Enhancing Community College Career Pathways Through Policy Change

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IHELP, Sacramento State University

Capitol Briefing
November 13, 2012
Key Topics

- Why focus on CTE? Why policy?
- Issues raised from our research
- Next steps: preview of policy issues/recommendations
**IHELP mission:** to enhance leadership and policy for California higher education with an emphasis on community colleges because of their importance to providing a diverse and educated workforce.

Reports on community college student success:

*Beyond the Open Door*, August 2007
*Invest in Success*, October 2007
*It Could Happen*, February 2008
*Crafting a Student-Centered Transfer Process in CA*, August 2009
*Steps to Success*, October 2009
*Divided We Fail*, October 2010
*The Road Less Traveled*, February, 2011
*Sense of Direction*, August, 2011
*Career Opportunities (Parts 1-3)*, 2012

[www.csus.edu/ihelp](http://www.csus.edu/ihelp)

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Why Focus on Career Technical Education?

- Unmet workforce needs of 21\textsuperscript{st} century economy
- Community colleges are key
- Growing focus on student success
  
  \textit{but}
  
- CTE mission has not been a priority
  
  \textit{therefore}

- Huge opportunity!
Why Focus on Policy?

- Policies create incentives
- Misaligned policies create barriers
- CTE mission not well supported in policy
- Major changes underway – need *policy* to support, sustain and fully realize benefits
Findings – from Exploratory Research in Four Fields

- Low completions of vocational associate degrees and certificates
  - Despite credits earned and math
- Weak pathways, little progression within technical fields
- Career-oriented credentials not valued by colleges or (reportedly) by employers
One Third of Course Enrollments are Vocational

- 16% Vocational - transferable
- 15% Vocational - non-transferable
- 7% Transfer, not vocational
- 61% Basic Skills
Few Students Earn Vocational Credentials

Milestone Attainment within 6 Years among Degree Seekers

- Retained 2nd Term: 73%
- Retained 2nd Year: 56%
- Certificate: 5%
- Non-Vocational Associate Degree: 8%
- Vocational Associate Degree: 3%
- Transferred: 23%
Current Research Agenda
Strengthening CTE through Policy Reform

Ultimate goal: increase student success – credentials and other outcomes of value in workplace

Completed:
1. Document structure and funding for CTE and EWD
2. Inventory and analyze programs offered
3. Leading states – what can we learn?

Ongoing:
4. Analyze CCC policies – recommend policy alignment
Structure Marginalizes CTE and Hinders Responsiveness

- **Silos:** CTE/EWD/Academic Affairs
  - CTE seen as not academic
  - Hinders responsiveness to industry
  - Basic skills for CTE have not been a priority

- **Misaligned programs and structures**
  - EWD - 10 strategic priorities
  - CTE/Perkins: 12 statewide collaboratives
  - CTE/Perkins: 12 statewide advisory committees
  - State CTE plan – 15 industry sectors
  - Myriad local advisory committees
Reliance on Competitive Grants Distorts Resource Allocation

- General fund allocations don’t accommodate higher costs of CTE programs
  - Disincentive for high cost/high need programs
- Huge array of competitive grants
  - Uneven capacity to win grants
  - Money chase can shape the mission
  - Competition rather than regional cooperation
Chancellor’s Office Not Designed for Strategic Leadership

- CO largely compliance and grant administration
  - Problematic “lead college” structures
  - Limited CO authority and capacity to ensure:
    - robust, high-need program offerings
    - career pathways with common competencies/standards
    - consistent policies (e.g., concurrent enrollment)

- Individual colleges work independently – fail to realize advantages of scale
  - Program/curriculum development
  - Labor market analysis
  - Employer engagement
Program Mix Not Well Targeted at Needs

- Average per college: 113 programs in 25 fields
- Average per region: 959 programs in 91 fields
- Enrollments and completions highly concentrated
  - 7% of fields enroll half of students
  - 6% of fields produce more than half of credentials
- Program approval/review/discontinuation processes don’t work to reduce duplication and maintain currency
- No common competency/skill standards=>local variability
Seven Percent of Fields* Enroll Half of all Students (FTE)

<table>
<thead>
<tr>
<th>Field</th>
<th>Average Annual FTES, 2007-08 to 2009-10</th>
<th>Percentage of Systemwide FTES (CTE courses only)</th>
<th>Cumulative Percentage of CTE FTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration of Justice</td>
<td>29,456</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Nursing</td>
<td>26,575</td>
<td>8%</td>
<td>16%</td>
</tr>
<tr>
<td>Child Development/ Early Care and Education</td>
<td>22,909</td>
<td>7%</td>
<td>23%</td>
</tr>
<tr>
<td>Accounting</td>
<td>19,372</td>
<td>6%</td>
<td>29%</td>
</tr>
<tr>
<td>Fire Technology</td>
<td>17,764</td>
<td>5%</td>
<td>34%</td>
</tr>
<tr>
<td>Office Technology/ Office Computer Applications</td>
<td>13,328</td>
<td>4%</td>
<td>38%</td>
</tr>
<tr>
<td>Information Technology, General</td>
<td>11,541</td>
<td>3%</td>
<td>41%</td>
</tr>
<tr>
<td>Nutrition, Foods, and Culinary Arts</td>
<td>11,445</td>
<td>3%</td>
<td>44%</td>
</tr>
<tr>
<td>Cosmetology and Barbering</td>
<td>10,493</td>
<td>3%</td>
<td>47%</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>9,610</td>
<td>3%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*There are 142 fields in which CTE courses are offered
Six Percent of Fields* Produce Over Half of all Completions

<table>
<thead>
<tr>
<th>Field</th>
<th>Total Completions 2007-08 to 2009-10</th>
<th>Percentage of Total 2007-08 to 2009-10</th>
<th>Cumulative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing</td>
<td>25,545</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Child Development/ Early Care and Education</td>
<td>20,471</td>
<td>10%</td>
<td>23%</td>
</tr>
<tr>
<td>Administration of Justice</td>
<td>18,538</td>
<td>9%</td>
<td>32%</td>
</tr>
<tr>
<td>Fire Technology</td>
<td>8,921</td>
<td>5%</td>
<td>37%</td>
</tr>
<tr>
<td>Business Administration</td>
<td>8,801</td>
<td>4%</td>
<td>41%</td>
</tr>
<tr>
<td>Accounting</td>
<td>7,802</td>
<td>4%</td>
<td>45%</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>6,199</td>
<td>3%</td>
<td>48%</td>
</tr>
<tr>
<td>Business Management</td>
<td>5,229</td>
<td>3%</td>
<td>52%</td>
</tr>
</tbody>
</table>

*There are 142 fields in which CTE courses are offered*
Example of Variation across Programs

Associate Degree in Engineering Technology

<table>
<thead>
<tr>
<th>Merced College</th>
<th>San Joaquin Delta College</th>
<th>Modesto Junior College</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 major credits, as follows:</td>
<td>18 major credits, <em>selected from</em> (all 3 credits):</td>
<td>31 major credits, as follows:</td>
</tr>
<tr>
<td>• General Chemistry (5)</td>
<td>• Drafting (Engineering, Computer-aided, Civil, Machine)</td>
<td>• General Chemistry (5)</td>
</tr>
<tr>
<td>• Physics (4)</td>
<td>• Materials &amp; Measurement</td>
<td>• General Physics OR Mech. Heats &amp; Waves (5)</td>
</tr>
<tr>
<td>• Engineering Materials (3)</td>
<td>• 3-dimensional Modeling</td>
<td>• Intro to Engineering &amp; Architecture (1)</td>
</tr>
<tr>
<td>• FORTRAN Programming (3)</td>
<td>• Machine Design</td>
<td>• Engineering Graphics (4)</td>
</tr>
<tr>
<td>• Elementary Mechanics (3)</td>
<td>• Mech. &amp; Elec. Systems</td>
<td>• Elementary Statistics (5)</td>
</tr>
<tr>
<td>• Direct and Alternating Current Circuits (5)</td>
<td>• Industrial Control Systems</td>
<td>• 6 credits from General Computer Lit (3), Machine Tool Tech (4), Arc &amp; Gas Welding (3)</td>
</tr>
<tr>
<td>• Descriptive Geometry (3)</td>
<td>• Applied Surveying</td>
<td>• 5 elective credits from a list (mostly Drafting or Calculus)</td>
</tr>
<tr>
<td>• Calculus I (4)</td>
<td>• Technical Statistics</td>
<td></td>
</tr>
</tbody>
</table>
Example of Variation across Programs

Certificate in Computer Programming

<table>
<thead>
<tr>
<th>Laney College</th>
<th>Gavilan College</th>
<th>San Jose City College</th>
</tr>
</thead>
<tbody>
<tr>
<td>47 - 56 credits</td>
<td>21 - 22 credits</td>
<td>30 credits</td>
</tr>
<tr>
<td>• Intro. Comp. Sci. (5)</td>
<td>• C++ Programming I (4) OR</td>
<td>• Intro. Comp. Info. Sys. (3)</td>
</tr>
<tr>
<td>• Intro. Programming (5)</td>
<td>C++ Scientific Prog. (3)</td>
<td>• C++ Programming (3)</td>
</tr>
<tr>
<td>• C Programming (4)</td>
<td>• C++ Programming II (4)</td>
<td>• Visual Basic Prog. (3)</td>
</tr>
<tr>
<td>• Intro to Op. Sys. (1)</td>
<td>• UNIX/LINUX Op. Sys. (4)</td>
<td>• Data Structures (3)</td>
</tr>
<tr>
<td>• Op. Sys. Scripting (1)</td>
<td>10 credits from among:</td>
<td>• Object-oriented Prog. (3)</td>
</tr>
<tr>
<td>• Web Publishing (1)</td>
<td>• Web Page Authoring I (2)</td>
<td>• Java Programming (3)</td>
</tr>
<tr>
<td>• Data Comm./Networks (4) OR Web Pub. II (2)</td>
<td>• Assembly Lang. Prog. (4)</td>
<td>• Intro to UNIX (3)</td>
</tr>
<tr>
<td>• One writing class (3)</td>
<td>• Java Programming I (4)</td>
<td>• 9 credits of CIS department electives</td>
</tr>
<tr>
<td>• Programming w/C++ (4)</td>
<td>• C#.NET Programming (4)</td>
<td></td>
</tr>
<tr>
<td>• Data Struct./Algorithms (4)</td>
<td>• Visual Basic.NET Prog. (4)</td>
<td></td>
</tr>
<tr>
<td>• Java Programming I (4)</td>
<td>• Perl Programming/Lab (3)</td>
<td></td>
</tr>
<tr>
<td>• UNIX/LINUX Op. Sys. (4)</td>
<td>• Web Sites with SQL and PHP (4)</td>
<td></td>
</tr>
<tr>
<td>• 3 electives (e.g., Java, Assembly Language, Info Security, XML Apps.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Accountability for Outcomes is Inadequate

- CTE outcomes complex – better data being sought
- Until now, accountability reporting (ARCC) limited to annual counts and activities
- No systematic link to labor market outcomes
- No *program* data
  - Students do not enroll *in programs* (a few exceptions)
  - Course outcomes ≠ program outcomes
- Value of certificates?
- Value of “non-completions?”
Certificates - Which Ones? How Valuable?

- Most CA completers get certificates, which are of uneven and often unknown value
  - Two-thirds of programs offered are short-term certificates
  - Reported completions (many unreported short-term certificates):
    | Certificate Type            | Percentage |
    |------------------------------|------------|
    | Associate Degrees            | 40%        |
    | Certificates 30+ credits     | 19%        |
    | Certificates < 30 credits    | 41%        |
  - No systematic effort to stack certificates or account for labor market outcomes of certificate completers

- Few proficiency requirements for certificates
Career Opportunities, Part IV - Ongoing Policy Alignment Phase

- Advisory panels from the field
- Policy papers – different topics
  - Problems
  - Education Code/Title 5 issues
  - Possible recommendations (learn from other states – Career Opportunities Part III as reference)
- Surveys for feedback
  - Potential impact: high/low
  - Feasibility: high/low
- Final report with recommendations – Spring 2013
Some Emerging Policy Issues

- Better associate degree options for career-bound
- More valuable certificates – industry alignment, proficiency
- Better program approval/review processes
- Joint ownership of programs
- Model curriculum frameworks
- More effective concurrent enrollment/dual credit
- More and stronger work-based learning
- Better pathways from noncredit to credit
- Differential funding for high cost/high need
- Accountability for outcomes of programs
Hope and Change

- CTE finally getting needed recognition
- System is “doing what matters…”
- A policy agenda will support the changes - institutionalize
- Stakeholder support is needed
- The bigger agenda: get beyond the limited rhetoric of “career” versus “academic”
- The big goal: jobs and careers to drive the CA economy