CERTIFICATES MATTER . . .

• Middle-skill jobs, which require > HS degree but < 4 yr degree, make up largest segment of jobs in CA, and will for years to come.

• CA faces critical shortages in crucial industries, particularly in middle-skill jobs

• 3/4s of those who will be in the labor force in 2020 are already past the reach of K12

• One year plus a certificate was the “tipping point” in WA
• High-quality certificates offer substantial returns
  – Consistent positive labor market returns to CC certificates
  – Can earn more than AA/AS and in some cases more than BA/BS
  – Returns lag for those who walk away with no credential


• Students completing career education certificates from CA CCs doubled their wages within 3 years

Total projected jobs in California in 2018
by education required

(Help Wanted, Georgetown University, 2010)
LESS SKILLED, MORE VULNERABLE
## CCC Course Success Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>All Credit</th>
<th>Basic Skills</th>
<th>Degree Applicable</th>
<th>Transfer</th>
<th>CTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>68.9%</td>
<td><strong>61.2%</strong></td>
<td>69.4%</td>
<td>69.1%</td>
<td><strong>73.8%</strong></td>
</tr>
<tr>
<td>2010-11</td>
<td>69.3%</td>
<td><strong>62.1%</strong></td>
<td>69.6%</td>
<td>69.5%</td>
<td><strong>73.9%</strong></td>
</tr>
</tbody>
</table>

CHALLENGES

• Capacity: overall funding trends and priorities
  - Increasing student demand with decreasing resources
  - Accountability and completion rates
  - Calls for re-prioritization of students and missions
  - Need to focus investments to meet student, community and industry/workforce needs

• Lack of support services and need for fresh approaches

• Need more effective ways to address student preparation
  - Students come to college but end up in remedial coursework
  - Current approaches take too long and too few succeed
  - Evidence of flawed assessment, placement and sequencing
  - Need to address persistent achievement gaps

• Need for structured and well designed pathways to accelerate student progress and increase completion
  - Coherent programs of study; stackable certificates and clear road maps for students
**CCCO:**
**CAREER ADVANCEMENT ACADEMIES**

- Establish pipelines to college and high wage careers for underemployed, underprepared young adults (target 18 –30 yrs)

**CCCO Demonstration project quickly reached large scale**
- Phase 1: 3 regions (East Bay, Central Valley, LA) w/ 29 colleges
- Phase 2: expanded to 4 regions in 2011-2012
- Serving > 6,500 students to date
- SB70: $20 million investment over 4 years SB70
- Public/Private Partnership between CCCO and philanthropy
  - CLP: TA/support/coordination
  - Independent Evaluation and attention to data
- Leverage external investments and growing support

- 90% retention; 74% course success; 70% persistence

* Source: Cal-PASS, April 2010.*
CAA Students, Ethnicity
Fall 2007 - Fall 2010

Hispanic/Latino: 53%
Black or African American: 21%
White: 17%
Asian: 7%
Native Hawaiian or Other Pacific Islander: 1%
American Indian or Alaska Native: 1%
Cal-PASS, Matched MIS, Spring 2011
— Clearly defined pathways with attention to transitions
  — Options for employment and continuing education; stackable design
  — Strong employer involvement

— Integrated basic skills and career technical training
  — Contextualized approach makes learning career relevant
  — Work readiness incorporated along with basic and technical skills
  — Expedite and accelerate student progress

— Cohort based learning communities
  — Provide strong peer supports among students
  — Faculty collaborate to integrate basic skills and CTE content

— Integrated student services
  — Embedded in learning community
  — Leverage external resources and benefits to support success

— External partnerships
  — Business/industry, labor, WIBS, CBOs, K12//ROCPs/adult ed/4 yr.
Students in contextual math compared to standard math courses:
- 327% more likely to pass contextual course

In the same semester:
- 1,424% more likely to take a degree applicable course
- 284% more likely to pass degree applicable coursework
- 400% as likely to pass transfer-level courses
- Effects are the most pronounced for Black and Hispanic students.

In the next semester:
- 167% as likely or 67% more likely to pass degree applicable courses
- 228% as likely or 128% more likely to pass transferable courses

Stackable Certificate and Degree Programs

- Liberal Arts Courses Required to Satisfy AA/AS Degree Requirements or for Transfer to 4-Year University
- Focuses on Advanced Technical Skills, Management/Professional Skills
- Includes Competencies to Pursue Multiple Career Pathways
- Focuses on Occupation-Specific Technical Skills and Competencies
- Focuses on Industry-Wide Skills and Competencies
- Typically Includes Applied Mathematics/Algebra

Prep Programs - Trade Bridge Academy
SMCCD Allied Health Career Advancement Academy

Skyline College
Respiratory Therapy Associate Degree Program

College of San Mateo
Nursing Associate Degree Program

Cañada College
Radiologic Technician Associate Degree Program

Prerequisites
Participants may complete prerequisites at any college and go into any of the three higher level healthcare programs

Students earn certificates in one or two semesters, and go directly into high paying Allied Health jobs and careers.

Gateway to Allied Health Careers: CAA Bridge (1)
Student learning community cohorts
Contextualized basic skills including Math and English or English Speakers of Other Languages Course
Orientation to Allied health Careers/ Healthcare Gateway, involving employers and worksites
College success and student support services integrated with WIB Services
Participants enter Gateway at Cañada College or Skyline College then go up the career ladder at any of the three colleges.

(1) or (2) represent the number of semesters required for accelerated certificate completion.

San Mateo County Community College District
# Aligning Education, Certification and Career Pathways

## Industrial Systems Technology

### Education Pathway
- **Bachelor of Science / Engineering Discipline**
  - Potential path not currently articulated
  - NCSU, NCA&T, UNC-C, ECU
- **Associate in Applied Science**
  - 70 Credit Hours / Two Years Full Time
  - 22 Courses
  - Day Curriculum
- **Diploma Program**
  - 41 Credit Hours / One Year Full Time
  - 14 Courses
  - Day Curriculum
- **Certificate Program**
  - Machine Operator
  - 12 Credit Hours / 6 months
  - 4 Courses

### Certification Pathway
- SME Engineering Technologist
- MSSC Maintenance Awareness
- MSSC Safety
- NIMS Level 1, Bench work and Layout
- Career Readiness Certificate

### Career Pathway
- **Mechanical Engineer**
- **Maintenance Engineer**
- **Plant Engineer**
  - $51k - $79k (17-2141)
- **Entry Level Maintenance Worker**
  - $23k - $39k per year (49-9042)
- **Machine Operator**
- **Assistant Maintenance Person**
- **Maintenance Helper**
  - $17k - $27k (49-9098)
- **Operator**
- **Assistance Maintenance Person**
  - $17k - $27k (49-9098)

### National Career Readiness Certificate
- Personal Effectiveness
- Academic Competencies
- Workplace Competencies

### Pathways to Career
- **High School**
  - Dual Enrollment - Careers Now - 12 In 6 Initiative
- **Out of School/Low Skill Youth/Adults**
  - WIA/Career Centers - ESL/VESL - GED/ABE
  - “Bridge” and Foundation Programs
- **Skilled Adults**
  - Retraining/Lay Offs - Continuing Education
  - Company Specific Apprenticeship
SEEDING INNOVATION & SYSTEMS CHANGE

- Growing number of faculty champions
- Over 140 courses contextualized in first 2 years
- Uptake of contextualized practices across colleges
- CTE programs redesigned to include pathways and stackable credentials
- CCC Student Success Network (3CSN) features work statewide
MOMENTUM AND INVESTMENT

• Growing recognition
  - US DOL features CAAs in national webinar and published brief.
  - Discovery Channel to profile San Mateo CAA
  - CA legislative interest
    - Legislative site visits and focus of briefings/ hearings
    - Select Committee on Status of Boys and Men of Color: expand CAAs

• Attracting new investments
  - California Energy Commission funds green transportation CAAs; includes in AB118 strategic plan
  - Central Valley CAA basis for $19M TAA-CCCT award to Central Valley ("CAA on steroids")
  - BAWFC makes bridge programs/CAA a priority
CCC SYSTEM DIRECTION . . .

- “Develop alternatives to traditional basic skills curriculum and incentivize colleges to take to scale successful model programs for delivering basic skills instruction.”
  - Contextualized learning and learning communities.

- Encourage students to declare a program of study upon admission & require declaration by end of 3rd term in order to maintain enrollment priority

- Redirect CCC BSI money to:
  - Incentivize faculty redesign of curriculum
  - Develop clear curricular pathways

CCCCO. Advancing Student Success in the CCCs: Recommendations of the Student Success Task Force. Jan 2012
• Over a dozen states have significant career pathway/bridge efforts.
  - AR, CA, KY, IL, IN, MA, MD, MN, OH, OR, VA, WA, WI
  - Some have focused state adult ed. plans on this. (IL, IN).
  - CA new ABE strategic plan moving in this direction as well.

• Career pathways/bridges becoming focus of federal policy.
  - DOL: TAA-CCCT, Career Pathways, Pathways to Prosperity
  - DOE: Career Connections and Policy to Performance
  - DHHS: Health Professions Opportunity grants, Innovative Strategies to Self-Sufficiency, and Promising Pathways initiatives
  - President’s jobs proposal and newly released Workforce Innovation Fund.

• Integral to national philanthropic investments and completion agenda
  - Gates Completion by Design; Accelerating Opportunity
  - Other multi-state initiatives: Breaking Through; Shifting Gears
  - Complete College America
LESSONS FROM OTHER STATES . . . And the CAAs

- **Think about the whole pathway from the beginning.** Can focus on building out different parts at different times but need to have complete vision from the beginning in order to avoid gaps.

- **Create capacity to collect the right outcome data from the beginning.** Hard to measure outcomes retrospectively and hard to sustain and scale up innovation if lack evidence about whether it works.

- **Figure out the end game for sustainability.** Private and public grants can jumpstart innovation but need up-front thought to which ongoing funding streams and processes can support new approaches.

- **No one partner at the local level can pull this off alone.** All the community college silos (dev ed; career-tech and general ed, student services), adult basic education, employers/labor, workforce and community partners need to be involved.

- **Pathways and bridge programs do work, for all students and across fields,** but particularly salient for low-income students with multiple barriers to post-secondary education.

  Julie Strawn, CLASP, 2010
FOR MORE INFORMATION

Linda Collins
Lcollins@CareerLaddersProject.org

www.CareerLaddersProject.org