Labor Market Data Access and Linking

Dr. Christina Whitfield, Vice Chancellor
Kentucky Community and Technical College System
Fall 2013:
• 92,365 students
• 9,917 dual credit/high school students
• 56,640 students enrolled in distance education courses
• 59% part-time, 41% full-time
• 57% female, 43% male
• 15% minority students
• 27.5 average age
• 42% enrolled in technical programs, 27% liberal arts

2012-13 Academic Year:
• 28,469 credentials awarded
• 61,929 students served via workforce training
Economic Development Sectors:

• Healthcare
• Banking and Finance
• Construction and Skilled Trades
• Transportation and Logistics
• Energy
• Manufacturing
ACCOUNTABILITY
KCTCS Strategic Plan
High Wage, High Demand Completions

Note: Number of unduplicated credentials in programs cross-walked to a high wage, high demand occupation. KCTCS Data Base, Kentucky Occupational Outlook to 2014, Office of Employment and Training Occupational Wages.
High Wage, High Demand Programs

- Registered Nurses
- Claims Adjusters
- Dental Hygienists
- Computer Occupations
- Insurance Sales Agents
- Aircraft Mechanics
- Engineering Technicians
- Power-line Installers
- Industrial Maintenance
- Radiologic Technicians
- PT Assistants
- Electricians
- Respiratory Therapists
- Plumbers
KCTCS Strategic Plan
Wage Index

Note: Median wage of KCTCS completers earning $2500 or more in the second quarter after completion, indexed to the state median occupational wage.
Source: KCTCS Data Base, UI Wage Match, Office of Employment and Training and Training Occupational Wages.
Kentucky Median Occupational Wage (annual / 4)  

Notes: Median wage by highest KCTCS degree, graduates earning $2,500+  Graduates who return to KCTCS in the following academic year are excluded from this analysis. KCTCS Official data as reported to CPE, KCTCS UI wage match, Office of Employment and Training’s Occupational Employment and Wages (OES)  
* Does not include Summer 2003 graduates; ** denominator is based on BLS data for KY.
Technical Considerations

• Threshold for “Employment”
• Privacy and Suppression Rules
• Timing/Reporting Lag
• Match Rates/Representativeness of Data
Unemployment Match Rates by College

KCTCS Main Campus

- Henderson: 74%
- Daviess: 74%
- Hardin: 71%
- Jefferson: 70%
- Woodford: 70%
- Jessamine: 69%
- Boyle: 69%
- Bourbon: 67%
- Kentucky: 67%
- Greenup: 62%
- Pope: 67%
- Harlan: 57%
Policy and Practice Considerations

• Impact of technical limitations of labor market information vary by institution
• Institutions must partner with local economic development entities and employers
• Many economic factors affecting employment outcomes are beyond institutional control
CURRICULUM REVIEW
Dynamic Skills Audit

- A means to gauge education supply against employer demand
- A methodology that incorporates traditional and real-time labor market information into a structured review of curriculum
- A way to determine how responsive course content is to employer requirements

Note: KCTCS participated in a pilot project to develop DSAs with Jobs for the Future.
# Dynamic Skills Audit: Labor Market Assessment

<table>
<thead>
<tr>
<th>Program of Study</th>
<th>DEMAND: Traditional LMI</th>
<th>DEMAND: Real-time LMI</th>
<th>SUPPLY: College &amp; Employment Indicators</th>
<th>ANALYSIS / ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN</td>
<td>2,440</td>
<td>2,163</td>
<td>2,634</td>
<td>21.78%</td>
</tr>
<tr>
<td>CMM</td>
<td>1,130</td>
<td>2,895</td>
<td>2,478</td>
<td>-14.40%</td>
</tr>
</tbody>
</table>

Note: Labor Market Assessment for selected programs at Owensboro Community and Technical College.
DSA: Skills Matrix Development

Real-Time LMI Skills
- Patient Care
- Organizational Skills
- Spanish

Traditional LMI Skills
- Social Perceptiveness
- Judgment
- Mathematics

Certifications
- Registered Nurse
- Cardiac LS
- Certified Rehab
Policy and Practice Considerations

• How can this process be integrated with existing curriculum processes?
• Supply/demand mismatch may be unrelated to institutional production
• Test data against anecdotal experiences shared by employers
• Improve curriculum in “real time,” based on market research
• Be responsive to industry demands
What Are Their Median Annual Wages One Year After Completion?

Median Annual Wages of 2005-06 Completers the Following Year

Median Annual Wages of Working Adults with Just a High School Diploma ($16,122)

- **Business and Com**
  - Certificates (Less than 1 Year): $20,126
  - Certificates (1 Year, Less than 2 Years): $26,396
  - Associate Degrees: $34,478

- **Health**
  - Certificates (Less than 1 Year): $20,126
  - Certificates (1 Year, Less than 2 Years): $32,305
  - Associate Degrees: $46,164

- **Soc and Beh Sciences**
  - Certificates (Less than 1 Year): $16,808
  - Certificates (1 Year, Less than 2 Years): $24,184
  - Associate Degrees: $35,000

- **STEM**
  - Certificates (Less than 1 Year): $17,013
  - Certificates (1 Year, Less than 2 Years): $27,132
  - Associate Degrees: $39,154

- **Trades**
  - Certificates (Less than 1 Year): $17,013
  - Certificates (1 Year, Less than 2 Years): $30,307
  - Associate Degrees: $40,000

- **Arts and Humanities**
  - Certificates (Less than 1 Year): $20,963
  - Certificates (1 Year, Less than 2 Years): $27,132
  - Associate Degrees: $34,478

- **Business and Com**
  - Certificates (Less than 1 Year): $23,726
  - Certificates (1 Year, Less than 2 Years): $30,307
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- **Health**
  - Certificates (Less than 1 Year): $20,316
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What Are Their Median Annual Wages Five Years After Completion?

Median Annual Wages of 2005-06 Completers Five Years After Completion

<table>
<thead>
<tr>
<th>Field</th>
<th>Certificates (Less than 1 Year)</th>
<th>Certificates (1 Year, Less than 2 Years)</th>
<th>Associate Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business and Com</td>
<td>$28,211</td>
<td>$21,386</td>
<td>$34,484</td>
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<tr>
<td>Health</td>
<td>$23,530</td>
<td>$21,386</td>
<td>$35,956</td>
</tr>
<tr>
<td>Soc and Beh Sciences</td>
<td>$18,628</td>
<td>$21,386</td>
<td>$28,211</td>
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<tr>
<td>STEM</td>
<td>$33,504</td>
<td>$26,107</td>
<td>$42,665</td>
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<tr>
<td>Trades</td>
<td>$39,200</td>
<td>$39,200</td>
<td>$46,207</td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>$34,484</td>
<td>$29,895</td>
<td>$51,975</td>
</tr>
<tr>
<td>Business and Com</td>
<td>$29,895</td>
<td>$29,895</td>
<td>$51,975</td>
</tr>
<tr>
<td>Health</td>
<td>$24,276</td>
<td>$24,276</td>
<td>$42,665</td>
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</tr>
</tbody>
</table>

Median Annual Wages of Working Adults with Just a High School Diploma ($16,122)
Graduate Employment Profiles
Employment by Industry
Registered Nursing

Date of Participation
- Health Industries: 47%
- Other Industries: 53%

1st Quarter after Completion
- Health Industries: 93%
- Other Industries: 7%

Note: 2003-4 graduates. Source: KCTCS Data Base, UI Wage Match
Graduate Employment Profiles
Employment by Industry
Business Administration

Date of Participation
- Finance/Insurance: 11%
- Retail: 25%
- Manufacturing: 23%

1st Quarter after Completion
- Finance/Insurance: 15%
- Retail: 19%
- Manufacturing: 18%

Note: 2003-4 graduates. Source: KCTCS Data Base, UI Wage Match
Considerations for Policy and Practice

• Programs that yield poor employment outcomes may generate revenue for the institution

• Can faculty be retrained/reassigned (tenure and accreditation requirements)?

• “Social Welfare Index”: Cosmetology vs. Early Childhood Education
STUDENT INFORMATION
## Graduate Employment Profiles

<table>
<thead>
<tr>
<th>Program</th>
<th>% NRG Employed</th>
<th>Median Wage</th>
<th>% NRG Earning $2500/Q</th>
<th>Median Wage $2500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal Arts</td>
<td>60.7</td>
<td>$3,572</td>
<td>40.3</td>
<td>$5,100</td>
</tr>
<tr>
<td>Registered Nursing</td>
<td>81.4</td>
<td>$11,176</td>
<td>78.5</td>
<td>$11,277</td>
</tr>
<tr>
<td>Business Administration</td>
<td>72.3</td>
<td>$5,485</td>
<td>59.9</td>
<td>$6,158</td>
</tr>
<tr>
<td>Welding Technology</td>
<td>63.8</td>
<td>$5,313</td>
<td>50.0</td>
<td>$6,360</td>
</tr>
<tr>
<td>All</td>
<td>67.2</td>
<td>$5,306</td>
<td>53.8</td>
<td>$6,450</td>
</tr>
</tbody>
</table>

Note: 2009-10 graduates two quarters post-completion. Source: KCTCS Data Base, UI Wage Match
### Graduate Employment Profiles

**ETA Common Measures**

<table>
<thead>
<tr>
<th></th>
<th>Entered Employment</th>
<th>Employment Retention</th>
<th>6-month Earning Increase</th>
<th>Median Wage $2500+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nursing</td>
<td>70.7</td>
<td>90.2</td>
<td>$13,739.22</td>
<td>$11,277</td>
</tr>
<tr>
<td>Business Administration</td>
<td>40.5</td>
<td>92.2</td>
<td>$4,759.51</td>
<td>$6,158</td>
</tr>
</tbody>
</table>

Note: 2003-4 graduates. Source: KCTCS Data Base, UI Wage Match
SIDE EFFECTS: MAY CAUSE A SUCCESSFUL CAREER IN PHARMACY

TAKE FOR A CAREER WITH JOB SECURITY

May Cause HIGH INCOME

FOR ENDLESS CAREER OPTIONS