Welcome!

Thank you for joining us! We are waiting for all attendees to log in.

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Please use the Q&A to post questions to the speakers. The second half of the event has been reserved for Q&A.

Association for Career and Technical Education
ACTE

NRC CTE
National Research Center for Career and Technical Education
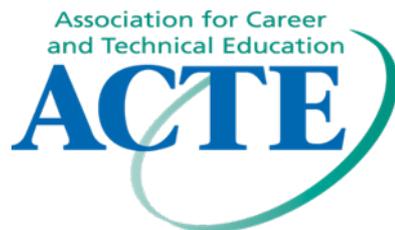
Aligning Secondary and Postsecondary Education: Experiences from Career and Technical Education

Office of Vocational and Adult Education
March 26, 2012
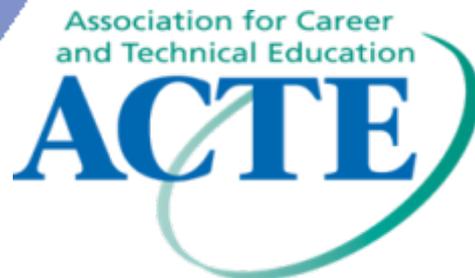
Welcome

Brenda Dann-Messier
Assistant Secretary
Office of Vocational and Adult Education
U.S. Department of Education

Jan Bray
Executive Director
Association for Career and Technical
Education (ACTE)

Association for Career
and Technical Education
ACTE
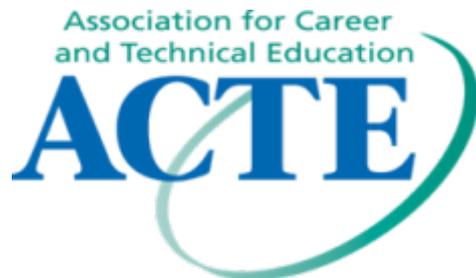
Workforce Outlook

- 90% of the fastest-growing jobs will require
    an education beyond high school
- By 2018, the U.S. will need 22 million new
    postsecondary degrees (Associate degree or
    higher) but will **fall short** by at least 3 million
- By 2018, the U.S. will need at least 4.7 million new workers with postsecondary certificates

source: Center on Education and the Workforce

Career Readiness

Three key components:

- Academic skills

- Employability skills

- Technical skills

Expanding Opportunities

1. Establish Postsecondary Preparation and Expectations for All
2. Develop Education Systems that Integrate All Levels
3. Develop Curriculum and Instructional Offerings that Link to Careers, Foster Lifelong Learning, and Encourage Completion
4. Ensure Portability and Transferability of Credits and Skills Attained
5. Enhance Student Advising and Academic and Life-Supports
6. Increase Financial Support for Low-income Students
7. Pilot Innovative Approaches to Funding

ACTE Postsecondary Papers

Agriculture, Food & Natural Resources
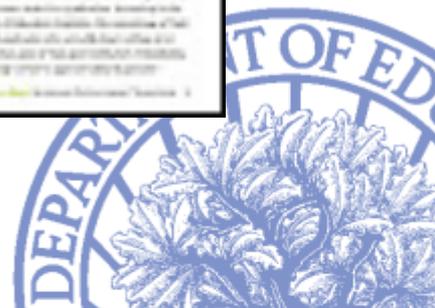
Agriculture, Food and Natural Resources: Agribusiness Systems
Career Pathway Plan of Study for ▶Learners ▶Parents ▶Counselors ▶Teachers/Faculty

*This Career Pathway Plan of Study (based on the Agribusiness Systems Pathway of the Agriculture, Food and Natural Resources Career Cluster) can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. *This Plan of Study, used for learners at an educational institution, should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements.*

EDUCATION LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies/ Sciences	Other Required Courses Other Electives Recommended Electives Learner Activities	*Career and Technical Courses and/or Degree Major Courses for Agribusiness Systems Pathway	SAMPLE Occupations Relating to This Pathway
		Interest Inventory Administered and Plan of Study Initiated for all Learners						**Occupations Requiring Postsecondary Education**
SECONDARY	9	English/ Language Arts I	Algebra I	Earth or Environmental Science	State History Civics	All plans of study should meet local and state high school graduation requirements and college entrance requirements. Supervised Agricultural Experience (SAE) and participation in appropriate FFA activities support and reinforce classroom and laboratory learning and should be a requirement for all students.	· Introduction to Agriculture, Food and Natural Resources	▶Agricultural Chemical Dealer
	10	English/ Language Arts II	Geometry	Biology	U.S. History		· Introduction to Agricultural Marketing, Business and Entrepreneurship · Accounting	▶Agricultural Products Buyer-Distributor ▶Bank/Loan Office ▶Dairy Herd Supervisor
	11	English/ Language Arts III	Algebra II or other math course	Chemistry or other science course	World History		· Agricultural Business Management	▶Entrepreneur ▶Farm Manager
		College Placement Assessments-Academic/Career Advisement Provided						▶Farmer-Rancher-Feedlot Operator
	12	English/ Language Arts IV	Statistics or other math course				· Agricultural Economics · Internship in Agribusiness	▶Feed-Supply Store Manager ▶Field Representatives for Bank, Insurance Company or Government Program
		Articulation/Dual Credit Transcripted-Postsecondary courses may be taken/moved to the secondary level for articulation/dual credit purposes.						▶Livestock Manager
POSTSECONDARY	Year 13	English Composition	Algebra	Chemistry	American Government	All plans of study need to meet learners' career goals with regard to required degrees, licenses, certifications or journey worker status. Certain local student organization activities may also be important to include.	· Introduction to Agribusiness · Principles of Agribusiness · Agricultural Economics	▶Sales Manager ▶Salesperson
	Year 14	Speech/ Oral Communication		Biological Science or Botany	American History Geography		· Agricultural Salesmanship · Agricultural Finance · Agricultural Advertising/Merchandising	**Occupations Requiring Baccalaureate Degree** ▶Agricultural Commodity Broker ▶Agricultural Economist
	Year 15	Technical Writing	Statistics		Psychology		· Continue Courses in the Area of Specialization	▶Agricultural Educator ▶Agricultural Lender ▶Banker/Loan Officer
	Year 16	*Continue courses in the area of specialization.*					· Complete Agribusiness Systems Major (4-Year Degree Program)	▶Farm Investment Manager ▶Produce Commission Manager

Programs of Study Framework

Career Clusters

Agriculture, Food & Natural Resources

Education & Training

Hospitality & Tourism

Manufacturing

Architecture & Construction

Finance

Human Services

Marketing

Arts, A/V Technology & Communications

Government & Public Administration

Information Technology

Science, Technology, Engineering & Mathematics

Business Management & Administration

Health Science

Law, Public Safety, Corrections & Security

Transportation, Distribution & Logistics

Secondary-Postsecondary Alignment: The Big Picture

Katherine Hughes
Community College Research Center
Teachers College, Colombia University
hughes@tc.edu

Our Misaligned System: Problems through the Pipeline

- Challenges to high school completion and attainment

- Challenges to transition from high school to college

- Challenges to persistence and success in college

Public HS Graduation Rates 2008
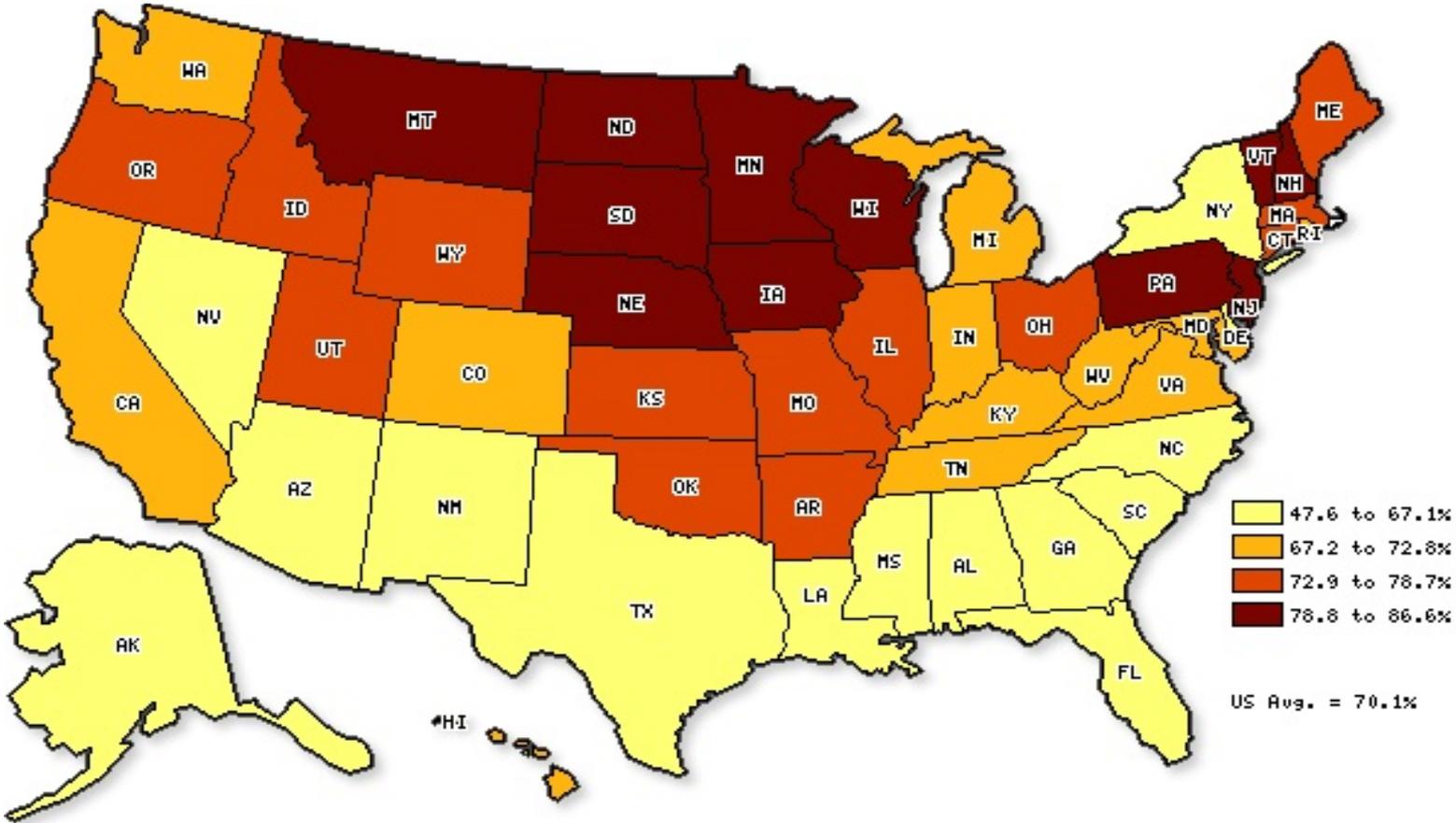
Legend:
- 47.6 to 67.1%
- 67.2 to 72.8%
- 72.9 to 78.7%
- 78.8 to 86.6%

US Avg. = 70.1%

Source: Tom Mortenson, Postsecondary Opportunity
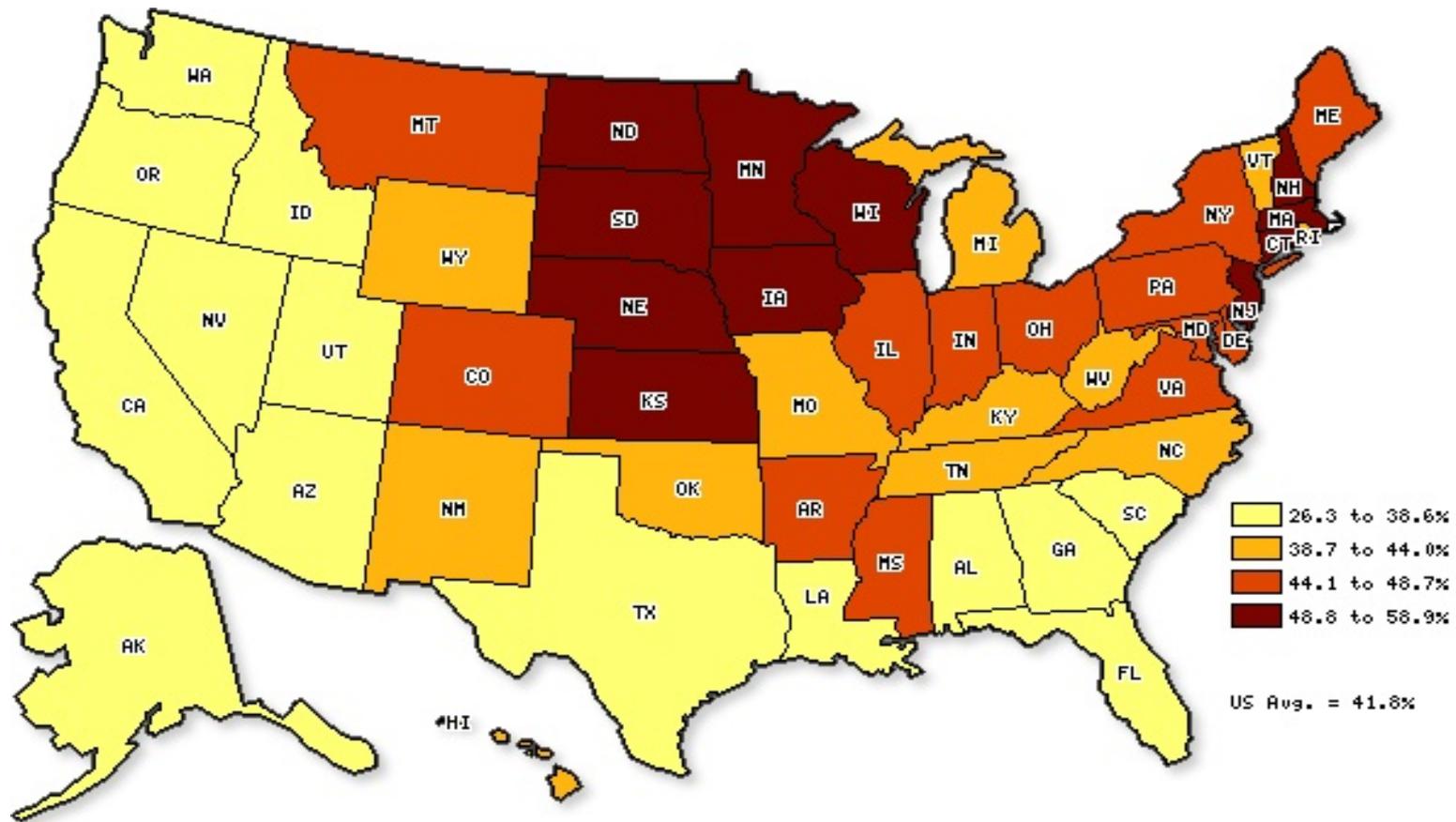
Source: Tom Mortenson, Postsecondary Opportunity

Percent of 18 to 24 Year Olds Enrolled in College (2007)

Legend:
- 18.5 to 31.9%
- 32.0 to 34.6%
- 34.7 to 37.8%
- 37.9 to 50.0%

US Avg. = 33.9%
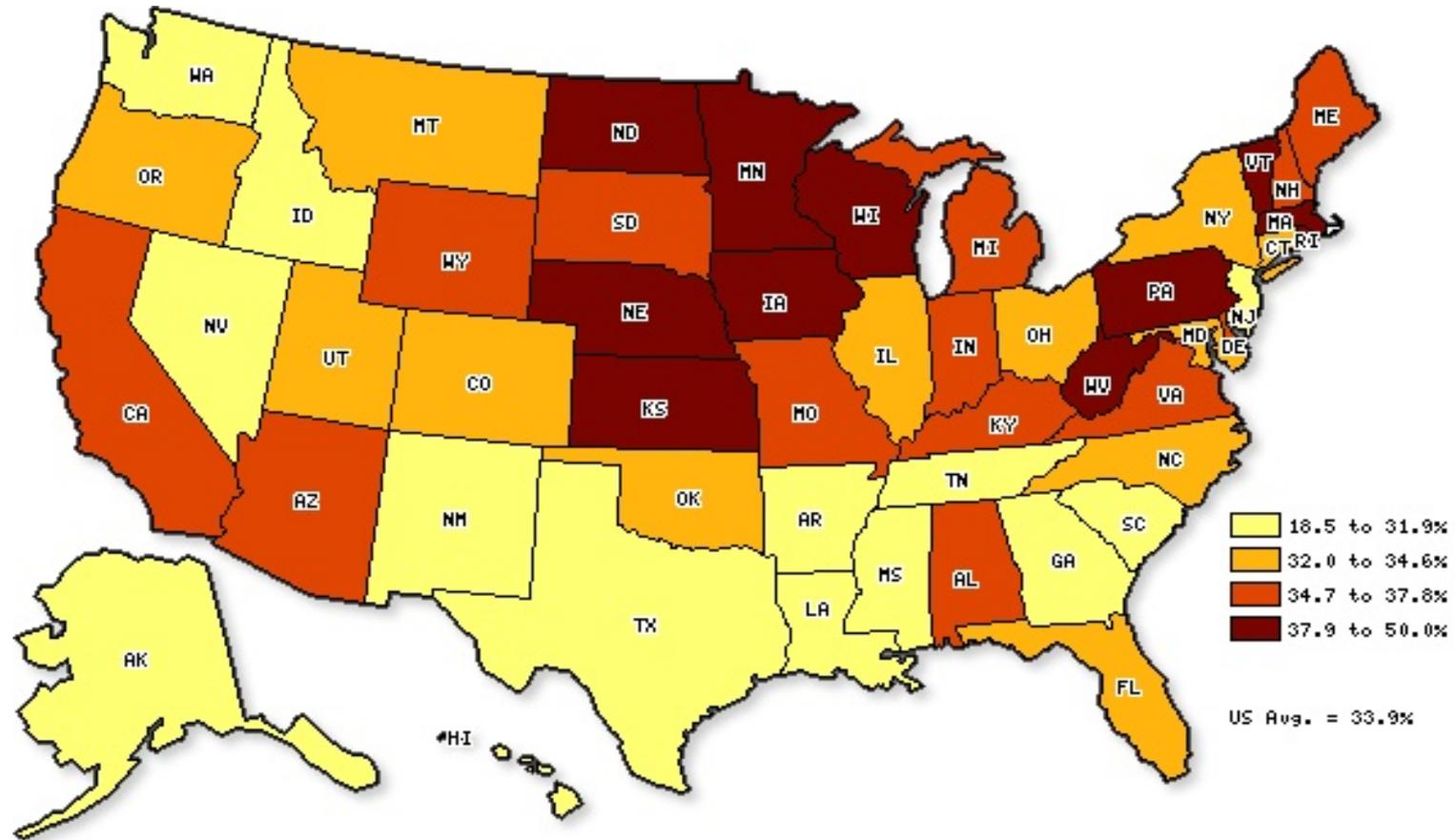
Source: NCES, IPEDS 2007 Fall Enrollment Survey; U.S. Census Bureau, 2007 Population Estimates
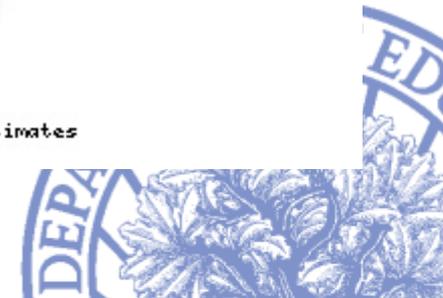
Three-Year Associate Degree Graduation Rates (2007)
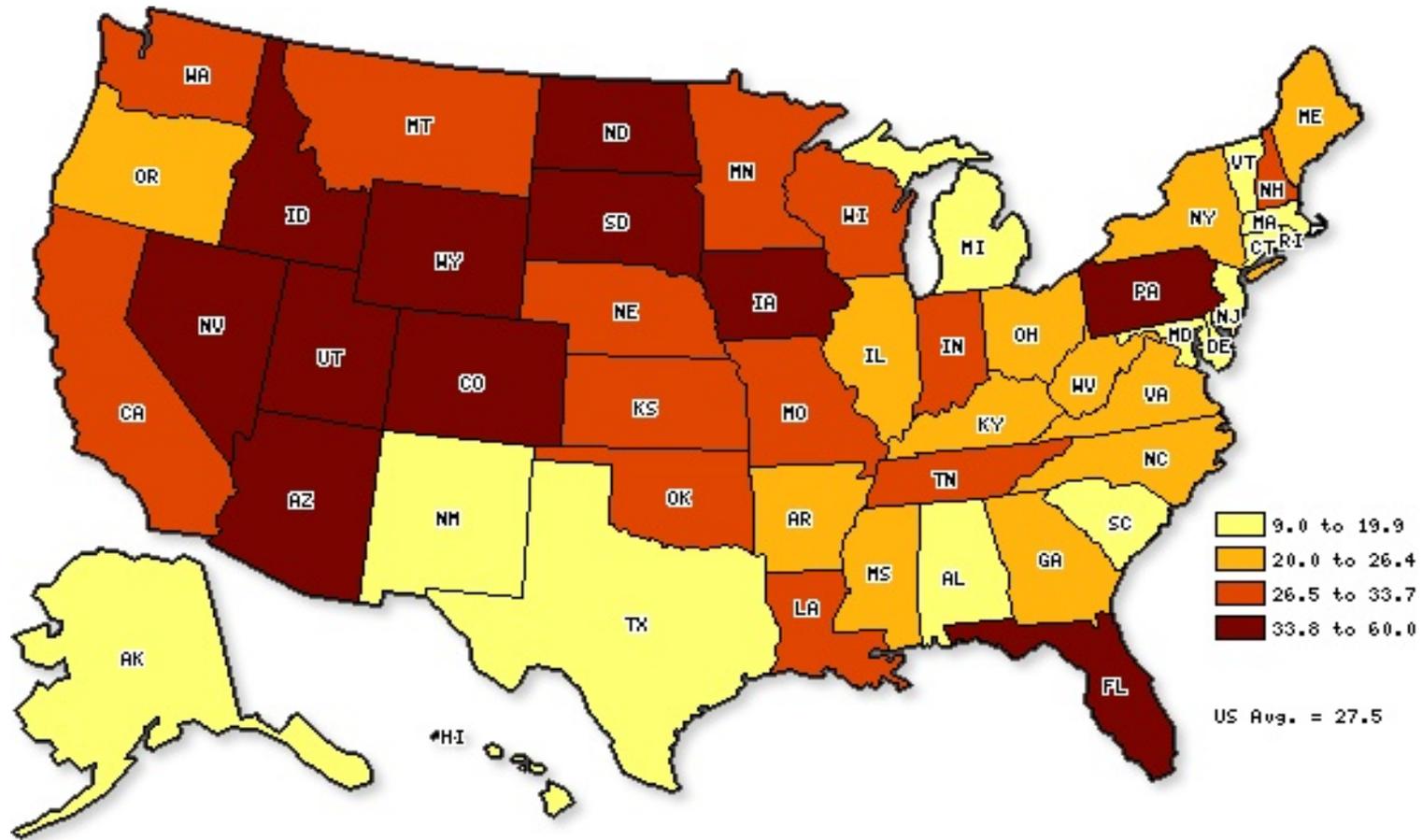
Source: NCES, IPEDS Graduation Rate Survey

Well-Known Challenges

- U.S. youth are not completing HS, entering college, persisting in college, and attaining credentials at rates we need them to

- One of the main problems is the lack of alignment of HS and college content and standards, which results in high numbers of new college students being placed into developmental education

- Students placed into developmental education are less likely to earn a college credential

- No shared understanding of what it means to be college-ready and career-ready

- Need systemic alignment with college- and career-readiness as the goal

- National, state, and local efforts at alignment hold some promise – particularly career-technical initiatives

Past:

⦿ Narrowly-focused efforts such as Tech Prep (targeted to particular students) and articulation (based on institutional agreements)

Present:

⦿ Strategies available to all students (Programs of Study, Linked Learning, Personal Pathways to Success) that include opportunities for dual enrollment

⦿ Dual enrollment offers high school students the opportunity to earn transcripted college credits

WHO'S ON THE LINE?

- ⊙ Secondary Schools

- ⊙ Postsecondary Institutions

- ⊙ Local Education Agencies

- ⊙ State Education Agencies

- ⊙ Federal Agencies

- ⊙ Other

State Policy Approaches

Jeremy Varner
Iowa Department of Education
Community College Division

Iowa State Policy Supporting Secondary-Postsecondary Alignment

Key strategies

- Dual enrollment policy and incentives

- Career academy policy and support

- Easing of district minimum standards

- Perkins allocations to support alignment

Dual/Concurrent Enrollment Goals

- Shorten students' time-to-degree

- Help students acclimate to the expectations of college-level work (particularly at-risk students)

- Reduce remediation and increase postsecondary participation and degree attainment rates

- Provide advanced learning opportunities and make the senior year more productive

- Enhance alignment between secondary and postsecondary offerings

- Save students and their families money

Dual/Concurrent Enrollment

Key policies:

- Adjustments to school aid funding formula (~$17.8 million)

- Senior Year Plus statute

- Career academy support

- Easing district minimum standards

- Perkins state plan requirements

Contact Information

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C OMMUNITY C OLLEGES
BUREAU OF ADULT, CAREER, &
COMMUNITY COLLEGE EDUCATION

More information

Senior Year Plus Guide and Additional

Program Guidance and Information & *Joint*

Enrollment Report 2010:

http://educateiowa.gov/

Postsecondary Strategies

Lauren Wintermeyer
Dual Enrollment Coordinator
Santa Barbara City College

Santa Barbara City College Dual Enrollment Program & Progression of Education Model

Session Overview

- What's in It for Me? Accountability Measures for Community Colleges

- SBCC Dual Enrollment Program

- Articulation vs. Dual Enrollment

- Relationships with Secondary Schools

- Outcome Data

- Progression of Education Model (PEM)

- Questions?

- Accountability Measures for Community Colleges

  - ⊙ English & Math Readiness

  - ⊙ Certificate/Degree Completion

  - ⊙ Transfer to Four-Year Institutions

  - ⊙ Career Preparedness (Transferable Job Skills)

  - ⊙ ARCC Data

- Planning

- Service

- Collaboration

SBCC Dual Enrollment Program

- College classes on-site at our local high school campuses, before school, during the day and after school, in addition to K-12 students taking classes on the main SBCC campus.

- For the purposes of this session, we will just be discussing Dual Enrollment classes taught at the high school campuses.

- Classes at high school sites are offered in 15 academic and 16 career technical disciplines, with more than 100 classes each semester (credit is awarded on an SBCC transcript that semester).

- Our enrollment is between 2,500 and 3,000 (non-duplicative headcount) per year (fall and spring)

SBCC Articulation vs. Dual Enrollment

	Student	HS Teacher	ROP	SBCC
Articulation	• Student receives a certificate after completing the articulated course. • Student brings the certificate if they are enrolling at SBCC and unit credit is awarded on their SBCC transcript (no grade is posted). • Delayed credit is awarded. • New: Statewide articulation is available. • No student fees.	• Student is enrolled for HS credit and teacher is responsible for notifying SBCC that articulation credit should be awarded. • Student names must be given to the SBCC Dual Enrollment Office for articulation certificate. • The teacher distributes the certificates of articulation to each student. • HS receives ADA.	• ADA funding is collected by ROP. • Agreement must be signed each year (ROP teacher, ROP Administration, SBCC Department).	• Prepares the Articulation Agreement on an annual basis and secures signatures. • Prepares certificates of articulation. • No funding for SBCC.
Dual Enrollment	• Student completes an SBCC application for enrollment at the start of the semester they are to receive credit. • No student fees (if CA resident). • Student is a HS student and an SBCC college student that same semester. • Immediate credit/grade is awarded on student's transcript. • Student does not need to leave the high school campus or go off-site to take a Dual Enrollment class. Note: HS students still come to the main SBCC campus to take classes before and after school.	• Student is enrolled for HS & SBCC credit and credit is awarded at the end of the semester. • Teacher is approved as an SBCC adjunct instructor. • Teacher receives a small SBCC stipend (for attending an annual meeting, teaching course content & submitting college grades). • Closer curriculum collaboration between the HS and SBCC. • Teacher is evaluated and receives feedback from SBCC corresponding department. • HS receives ADA (student must be enrolled in 240 minutes of high school instruction before receiving SBCC credit).	• ADA funding is collected by ROP (SBCC does not collect funding for Dual Enrollment/ROP classes, but credit is awarded). • Teacher is approved as an SBCC adjunct instructor. • Teacher receives a small SBCC stipend (for attending an annual meeting, teaching course content & submitting college grades). • Closer curriculum collaboration between the HS and SBCC. • Teacher is evaluated and receives feedback from SBCC corresponding department.	• Stronger collaboration and follow-up with each instructor, HS & SBCC. • Assures that course content is being covered (college textbook and adherence to SBCC course outline). • Annual curriculum meeting by department (instructor, HS administration, SBCC department chair, SBCC area dean & Dual Enrollment). • FTE Funding for SBCC.

Curriculum and Instruction

- Each instructor must meet the CCC Minimum Qualifications to teach (approved by SBCC Department Chair, SBCC EVP & SBCC Board).

- Each instructor must cover the SBCC approved course outline.

- Each class must meet/exceed the SBCC required instructional minutes.

- Each class must use an approved SBCC textbook (or Moodle Instruction).

- Students must meet any required pre-requisites or assessment standards.

- Each instructor is evaluated on the same schedule as all SBCC adjunct faculty by the SBCC department.

California Dual Enrollment Legislation

- Senate Bill 292

- Ed. Code, section 76300

- Senate Bill 338

High School Academies & Programs

Carpinteria High School	Dos Pueblos High School	Santa Barbara High School	San Marcos High School
Agriculture Science Technology Academy (ASTA)	Multimedia pathway	Multimedia Arts & Design (MAD) Academy	Environmental Horticulture Program
Culinary Arts Institute (CAI)	Engineering Academy	Visual Arts & Design Academy (VADA)	Health Careers Academy
Multimedia pathway	Charger Academy (cohort model)	Green/STEM Academy	Automotive pathway
Construction Program	International Baccalaureate Program	In development: Culinary Arts & Sports Medicine	In development: International Business Academy
CHS Regional Occupation Program	DPHS Regional Occupation Program	SBHS Regional Occupation Program	SMHS Regional Occupation Program

Outcome Data

- Former dual enrollment students* who matriculate to SBCC:

  - Are more likely to enroll full-time in college (67% compared to 54%)

  - Require less remediation and placed at the college transfer level course at a higher rate than their direct entry peers (Math: 26.4% compared to 18%; Reading: 25.9% compared to 9.9%; Writing: 34.8% compared to 14.6%)

  - Earn a higher average cumulative GPA (after three academic years, 2.47 vs. 2.02)

  - Earn more transferable college units (after three years, 43 vs. 29)

  - *Note: Sample was comprised of 764 first-time college students who graduated from a local service area high school in spring 2008 and matriculated to SBCC in fall 2008

Progression of Education Model (PEM)

- Get Focused...Stay Focused

- Initiative Goals for High School Graduates:

  - College and Career Ready

  - Informed, declared Major

  - College or post-secondary path

  - 10-year Career & Education Plan

PEM Outcomes

- Exploration of three+ career pathways of interest

- Financial Literacy

- Creation of online 10 year Career and Education Plan

- Career Technical Education link (students learn about pathways at high school and SBCC)

- Post-secondary planning information (choosing a college/institution, major, building a course schedule)

- Opportunity to participate in Dual Enrollment

PEM is Aligned With:

- K-12 Common Core Standards

- SBCC Express to Success and Express to Transfer Programs

- CTE Initiative

- President Obama's challenge: "America cannot lead in the 21st century unless we have the best educated, most competitive workforce in the world." President Barack Obama, Remarks on Higher Education, April 24, 2009

Current Collaboration & Status of Implementation

- Dual Enrollment Freshman Transition Course is in place at all four local comprehensive high schools and La Cuesta Continuation High School. Currently all 9th graders at CHS, SBHS and SMHS take the course.

- High school teachers, counselors, and administrators are partnering with SBCC to develop and implement follow-up curriculum in grades 10, 11, and 12

- Follow-up curriculum provides a "touch-point" for students to continue college and career readiness skills and update their 10 year plans

- Curriculum is tied to Common Core English and College and Career Readiness Standards

Benefits to all Stakeholders

- Post-Secondary Institution:

  - College/career informed students

  - Reduced need for remediation

  - Students entering with an informed, declared major

  - Students on track to degree/certificate completion and/or transfer

- Secondary school:

  - Change in school climate/culture

  - Reduced dropout/suspension rates

  - Higher student engagement, informed students help chart their own course

  - School-wide access to students' 10-Year-Plans

Benefits to all Stakeholders

- Students:
  - Student-centered/whole person approach
  - Self-identified goals which lead to informed choices and higher student engagement
  - Aims to address achievement gap by providing ALL students equal access to information and post-secondary options
- Parents:
  - Engaged children
  - Free/reduced cost for college courses
  - Demystifying the college-going process
- Community:
  - Partnerships with schools
  - Students prepared for the workforce, contributing members of society

Dual Enrollment Information Resources

Santa Barbara City College
www.sbcc.edu/dualenrollment

Community College Research Center (CCRC)
Education & Career Transition
Teachers College, Columbia University
http://ccrc.tc.columbia.edu

James Irvine Foundation
'Dual Enrollment' Opportunities in California
http://www.irvine.org/publications/new-publications

National Alliance of Concurrent Enrollment Partnerships
http://nacep.org/

Contact Information

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Rashid Davis
Principal
Pathways in Technology Early College High School
Brooklyn, NY

Pathways in Technology Early College High School (P-TECH)

STEM Pathways to College & Careers

- U.S. demand for IT workers far outpacing supply, with steady decline in American students receiving degrees in STEM-related subjects

- Pathways to Prosperity (Harvard): U.S. must broaden the range of high-quality pathways offered to young adults, with far more emphasis on career counseling, career education, apprenticeship programs and community colleges as viable routes to well-paying jobs
  - o Only 30 percent of young adults successfully attain a bachelor's degree
  - o U.S. is expected to create 47 million jobs in the 10-year period ending in 2018, only a third of these jobs will require a bachelor's or higher degree
  - o Almost as many jobs - some 60% - will only require an associate's degree or a post-secondary occupational credential. These are "middle-skill jobs," currently the largest portion of the U.S. economy, and the future of Career and Technical Education (CTE).
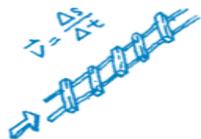
A new grades 9-14 school model focused on STEM

- **Mission:** Enable students to master the skills and knowledge that they need either to graduate with an associate degree that will enable them to secure an entry-level position in the highly competitive Information Technology (IT) industry, or to continue and complete study in a four-year higher education institution.

- **Model:** Demonstrate how K-12, higher education, and public/private partnerships can substantially raise graduation rates and prepare a greater number of students to fill good paying jobs in IT or other fields

- **Collaboration:** Shared responsibility and decision-making are essential, but the school district must play a leading role in convening and guiding the team through the complex school design and development processes.

- **Partners:** New York City Department of Education (NYCDOE); City University of New York (CUNY); New York City College of Technology (City Tech); and IBM

The power of partnership

- **Rashid Ferrod Davis, Founding Principal:** Leading overall development of the school

- **NYC DOE:** Ensuring successful start up and ongoing implementation

  o Providing resources afforded to NYC public schools and new schools, as well as guidance through research and development of model design

- **CUNY:** Ensuring P-TECH is a successful model within its network of Early Colleges Initiatives

  o Developing P-TECH as 13th early college high school, building on past success

- **City Tech:** Serving as the lead college partner

  o Students graduate with an Associate in Applied Sciences from City Tech in the 9-14 timeframe, earning a high school diploma and a college degree

- **IBM:** Ensuring that students graduate career ready

  o Providing skills mapping, mentoring, workplace learning opportunities and IT careers

Innovative path to academic and professional success

- **Opened:** September 8, 2011
  - o Announced on September 27, 2010 by New York City Mayor Michael Bloomberg
- **Site:** Paul Robeson High School Campus in Brooklyn, NY
- **Students:** 103 ninth-grade students
  - o No tests for admission; preference to students who have expressed an interest in the school
  - o 34% girls; 85% from Brooklyn; 92% Black/Hispanic
- **Faculty:** 9 teachers, 2 guidance counselors, 3 central office staff; part-time liaisons from college and industry

A Rigorous and Focused Curriculum

Benchmarks: Since students are expected complete both high school and college requirements, the school has unique goals for student progress.

- By analyzing student data beyond grades and test scores, we can prepare all students for success in college and beyond.

Alignment: All students are exposed to a common sequence of technology courses at the college, in preparation for one of two degree options: Computer Information Systems and Electromechanical Engineering Technology. Students will choose their major area after this common sequence is complete, likely at the end of Year 3.

Time: P-TECH operates on an extended day and extended year model, maximizing time to give all students the opportunity to succeed, regardless of challenges or past academic struggles.

Foundation: In their first year, students begin with four curricular strands that run through the six-year program: English, mathematics, technology, and workplace learning.

The best elements of high school, college and careers

- Focus on **mastery**, not seat time
  - Length of enrollment tailored to the learning needs, educational goals of each student

HIGH SCHOOL	COLLEGE	CAREER
Students take regular high school courses required to earn a high school diploma.	Students have the opportunity to earn an associate degree from CUNY's New York City College of Technology (City Tech)—at no cost.	Students participate in real work experiences in which they learn teamwork and develop the skills they'll need for professional and personal success.
Students receive individual support and guidance as they plan their high school years and begin taking college classes.	Students take college courses with college faculty during normal school hours.	Students explore various careers through internship, coaching and mentoring opportunities provided by IBM and other New York-based companies.
Students receive mentoring and internship opportunities to prepare them for college and competitive careers in Information Technology.	Students may continue their studies at City Tech or apply to other four-year colleges upon graduation.	

IBM job opportunities for graduates with an AAS degree

JOB CATEGORIES	POTENTIAL JOBS
Product Services	o Remote Technical Support o Software Specialist o Support Center Representative o System Services Representative o Technical Support Representative
Technical Services	o Customer Service Representative o Deskside Support Representative o Dispatcher-Associate o Client Support Representative
Software Services and Support	o Technical Support Professional

A P-TECH student gets advice from an IBM engineer, on a school trip to a facility in Fishkill, NY.

IBM skills mapping

- Map hard/soft skills to IT jobs requiring an AAS degree
- Skills feed into curriculum development

Software Specialist

Application Design

•Use Key Standards for SOA Interoperability
•Apply Knowledge of CIM Model

•SOA
•CIM

Business Analytics

Business Professional
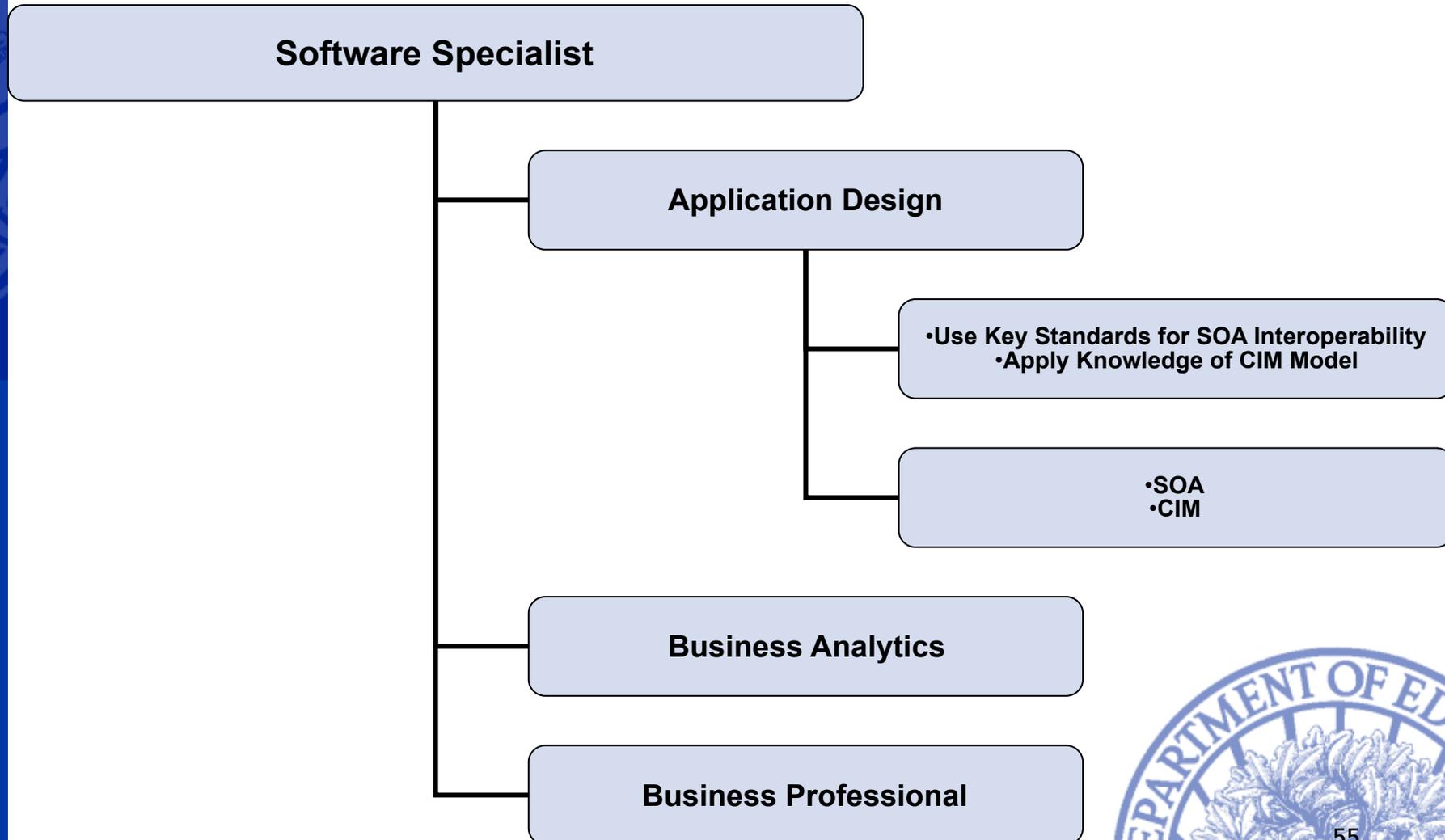
A model designed for replication

- P-TECH team will share curriculum, planning processes and technologies for replication and expansion across similar schools and models (banking, healthcare, etc.)

- Center for Children & Technology: Documenting planning process through first year of school

- Chicago has announced plans to open 5 schools based on P-TECH

- "The Playbook" is now available online at http:// citizenibm.com/wp-content/uploads/STEM-Pathways-Playbook_Feb-2012.pdf

- **Level 1-Below Standard**
- **Level 2-Approaching Standard**
- **Level 3-Meeting Standard**
- **Level 4-Above Standard**

English	Math	Overall
2.79	3.07	2.93
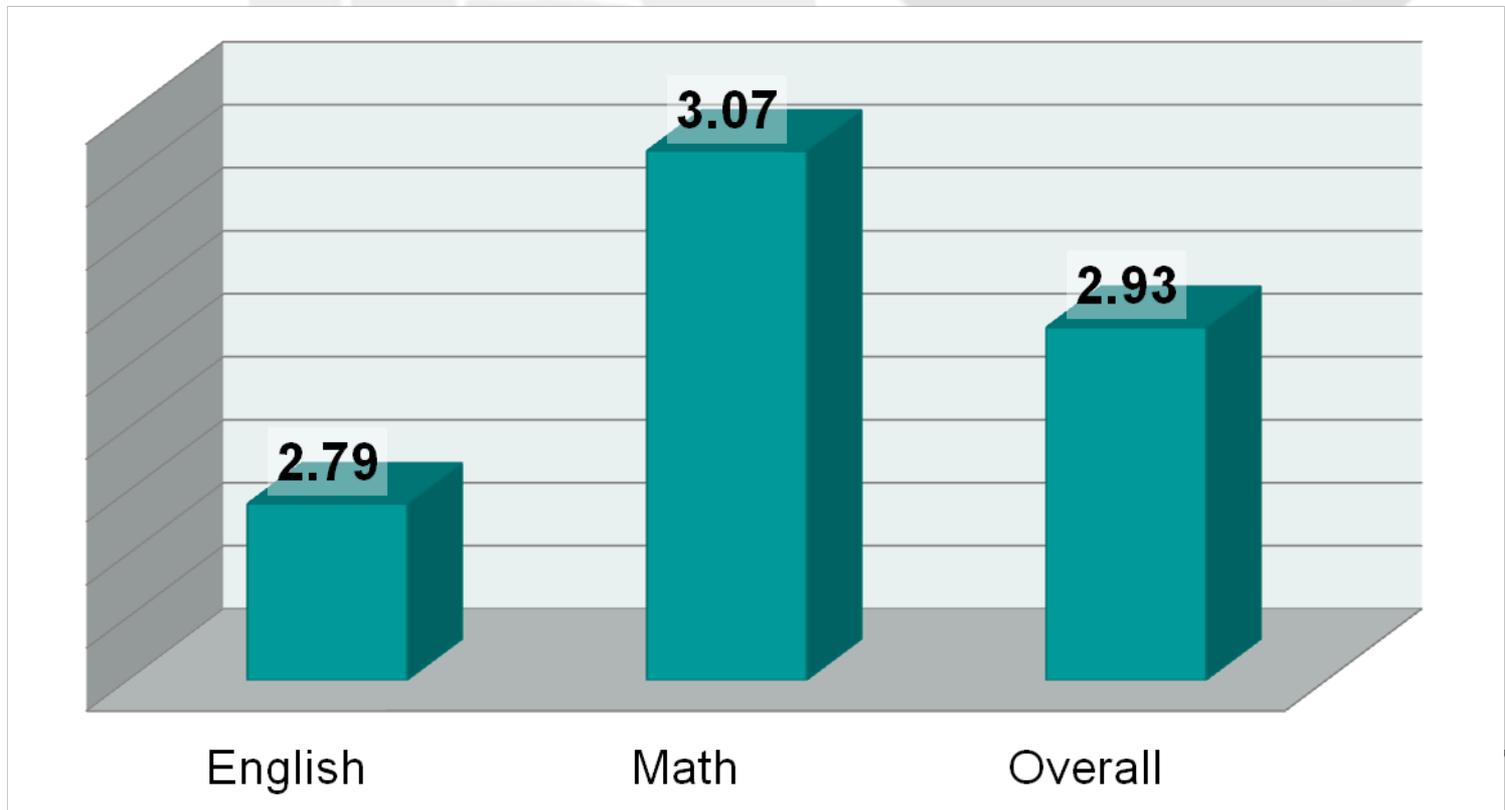
P-TECH's Average 8th Grade Attendance

- **93.6 overall**

- **Percentage Above the Average – 63%**

- **Percentage Below the Average – 37%**

- *Year to date as of March 19, 2012—95.2%*

- *83% of students are above 93.6*

- *93% of students have an attendance average of 90 or higher*

Bell Schedule at P-TECH

Period	Time	Course
1	8:35-9:20	Physical Education
2	9:22-10:07	English, Math or Technology
3	10:09-10:55	English, Math or Technology
4	10:57-11:42	English, Math or Technology
5	11:44-12:29	Lunch and Common Planning
6	12:31-1:16	English, Math or Technology
7	1:18-2:03	English, Math or Technology
8	2:05-2:50	English, Math or Technology
9	2:52-3:37	Workplace Learning
10	3:39-4:24	Workplace Learning
11	4:26-5:11	Tutoring or Extra-Curricular Activities
12	5:13-5:58	Tutoring or Extra-Curricular Activities
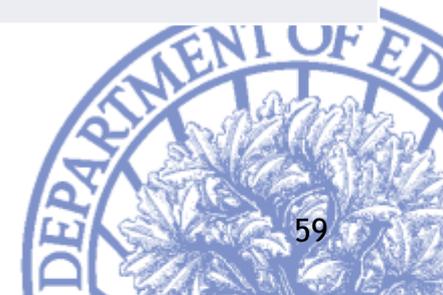
Term 1 Credit Accumulation and Regents Passing

P-TECH 103 total students	Less Than 8	8 or more	Total
Term 1 Credit Accumulation	11	92	103
Term 1 Credit Accumulation-%	11%	89%	
P-TECH 103 total students	0-64	65-74	75-100
Term 1-ELA Regents	34	34	35
Term 1-ELA Regents %	33%	33%	34%
P-TECH 103 total students	0-64	65-74	80-100
Term 1-Algebra Regents	26	55	22
Term 1-Algebra Regents-%	25%	53%	21%

www.ptechnyc.org

Q&A
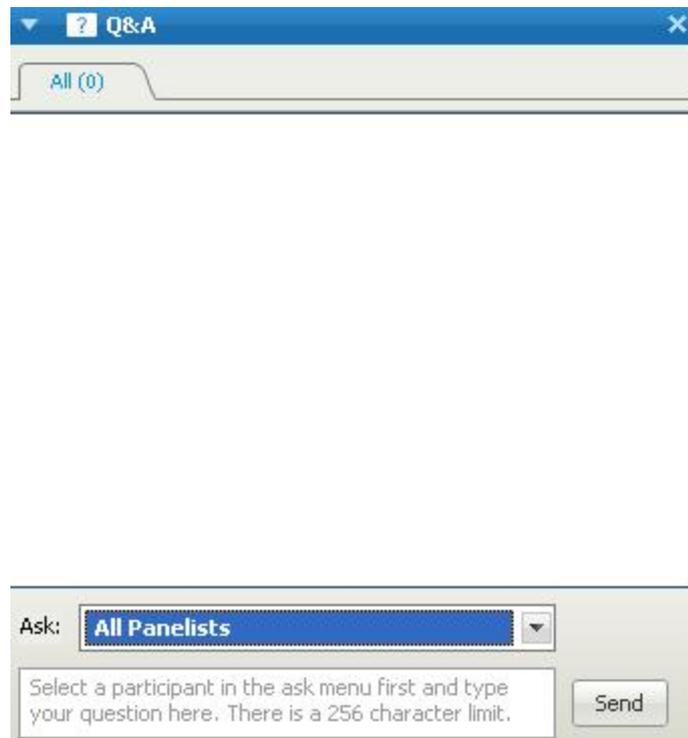
- Type your question in the text box at the bottom

- Click "Send" to All Panelists

Thank you for joining us!

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