Regional Solutions for Transportation, Warehousing, and Logistics for the Northeast Illinois Economic Development Region

September 2004
This report was commissioned by the Workforce Boards of Metropolitan Chicago and prepared by the Corporation for a Skilled Workforce.
# Table of Contents

**Executive Summary** .................................................................................................................. 4
  - Project Overview ......................................................................................................................... 4
  - Critical Skills Occupations, Root Causes and Solutions ................................................................. 6

**Regional Coalition and Industry Partner Engagement** .......................................................... 10
  - Introduction .................................................................................................................................. 10
  - Partner Engagement ....................................................................................................................... 12
  - Partnership Structure .................................................................................................................... 13
  - Engagement Activities .................................................................................................................. 14
  - Primary Research — Interviews & Workgroups, Producer Inventory, Focus Groups ................. 14
  - What Did We Learn? ..................................................................................................................... 18
  - Learning from Focus Groups ...................................................................................................... 19
  - Secondary Research – Review of Industry Reports, Workforce Research ..................................... 20

**Description of Solutions** ........................................................................................................... 22
  - Review: Critical Skills Shortage Occupations and Root Causes .................................................. 22
  - Solutions ....................................................................................................................................... 24
  - Advancing Strategic Initiatives ..................................................................................................... 28

**Action Plan** .................................................................................................................................. 32

**Appendix A: Membership of Key Stakeholder Groups** ............................................................ 39
  - TWL Sector Council Membership ............................................................................................... 39
  - TWL Solutions Team Membership .............................................................................................. 41

**Appendix B: Agendas, Protocol, & Worksheets** ....................................................................... 42

**CSSI Solutions Interview Protocol- TWL** .............................................................................. 43
  - Background Information .............................................................................................................. 43
  - Step 1: Importance of Root Cause vs. Ability to Impact ................................................................. 44
  - Step 2: What is the Desired State for these Root Causes? .............................................................. 46
  - Step 3: The “Do Nothing” Scenario ............................................................................................. 46
  - Step 4: Regional Solutions to Address Root Causes ...................................................................... 47
  - Step 5: Determine Regional Solutions to Take and How to Measure the Effect of Those Solutions ..................................................................................................................................... 47

**Appendix C: TWL Sample Model Programs/ Solutions** ........................................................... 49

**Appendix D: Manufacturing and TWL Sectors Timetable** ..................................................... 52
Executive Summary

Project Overview

This report is a product of the State of Illinois’ Critical Skill Shortages Initiative (CSSI), launched by the Department of Commerce and Economic Opportunity in early 2004, and implemented by the Workforce Boards of Metropolitan Chicago in January 2004. The project is designed to:

- Assess the occupational and skill needs of firms in the Chicago metropolitan region’s key industries. Healthcare, manufacturing, and the umbrella industry comprising transportation, warehousing, and logistics were the three key industries around which the first phase of the CSSI project focused;
- Identify current and emerging critical needs and challenges among firms in these industries that threaten to undermine their competitiveness;
- Identify the short- and long-term root causes of these unmet needs and challenges; and
- Engage a wide range of stakeholders, led by employers and key industry associations, in developing and implementing solutions to these critical challenges.

Ultimately, this work seeks to help project partners, including the Workforce Boards of Metropolitan Chicago (Workforce Boards), the region’s colleges, training and employment programs, employers and industry associations, and the philanthropic community make smart investments in people, firms, and communities that enhance the economic vitality of the region and of the state of Illinois.

In addition, and of equal importance, the project intends to catalyze innovative public/private partnerships that seek to make a difference for the region’s firms and workers moving into the future.

The Workforce Boards of Metropolitan Chicago have managed the project since its inception in January 2004. The Workforce Boards of Metropolitan Chicago is a collaboration of nine workforce boards providing policy expertise and investing in services in 11 northern Illinois counties: Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Kendall, Livingston, Lake, McHenry, and Will.

The CSSI project requires that the Workforce Boards submit a series of three products to the state of Illinois for each of the key industries selected for participation. These include:

1. A Critical Skills Shortage Report;
2. A Root Cause Report; and
This is a solutions report for the metropolitan Chicago region. It proposes industry-identified solutions to address the root causes of skill shortages for the umbrella industry referred to during the CSSI project as transportation, warehousing and logistics (TWL).

Drawing on the data summarized in the TWL critical skills shortage and root cause reports, this document reviews select results of intelligence gathering activities completed between March and August 2004, and focuses on describing solutions crafted by industry partners and key stakeholders in the region. An Action Plan included in the final section of this report serves as a springboard for TWL stakeholders in the region to take next steps.

Engaging this large and diverse industry was not easy. Unlike healthcare and manufacturing, TWL firms do not see themselves as a single industry and do not have key trade or professional associations that represent the entire industry. Rather, a plethora of sector-based associations work to advance more narrow sets of interests, often at odds with one another or on separate parallel paths. The Illinois Trucking Association, for example, is working to reduce fees and improve Illinois roads, while the rail companies have organized around eliminating proposed fees and pursued public investments in the rail infrastructure.¹

Other challenges included:

- **The Workforce Boards had less experience with the TWL industry than with the other two initial CSSI industries (healthcare and manufacturing).** Although they hosted the Transportation, Warehousing, and Logistics Workforce Summit in March 2004, it took some time for the Workforce Boards to expand their reach into the industry’s key sectors, and begin to establish relationships with the principal trade and professional associations. This work continues.

- **The TWL industry had little experience working across sectors on public policy issues** of any kind, and many had limited knowledge of workforce issues, either the industry’s key challenges, or the public programs or labor market information and workforce trends in the Chicago region more generally.²

- **A series of recent crises,** comprising what a number of industry leaders dubbed “the perfect storm,” monopolized the attention of many senior executives in the industry during the entire CSSI planning process. From new transportation rules³ to ever-changing security protocols and new

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1 The CREATE—Chicago Regional Environmental and Transportation Efficiency—Program is the current focus of efforts to increase funding for Illinois’ rail infrastructure.

2 UPS is an important exception. “Brown” has been engaged with at least two of the Workforce Boards in the region and has a long history of participating in education and workforce policy and program issues.

3 In January 2004, new Hours of Service rules went into effect necessitating changes in the number of consecutive hours drivers could be on the road, among many others things. A series of court decisions resulting in a declaration by the U.S. Department of Transportation that the rules would be rewritten has left the sector in a legal limbo.
Homeland Security regulations, from the significant spike in the price of diesel fuel to the introduction of new intermodal containers, and from a stressed and overused rail infrastructure to the increased demand for hauling freight linked to the economic recovery,\(^4\) TWL firms have faced tremendous pressure all year to address short-term emergencies, just as the Workforce Boards were attempting to engage them on longer term human capital issues.

- With the possible exception of attention to the severe shortage of long-haul truck drivers and lesser shortage of rail conductors, **there has not been a national media spotlight on TWL as an industry** to spur debate in the same way the coverage of nursing shortages generated a public debate on healthcare preparedness, and the outsourcing dilemma catalyzed community discussions about manufacturing. TWL has remained largely below the radar screen. As a result, TWL firms felt less compelled to participate in public dialogues about challenges and opportunities in the industry.

Despite these challenges, however, the CSSI project was able to identify critical skills shortage occupations, root causes, and potential solutions to the industry’s key workforce challenges.

**Critical Skills Occupations, Root Causes and Solutions**

The Critical Skills Shortage Occupations presented in the first report have since been reduced in number in an effort to better focus CSSI project work. The revised list of skills shortage occupations includes the 11 occupations listed below:

<table>
<thead>
<tr>
<th>Transportation/Warehousing/Logistics Critical Skill Shortage Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck Drivers, Heavy and Tractor-Trailer</td>
</tr>
<tr>
<td>Bus and Truck Mechanics and Diesel Engine Specialists</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
</tr>
<tr>
<td>Computer Support Specialists</td>
</tr>
<tr>
<td>Machinists</td>
</tr>
<tr>
<td>Locomotive Engineers</td>
</tr>
<tr>
<td>Dispatchers, Except Police, Fire, and Ambulance</td>
</tr>
<tr>
<td>Welders, Cutters, Solderers, and Braziers</td>
</tr>
<tr>
<td>Industrial Truck and Tractor Operators</td>
</tr>
<tr>
<td>Electrical and Electronic Engineering Technicians</td>
</tr>
<tr>
<td>Truck Drivers, Light or Delivery Services</td>
</tr>
</tbody>
</table>

\(^4\) Although the recovery has been less robust in the Chicago region than elsewhere, Chicago remains the major hub through which merchandise travels to other locations in North America.
An array of industry partners, employment and training programs, community stakeholders, and Workforce Boards that worked on the CSSI project identified the following five root causes of critical skills shortages in the region’s TWL industry:

1. **The transportation, warehousing, and logistics industry has an image problem.** Most people seeking to enter or advance in the labor market have had little contact with the TWL industry, and most of them hold negative impressions of it.

2. **Many jobs in the transportation, warehousing, and logistics industry limit employees’ lifestyle choices.** They are characterized by demanding and inflexible schedules, long-distance travel, and significant social isolation.

3. **Government regulations linked to transportation, such as the pending Hours of Service regulations and those linked to homeland security, create uncertainty** and make hiring and retaining employees for many positions more difficult.

4. While there are exceptions, **many TWL firms provide limited access to formal professional development, training, or career advancement opportunities**, making it difficult for would-be talent to build careers in the industry.

5. **An array of structural factors make hiring and retention difficult for many parts of the industry.** For example, more and more insurance firms are requiring a minimum age of 23 or 25 for all long-haul drivers, leaving a small window of opportunity before good drivers may want to settle down with families, and stay off the road.

Importantly, and widely recognized by stakeholders, these causes are interrelated. For example, because so few young people have any experience with or information about the TWL industry, they do not think about it as offering them job or career opportunities. Nearly all transportation industry stakeholders admitted to finding their first jobs in the industry by accident; they did not seek careers in transportation, nor did they realize they were in the “transportation industry” until late in their careers.

The absence of a reliable pipeline creates two problems: 1) the pool of applicants for jobs in the industry is relatively small, and many are screened out by background checks or drug tests (with increasing frequency); and 2) there is considerable “leakage;” i.e., job-holders who could build careers in the industry do not pursue them, instead opting for new opportunities with other firms or industries. This leakage of entry-level talent exacerbates shortages in high-demand occupations further along in the pipeline.

It follows that the proposed solutions will also impact one another, and some will address more than one root cause. This report offers a package of solutions
that includes both specific “fixes” and longer-term efforts to enhance the competitiveness of the industry’s workforce generally. The elements in the package include:

- **Working on the TWL industry’s image.** Regional image work might comprise a set of shared messages communicated through many targeted campaigns, or a smaller number of more general campaigns. Stakeholders agree that a serious marketing and communications effort is needed both to create awareness of the industry and to market the opportunities it offers.

- **Emphasizing training and skills-building among firms and employees in the TWL industry,** both as a response to specific skill demands and as an effort to fill pervasive development gaps in key sectors. The project partners propose four training initiatives toward this end:
  - A “Transportation 101 Boot-Camp” for entry-level workers in the industry.
  - Training for high-demand shopcraft occupations in TWL firms.
  - Training for employees in technology-intensive TWL occupations.
  - Promoting training and professional development across the industry.

- **Adopting strategic initiatives,** including a focused and sustainable effort to recruit women into the industry, and a specific effort to use the Internet more effectively for providing information about the industry to specific stakeholder groups and to recruit young people for jobs.

This report addresses these solutions in more detail and documents the processes used to arrive at them. Specifically, the report describes:

- **The methodologies** used to identify potential solutions for the skills shortages and human resource and training needs of the transportation, warehousing and logistics industry in the Chicago metropolitan region;

- **The processes** used to engage industry and community partners in developing solutions;

- **The solutions** stakeholders proposed to address the root causes of critical skills shortages in the region’s TWL industry; and

- **The Action Plan** — the blueprint describing what we plan to do, in partnership with business and community stakeholders, to realize these solutions.

During CSSI project planning, a broad range of stakeholders (firms and workers, public and private) provided insight into their firms, uncovered shortcomings in their sectors and industries, and contributed to creative solutions proposed in this report. The Workforce Boards of Metro Chicago are grateful for their energy, enthusiasm and insight, and look forward to working with them to advance the proposed solutions. The shared commitment of firms, industry
professionals, Workforce Boards, and the region’s employment and training infrastructure will ensure that the Chicago region’s TWL industry is amongst the most competitive in the world.
Regional Coalition and Industry Partner Engagement

Introduction

This report is the third in a series of three reports focusing on the Chicago region’s transportation, warehousing and logistics industry commissioned by the Workforce Boards of Metropolitan Chicago. The report fulfills a requirement of the Illinois Department of Commerce and Economic Opportunity’s Critical Skills Shortage Initiative (CSSI) process. It documents the Chicago region’s effort to move from identifying causes of critical skills shortages in the TWL industry to crafting solutions, and presents those solutions on pages 24-29 and in the Action Plan on pages 33-38.

Moving from shortages to causes and then to solutions is not a straightforward process. This is perhaps more true for the TWL industry than for either the healthcare or manufacturing industries, the other two industries initially targeted by the CSSI project.

First, the TWL industry is a collection of diverse (often competing) sectors that share “space”—they move goods from one place to another—but do not identify as a single industry. The industry’s key trade and professional associations reflect these divisions: the Warehousing Education and Research Council, the Traffic Club of Chicago, the Council on Logistics Management, and the Illinois Trucking Association. Some sectors have fundamentally different characteristics; for example, the non-commuter rail industry comprises a few very large national carriers, whereas the trucking industry’s small companies (20 or fewer trucks) comprise 93% of all carriers (even though the capacity of the largest carriers dwarfs the combined capacity of the remainder). Moreover, a significant segment of the trucking industry lies inside the private operations of other sectors; the Wal-Mart and Sysco fleets, for example, would be among the largest if they were outside of their retail and food service parent companies. Rail may be the furthest outlier, as a TWL sector, with associations, unions, and even employee retirement plans unique to the industry. This environment made it difficult to talk about challenges shared by the industry, rather than those (seemingly) unique to particular sectors.

Second, most of the professional associations have never collaborated with the public sector on anything but regulatory or physical infrastructure issues. As a result, there was some trepidation that slowed progress on a project that featured a very tight timeline.

Third, many TWL firms are under tremendous pressure for reasons wholly outside the scope of the CSSI project—the high price of gasoline/diesel, the
changing regulatory environment, homeland security, and increased demand on an inadequate physical infrastructure, among others. On the one hand, the “crisis” atmosphere made it easier to engage the industry; on the other hand, it was more difficult to sustain momentum on any one set of cross-industry challenges, such as investing in the industry’s future talent.

Finally, TWL firms themselves have very different human capital needs, and equally diverse levels of interest and expertise in workforce issues. Unlike the healthcare, which maintains one of the most sophisticated licensing and training infrastructures among all industries, and manufacturing which has developed focused conversations around major industry-wide trends, TWL lacks similar reference points.

- The rail industry, for example, is far more worried about the aging of the workforce than other sectors. A rule change just made early retirement possible for rail workers who are already among the oldest employees in the workforce.

- The trucking industry faces a severe driver shortage; yet, more stringent security protocols and more sophisticated background checks are reducing the potential labor pool. At the same time, dramatically higher fuel prices, increasing health-care costs, and ever-thinner margins make it difficult for firms to use wage increases to attract new talent.  

- The warehousing industry, itself, is diverse; some firms have implemented technologies that have automated the management and operations of warehouses and properties; others rely heavily on person-power, and are only now developing standard job descriptions, career paths, training programs, and performance standards, largely in response to the need for tighter security.

These factors and others made it more difficult to talk about human capital issues in relation to changing industry needs than was the case in either healthcare or manufacturing, and made coordinating the CSSI project in the TWL industry very challenging.

Nonetheless, TWL is critical to the economic health of the Chicago region.

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5 While health insurance costs are rising for all industries, the combination of double-digit increases in premiums combined with double digit increases in the price of fuel has dealt a severe blow to TWL firms. In turn, many firms are managing these increases by passing along more of the costs of health insurance to employees; others are imposing tougher health-related screening processes for new hires, which has implications for older employees likely to represent higher levels of risk of disease or illness than younger ones. Both of these further reduce the pool of qualified applicants for positions already in high demand. See, “Employee Health-Care Costs Cause Concern,” Tiffany Wlazlowski, *Transport Topics*, September 13, 2004.

6 These figures were generated by the Regional Economics Applications Laboratory (REAL), a cooperative venture between the University of Illinois and the Federal Reserve Bank of Chicago, the Chicago Area Transportation Study (CATS), and the Critical Cargo project developed by Business Leaders for Transportation in 2002.
The Chicago region’s TWL industry is worth $8 billion to the region; it employs over 120,000 people, and maintains a payroll in excess of $3.2 billion. The Chicago region’s TWL industry handles more than half of all containers in the U.S. in any given year. Chicago is the third-busiest intermodal hub in the world (next to Hong Kong and Singapore). One-third of all U.S. rail freight flows through Chicago, the only U.S. city where all of the six largest North American rail companies meet. The TWL industry is growing at nearly four times the pace of the economy as a whole; volume increased 7.2% in the first six-months of 2004. Moreover, the industry does face serious skills shortages in a number of sectors and across the industry, both short-term and long-term, in addition to a variety of other workforce and economic challenges.

The CSSI project served as an important catalyst in bringing together public- and private-sector stakeholders committed to the continued health and further development of this important and diverse industry.

**Partner Engagement**

To inform the CSSI project, the Workforce Boards engaged a broad range of industry professionals from the five key transportation, warehousing, and logistics sectors, in addition to key stakeholders representing the following constituent groups:

- Professional and trade associations
- Labor unions
- Public high schools, colleges, universities, and training programs
- Private training providers, employment programs, and staffing firms
- Community organizations and interest groups
- Local governments

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9 In the Chicago area, TWL infrastructure also continues to grow. For example, FedEx just announced two new service centers in the Chicago region, one in Aurora, Illinois and the other in Fremont, Indiana; see *Transport Topics*, “Newsbriefs,” September 8, 2004.
10 These included: rail, motor freight and warehousing, transportation services, and wholesale trade of durable and non-durable goods.
11 A number of contractors and consultants were also involved in the specific research components of the CSSI project. In most cases, these contractors were also involved in meetings, summits, and scheduled events. They include: *Corporation for a Skilled Workforce*, *The Hudson Institute’s Center for Economic Competitiveness*, *Kilbride Consulting*, *Thomas P. Miller and Associates*, and TCSC.
▶ Economic development professionals
▶ Workforce professionals

**Partnership Structure**

The project maintains a formal partnership structure that includes a number of entities whose roles are described below:12

1. **The CSSI Leadership Council.** The Leadership Council membership comprises the private-sector board chairs and the chief local elected officials (or their designees) associated with the local Workforce Boards who are members of the Metropolitan Chicago (regional) partnership. The Council provides oversight to the CSSI project, and ultimately, the implementation of CSSI initiatives or programs.

2. **The CSSI Regional Council.** The Regional Council’s members include a broad range of industry, labor, and government professionals: the State Departments of Human Services, Commerce and Economic Opportunity, and Employment Security, the Illinois Community College Board, labor organizations, economic development and workforce professionals, the Chair and Vice Chair of the Industry Sector and One-Stop Councils, foundations, workforce board chairs, community college presidents, and other private-sector industry experts. During the planning phase of the CSSI project, they assisted in all aspects of information dissemination, intelligence gathering, and problem-solving. As the project progresses, it is this group that will be expected to lead an effort to redirect resources to better meet the needs of firms and workers in Metropolitan Chicago’s TWL industry.

3. **The CSSI Transportation, Warehousing, and Logistics Council.** The TWL Council includes a range of industry and trade association professionals, together with economic development, chamber of commerce, and labor leaders. The Council is charged with providing intelligence, outreach, and networking assistance in support of CSSI research activities, as well as validating CSSI findings, helping the Workforce Boards interpret these findings, and developing and helping to implement solutions to the critical challenges identified through the CSSI project.

4. **The CSSI Transportation, Warehousing, and Logistics Solutions Team.** The TWL Solutions Team was a small group of eight industry leaders selected from among TWL Sector Council Members. It met as a work group to develop the preliminary list of solutions that would be presented and debated in a subsequent TWL Sector Council meeting.

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12 Membership lists for these groups are included as Appendix A.
5. The CSSI One-Stop Council. The One-Stop Council includes representatives from One-Stop partners in each local workforce area. The Council is focused on sharing best practices in program design and sector strategies, implementation of CSSI findings and solutions, and providing feedback and input on regional efforts to the Workforce Boards and other key investors.

6. CSSI Stakeholders and Community Groups. An array of stakeholder and community groups has participated in the many CSSI activities convened over the past several months. The Workforce Boards maintain a growing list of stakeholders, some of whom have participated in the majority of CSSI activities convened to date, and others who have joined the effort more recently.

Engagement Activities

While the Workforce Boards had been engaged in regional activity for some time, including convening a region-wide industry-sponsored Transportation, Warehousing, and Logistics Workforce Summit in March 2004, the CSSI project provides an opportunity to engage industry, education, labor, and community partners more broadly and in more diverse, meaningful, and sustainable ways.

In fall 2003, the Workforce Boards convened three regional events over a two-day period to introduce the CSSI project, and began to develop a region-wide approach to managing CSSI over time. One hundred twenty individuals representing the key industry professional and trade associations, workforce and training providers, and the research community participated in these events, and developed the initial CSSI project “blueprint” intended to guide the research approach and the industry and community engagement process, and establish the formal oversight structure to insure accountability and follow-through.

The structure has remained intact throughout the planning stages of the CSSI project, though membership has changed and grown over time.

Primary Research — Interviews & Workgroups, Producer Inventory, Focus Groups

A variety of primary research methods were used to identify the root causes of critical skills shortages in the TWL sector. These are described in the Root Causes Report submitted to the Illinois Department of Commerce and Economic Opportunity in July 2004. Similar methods were used to identify solutions to these root causes. These are described below.
Interviews and Workgroups

The CSSI project engaged firms from all five TWL sectors, trade and professional associations linked to those sectors, community college and technical school representatives, workforce professionals, and select industry experts in validating the root causes, ranking their importance, and crafting solutions.

Since one of the lessons the project learned about the TWL industry was that the geographic locations and concentrations of firms made it nearly impossible to convene regular industry-wide meetings, a wide variety of tools and approaches were used to engage stakeholders in the CSSI solutions process. These included:

- Individual telephone interviews;
- Conference calls;
- Individual in-person interviews;
- E-mail correspondence;
- Two key meetings: The Solutions Team convened as a workgroup on August 10, 2004 using interactive web-conferencing technology; and the TWL Sector Council Meeting devoted to crafting solutions was convened in person on September 2, 2004.

The interviews and meetings were conducted using a similar protocol which asked respondents to:

- Identify the relative importance of each root cause as well as the ability to impact it through the CSSI project.
- Identify what changes would occur if these root causes were successfully addressed.
- Identify the consequences of inaction.
- Suggest solutions and strategies to address the root causes.
- Determine actions that would need to be taken to implement such solutions.
- Rank potential solutions.

An agenda, together with the protocol and worksheets used during these meetings, comprise Appendix B.

In each case, solutions were directed toward the occupational clusters identified as CSSI priorities. These clusters are as follows:

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13 Not surprisingly, TWL firms are located near the infrastructure they require to do business. The warehousing firms tend to be in the southern and western parts of the region or scattered throughout the northern suburbs. The rail companies are obviously near the rail lines—south and inner city Chicago. The members of our TWL Sector Council were headquartered up to 120 miles from one another. Moreover, because many are concentrated in specific areas, when we convened meetings in different parts of the region, we lost the participation of not just individual executives, but of whole sectors. The professional associations themselves have also experienced this problem in scheduling meetings and events.
Drivers—truck (heavy and light delivery), tractor trailer, industrial truck and tractor operators

Shopcraft occupations—machinists, mechanics and diesel engine specialists, welders, cutters, solderers, braziers

Electrical and Electronic Engineering Technicians

Customer service representatives

Locomotive engineers

 Dispatchers

**Producer Inventory**

Also as a part of the CSSI project, an inventory\(^\text{14}\) of training providers, training programs, and other “producers” of TWL talent in the region was completed. The objective of the inventory was two-fold: to identify the universe of producers in the region, and to collect data on specific aspects of the programs they offered.

The methodology used to develop the inventory included reviewing existing data from a variety of public information sources and contacting each provider to verify specific data elements, including contact information. The following organizations either provided data directly or made it available to the project through web-sites or existing data bases:

- Illinois Board of Higher Education
- Illinois Community College Board
- Illinois Department of Employment Security’s Career Information Service
- Illinois Department of Employment Security’s Workforce Information Center
- Illinois State Board of Education’s Private Business and Vocational Schools Directory
- Illinois Workforce Development System Eligible Provider Database

In order to insure the closest match between the critical skills occupations and the programs that provided training in the skills needed for those occupations, the elements from different databases were “crosswalked.” First, critical skills shortage occupations were linked to training programs by matching the Standard Occupational Codes (SOC) associated with each occupation with the Classification of Instructional Program (CIP) code that reflected course content most closely linked to that occupation.

These CIP codes were then used to search a national database\(^\text{15}\) housed at the National Center for Educational Statistics, generating a list of institutions and

\(^{14}\) The producer inventory was developed by Thomas P. Miller and Associates, and is available from the Workforce Boards of Metropolitan Chicago.
programs most relevant to the TWL skills shortage occupations in the Chicago region. Because we know not all training occurs in post-secondary institutions (e.g., union-, firm-, association-, or community-based programs), the search was supplemented with input from interviews with experts representing industry trade and professional associations and firms participating in the CSSI project.

The inventory identifies 96 producers in the Chicago region offering some 190 programs that lead to the 19 occupations originally identified during the Critical Skills Shortage analysis.\footnote{This list has since been reduced to the occupations listed on page 4.}

There are several important caveats relevant to an analysis of the inventory.

First, leakage: there is a common tendency for people who receive training for a TWL occupation to apply their skills in another industry, much more so than in either the healthcare or manufacturing environments. Leakage occurs because many TWL occupations also exist in other industries, and many of them are in high-demand. Mechanics and welders, for example, are in high demand not just in TWL firms, but in nearly every manufacturing sub-sector in the region. As a result, excluding truck drivers, many more individuals are completing TWL training programs than find their way to jobs in the TWL sector.

Second, there are providers outside the region that serve as the primary producers of talent for some TWL sectors. Rail, for example, regularly recruits candidates both from military schools and out of the armed services, and uses a nationally-renown rail program in Kansas\footnote{Johnson County Community College runs this program in partnership with the National Academy of Railroad Sciences.} to train and recruit conductors.

Third, the list reflects available programs and producers for only a brief moment in time. Programs develop and disappear with some regularity. Many providers indicated that they had just cancelled TWL programs, while others indicated that they were developing new programs intended to serve the industry.

Finally, it is important to note that the list is not perfect even as a “snapshot” in time; there are certainly programs that were not nominated and did not surface or new programs that have emerged since the inventory was completed. Moreover, there are programs that do not specifically train individuals for the critical skills shortage occupations, but whose graduates may find their way to such positions. Northwestern University’s Transportation Resource Center\footnote{Although Northwestern’s programs were not included in the inventory of producers of talent for specific occupations, the University (and its Resource Center) remain excellent sources of intelligence about the industry and connections to its experts. Finding ways to engage more broadly on the intelligence side, rather than the training side, may be of value to boards, as well as to the industry-wide professional and trade associations.} and its undergraduate, graduate, and doctoral programs in transportation and logistics, for example, very likely produce talent for local TWL firms, but not

\footnote{The Integrated Postsecondary Electronic Data System contains information about all post-secondary education programs and institutions in the U.S.}
necessarily for specific jobs. And, many graduates with relevant TWL skills leave the area for work; there is no presumption that graduates who complete technical, college, or university programs related to transportation will stay in one location.\footnote{This is particularly true among long-haul truck drivers. While the median wage for these positions in the U.S. is $45,000, the same positions on the West Coast pay almost double that, and the cost of living in many West Coast cities is lower than in Chicago.}

Despite these limitations, the inventory will be an excellent resource for regional stakeholders and industry partners over time.

**What Did We Learn?**

While the information collected in the producer inventory will be applied to a range of initiatives linked to CSSI in the coming months, it has already been useful in helping to frame some of the root cases, and in turn, the solutions proposed in this report.

For example, one of the most critical shortages uncovered in the CSSI analysis of TWL was a driver shortage — long-haul, short-haul, and delivery. While it is possible that such a shortage might be the result of limited capacity among producers (e.g., not enough training programs), the producer inventory made clear that this was not the case. There are at least 15 programs in the region, and none had a waiting list.

Similarly, only two programs in the region train individuals for bus and truck mechanic/diesel engine specialist positions, but one of them (Universal Technical Institute) graduates 5,000 to 6,000 students per year, many in the Chicago region. While some employers recruited from this institution, many others did not. Most had no idea how many graduates the program was producing annually. Again, the shortage does not seem to be a capacity issue, but one of better connecting supply with demand.

The Chicago area is fortunate to have a significant network of education and training providers developing talent for its firms, including those in the TWL industry. However, because the industry is little known, and even less understood, graduates of programs who would be excellent candidates for jobs in TWL tend to seek jobs in other industries. This issue is addressed in greater detail in the solutions section of the report.

**Learning from Focus Groups**

Another product developed as a part of the CSSI project was a report on awareness and perceptions of jobs and careers in the three targeted industries—healthcare, manufacturing, and TWL. The primary method we used to...
inform this research was convening focus groups—with young people just entering the labor market, with career changers seeking new opportunities, and with post-secondary students training for jobs and careers in particular industries. While the purpose of these focus groups was to learn what these groups knew about the CSSI target industries and how they felt about them, participating individuals provided considerable insight into potential solutions for overcoming the challenges identified in the Root Cause Report.

For example, across three key demographic groups, awareness of the TWL industry was the lowest among the three CSSI target industries. Most individuals did not have a strong opinion about the industry, but where they did hold opinions, these were generally negative. Across demographic groups:

- The TWL industry was not perceived as a technology-intensive industry.
- TWL jobs were perceived as unexciting and repetitive, demanding long hours and hard physical labor.
- TWL jobs were perceived as underpaid and lacking in benefits.
- TWL jobs were perceived as “jobs you take while you look for a career elsewhere.”

Further probing made evident that negative impressions were a result of two interrelated dynamics:

- Individuals tended to use a single job they held in low esteem (e.g., warehouse worker) as a proxy for the entire industry; and/or
- Individuals had little direct experience with work in the TWL industry, but perceived it as work for uneducated or inexperienced people—people unlike themselves.20

In addition, individuals participating in focus groups thought about jobs and careers in the three CSSI target industries differently. When asked about healthcare jobs or occupations, it was easy for them to associate with the content of the work. They talked about whether or not they felt positive about specific occupations, like nurse or technician. They approached manufacturing in the same way, even if they had antiquated ideas about manufacturing itself, they held opinions about the whole industry.

This was not true for TWL. When asked about this industry, people felt more positive about any job if it was with a recognizable TWL company (e.g., Fed-Ex or UPS), and less positive if it was not. Asking focus group participants—regardless of affiliation—whether they felt positive or negative about working in

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20 There was one notable exception. One focus group was comprised of high school students that had visited—and some who had interned with—a major manufacturing and distribution center in Chicago. These students not only were more knowledgeable about TWL (and its relationship to manufacturing), but they perceived it as a field requiring high levels of skill, particularly technology skill, and held the industry in much higher esteem than any other group, youth or adult.
the TWL industry made little sense to them. And their knowledge of specific job content was very limited (e.g., truck driving).

The three demographic groups who participated in the project tended to use different sources for information and advice about jobs and careers. The younger focus group participants tended to use the Internet as their primary source for all information, and to some degree, for job searching. College students preferred to solicit help and advice from their instructors, college placement offices, peers, newspapers, and other non-electronic resources. Career changers (all adults) tended to rely primarily on friends and family, in addition to newspapers and other non-electronic resources, for their job and career information.

One characteristic of the TWL industry that did seem to pique the interest of focus group participants, especially job-changers, was the fact that TWL jobs are unlikely to be outsourced, since the industry thrives whether the U.S. is importing or exporting goods. Almost every time this was pointed out, it was as if a light-bulb had been turned on in the room.

**Secondary Research – Review of Industry Reports, Workforce Research**

In addition to gathering intelligence through primary sources, the CSSI project also used a variety of secondary sources to provide context, validate local findings, and move from “brainstorming” solutions to determining which solutions would best meet regional needs.

Secondary research methods used included:

- Developing a list of potential solutions and resources for stakeholder review. These included information about both regional and national efforts (attached as Appendix C).
- Reviewing regional and national information to identify existing solutions that could be implemented more broadly.
- Identifying model programs from other industries that could be applied to TWL firms or sectors.

In several cases, interviews and meeting comments identified potential solutions for further investigation.

Perhaps the most important outcome resulting from this phase of the CSSI project was pulling together key professional associations and networks, plus industry leaders, experts, and firms of all sizes from all TWL sectors to address shared workforce issues. Bringing stakeholders from across the industry together for any purpose was not a frequent occurrence, and few associations had ever engaged their memberships on workforce issues. A few associations had done
some work—outreach to youth, for example—but did not perceive this work as having the potential to impact broader workforce issues.

While CSSI’s enormous scope and short timeline made it difficult to engage new partners, the project helped build a foundation for ongoing collaboration on key workforce and economic issues in the region.
Description of Solutions

Review: Critical Skills Shortage Occupations and Root Causes

The implementation phase of the CSSI project will focus on the following critical skills shortage occupations:

➢ Drivers — truck (heavy and light delivery), tractor trailer, industrial truck and tractor operators
➢ Shopcraft occupations — machinists, mechanics and diesel engine specialists, welders, cutters, solderers, and braziers
➢ Electrical and Electronic Engineering Technicians
➢ Customer service representatives
➢ Locomotive engineers
➢ Dispatchers

While there are other shortage occupations, the metropolitan Chicago region has identified these as the most critical.

The Chicago region’s Root Causes Report identified five causes of these shortages:

1. **The transportation, warehousing, and logistics industry has an image problem.** People seeking to enter or advance in the labor market have had little contact with the TWL industry, and that contact has been largely negative.

2. **Many jobs in the transportation, warehousing, and logistics industry limit employees’ lifestyle choices.** The industry’s clock runs 24 hours per day, seven days per week, 52 weeks per year, and many jobs require traveling long distances from home for significant lengths of time. Other jobs require considerable self-directed and or solitary work, or are simply dangerous. While there are lucrative jobs and careers in the industry that enable long periods of time off, in exchange for the long periods of time on, and jobs that require little physical exertion, TWL jobs are not for everyone. For many, the remuneration is less than acceptable given the sacrifices — or the risks — required.

3. **Government regulations linked to transportation, such as the new Hours of Service regulations, homeland security, new security protocols and employee testing and screening practices, create uncertainty** and make hiring and retaining employees for many positions more difficult.
4. While there are exceptions, **many TWL firms provide limited access to formal professional development, training, or career advancement opportunities**, making it difficult for would-be talent to build careers in the industry.

5. **An array of structural factors make hiring and retention difficult for many parts of the industry.** For example, more insurance firms are requiring a minimum age of 23 or 25 for long-haul drivers, leaving a small window of opportunity before good drivers may want to settle down with families.

These issues are addressed in detail in the region’s *Transportation, Warehousing and Logistics Root Causes Report*, submitted in July 2004. Since determining these root causes, the regional stakeholders have worked together to gather additional intelligence and begin to craft solutions. They developed a package of solutions, some of which address specific needs in specific sectors, while others focus on challenges faced by the industry more broadly. These solutions seek to both bring together (and make more effective) existing initiatives and strategies and to catalyze new (pilot) initiatives.

Two factors provide important context for considering the proposed solutions:

- **The root causes the solutions seek to address include long-term challenges as well as short-term gaps.** Industry partners agreed that a package of solutions that addresses some of both, using strategies that reinforce each other, promises both short-term impact as well as longer-term change.

- **A variety of programs, strategies, and models are still emerging as resources for the CSSI project.** Because many stakeholders were new to workforce development in a TWL industry context, there was little data on existing regional programs or their effectiveness. In an effort to avoid duplication and integrate lessons learned elsewhere, stakeholders called for a mix of program and planning activities. For example, on the program side, stakeholders are prepared to move forward, collaborating to identify training programs and candidates appropriate for those programs, and helping to seed new programs that fill obvious gaps. On the planning side, where stakeholders are interested in using web technology more effectively to recruit individuals for TWL jobs and careers, further analysis determining which of the many web resources available might be linked to one another or distributed differently to target audiences is a necessary first step.

All of the proposed solutions address the root causes of critical skills shortages in specific occupations, but some strategies address more than one root cause or more than one critical skill occupation. Stakeholders pointed to this as a key strength of the region’s approach.
Solutions

The metropolitan Chicago region proposes three primary solutions for addressing the region’s critical skills shortages in transportation, warehousing, and logistics:

1. Improving the industry’s image.
2. Promoting training and professional development.
3. Advancing key strategic initiatives.

Solution #1: Improving the image of the transportation, warehousing, and logistics industry

Improving the industry’s image will not happen overnight. However, industry partners have repeatedly emphasized the need to do this work, and underscored its importance.

Among the important observations made by key stakeholders and industry partners during the CSSI project planning phase were:

“We have not cultivated an image that helps people outside the industry see us. Maybe we do our jobs so well that we’re almost invisible. But it’s hard to recruit new talent when you are invisible.”

“It’s not just that we aren’t building relationships with schools, communities and others who could help connect us to talent, but other industries are doing this work. There’s more competition than ever for the best talent, and we’re losing.”

“We tend to emphasize our uniqueness even within the industry — rail distinct from ground transport, etc. We talk about differences ... about what we’re not ... but we do less well in talking about what we share, and who we are ...”

“If we’re going to do this, we need to do it collaboratively — you can’t do image work about a broad industry from a narrow vantage point.”

Many options were raised during the process of identifying solutions. Ultimately, there was consensus on the following:

A TWL image campaign is needed. This might comprise a set of shared messages communicated through many targeted campaigns, or a smaller number of more general campaigns, but stakeholders agreed that a serious marketing and communications effort is needed both to create awareness of the industry, and to market the opportunities it offers. Such a campaign should:

- Link to local activities, events, and programs. There are a plethora of opportunities for firms and professionals in the industry to communicate
with students, provide them with hands-on learning and mentoring opportunities (warehouse tours, internships, etc.), ultimately positively influencing the hearts and minds of students and their parents, teachers, and counselors. There is also ample opportunity to engage with the public and proprietary schools to specifically link the content of TWL to classroom activities would help students better connect to the industry as a potential career path, rather than as the subject of a single event. The active conference and convention environment in the metropolitan Chicago region also provides fertile ground for image work. Finding ways to connect communities to TWL-linked professional events scheduled throughout the region may help improve the public image of the TWL industry, and help individuals connect the health of the region’s economy to this important and diverse group of sectors and firms.

- **Make effective use of the local TWL infrastructure.** There are at least ten major trade and professional associations (or chapters) in the Chicago region whose primary area of focus is the TWL industry (or a sector within it). All of these organizations and their members have some interest in promoting awareness about and improving the image of their industry, and a few have done work in this area. Education and cultural institutions could also play more active roles in introducing TWL to diverse constituents and linking firms and associations to the public in creative ways that improve the industry’s image.

- **Employ a variety of media**—paper and electronic, targeting specific messages at specific groups for specific reasons. As our focus groups revealed—and as many of our industry experts who are also parents of teenagers know—young people interact with electronic media in very different ways than prior generations. In addition, they are more attracted to concise and direct communication than are other demographic groups. And they speak many languages. Campaigns targeting them should barely

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21 These groups include: a local chapter of APICS (formerly the American Production and Inventory Control Society, now the educational society for resource management); the Central States Expedited Carriers Association; Chicago Railway Superintendents Association; The Chicago Roundtable (the local chapter of the International Council on Logistics Management); the Chicagoland WER Council, (the local chapter of the national Warehousing and Education Research Council); the Illinois Trucking Association; the Intermodal Association of Chicago; the International Logistics and Warehouse Association; the Traffic Club of Chicago; and Western Railway Club. Business Leaders for Transportation and the Chicago Areas Transportation Study are two additional key players in Chicago regional transportation policy and advocacy.

22 The Chicago Chapter of the Council on Logistics Management, for example, is producing a DVD to explain the industry to young people.

23 For example, Northwestern University houses a top-tier transportation research institute (including a library). And the Chicago region is home to the Art Institute, the Aurora Fire Museum, The Field Museum, the Fox River Trolley Museum, the Illinois Railway Museum, the Kohl Children’s Museum, the Museum of Architecture and Design, the Museum of Contemporary Art, the Museum of Science and Industry, in addition to tens of corporate complexes and historical society venues whose collections and exhibits regularly feature exhibits linked to transportation, logistics or trade.
resemble those targeting older truck drivers whose employers seek to transfer them to different positions in an effort to preserve their knowledge and skill.

- Include complementary and supportive program elements or activities that enhance and reinforce the messages the industry seeks to make visible. The industry will not improve its image with a few commercial advertisements. It must also interact with organizations, institutions, job-seekers, job-changers, and even TWL employees in ways that give meaning to the positive messages it seeks to promote.

**Solution #2: Promoting Training and Professional Development**

Promoting training and skills-building among firms and employees in the TWL industry, both as a response to specific skill demands and as an effort to fill pervasive development gaps in key sectors, was of great interest to industry leaders and community stakeholders. Toward this end, CSSI stakeholders proposed four training initiatives:

1. **Transportation 101 Boot-Camp.** Because so many TWL employees enter the industry through part-time positions or in narrowly prescribed jobs (warehouse forklift driver, for example), they are rarely exposed to the depth and breadth of the TWL industry as a whole. In turn, they are not aware of the range of job and career opportunities available in this diverse sector. CSSI industry partners have proposed an industry-wide “boot-camp” for entry-level TWL employees to fill this void. In addition to generating immediate and discernable benefits (e.g., employees who are better prepared for their jobs), several partner executives pointed out the importance of less tangible benefits. For example, once employees understand their roles in relation to different parts of the sector, they begin to think of themselves as the professionals they are increasingly expected to be. Their jobs are no longer about simply storing and moving goods, but about safeguarding the nation’s produce and products, and protecting the welfare of consumers who will ultimately purchase them in communities all over the world.

2. **Training for shopcraft occupations in TWL firms.** A number of critical skills shortage occupations in TWL reflect overall skills shortages in the regional labor market. Like firms in many other industries, TWL firms find it increasingly difficult to recruit qualified employees for shopcraft positions—machinists, mechanics, welders, etc. Recruiting highly-skilled and experienced technicians and craftspeople is nearly impossible. Industry stakeholders are aware of many of the reasons for these shortages, the dearth of vocational programs in high schools combined with an unrelenting emphasis on college and university enrollment, for example. However, they do see opportunities for recruiting and training among specific demographic groups including high school, college, and technical school students seeking to learn specific skills or crafts; high school graduates who have one to five
years of experience in low-wage jobs and are seeking better opportunities; entry-level TWL employees with aptitude and interest, but no formal training; and TWL employees with formal (or informal) training, but no credential recognized by U.S. firms. These are among the demographic groups that might be targeted for training in high-demand skills.

3. **Training for employees in technology-intensive TWL occupations.** “Technology is changing the way work gets done and raising the skills requirements of the people who do it” is a common refrain across most industries. The TWL firms participating in the region’s CSSI project had a slightly different perspective. They pointed out that the industry has had varied experiences with technology—the pace and scale of changes differs substantially among sectors. The rail industry, for example, has seen little change in its operations in several decades, with the exception of computers on the desks of the front office staff. One rail industry expert noted, “We’re the dinosaurs, among the last industries to implement technologies throughout our operations. The good news is, when we do it — and it will be soon — we should see the same kind of productivity gains other industries saw in the 1980s and 1990s.”

On the other end of the spectrum, the integration of supply chains in the manufacturing sector has forced many trucking, intermodal, and warehousing firms to implement bar code readers and RFID tracking mechanisms so that not only their producers but also their customers can track merchandise online. Safety concerns are also impacting the adoption of new technologies across the industry. The application of these technologies, diverse as they are, is raising the required skills levels among individuals whose jobs are impacted by these changes.

Stakeholders suggested that good candidates for this training include firms with headquarters or regional offices in metropolitan Chicago and those active in local chapters of the industry’s key professional and trade associations.

4. **Promoting training and professional development generally across the industry.** Many firms participating in the CSSI project indicated that they offered training, professional development, tuition reimbursement, or other tools to advance employees on the job, but that few employees took advantage of these programs. Employees, in turn, were often not aware of such programs or were fearful that asking for training would indicate to their supervisors that they

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25 See, for example, “Safety Technology is Getting Serious,” *Transportation Topics*, September 6, 2004.
26 Other potential candidates include firms with whom the US Department of Labor has formal business partnerships (Werner Enterprises and Swift Transportation Inc.) and those involved in the region’s H1-B technology training program.
were not qualified for their jobs. Engaging the professional and trade associations and their members in a concerted effort to promote training and encourage participation in associations and networks\[^{27}\] may begin to shift this dynamic. In addition, promotion of training and development across the industry may raise the demand for dynamic and flexible delivery methods—such as web-based modules—for employees who spend their time on the road.

**Advancing Strategic Initiatives**

An array of strategic initiatives were also discussed during the solutions process. Two were repeatedly cited as priorities:\[^{28}\]

1. **Recruiting more women to the TWL industry.**
2. **Improving the effectiveness of the web for providing information to stakeholders and recruiting new talent**

- **Recruiting women into TWL jobs/careers.** While women have begun to make inroads in a variety of TWL sectors, the industry is still largely male dominated. Moreover, because TWL firms tend to be fairly insular—coordinating with a narrow range of stakeholders and peer firms, promoting from within rather than outside, and moving people laterally when they seek changes—the industry remains difficult to penetrate even for women with the right skills and experience. However, as particular sectors have come to place more importance on relationship management, customer service and communication, they are interested in diversifying their employee base to include more women, particularly those with customer service experience. The motor freight firms in particular expressed interest in hiring female drivers, both because of the increased demand for customer service and because women elsewhere in the service industry tend to earn less than the average salary for drivers and might be more receptive to these jobs and the career prospects they offer (women currently comprise only 5.3% of long-haul drivers, a figure that has barely budged in a decade).

- **Improving the industry’s use of the Internet** to provide information about specific stakeholder groups and to recruit talent for jobs and careers. While many associations and firms maintain job-boards or other electronic recruiting tools, several problems with these tools are evident:

\[^{27}\] Professional development may also include networking and participation in professional association activities or events, an often overlooked aspect of career-building in the TWL industry. In addition, such networking is not just for senior-level executives; younger workers or those new to the industry may benefit more from participation than their more senior colleagues. See “Career Solutions: Knowledge by Association,” Rachel Gecker, *Inbound Logistics*, August 2004.

\[^{28}\] Other issues cited with some frequency included: focusing on training for TWL inside of manufacturing firms that handle their own logistics (e.g., Wal-Mart, Albertsons, Cardinal, etc.); succession planning within the rail industry; and a focus on training for technology throughout whole supply chains, rather than on single firms or sectors (e.g. linked to the implementation of RFID or watermark tags and readers).
Most do not speak to a particular audience or demographic group; they are simply not very appealing to the individuals firms are trying to reach.

- Few make effective use of spiders, bots, or links that would enable individuals to search many job-boards at one time, or access job information in context (e.g., accompanied by labor market information, information about careers, benefits, the firm doing the hiring, etc.).
- Most use “insider” terminology or are located on the sites of professional and trade associations, sources individuals new to the industry would not know.
- Most lack quality control; some listed jobs are very old, or use descriptions that no longer reflect the content of the job; others simply aren’t what they say they are.
- Most are not linked to information about the firm, the sector, the industry, career potential or other information relevant to first-time job-seekers or career changers.
- Most are passive; they are not “pushed” to job seekers in any strategic way, nor are they connected to schools or organizations that comprise networks of the audience the job boards seek to reach.
- Many simply are not easy to use; outdated links, incomplete information, cryptic language, or non-intuitive links make searching with many of these tools a frustrating experience.
- Many require membership, passwords, or other forms of identification, but do not offer a clear privacy policy to potential users as they log-on (this may drive many users away).

While industry stakeholders were averse to any effort to “recreate the wheel,” they were firm in their resolve to identify ways to better utilize web technologies for recruiting and retaining talent.

The following table seeks to connect the critical skills shortage occupations with their primary root causes, and in turn, with the solutions most likely to impact them. As stated earlier, because the root causes are not independent of one another, it follows that some proposed solutions address more than one root cause. Similarly, the occupations listed in the table are not the only occupations impacted (positively or negatively) by the root causes. It follows that the proposed solutions to the root causes may also impact critical skills shortage occupations that are not on this list.

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29 One job board that claimed to feature links to all the transportation jobs in the Chicago metropolitan region featured a single job—in Joliet.
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Root Cause (Primary)</th>
<th>Proposed Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck Drivers, Heavy and Tractor-Trailer</td>
<td>#1: Image problem&lt;br&gt;#2: Limited lifestyle choices (in relation to pay)&lt;br&gt;#3: Government regulations/insurance requirements&lt;br&gt;#4: Limited professional development/advancement&lt;br&gt;#5: Structural Factors</td>
<td>#1: Improve TWL image&lt;br&gt;#2: Emphasize training and professional development in the TWL industry&lt;br&gt;#3: Adopting strategic initiative</td>
</tr>
<tr>
<td>Bus and Truck Mechanics and Diesel Engine Specialists</td>
<td>#1: Image problem&lt;br&gt;#4: Limited professional development/advancement&lt;br&gt;#5: Structural Factors</td>
<td>#1: Improve TWL image&lt;br&gt;#2: Emphasize training and professional development in the TWL industry&lt;br&gt;#3: Adopting strategic initiative</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>#1: Image problem&lt;br&gt;#2: Limited lifestyle choices (in relation to pay)&lt;br&gt;#4: Limited professional development/advancement&lt;br&gt;#5: Structural Factors</td>
<td>#1: Improve TWL image&lt;br&gt;#2: Emphasize training and professional development in the TWL industry&lt;br&gt;#3: Adopting strategic initiative</td>
</tr>
<tr>
<td>Computer Support Specialists</td>
<td>#1: Image problem&lt;br&gt;#2: Limited lifestyle choices (in relation to pay)&lt;br&gt;#5: Structural Factors</td>
<td>#1: Improve TWL image&lt;br&gt;#2: Emphasize training and professional development in the TWL industry&lt;br&gt;#3: Adopting strategic initiative</td>
</tr>
<tr>
<td>Machinists</td>
<td>#1: Image problem&lt;br&gt;#2: Limited lifestyle choices (in relation to pay)&lt;br&gt;#5: Structural Factors</td>
<td>#1: Improve TWL image&lt;br&gt;#2: Emphasize training and professional development in the TWL industry&lt;br&gt;#3: Adopting strategic initiative</td>
</tr>
<tr>
<td>Locomotive Engineers</td>
<td>#1: Image problem&lt;br&gt;#2: Limited lifestyle choices (in relation to pay)&lt;br&gt;#3: Government regulations/insurance requirements&lt;br&gt;#5: Structural Factors</td>
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</tr>
<tr>
<td>Dispatchers, Except Police, Fire, and Ambulance</td>
<td>#1: Image problem&lt;br&gt;#2: Limited lifestyle choices (in relation to pay)&lt;br&gt;#3: Government regulations/insurance requirements&lt;br&gt;#5: Structural Factors</td>
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</tr>
<tr>
<td>Welders, Cutters, Solderers, and Brazers</td>
<td>#1: Image problem&lt;br&gt;#2: Limited lifestyle choices (in relation to pay)&lt;br&gt;#5: Structural Factors</td>
<td>#1: Improve TWL image&lt;br&gt;#2: Emphasize training and professional development in the TWL industry&lt;br&gt;#3: Adopting strategic initiative</td>
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<tr>
<td>Occupation</td>
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</tr>
<tr>
<td>------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Industrial Truck and Tractor Operators         | #1: Image problem  
#2: Limited lifestyle choices (in relation to pay)  
#3: Government regulations/insurance requirements  
#4 Limited professional development/advancement  
#5 Structural Factors | #1: Improve TWL image  
#2: Emphasize training and professional development in the TWL industry  
#3: Adopting strategic initiative |
| Electrical and Electronic Engineering Technicians | #1: Image problem  
#2: Limited lifestyle choices (in relation to pay)  
#5: Structural Factors | #1: Improve TWL image  
#2: Emphasize training and professional development in the TWL industry  
#3: Adopting strategic initiative |
| Truck Drivers, Light or Delivery Services      | #1: Image problem  
#2: Limited lifestyle choices (in relation to pay)  
#3: Government regulations/insurance requirements  
#4 Limited professional development/advancement  
#5 Structural Factors | #1: Improve TWL image  
#2: Emphasize training and professional development in the TWL industry  
#3: Adopting strategic initiative |
The primary vehicle with which the Workforce Boards of Metropolitan Chicago seek to advance proposed solutions is a competitive bidding process. While this does not mean that all proposed solutions will be requested this year, or even that the Boards will invest in all of the solutions, the Boards do expect to work with their Councils and industry stakeholders to determine which solutions would be best advanced through public-private investments, initiated by the Workforce Boards. The Boards plan to let a series of RFPs to generate proposals from public and private sector entities that seek to implement creatively proposed solutions.

It is during this competitive process that the specific initiatives, partners, and resources will be identified. A draft calendar intended to guide the RFP process is included as Appendix D.

There is still considerable groundwork to be done to insure that potential bidders and partners are aware of each other and clear about the solutions the Boards seek, their objectives, and their intended impact. These are described in the Action Plan that follows.
## Action Plan

**Solution #1: Improving the Image of the Transportation, Warehousing and Logistics Industry in the Region**

**Objective:** To raise awareness of good TWL job and career opportunities among target groups — young people, job-holders seeking careers, women, skilled craftspeople and technicians, as well as parents, schools, and employees in the industry who influence the opinions of potential new talent—thereby increasing the pool of informed applicants for TWL jobs.

Linked to Root Causes: 1, 2, 4, 5

<table>
<thead>
<tr>
<th>Activities, Partners</th>
<th>Timeline</th>
<th>Expected Results</th>
<th>Leveraging of Other Resources</th>
</tr>
</thead>
</table>
| **A.** What: Communicate intent to potential bidders, including organizations currently engaged in TWL image-building  
Who: Workforce Boards of Metro Chicago, with assistance from the TWL Sector Council | 9/04 | ü Improved relationships with trade and professional associations  
ü Cultivation of creative ideas for way forward, through RFP or alternative means  
ü Develop intelligence to help shape RFP or alternative way forward | N/A |
| **B.** What: Develop and release RFP  
Who: Workforce Boards of Metro Chicago | 9/04 | ü New public-private and cross industry partnerships  
ü Creative proposals with evidence of probable success  
ü Industry support | RFP will request the identification of leveraged and/or redirected funds to support training initiatives. |

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30 Both activities and partners will largely be determined through an RFP process. For this particular solution, we would expect bidders to comprise professional and trade associations, alliances of firms, schools (K-12), and possibly community colleges to bid on the work, perhaps in partnership with media and marketing firms; we would expect a variety of public and community programs to be able to use the resources developed to help connect their customers with good jobs in the TWL industry.

31 Note: specific results will be developed during contract negotiations and cannot yet be specified. Similarly, leveraged resources will be articulated in successful proposals, and will be validated—and tied to performance measures—through contracts.
### Solution #1: continued

<table>
<thead>
<tr>
<th>Activities, Partners[^32]</th>
<th>Timeline</th>
<th>Expected Results[^33]</th>
<th>Leveraging of Other Resources</th>
</tr>
</thead>
</table>
| C. **What**: Announce awards and develop contracts (if RFP) or specific Action Steps (if no RFP)  
**Who**: Workforce Boards develop and monitor contracts or support relationship, successful bidders or partners develop work plans and collaborate with Boards in fulfillment of contractual or mutually agreed obligations. | 1/05 | ✓ Innovative and effective targeted campaigns  
✓ Increased collaboration across industry  
✓ Increased qualified applicants for available TWL jobs  
✓ More individuals advancing from “jobs” into careers through critical skills shortage training and placements  
✓ Increased awareness/improved image of TWL among target groups in region (pre-post surveys?)  
✓ Evidence of leveraged resources  
✓ Satisfied (delighted!) individual and employer customers | |
| D. **What**: Assess impact/need for sustained effort  
**Who**: Workforce Boards work with industry to evaluate develop approach to sustainability (if needed) | N/A | N/A | N/A |

[^32]: Both activities and partners will largely be determined through an RFP process. For this particular solution, we would expect bidders to comprise professional and trade associations, alliances of firms, schools (K-12), and possibly community colleges to bid on the work, perhaps in partnership with media and marketing firms; we would expect a variety of public and community programs to be able to use the resources developed to help connect their customers with good jobs in the TWL industry.

[^33]: Note: specific results will be developed during contract negotiations and cannot yet be specified. Similarly, leveraged resources will be articulated in successful proposals, and will be validated—and tied to performance measures—through contracts.
### Solution #2: Promoting Training and Professional Development in the TWL Industry

**Objective:** (A) To improve the skills of entry-level TWL workers and their familiarity with the TWL industry, and increase their ability to develop TWL careers; (B) To address specific critical skills shortages in shopcraft occupations among TWL firms; (C) To address specific technology-related skills gaps in the TWL industry, focusing on firms with a significant presence in the region (HQ, regional offices, DOL National Business Partners); and (D) To increase engagement in professional development among firms in the TWL industry and increase the frequency and quality of career-development. \(^{34}\)

Linked to Root Causes: 1, 4

<table>
<thead>
<tr>
<th>Activities, Partners(^{35})</th>
<th>Timeline</th>
<th>Expected Results(^{36})</th>
<th>Leveraging of Other Resources</th>
</tr>
</thead>
</table>
| **A.** **What:** Develop a cross-sector TWL 101 “Boot Camp” for entry-level TWL employees in firms across TWL sectors  
✓ Develop curriculum  
✓ Determine logistics (where, when, how much, who goes, how taught, by whom, etc.)  
✓ Pilot program with key stakeholder firms  
✓ Refine and market programs  
**Who:** Key professional and trade associations, together with the Workforce Boards of Metro Chicago. | **To Be Determined** | ✓ Expanded training capacity in an important regional industry  
✓ Improved relationships and coordination among key professional associations in the industry and between these associations and the workforce boards  
✓ Completion of training by individuals who tend not to participate in training with great frequency  
✓ Improved skills and preparedness among entry-level TWL employees  
✓ Increased percentage of entry-level TWL employees seek/find successful careers in the TWL industry associations  
✓ Satisfied (delighted!) individual and employer customers | Presumes in-kind resource sharing among professional and trade associations. |

---

\(^{34}\) Each of these objective correlates with strategy A-D below (table).

\(^{35}\) Both activities and partners will largely be determined through an RFP process. For this particular solution, we would expect bidders to comprise professional and trade associations, alliances of firms, schools (K-12), and possibly community colleges to bid on the work, and we would expect a variety of public and community programs to be able to use the resources developed to help connect their customers with good jobs in the TWL industry.

\(^{36}\) Note: specific results will be developed during contract negotiations and cannot yet be specified. Similarly, leveraged resources will be articulated in successful proposals, and will be validated—and tied to performance measures—through contracts.
## Solution #2: continued

<table>
<thead>
<tr>
<th>Activities, Partners(^{37})</th>
<th>Timeline</th>
<th>Expected Results(^{38})</th>
<th>Leveraging of Other Resources</th>
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</thead>
</table>
| **B.** What: Develop a plan for recruiting target groups (those outside the formal labor market and incumbent TWL workers) and connecting them to jobs or training programs that prepare them for skilled craft positions with TWL firms (especially motor freight and rail). This might be done in collaboration with the manufacturing sector, which is competing for the same workers, or it might rely on a customized training program developed for the TWL industry. If a customized program is needed, it may be facilitated through a competitive bidding process. **Who:** Workforce Boards of Metro Chicago together with their broad network of stakeholders (one-stops, community-based programs, colleges, etc.) in collaboration with professional and trade associations, key firms seeking to lead the effort, and the TWL Council. | Initiate through release of RFP 9/04 | ✓ New public-private and cross industry partnerships  
✓ Focused skill building and career advancement in critical skills shortage occupations  
✓ Reduced shortages in critical skills shortage occupations  
✓ Improved training capacity (presumably the industry would influence the content even in the absence of an RFP, and would play an even larger role with an RFP)  
✓ Industry support for training  
✓ Satisfied (delighted!) individual and employer customers | RFP will request the identification of leveraged and/or redirected funds to support training initiatives. |

| **C.** What: Develop a plan for identifying individuals in TWL sectors and firms who require training in technology skills or for technology-intensive occupations. Since needs will likely be unique to individuals and firms, individual accounts that function like training accounts (ITAs) or scholarships—matched with private resources—may be an effective way to fund such training. Effort would be focused on TWL firms with headquarters or regional office in the Chicago region, or those with whom the U.S.DOL maintains | Initiate through release of RFP 9/04 | ✓ Skill building among TWL employees whose jobs are changing (lay-off aversion strategy)  
✓ Engagement of individuals who tend not to seek development opportunities in training  
✓ Improved linkages among firms and professional associations and between these stakeholders and the Boards  
✓ Satisfied (delighted!) individual and employer customers | RFP will request the identification of leveraged and/or redirected funds to support training initiatives. |

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\(^{37}\) Both activities and partners will largely be determined through an RFP process. For this particular solution, we would expect bidders to comprise professional and trade associations, alliances of firms, schools (K-12), and possibly community colleges to bid on the work, and we would expect a variety of public and community programs to be able to use the resources developed to help connect their customers with good jobs in the TWL industry.

\(^{38}\) Note: specific results will be developed during contract negotiations and cannot yet be specified. Similarly, leveraged resources will be articulated in successful proposals, and will be validated—and tied to performance measures—through contracts.
industry partnerships. We are also working with an H1-B program in the region to identify potential collaboration opportunities.

*Who:* Workforce Boards, key trade and professional associations, target firms, and any programs required to lend support to the effort

| D. | **What:** Promote training and professional development across the industry—encouraging take-up of existing training benefits, encouraging membership to professional associations, promoting scholarships, etc.  
*Who:* Key professional and trade associations, firms | Initiate through release of RFP 9/04 | ✓ Improved access to and participating in professional development and training among employees in key TWL firms  
✓ Movement toward establishing culture of career development and skills building within industry  
✓ Improved skills among individuals who participate in professional development and training  
✓ Satisfied (delighted!) individual and employer customers | RFP will request the identification of leveraged and/or redirected funds to support training initiatives. |
### Solution#3: Advancing Strategic Initiatives

**Objective:** To undertake creative, innovative strategic initiatives that are aimed at addressing critical skill shortages.

Linked to Root Causes: 1, 5

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<th>Activities, Partners</th>
<th>Timeline</th>
<th>Expected Results</th>
<th>Leveraging of Other Resources</th>
</tr>
</thead>
</table>
| **A.** What: Develop innovative approaches for addressing critical skill shortages. One such example would include activities that support recruitment and retention of women in the TWL industry:  
✓ Market aspects of the industry that appeal to women  
✓ Coordinate with women’s networks and organizations  
✓ Send women speakers to schools and venues to recruit  
✓ Establish mentor relationships and inclusion strategies once women are on the job  
✓ Make safety a priority at all levels  
✓ Adopt family-friendly policies (family leave, family and domestic partner benefits, flex-time where possible, etc.)  
Who: Key professional and trade associations, TWL firms, and the Workforce Boards of Metro Chicago together with women’s stakeholder groups and schools  

Initiate through release of RFP 9/04  | More women attracted to industry from diverse venues  
More women retained and advanced in TWL jobs/careers  
Improved gender relationships at work  
Improved image of TWL among women  
Satisfied (delighted!) individual and employer customers  | RFP will request the identification of leveraged and/or redirected funds to support training initiatives.  |

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39 Note: specific results will be developed during workplan development or contract negotiations and cannot yet be specified. Similarly, leveraged resources will be articulated in successful proposals, and will be validated—and tied to performance measures—through contracts or workplans.
Appendix A: Membership of Key Stakeholder Groups

TWL Council Membership

Al Anastasiou, Operations Manager, Veteran’s Trucking Corporation
Tim Bend, Human Resource Manager, UPS
Genny Boesen, Executive Director, South Metropolitan Regional Higher Education Consortium
Wendy Breitmayer, Director, Workforce Transitions, Elgin Community College
Carl Bufalini, District Manager, Enterpriz Cook County
Judy Burman, Adult Basic Education, Elgin Community College
John Caltagirone, Vice President, Supply Chain Strategy, The Revere Group
Lori Clark, Department of Commerce and Economic Opportunity
Rita Coleman, Warehousing Education & Research Council
Mary Kay Conley, Indiana Harbor Belt Railroad
Larry Coor, Manager, West Central Region, Werner Enterprises
Tom Cuculich, Director, DuPage County Economic Development & Transportation
Trevor Darby, Corporate Recruiter, Nexus Distribution Corporation
Jeff Dexter, Teamsters Local 705
Lew Dibert, Manager of Distribution, Republic of Windows & Doors, Inc.
Christine DiMaria, Representative, Chicago Tribune
Susan Donovan, Public Policy Director, Chicago Women in Trades
Jenny Field, Senior Staff, IIT
Michael Finnegan, President, Kankakee County Economic Development Council
Marvin Fisher, D.C. Human Resource Manager, ToysRUs
Bill Fors, Traffic Club of Chicago
Mary B. Gallagher, Executive Director Chicago Federation of Labor, workers Assistance Committee
Jim Giblin, Vice President, Transportation Consulting Services Corporation
Bob Ginsburg, Director, Center on Work and Community Development
Nancy Glickman, Coordinator, Assessment and Training, Moraine Valley Community College
Greg Glotzbach, UPS
John E. Greuling, President & CEO, Will County Center for Economic Development & Will County Chamber of Commerce
Josh Grodzin, DuPage County Economic Development & Transportation
Cecelia Hamilton, Human Resources Director, RR Donnelley Logistics
Rich Haney, Dean, Business and Industry Services, College of Lake County
Dina Henchel, Account Executive, Chicago Southland Chamber of Commerce
Rita Herrick, Director of Offsite Recruitment, Lewis University
Lyle Hicks, CEO, University of St. Francis
David Hinderliter, Kankakee River Valley Chamber
Rob Hoffman, Director of Business Development, World Business Chicago
Terry Irby, Dean, Division of Adult & Family Services, Joliet Junior College
Al Jackan, Vice President-Midwest Region, Pacific Continental Shippers, LLC
Charles L. Jenrich, Vice President, U.S. Operations, GBJD Registrars
A.G. Johnson, President, Transportation Employment Specialist
Debbie Kane, Senior Manager, PepsiCo Beverages and Foods
Andre Kellum, Business Services Representative, Illinois Manufacturing Foundation
David Kim, UPS
Don Kirchenberg, Qualogistics
Jack Klaus, Economic Development Consultant, The Agora Group
Carole Ko, Project Coordinator, Mayor’s Office of Workforce Development
Brian Kullman, President, SCAnalytics, Inc.
Rick Kwasneski, Joliet Arsenal Development Authority
Barbara Ladner, PACE
Shirlanne Lemm, Greater O’Hara Association
Julie Leiberman, R.R. Donnelly
Peggy Luce, Vice President, Chicagoland Chamber of Commerce
Ken MacRae, Star Truck Driving School
Cathy McGee, Regional Director, Burlington Northern Santa Fe
Maria McIntyre, Council of Logistics Management
Bill McKeown, Manager of Staffing, Republic Windows & Doors, Inc.
Marty McKinna, UPS
Bill McMillan, Associate Vice President of Occupational Programs, City Colleges of Chicago
Ron Medill, Central States Expedited Carriers Association
Tom Menzel, President, NSACI
James Middleton, President, Genex, L.P., Vice Chair, The Traffic Club of Chicago
John Miller, Director, H.R., Field Operations, Amtrak
Sandra Mol, Joliet Junior College
Reggie Morris, UPS
Lavon Nelson, Director, Workforce Systems, Illinois Community College Broad
Karen Patel, President, McHenry County Economic Development Corporation
Jonathan Perman, Evanston Chamber of Commerce
Tony Perry, Area Jobs Development Association
John J. Plunkett, President, Suburban Job-Link Corporation
Mary Posing, Kankakee Community College
Ray Prendergast, Manufacturing Program Manager, Chicago Public Schools
Thomas Price, Director, Corporate Services, Juliet Junior College
Herbert Prince, Workforce Planning Manager, UPS
Gerald Pawling, Chicago Area Transportation Study
Sandra Reno, Will county Center for Economic Development
Lowell Rice, Director of Industrial and Workforce Development, Greater North Pulaski Development Corporation
Christopher Rice, Manager, Potlatch Corporation, Chicago Distribution Center
Hernandes Ries, Grants Research Specialist, Mayor’s Office of Workforce Development
Brenda Roland, Instructional Coordinator in Adult Education, Joliet Junior College
John F. Rowan, President and CEO, General Warehouse & Transportation Co./ROACO, LLC
Greg Ruminski, Schneider National
Mike Ruminski, Director of Operations, Chicago Region, Schneider National
Denise Rzonca, Director, Economic & Workforce Development, South Suburban College/Business Center Institute
Amy Santacaterina, Mayor’s Office of Workforce Development
Tim Schmidt, City of Kankakee Community Development Agency
Craig Schmidt, Senior Director, Workforce Training, Prairie State College
Ronald Segvich, Workforce Development Project Manager, South Surburban College
Nehemiah Sherrod, Joliet Junior college
Chuck Shroeck, Education to Careers, Chicago Public Schools
Carrie Simmons, Director of Operations, World Business Chicago
Russ Slinkard, Joliet Region Chamber of Commerce
Patrick Smith, Job Developer, Chicago Federation of Labor, Workers Assistance Committee
Richard Smith, Vice President, International Brotherhood of Teamsters, Local 781
Jon Snider, Caterpillar Logistics Services
Stephanie Sommers, Sommers Consulting
Dennis Speck, Atlantis Transportation Services, Inc.
Scott Szamatowitz, Human Resources Intern, Indiana Harbor Belt RR
Jenny Talley, Vice President of Operations and Sales, New Age Transportation
Jan Terry, Coordinator of Planning and Development, Workforce Board of Northern Cook County
Anthony Villacin, Business Manager, ProLogistix
Ken Wahlstrom, Human Resources, Dollar Tree Distribution Center
Chris Weidman, Acco Corporation
William Whitmer, Economic Development Director, Village of Wheeling
James T. Wilson, President, Transportation Consulting Services Corporation
David Young, President, Lake County Partners

**TWL Solutions Team Membership**

John Caltigirone, Revere Group
Mary Kay Conley, Indiana Harbor Belt Railway
Cathy McGhee, Burlington Northern Santa Fe Rail
Marty McKenna, UPS
Jim Middleton, Genex
John Miller, Amtrak
Mike Ruminski, Schneider National Trucking
John Rowan, General Warehouse
Andrea Velasquez, WERC
Gail Washington, Metra
Transportation/Warehousing/Logistics Council Meeting  
Critical Skill Shortages Initiative  
Northeast Economic Development Region  

September 2, 2004  
1:00 p.m. – 3:00 p.m.  

Club & Conference Center – Wrigley Building  
410 North Michigan Avenue  
Chicago 60611  

Agenda  

Welcome  
Review of Critical Skill Shortages and Root Causes  
Overview of Process and Solutions Identified to Date  
Discussion/Identification of Solutions  
Adjourn
### Background Information

Thank you for agreeing to participate in this interview for the Critical Skill Shortages Initiative in Manufacturing. This initiative is being headed by the Workforce Boards of Metropolitan Chicago.

Regional manufacturing and workforce leaders have been meeting over the past several months to identify the root causes of the critical skills shortages in manufacturing to answer the question “Why can’t key TWL firms find the people/skills they need?” These causes are:

- **Image issues:** critical demographic groups (youth, women, career changers) lack of awareness of the industry, information about jobs and careers; others have had limited contact with different parts of the industry (e.g., trucking) and have a negative perception of it.
- **Hard jobs:** Many TWL jobs do not offer competitive wages and benefits relative to the lifestyle demands they place on workers and families.
- **Regulations (government and insurance):** Security issues, licensing requirements, and age/experience requirements of insurance firms limit the pool of candidates; HOS legislation may also have an impact.
- **Limited professional development opportunity:** scheduling training for employees working in a 24/7 environment, sharing costs, difficulty navigating the labor market and (employer) fear of poaching (losing good, just trained employees to another firm) create obstacles for individuals seeking careers in the industry.
- **Structural factors:** aging/diversifying workforce; new technologies demanding new skills and ways of working.
The purpose of this interview is to get your input on potential solutions to these challenges that can be employed within the Chicago region. We will be asking you for examples of existing approaches, initiatives, or programs that address any or all of these four challenges. We will also be seeking your ideas and suggestions for innovative approaches to these issues.

**Step 1: Importance of Root Cause vs. Ability to Impact**

For each of the Root Causes: What is your opinion of the importance of this issue, and the ability to impact the issue. “10” represents the highest impact and the highest feasibility.

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<th>Root Cause #1: Image issues (negative or none)</th>
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<th>Root Cause #2: Hard jobs</th>
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### Root Cause #3: Regulations

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### Root Cause #4: Limited professional development opportunity

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### Root Cause #5: Structural factors

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**STEP 2: What is the Desired State for these Root Causes?**

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**STEP 3: The “Do Nothing” Scenario**

If no action is taken, what happens?

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**STEP 4: Regional Solutions to Address Root Causes**

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**STEP 5: Determine Regional Solutions to Take and How to Measure the Effect of Those Solutions.**

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<th>Actions</th>
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Model programs, initiatives, etc. we should look at to address these issues:

Please send additional information and thoughts that you have for Regional Solutions to Kristin Wolff at kwolff@skilledwork.org
Transportation/Warehousing/Logistics Solutions Team Webcast
Criticalll Shortages Initiative
Northeast Economic Development Region

August 10, 2004
10:00 a.m. – 12:00 p.m.

Web address: www.mymeetingcentral.com/customers/Join_Coolpen.aspx
Telephone number: 1.800.977.8002
Participant code: 057310#

Agenda

Welcome & Introductions
Review of Critical Skill Shortages and Root Causes
Brainstorming Solutions
Discussion of “Homework”
Review Next Steps in CSSI Project
Adjourn
Scholarships/Sponsorships

Houston Transportation Professionals Association (HTPA)
HTPA provides educational assistance to men and women interested in the Houston transportation industry.
http://www.htpa.net/scholarships.html

National Defense Transportation Association
Tuition assistance to college students enrolled in an undergraduate degree program in transportation, physical distribution, logistics, or a combination of the above.
http://www.ndtahq.com/scholarships.htm

The American Society of Transportation & Logistics
Scholarship program to encourage undergrad/grad study in TWL
http://www.astl.org/scholar.htm

College to Jobs

Owens Community College
Some of these programs, e.g. General Motors & Ford, appear to be closely-affiliated/associated with the students in these programs
http://www.owens.edu/academic_dept/transportation/programs.html

Iowa Central Community College
They provide job placement for students 18 yrs and older.
http://www.iccc.cc.ia.us/truckdriving

Partnerships/Internships/Mentorships

UW-Superior Transportation Partnerships in Education Program
http://www2.uwsuper.edu/TRANS/Partner.htm

University of Michigan Trucking Program
http://www.umich.edu/~trucking/Firms.html
CSX Transportation Company
   General internship/coop opportunities

AMDG – Railroad Conductor Training Course
   Provides five-week training course & helps with job placement
   http://www.amdg.ws/courseoverview.asp

American Public Transportation Association (APTA)
   Working on project that collaborates with HS’s and vocational schools to enable
   interested students to begin their careers in transportation
   http://www.apta.com/about/committees/humres/e_omp.cfm

Women’s Transportation Seminar – Greater New York Chapter
   Women holding professional positions in the transportation industry mentor
   male/female entry/mid-level professionals
   http://www.wtsnational.org/sub.php?section=chapters&section_id=05.01&chapter_id=19

U.S. Dept of Transportation Summer Internship
   http://www.fhwa.dot.gov/education/stipdg.htm

East Tennessee State University
   Norfolk Southern, a Fortune 500 transportation company, to hire ETSU
   graduates
   http://www.etsu.edu/careers/recsch.htm

   Norfolk Southern also at OSU
   http://www.osucareerservices.com/internships/int_engtechintern.htm

Ontario School of Trucking

Kelley School of Business
   Looks like they have some strong partnerships – tried surfing website, but
   couldn’t find out exactly who they partner with.
   http://kelley.iupui.edu/development/TransportationChair.cfm
HR Innovations

Transport Canada

http://www.tc.gc.ca/aboutus/straightahead/vision/innovation.htm

Department of Transportation

http://www.volpe.dot.gov/spirit/background/safford.html
## Appendix D: Manufacturing and TWL Sectors Timetable

<table>
<thead>
<tr>
<th>Activities</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>Leadership and Regional Councils presented with final list of CSS occupations and solutions identified to date; Councils provide input on solutions.</td>
<td>September 23</td>
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<tr>
<td>RFP announced/issued</td>
<td>September 27</td>
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<tr>
<td>Solutions reports submitted to DCEO</td>
<td>September 30</td>
</tr>
<tr>
<td>Bidders conferences conducted.</td>
<td>October 5 and 6</td>
</tr>
<tr>
<td>Written questions &amp; answers posted on Workforce Boards of Metropolitan Chicago website.</td>
<td>October 11</td>
</tr>
<tr>
<td>Proposals due.</td>
<td>November 1</td>
</tr>
<tr>
<td>Independent reviews completed/recommendations finalized</td>
<td>November 15</td>
</tr>
<tr>
<td>Workforce Boards formulate funding recommendations to be included in training grant application</td>
<td>November 17</td>
</tr>
<tr>
<td>Leadership Council Meeting – approval of recommendations/grant application</td>
<td>November 19</td>
</tr>
<tr>
<td>Training Grant Application submitted to DCEO</td>
<td>November 30</td>
</tr>
</tbody>
</table>