambition
- 7 Caring about Direct Reports
- 8 Comfort around Higher Management
- 9 Command Skills
- 10 Compassion
- 11 Composure
- 12 Conflict Management
- 13 Confronting Direct Reports
- 14 Creativity
- 15 Customer Focus
- 16 ***Timely Decision Making***
- 17 Decision Quality
- 18 Delegation
- 19 Developing Direct Reports and Others
- 20 Directing Others
- 21 *Managing Diversity*
- 22 Ethics and Values
- 23 Fairness to Direct Reports
- 24 Functional/Technical Skills
- 25 Hiring and Staffing

- 26 Humor
- 27 Informing
- 28 Innovation Management
- 29 Integrity and Trust
- 30 Intellectual Horsepower
- 31 Interpersonal Savvy
- 32 Learning on the Fly
- 33 Listening
- 34 **Managerial Courage**
- 35 Managing and Measuring Work
- 36 Motivating Others
- 37 Negotiating
- 38 Organizational Agility
- 39 Organizing
- 40 *Dealing with Paradox*
- 41 Patience
- 42 Peer Relationships
- 43 **Perseverance**
- 44 Personal Disclosure
- 45 Personal Learning
- 46 Perspective
- 47 Planning
- 48 Political Savvy
- 49 Presentation Skills

- 50 Priority Setting
- 51 Problem Solving
- 52 Process Management
- 53 ***Drive for Results***
- 54 Self-Development
- 55 Self-Knowledge
- 56 Sizing Up People
- 57 **Standing Alone**
- 58 Strategic Agility
- 59 *Managing through Systems*
- 60 *Building Effective Teams*
- 61 Technical Learning
- 62 Time Management
- 63 Total Work Systems
- 64 Understanding Others
- 65 *Managing Vision and Purpose*
- 66 Work/Life Balance
- 67 Written Communication

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# Engaging students

“Research has shown that when students are given the latitude to pursue topics that interest them by doing what real scientists, special-interest groups, or business people do to solve problems, they go far beyond the minimum effort ... They also retain what they have learned, are able to apply their learning to real-world problems, are absent less often and have fewer discipline problems. In short, students get excited about learning.”

Educational Leadership/September 2002

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# Pillars of Ford PAS

## **Learning Pillars**

- Flexibility in applying academic knowledge and skills
- Critical thinking
- Problem-solving
- Teamwork
- Communication
- Creativity and innovation
- Global awareness

## **Teaching Pillars**

- Academically rigorous and career-relevant
  - Inquiry-based
  - Project-based
  - Real-world
  - Performance-based
  - Technology rich
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# Ford PAS Curriculum Themes

- Foundations in 21<sup>st</sup> Century Skills
  - Working Toward Sustainability
  - Getting Smart About Business
  - Manufacturing for Tomorrow
  - Data, Decisions, and Design
  - Living in a Global Economy
  - Putting Math to Work
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# Theme: Working Toward Sustainability

## Module Titles

- We All Run on Energy
  - Energy from the Sun: Biomass
  - Is Hydrogen a Solution?
  - The Nuclear Revolution
  - Closing the Environmental Loop
  - Energy for the Future
-

**600 + Ford PAS Sites**  
**27 States**

**14 Next Generation Learning Communities (NGLCs) ●**

Mountain Home, AR  
Bakersfield, CA  
Coachella Valley, CA  
Sacramento City, CA  
Stanislaus County, CA  
Pensacola, FL  
Lee County, FL  
Volusia County, FL  
St. John's County, FL  
Floyd County, GA  
Long Island, NY  
Putnam Westchester County, NY  
Philadelphia, PA  
Hamilton County (Chattanooga), TN

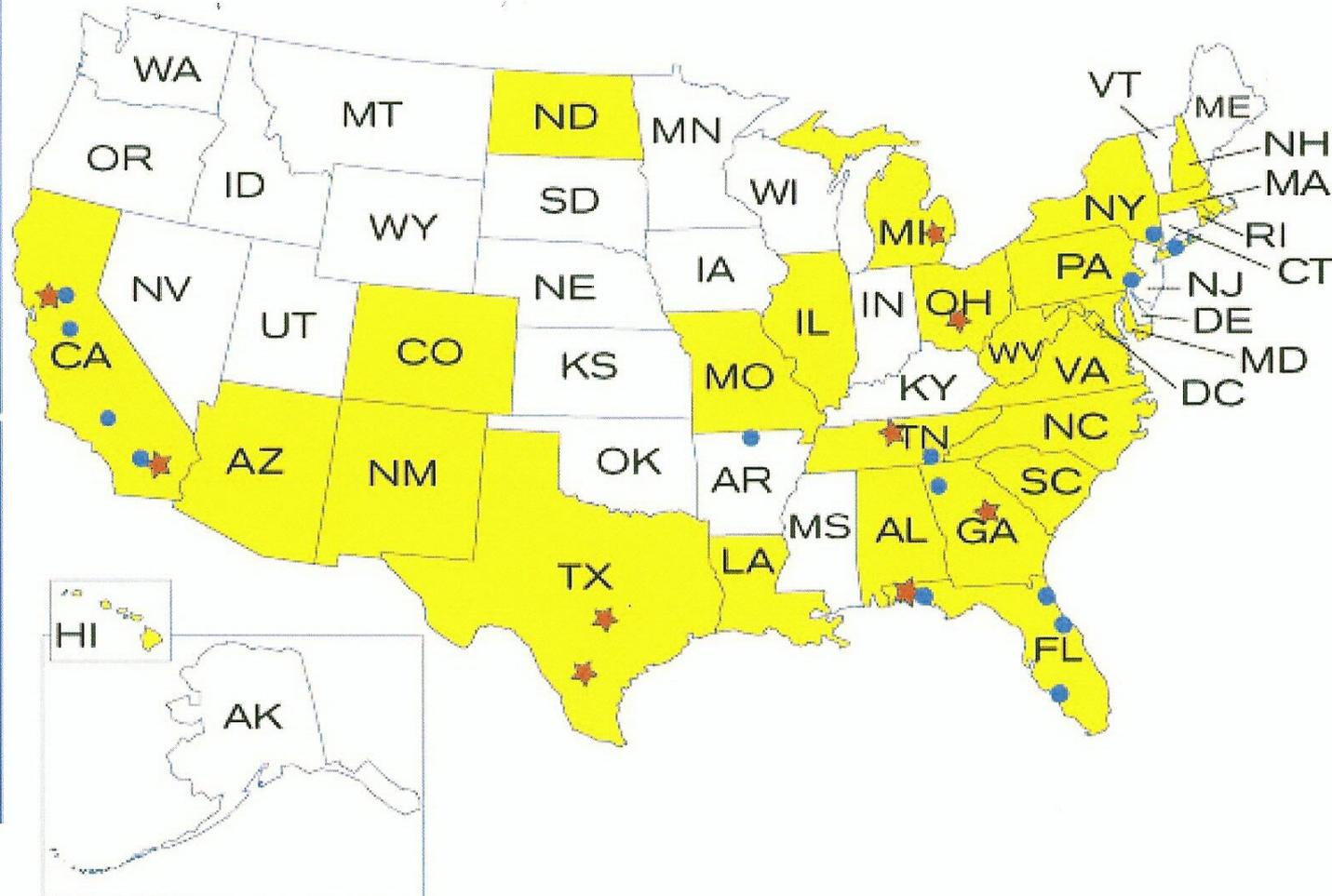
**Ford PAS Regional Collaboratives ★**

Elk Grove, CA  
Coachella Valley, CA  
Georgia  
Nashville, TN  
Ohio  
Pensacola, FL  
South Texas  
San Antonio, TX  
Dearborn, MI

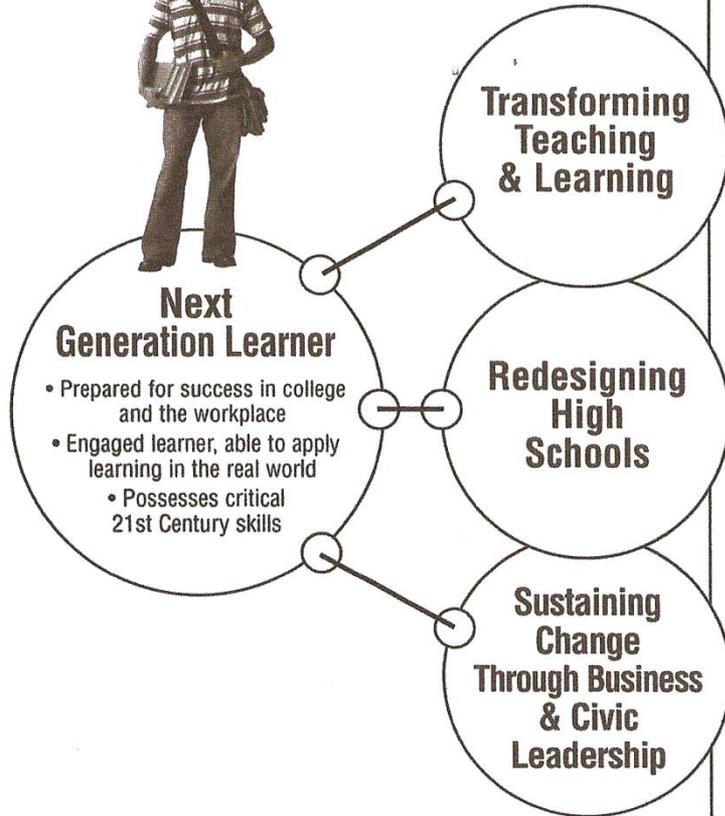


**FORD PARTNERSHIP  
FOR ADVANCED STUDIES**

*Next Generation Learning* 



# Ford PAS Next Generation Learning



## Transforming Teaching & Learning

### Key Attributes

Teaching that is characterized by the Ford PAS Teaching Pillars:

- Academically rigorous and career-relevant
- Inquiry-based
- Project-based
- Real-world
- Performance-based
- Technology-rich

Learning that embodies the Ford PAS Learning Pillars:

- Flexibility in applying academic knowledge and skills
- Problem-solving
- Critical thinking
- Teamwork
- Communication
- Creativity and innovation
- Global awareness

## Redesigning High Schools

### Key Attributes

- Students have choices among high-quality career academies and similar career- and interest-themed programs
- School staff form a learning community committed to transforming their practice
- School leaders have flexible use of resources to support redesign
- Adults and students are accountable for results
- District supports and sets expectations for school redesign

## Sustaining Change Through Business & Civic Leadership

### Key Attributes

- Business, civic, and education leaders create a master plan for education transformation
- Business and civic leaders support and sustain the master plan
- Employers are actively engaged in guiding and supporting career academies and similar career- and interest-themed programs
- Career- and interest-themed programs address skilled workforce priorities
- The broader community is aware and engaged
- Stakeholders are mutually accountable for implementation of the master plan

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# An Effective Program By Any Name

- Pathways
- Institutes
- Academies
- Houses
- Majors
- Small Learning Community

## **Career Academy:**

“.. A multi-year program in which the curriculum integrates academic and CTE courses, organized around one or more broad career themes.”

National Center for  
Education Statistics

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# High School Career Academies

- A small learning community, comprising a group of students within the larger school who take classes together for at least two years taught by a team of teachers from different disciplines.
- A college curriculum with a career theme, enabling students to see relationships among academic subjects and their application to a broad field of work
- Partnerships with employers, the community, and local colleges, bringing resources from outside the high school to improve student motivation and achievement.

Career Academy Support Network

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Career Academy Support Network

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# Academies – A Broad Continuum of Delivery



Program of  
Study

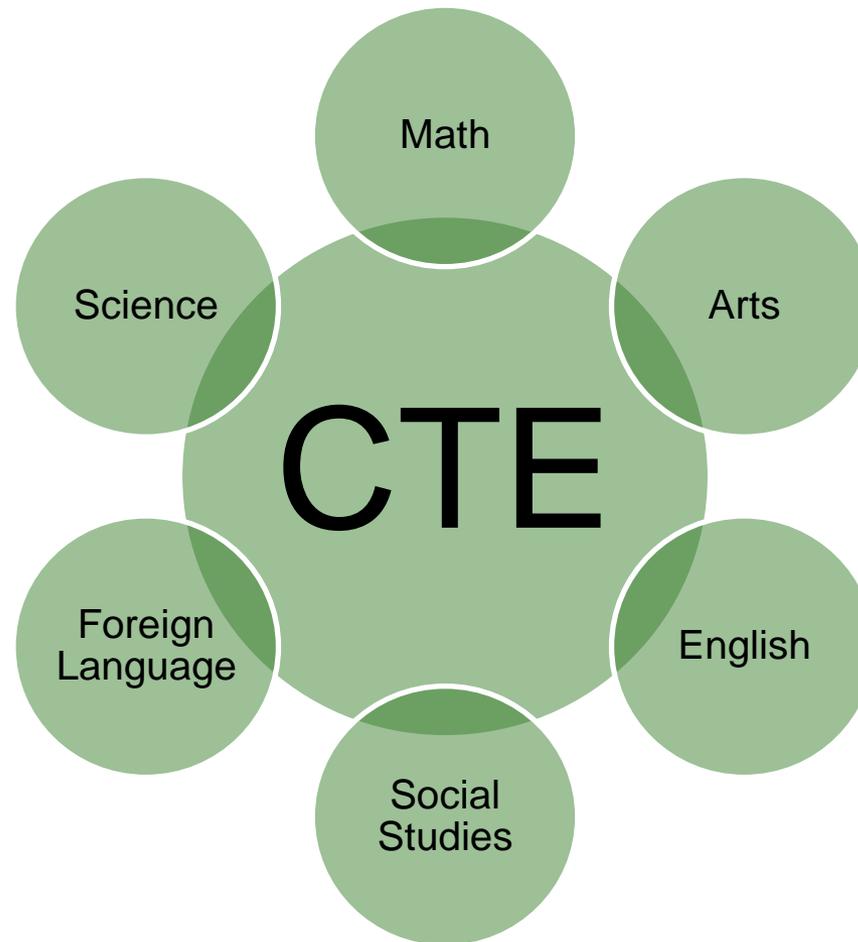
Pathways

Multidisciplinary  
Integrated  
Academy

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# Multidisciplinary Integrated Curriculum



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# Sample Academy Programs

- Lake Travis High School – Austin, Tx.
    - Institutes of Study
    - Open, non-cohort, recommended
  - Elk Grove Unified Schools – California
    - Pathways and Academies
    - 4 year cohorts, fully integrated curriculum
  - Traverse Bay ISD Career Tech Center
    - Manufacturing Technology Academy
    - 2 year, half day, integrated curriculum
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# Evidence that Career Development works:

A recent study conducted for the James Irvine Foundation in California reveals that “...more than 90% of 9<sup>th</sup> and 10<sup>th</sup> graders believe that tying classes to their future and real-world careers would inspire them to work harder and do well in school.”

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## Student Engagement – Motivating Students to Learn

"Students are most likely to be engaged in learning when they are active and given some choice and control over the learning process-and when the curriculum is individualized, authentic, and related to student's interest...

Research shows that engaged students experience greater satisfaction with school experiences, which may in turn lead to greater school completion and student attendance rates, as well as lower incidences of acting-out behaviors.

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Humans are driven to engage in authentic, personally meaningful, and relevant work.

Instruction should be tied to topics and problems that naturally interest students-...and illustrate the connection between the curriculum and the real world.

Teachers should underscore the relevance of classroom instruction to student's personal lives and future aspirations."

**Heather Voke, "Motivating Students to Learn," ASCD Infobrief, Issue 28, February 2002, p. 1.**

# Students Who Participate in Career- Themed Courses Are More Likely To:

- Take college-entrance and Advanced Placement exams
- Graduate from High School
- Attend college

Schools need to engage, inspire and advance students with every kind of interest and ability, including those not highly motivated by academic study.

Mary Visher

Kappan, Oct. '04

# The Value of Career Prep

- “High school graduates with some career prep/applied learning experiences in school, ranging from community service to internships, **attained higher grade-point averages in their freshman year** in college than students with no career experience in school.”

Anne Lewis

Kappan, 2004

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# We Must Fuse the 3 R's with the 4 C's

## The 4 “C”s:

- Critical thinking and problem solving
- Communication
- Collaboration
- Creativity and innovation

As the 3 “R”s serve as an umbrella for other subjects, the 4 “C”s do for other skills. The 3 “R”s and the 4 “C”s must be taught together.

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## Why Are We Here?

**Traditional:** “To help students complete high school.”

**Transformation:** “To help students be successful at their next level.”



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  - **Career Technical Preparation**
    - **Career Development**
      - **Career Pathways**
    - **Economic Development**
    - **The Millennial Challenge**
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