Towards A Market-responsive Education & Employment Training System: Customized Labor Market Information Products from Project ‘MEETS’

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MEETS Project Background

- Sponsored by the Office of Policy Development and Research (OPDR) and the Business Relations Group (BRG) of the U.S. Department of Labor, Employment and Training Administration (DOL/ETA)
- Uses data in support of the BRG mission of making the public side of the workforce development system more responsive to the needs of business
- Promotes the Census Bureau Local Employment Dynamics (LED) data program as bringing valuable new information to a demand driven approach to workforce development
How MEETS Operates

• Managed by The Jacob France (JFI) Institute of the University of Baltimore
• Partners include 5 state LMI offices and 10 local workforce areas
• JFI designs and produces LED-based products— in consultation with state LMI offices— for use by local customers
• Refinements made based on state and local feedback, with the goal of being able to respond to customized local data requests
• Provide descriptive information about Baltimore County, including:
  – geography
  – demographics
  – job growth and
  – industry composition
Interconnected Region

- Deepwater port
- Direct interstate access
  - BWI and Martin State Airports
  - 2 Class 1 railroads
  - State of the art system links rail / road / port / airport
Baltimore Washington Region

- 4th largest Metro area based on:
- Population
- Effective buying income
- Retail sales
- Business Establishments

Baltimore County, Maryland
Snapshot

- 612 square miles
- 175 miles of waterfront
- Since 1972, development concentrated in 1/3 of County with infrastructure
- 2/3 of land preserved for open space and agriculture
Demographics

- Population: 754,292
- Households: 294,875
- Median HH Income: $54,750
- Per Capita Income: $36,442
- Cost of Living: 94%
- Businesses: 19,900+
- Labor Force: 360,673

Baltimore County, Maryland
## Baltimore County Demographic Information

<table>
<thead>
<tr>
<th>Age</th>
<th>Raw</th>
<th>Percentage of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-24 years</td>
<td>45,112</td>
<td>6.0%</td>
</tr>
<tr>
<td>25-34 years</td>
<td>101,340</td>
<td>13.4%</td>
</tr>
<tr>
<td>35-44 years</td>
<td>123,444</td>
<td>16.4%</td>
</tr>
<tr>
<td>45-54 years</td>
<td>108,542</td>
<td>14.4%</td>
</tr>
<tr>
<td>55-59 years</td>
<td>37,849</td>
<td>5.5%</td>
</tr>
<tr>
<td>60 years and older</td>
<td>140,313</td>
<td>18.7%</td>
</tr>
</tbody>
</table>
Educated Workforce

- Largest population of college educated in the region, 2\textsuperscript{nd} in the State
- Population over 25 with:
  - Associates or beyond 36%
  - Bachelors or beyond 31%
  - Masters or beyond 12%

Baltimore County, Maryland
Baltimore County High Growth Industries

- Biotechnology
- Construction
- Healthcare
- Interactive Technology (video game development)
- Manufacturing
Adding new jobs

- 53,945 net new jobs since 1992
- Sustained positive job growth during recession
- Most new jobs in services, including technology sector

Baltimore County, Maryland
Diverse Economy

- Trade, Transport & Utilities: 20.6%
- Manufacturing: 8.7%
- Construction: 6.3%
- Natural Resources & Mining: 0.3%
- Government: 16.3%
- Information Technology: 1.8%
- Financial Activities: 8.2%
- Leisure & Hospitality: 8.8%
- Education & Health Services: 14.7%
- Professional & Business Services: 14.3%

Diverse Economy
• Include information about the Community College of Baltimore County, including:
  – Organizational structure
  – Student profile
  – Occupational Training Center programs & Workforce Investment Act (WIA) service
  – Allied Health programs
• **Campus Locations**
  Catonsville
  Dundalk
  Essex

• **Off Campus Facilities**
  Hunt Valley
  Owings Mills
  White Marsh
  Eastern Blvd
  Towson
About CCBC

• Governing Board
  Board of Trustees
  15 members appointed by Governor

• Member
  Maryland Association of Community Colleges (16)
## FY 2004 Student Profile

### About CCBC

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>67,384</td>
</tr>
</tbody>
</table>

#### Gender

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>39,453</td>
</tr>
<tr>
<td>Male</td>
<td>26,698</td>
</tr>
<tr>
<td>Unknown</td>
<td>1,233</td>
</tr>
</tbody>
</table>

#### Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>15,195</td>
<td>23%</td>
</tr>
<tr>
<td>Native American</td>
<td>228</td>
<td>0%</td>
</tr>
<tr>
<td>Asian</td>
<td>2,167</td>
<td>3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1,130</td>
<td>2%</td>
</tr>
<tr>
<td>White</td>
<td>33,661</td>
<td>50%</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>15,003</td>
<td>22%</td>
</tr>
</tbody>
</table>
# About CCBC

## FY 2004 Student Profile

<table>
<thead>
<tr>
<th>Age</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20</td>
<td>5,343</td>
<td>8%</td>
</tr>
<tr>
<td>20-29</td>
<td>21,506</td>
<td>32%</td>
</tr>
<tr>
<td>30-39</td>
<td>11,947</td>
<td>18%</td>
</tr>
<tr>
<td>40-49</td>
<td>11,184</td>
<td>17%</td>
</tr>
<tr>
<td>50-59</td>
<td>8,309</td>
<td>12%</td>
</tr>
<tr>
<td>60 and over</td>
<td>8,809</td>
<td>13%</td>
</tr>
<tr>
<td>Missing</td>
<td>286</td>
<td>0%</td>
</tr>
</tbody>
</table>
CCBC Occupational Training Center - Intensive Occupational (Bridge) Training

- Intensive Occupational Training (8 hours per day, 6 months)
- Machine Tooling
- Office Technology
- Bookkeeping
- Complete range of life skills training
- Integrated basic skills training
- Job Placement
- Capacity – 120 learning stations, 220 trainees per year
## CCBC Workforce Investment Act (WIA)

Baltimore County Office of Employment and Training - FY 2004

<table>
<thead>
<tr>
<th>Individuals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Applications for Business</td>
<td>122</td>
</tr>
<tr>
<td>Allied Health</td>
<td>96</td>
</tr>
<tr>
<td>Truck Driving</td>
<td>36</td>
</tr>
<tr>
<td>GED/ESOL</td>
<td>10</td>
</tr>
<tr>
<td>Miscellaneous (Business, CADD, Teaching, etc.)</td>
<td>177</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>441</strong></td>
</tr>
</tbody>
</table>

($524,000)
CCBC Job Network Program - A Bridge Training Partnership Between CCBC, the Baltimore County Dept. of Social Services, and Humanim

- Redirects Temporary Cash Assistance (TCA) applicants and recipients into sustained employment; rapid labor market attachment program
- Winning New Jobs (WNJ), the CCBC component of Job Network, provides up to four weeks of full-time services to clients, as well as follow-up after employment
- Newly employed program participants also receive 180 days of retention and job advancement services
CCBC School of Health Professions

Cardiopulmonary Resuscitation (CPR)
Complimentary and Alternative Healthcare
Central Service Technician
Dental Assistant
EKG Technician
Electroneurodiagnostic Technology (EEG Technician)
Emergency Medical Technology (EMT - Paramedic)
Histotechnology
IV Therapy
Massage Therapy
Medical Assistant
Medical Billing
CCBC School of Health Professions

Medical Coding
Medical Office Receptionist
Medical Transcription
Medication Assistant for Assisted Living
Medicine Aide
Mental Health Practitioner / Human Services
Mortuary Science
Multi-skilled Technician
Nursing Assistant (Certified - CNA and Geriatric - GNA)
Nursing – Associates Degree (RN)
Nursing – Practical Nursing (LPN)
Nurse Refresher
Nursing Support Technician
CCBC School of Health Professions

Occupational Therapy Assistant
Ophthalmic Medical Assistant
Pharmacy Technician
Physician Assistant
Radiation Therapy
Radiography (x-ray Technology)
Respiratory Care Therapist
Sleep Technologist
Surgical Technologist
Venipuncture & Specimen Collection / Processing
Veterinary Assistant
Veterinary Technology – Vet Tech
• Census Bureau LED program:
  – Overview of the data
  – Current status of LED partnership development among states
LED Data Overview

- Local Employment Dynamics (LED) Program is a partnership of the U.S. Census Bureau and participating states
- Quarterly Workforce Indicators (QWIs) are produced by Census using UI Wage Record data and QCEW (formerly ES-202) data received from states
- QWI data are sent back to states for their use; some data appear on the LED website
- LED/QWI data:
  - Are local (county, workforce area, metropolitan area)
  - Are industry based
  - Have demographic detail for gender and age groups
• Industry Groups within Healthcare
  – These are the 4-digit NAICS codes, drawn from the 2-digit NAICS Sector *Healthcare & Social Assistance*, that were used to define Healthcare in this sample
NAICS Industry Groups within Healthcare

- 6211 Offices of Physicians
- 6212 Offices of Dentists
- 6213 Offices of Other Health Practitioners
- 6214 Outpatient Care Centers
- 6215 Medical and Diagnostic Laboratories
- 6216 Home Healthcare Services
- 6219 Other Ambulatory Healthcare Services
- 6221 General Medical and Surgical Hospitals
- 6222 Psychiatric and Substance Abuse Hospitals
- 6223 Other Hospitals
- 6231 Nursing Care Facilities
- 6232 Residential Mental Health Facilities
- 6233 Community Care Facilities for the Elderly
- 6239 Other Residential Care Facility
• End of Quarter Employment
  – Provides a sense of the size of the industry in the local area, and, therefore, the context for the information that follows
End of Quarter Employment in Healthcare - Baltimore County, MD

Total Number of Employees

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>32436</td>
<td>33640</td>
<td>31249</td>
<td>31044</td>
<td>32040</td>
<td>31017</td>
<td>29951</td>
<td>30474</td>
<td>30801</td>
<td>32984</td>
<td>34204</td>
<td>34499</td>
</tr>
</tbody>
</table>

Source: Local Employment Dynamics, 2005
• Net Job Gain and Net Job Loss in Healthcare
  – Shows the net effect of job creation and destruction within a given quarter
Net Job Gain & Net Job Loss in Healthcare -
Baltimore County, MD

Year/quarter

Year/quarter

Source: Local Employment Dynamics, 2005

The Jacob France Institute
Slide 27

• Gross Job Gain and Gross Job Loss in Healthcare
  – Reveals the creation and destruction activity that results in the net picture illustrated in the previous graph
  – Significant for local workers and job seekers, in that it shows that there are opportunities being created even during periods of overall loss
Gross Job Gain & Gross Job Loss in Healthcare - Baltimore County, MD

Source: Local Employment Dynamics, 2005

The Jacob France Institute
• Net Job Gain and Net Job Loss in Healthcare Industry Groups
  – “Drill down” for selected Industry Groups shows how gain and loss activity can vary at a more detailed level
  – This format is used to be able to follow trend lines while still comparing several Industry Groups at once
Net Job Gain & Net Job Loss in Healthcare Industry Groups - Baltimore County, MD

Source: Local Employment Dynamics, 2005
• Gross Job Gain and Gross Job Loss in Healthcare- Residential Mental Health Facilities
  – Using one Industry Group as an example, this shows how creation and destruction activity can be revealed at a more detailed level as well
Gross Job Gain & Gross Job Loss in Healthcare-Residential Mental Health Facilities

<table>
<thead>
<tr>
<th>Year/quarter</th>
<th>Jobs Gained</th>
<th>Jobs Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001/1</td>
<td>497</td>
<td>69</td>
</tr>
<tr>
<td>2001/2</td>
<td>112</td>
<td>63</td>
</tr>
<tr>
<td>2001/3</td>
<td>81</td>
<td>28</td>
</tr>
<tr>
<td>2001/4</td>
<td>109</td>
<td>163</td>
</tr>
<tr>
<td>2002/1</td>
<td>85</td>
<td>62</td>
</tr>
<tr>
<td>2002/2</td>
<td>182</td>
<td>43</td>
</tr>
<tr>
<td>2002/3</td>
<td>142</td>
<td>21</td>
</tr>
<tr>
<td>2002/4</td>
<td>55</td>
<td>93</td>
</tr>
<tr>
<td>2003/1</td>
<td>49</td>
<td>80</td>
</tr>
<tr>
<td>2003/2</td>
<td>142</td>
<td>90</td>
</tr>
<tr>
<td>2003/3</td>
<td>121</td>
<td>63</td>
</tr>
<tr>
<td>2003/4</td>
<td>47</td>
<td>118</td>
</tr>
</tbody>
</table>

Source: Local Employment Dynamics, 2005
• New Hires in Healthcare
  – This provides a sense of the number of workers entering into Healthcare employment on a quarterly basis
  – As with Gross Gain and Loss, it is an illustration of how new opportunities do exist for workers, even when overall loss may be occurring
New Hires in Healthcare - Baltimore County, MD

Year/quarter

Source: Local Employment Dynamics, 2005
Slide 31

• New Hires by Gender in Healthcare
  – Shows the proportion of male and female New Hires in the most recent quarter
  – A one-quarter picture is used because this proportion varies little from quarter to quarter
  – In this example, the data can be used to identify either 1) that the vast majority of the jobs are being filled by women, or 2) that men represent an underused resource in Healthcare
New Hires by Gender in Healthcare-4th Quarter, 2003-
Baltimore, MD

Source: Local Employment Dynamics, 2005

The Jacob France Institute
• New Hires by Age in Healthcare
  – As with gender, distribution varies little quarter to quarter
  – Could be juxtaposed with similar breakdowns for current industry composition or composition for those leaving Healthcare (“Separations”) to reveal aging patterns in the workforce
New Hires by Age in Healthcare, 4th Quarter, 2003-
Baltimore County, MD

Source: Local Employment Dynamics, 2005

The Jacob France Institute
• New Hires by Age in Healthcare (cont’d)
  – Shows how age groups can be combined to create different cohorts for various purposes
  – Customizing age groups can be useful for documenting need in proposing initiatives for or marketing to targeted populations
  – *As with all QWIs, age and gender composition can be illustrated at the Industry Group level as well
New Hires by Age in Healthcare, 4th Quarter, 2003-
Baltimore County, MD

14-21 years old: 28%
22-24 years old: 14%
25-34 years old: 17%
35-44 years old: 10%
45-54 years old: 7%
55-99 years old: 14%

Source: Local Employment Dynamics, 2005

The Jacob France Institute
• Stable New Hire Earnings in Healthcare by Age and Gender
  – *Stable* New Hires refers to those that have essentially achieved a full quarter’s worth of employment (thus providing a measure of retention)
  – Monthly earnings are broken down by both age and gender, and this graph shows how males tend are out-earning females
Stable New Hire Earnings in Healthcare by Age & Gender-
Baltimore County, MD

Average Monthly Earnings, 4th quarter 2003

Source: Local Employment Dynamics, 2005

The Jacob France Institute
Slide 35

- Stable New Hire Earnings in Healthcare by Age and Gender- Home Healthcare Services
  - Again shows age groups being combined to form different cohorts
  - Shows females significantly out-earning males, again illustrating the importance of drilling down to the Industry Group level to see how trends will vary
Stable New Hire Earnings in Healthcare by Age & Gender-
Home Healthcare Services

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Females (Avg Monthly Earnings)</th>
<th>Males (Avg Monthly Earnings)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-21 yrs.</td>
<td>$1,244</td>
<td>$571</td>
</tr>
<tr>
<td>22-24 yrs.</td>
<td>$1,009</td>
<td>$1,411</td>
</tr>
<tr>
<td>25-34 yrs.</td>
<td>$1,768</td>
<td>$792</td>
</tr>
<tr>
<td>35-44 yrs.</td>
<td>$1,936</td>
<td>$1,320</td>
</tr>
<tr>
<td>45-54 yrs.</td>
<td>$3,293</td>
<td>$2,009</td>
</tr>
<tr>
<td>55-99 yrs.</td>
<td>$939</td>
<td>$155</td>
</tr>
</tbody>
</table>

Source: Local Employment Dynamics, 2005

Average Monthly Earnings, 4th Quarter 2003

The Jacob France Institute
Slide 36

- Slides 36 and 37 show top Industry Groups in the area, as ranked by New Hires and Net Job Gain, respectively, based on a single quarter’s data
  - Slide 36 ranks Industry Groups by New Hires, showing the corresponding value for Net Job Gain or Loss below the graph itself
  - Future versions will be based on four quarter averages, which will stabilize seasonal effects
The Jacob France Institute
• Slide 37 ranks Industry Groups by Net Job Gain, with corresponding New Hire totals below the graph
  – Boxes indicate those Industry Groups that appear in both graphs, a further indication of strength
  – Arrows indicate those that appear within the definition of the 12 High Growth-designated industries of BRG, at the same time identifying Industry Groups that reflect the presence of potential “hidden” growth industries
### Top Ten Industry Groups by Net Job Gain, 2nd quarter 2003 - Baltimore County

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>New Hires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other amusement and recreation industries</td>
<td>1795</td>
</tr>
<tr>
<td>Insurance carriers</td>
<td>1232</td>
</tr>
<tr>
<td>Services to buildings and dwellings</td>
<td>504</td>
</tr>
<tr>
<td>Cement and concrete product manufacturing</td>
<td>422</td>
</tr>
<tr>
<td>Other specialty trade contractors</td>
<td>282</td>
</tr>
<tr>
<td>Building finishing contractors</td>
<td>258</td>
</tr>
<tr>
<td>Vocational rehabilitation services</td>
<td>257</td>
</tr>
<tr>
<td>Limited-service eating places</td>
<td>244</td>
</tr>
<tr>
<td>Highway, street, and bridge construction</td>
<td>215</td>
</tr>
<tr>
<td>Architectural and engineering services</td>
<td>196</td>
</tr>
</tbody>
</table>

**Source:** Local Employment Dynamics, 2005
Key LED& MEETS
Characteristics

• Actual “demand side” events- employer activity and worker flows
• Local information for county or workforce area
• Gender and age group breakouts for workers
• State and local partnerships
• Market-testing of customized products for local data users
• Customized industry “cluster” definitions
How can this help community colleges?

- Targeting growth industry clusters or industry groups in program or curriculum development
- Identify emerging industries in planning future program direction
- Using age and gender demographics data to identify opportunities for targeted population outreach or expansion of current offerings
- Using industry data as a tool in engaging businesses in partnerships
For More Information:

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