The State of the Transportation and Mobility Workforce: Supply-Chain Approaches to Research and Education

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Challenges

• Why is transportation workforce development a critical subject of research?

• What major challenges has transportation workforce development research identified?
“Held in April 2012, in Washington, D.C., the National Transportation Workforce Summit brought together many conversations that have created a rich tapestry of transportation workforce development efforts across the nation and wove those efforts into a cohesive strategic framework… The scope of the Summit included the workforce for all modes of transportation and all training sources for that workforce. It was initiated by the council of University Transportation Centers in cooperation with the U.S. Department of Transportation (U.S. DOT).”
Critical Workforce Development Challenges

• Demographic shifts (e.g., Baby Boomers retiring and lack of awareness in younger generations); 54% of the current transportation workforce is 45 years or older, 8% more than national average;
• Transformational technology and associated skills gaps;
• Competition with other industries (e.g., energy, manufacturing, construction, and healthcare); and
• The New Soft Skills (professionalism, project management, written and oral communication skills, critical thinking, creative problem solving).

These issues are also affecting supply chain employers.
Transportation Workforce Research
Projected Net Job Growth Rate by State

- Net transportation job growth will occur in almost every state but growth rates vary by region.
- The fastest growth will occur on the West Coast, the Gulf Coast, the upper Mid-Atlantic, several mountain states, and the Midwest.
- The highest projected growth was in North Dakota due to related oil-boom estimates.

Source: TLC & JFF analysis of EMSI state and metropolitan area employment projections. Data retrieved from EMSI in June 2014
A look at the metropolitan layer reveals that much of the regional transportation job growth is driven by growth in the large metro areas within those regions.

The highest number of job openings in transportation including all six subsectors will likely be generated in New York City, Dallas, Los Angeles, and Houston in the next decade.
### Exhibit 34: Industries Employing Supply Chain and Logistics Occupations in the Southwest

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage of Job Listings in Transportation Industry</th>
<th>Other Major Industries Employing this Occupation</th>
</tr>
</thead>
</table>
| Transportation, Storage, and Distribution Managers | 25.3%                                                | ▪ Retail Trade  
▪ Manufacturing  
▪ Professional, Scientific, and Technical Services. |
| Logisticians                                    | 20.0%                                                | ▪ Professional, Scientific, and Technical Services  
▪ Wholesale Trade |
| Laborers and Freight, Stock, and Material Movers, Hand | <0.1%                                                | ▪ Professional, Scientific, and Technical Services  
▪ Manufacturing |

### Exhibit 32: Occupational Projections for Supply Chain and Logistics Occupations in the Southwest

<table>
<thead>
<tr>
<th>SOC Code</th>
<th>Occupation Title</th>
<th># of Employees, 2012</th>
<th>Projected # of Employees, 2022</th>
<th>Change in # of Employees</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-3071</td>
<td>Transportation, Storage, and Distribution Managers</td>
<td>29,610</td>
<td>34,200</td>
<td>4,590</td>
<td>15.5%</td>
</tr>
<tr>
<td>13-1081</td>
<td>Logisticians</td>
<td>35,330</td>
<td>47,230</td>
<td>11,900</td>
<td>33.7%</td>
</tr>
<tr>
<td>53-7062</td>
<td>Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>586,480</td>
<td>704,130</td>
<td>117,650</td>
<td>20.1%</td>
</tr>
</tbody>
</table>
Critical Questions

• How can incumbent professionals learn to make urban freight a priority?

• How can supply chain thinking help address Workforce Development challenges?

• How can supply chain thinking be used to reimagine career pathways?
Metropolitan Transportation Management Certificate

- Develop targeted training for working transportation professionals to better address urban freight challenges;
- Design classes with a blend of online asynchronous learning, in-class lectures, and field research using data collection and geospatial information systems (GIS) software; and
- Invite urban freight specialists to serve as guest lecturers.
Moving to a Supply Chain Approach

Employers can close the skills gap by applying lessons learned from supply chain management (SCM) when partnering with education and workforce partners.
The Status Quo

PROBLEM: Employers are dissatisfied with candidates who lack the necessary skills and competencies to get the job done.

SOLUTION: Move away from the laissez-faire workforce development model and establish communities of practice to create career pathways.
...behind the scenes comprehensive collaboration between stakeholders.
This pathway is seamless from the student’s perspective...
Supply Chain Thinking for Educators

- Focus on outcomes and not process
- Facilitate movement in and out of pathways
- Develop partnerships that facilitate work-based learning
- Renewed focus on training the trainer
- Contextualize knowledge
- Recognize that there are many ways to learn (technology matters)
- Student support across traditional institutional boundaries is necessary
- Focus on the customer experience
Supply Chain Career Pathway Examples

- Academy of Global Logistics (AGL) → LBCC/Council of Supply Chain Management Professionals (CSCMP) Certification → Education (LBCC/CSULB)
- Academy of Global Logistics (AGL) → LBCC/Council of Supply Chain Management Professionals (CSCMP) Certification → Global Logistics Specialist (GLS) Module 1 waived with SCM Principles → LBCC (AA) / CSULB (BA/BS)
- Academy of Global Logistics (AGL) → LBCC/Council of Supply Chain Management Professionals (CSCMP) Certification → Work → Global Logistics Specialist (GLS) Module 1 waived with SCM Principles
- High School → Non-Career Work → LBCC/Council of Supply Chain Management Professionals (CSCMP) Certification → Global Logistics Specialist (GLS) Module 1 waived with SCM Principles
- Displaced Worker → LBCC/Council of Supply Chain Management Professionals (CSCMP) Certification → Global Logistics Specialist (GLS) Module 1 waived with SCM Principles → Continue Education / Work / New job
Thank you!

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