# Root Causes for Critical Skill Shortages in Transportation, Warehousing and Logistics

**July 2004** 



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# **EXCUTIVE SUMMARY**

All of us living in this important economic region of Illinois and the United States are affected every day by the Transportation, Warehousing, and Logistics (TWL) sector. This sector delivers raw materials, construction materials, finished industrial goods, the food we eat, the drugs we use, the automobiles we drive, and trains, buses, and planes that get us to work. In this report several facts are cited for robust future growth in this sector and yet TWL has difficulties in attracting qualified candidates for employment.

The Workforce Boards of Metropolitan Chicago established a process to determine what critical skills are in short supply and what the root causes are for the shortages. This report primarily addresses root causes identified for the critical skill shortage occupations. Solutions to the root causes and recommendations to implement solutions will be addressed in a subsequent report. To determine the root causes research, interviews, focus groups, and meetings of industry professionals and educators were conducted.

It is important to understand the structure of this industry to allow further understanding of the root causes. While we see trucks, warehouses, and trains everyday in this region, many of us do not identify with the majority of the companies themselves. The Bureau of Labor Statistics reports that nationally 85 percent of truck transportation and warehousing companies employ fewer than 20 workers. A large majority of the trucking companies experience 100 percent turnover on an annual basis. The warehousing sector experiences turnover as employees find more desirable positions due to higher wages or improved shifts or work hours. This illustrates the obstacles that these companies face in recruiting new employees, retaining current employees, and marketing their companies to the region's labor market.

In addition to workers directly responsible for transporting and storing goods, each of these companies require some form of accounting program, inventory program, payroll program, records of customer pick-up and delivery, driving records, maintenance records, and requires either on-site or outsourced information systems capacity and support. Four of the twelve Tier 1 critical skill shortages that were identified in this process are information service professional occupations.

The Metropolitan Planning Council (MPC) of Chicago website provided Chicago Surface Transportation Employment by Sector for Year 2000 from the Business Leaders for Transportation in April of 2002 and are as follows:

Transportation Sector	Total Chicago Region Jobs
Trucking	80,390
Railroad	34,700
Local Public Commuter/Transit	20,470
Water	2,260
Total	137,820

Sector growth is pictured as robust over the next decade and is outlined in MPC's report. The MPC report cited a year 2000 regional transportation annual payroll of \$3.2 Billion. Projected employment expansion in the region of 33 percent between year 2000 and 2020. If the capacity of infrastructure and human assets for this region is not properly planned for, supported with public and private capital, the TWL sector will not be able to meet the consumer demand projections and the opportunity costs will be great.

Structural changes in government regulations have led to higher employee turnover in the trucking and rail industry over the past year and a majority of companies have been impacted by not having enough replacement and expansion employees in place to meet transportation demands with our growing economy. Low TWL sector visibility to the labor marketplace is a key root cause to critical skill shortages and must be addressed to improve the hiring success rate and lower the cost of attracting employees to these companies.

There are real opportunities to form public-private partnerships for the design of programs and increased visibility of opportunities in this sector so these companies can attract, hire, and retain workers. The Critical Skill Shortages Initiative provides the opportunity for Illinois to work more closely with these companies to solve root cause problems and provide them with workforce resources needed for replenishment and future growth.

## INTRODUCTION

This report is a product of the Critical Skill Shortages Initiative (CSSI), a project undertaken by the Workforce Boards of Metropolitan. This project is designed to:

- Assess the occupational and skill needs of firms in the sector comprising transportation, warehousing and logistics, commonly referred to as the TWL sector;
- Identify (current and emerging) critical needs and challenges among firms in this sector that threaten to undermine their competitiveness;
- Identify the root causes of these unmet needs and challenges (both short and long-term); and
- Engage a wide range of stakeholders in developing and implementing solutions to these critical challenges.

The ultimate goal of this work is to help project partners make intelligent investments in people, firms and communities in order to enhance the economic viability of the Metropolitan Chicago region and the state of Illinois. In addition, and of equal importance, the project is intended to spur the creation of innovative public/private partnerships to address these workforce issues for both employers, employees, and job seekers.

The CSSI requires that the Workforce Boards submit a series of four products to the State of Illinois as part of the process. These include:

- A Critical Skills Shortage Report,
- A Root Cause Report,
- A Solutions Report, and
- An Evaluation Report.

Critical skill shortage occupations identified for the TWL sector, as part of the Critical Skill Shortages Report (submitted June 2004) are reflected on the following tables.

	Tier 1	
533032	Truck Drivers, Heavy and Tractor-Trailer	
	Bus and Truck Mechanics and Diesel Engine	
493031	Specialists	
434051	Customer Service Representatives	
151041	Computer Support Specialists	
533031	Driver/Sales Workers	
514041	Machinists	
534011	Locomotive Engineers	
113021	Computer and Information Systems Managers	
151030	Computer Software Engineers	
	Network Systems and Data Communications	
151081	Analysts	
435032	Dispatchers, Except Police, Fire, and Ambulance	
514121	Welders, Cutters, Solderers, and Brazers	

Tier 2		
151021 Computer Programmers		
	Network and Computer Systems	
151071	Administrators	
537051	Industrial Truck and Tractor Operators	
	Electrical and Electronic Engineering	
173023	Technicians	
151051	Computer Systems Analysts	
151061	Database Administrators	
533033	Truck Drivers, Light or Delivery Services	

At a time when downsizing and outsourcing are becoming standard practice in other sectors, the demand for qualified transportation and material-moving workers remains robust and is predicted to grow by close to 23 percent in the next decade. Yet both declining interest in TWL occupations and high turnover present critical workforce problems. These problems are also preventing regional transportation, warehousing, and logistics providers from meeting the needs of a rapidly growing market.

A review of national, regional, and local studies confirms a need for specific strategies to address the future skill shortages in this sector. Technological advancements, changes in the way business is conducted within and between companies, insufficient or mismatched skills, and the impact of an aging workforce have reshaped existing occupational needs. Some have resulted in

<sup>&</sup>lt;sup>1</sup> Bureau of Labor Statistics, 2004-2005, Career Guide to Industries. Based on employment of wage and salary workers in truck transportation and warehousing by occupation, 2002 and projected change, 2002-2012. http://www.bls.gov/oco/cg/cgs021.htm

reduced employment demand, but others have created new and/or higher quality job opportunities.

Root causes of critical skill shortage occupations, as presented in this report, have been classified under five broad categories:

- Awareness and Perception of Opportunities,
- Impact of Government Regulations,
- Barriers to Learning,
- Level of Job Satisfaction, and
- Influence of Structural Factors.

# **METHODOLOGY**

The identification and development of root causes for critical skills shortages in the TWL sector came from several sources. First, The Hudson Institute completed an analysis of the TWL sector to define the broad root cause categories.

Second, detailed data on actual root causes was obtained from the various surveys and focus groups conducted by Corporation for a Skilled Workforce. Groups in these surveys and focus groups included:

- TWL employees (Results of Employees Focus Groups, Interviews, and Surveys in the TWL Sector)
- TWL employers (Result of Employer Focus Groups, Interviews, and Surveys in the TWL Sector)
- High school and community college students (CSSI Awareness & Perceptions Focus Groups Results)
- Current clients of one-stop centers (CSSI Awareness & Perceptions Focus Groups Results)

Finally, the original descriptions of root causes were further validated by a review conducted by the two industry experts with a panel of TWL industry representatives. Input from this same group was used to rank the various root causes in order of significance.

### REGIONAL COALITION AND INDUSTRY PARTNER ENGAGEMENT

The Workforce Boards of Metropolitan Chicago have engaged a broad range of transportation, warehousing and logistics professionals in addition to key stakeholders representing the following constituent groups:

- Professional and trade associations,
- Labor unions,
- Public high schools, colleges, employment programs and staffing firms,
- Community organizations and interest groups,
- Local government,
- · Economic development professionals, and
- Workforce professionals.

The Workforce Boards have established both a formal structure for industry and community participation in CSSI planning and have facilitated methods for informal participation as well since the project's beginning. Copies of letters of support for this report and the regional CSSI activities are provided as Appendix A.

# Partnership Structure

The project's formal partnership structure includes a number of entities whose roles are described as follows. Listings reflecting the membership of the Leadership, Regional, and TWL Councils is provided as Appendix B.

**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.

CSSI Regional Council. The Regional Council's members include a broad range of industry, labor, and government professionals – the State Department of Human Services, Commerce and Economic Opportunity, and Employment Security, the Illinois Community College Board, Labor organizations, Economic Development and Workforce Professional, 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. The majority of the Council members are investors in workforce programs or services, or in training. During the planning phase of the CSSI project they assisted in all aspects of information dissemination, intelligence gathering, etc. As the project progresses this group will be expected to lead an effort to redirect resources to better meet the needs of firms and workers in Metropolitan Chicago's transportation, warehousing and logistics sector.

**TWL Council.** The TWL Council includes a range of industry 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 implementing solutions to the critical challenges identified through the CSSI project.

**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 to the regional efforts of the Workforce Boards.

**CSSI Stakeholders and Community Groups.** While there is no formal stakeholder membership list, an array of stakeholder and community groups have participated in all CSSI activities. The Workforce Boards maintain a growing mailing list to inform stakeholders.

# **Engagement Activities**

While the Workforce Boards have been engaged in limited regional activity for some time, the CSSI project provided 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. A broad range of individuals representing the workforce and training provider communities, the research community, and key industry experts participated in these events. They developed the initial CSSI project "blueprint" which was intended to guide the research approach, as well as the industry and community engagement process, and provide a formal oversight structure to insure accountability and follow through.

In Spring 2004, the Workforce Boards began convening community leaders using the formal consortium structure they had designed.

The Leadership and Regional Councils met on April 14, 2004 and again on May 24, 2004 to assess the status of CSSI activities, begin working through the content that had emerged to date from preliminary surveys and focus groups, and review preliminary critical skill shortage occupations. The councils met on June 22, 2004 for a work session in which the results of the CSSI data collection efforts were finalized, and the occupational shortages and causes of these shortages were discussed, debated and ranked to validate their accuracy and determine relative importance.

The Transportation, Warehousing and Logistics Council convened on May 10, 2004 to discuss:

- Preliminary selections of critical skills occupations.
- Preliminary findings of surveys, interviews, and focus groups with TWL industry experts and employees; and
- The process by which root causes of critical skills shortages would be determined.

The Council met again on June 28<sup>th</sup> to review and discuss root causes contributing to a shortage of skilled workers for TWL critical skill shortage occupations.

Stakeholder and community groups were invited to public forums convened on April 26 and June 7, 2004, where they were invited to provide comments and feedback on the results of data collection activities to date.

# **ROOT CAUSE FINDINGS**

Root Cause Category 1: Awareness and Perception of Opportunities

Lack of awareness/interest in transportation, warehousing, and logistics careers: potential workers are not aware of opportunities for good jobs at relatively high wages in the transportation, warehousing, and logistics sector.

Firms in transportation, warehousing, and logistic sector that offer many entry-level positions expressed their frustration through the CSSI employer survey. They feel few organizations and interest groups are working on their behalf or even treating their industry fairly relative to other industries. Career counselors, high school counselors, parents, and job-placement organizations were cited as intermediaries who market "either college or nearly every other career but the ones we offer" to job seekers, or refer the job seekers with no other choices to the industry – and they cannot hire most of them. The answer lies not just in marketing, but also in providing information that can help job seekers make choices that meet their needs – information about wages, for example, in combination with information about the realities of a life on the road, on board, or in a warehouse.<sup>2</sup>

Some established companies have a hard enough time recruiting qualified post secondary applicants and recent college graduates, as this industry is the last for many to think about. Many smaller companies find it difficult to reach out and interest potential new workers. With a lack of resources and poor public image, many companies do not put much effort into outreach programs.

Lack of awareness of specific job opportunities: the information networks that people use to find employment may not include connections with TWL firms that need new workers. Many firms rely on word-of-mouth to advertise openings.

In many one-on-one conversations, participants expressed difficulty knowing where to go for help in identifying their next job or career steps. For example, less than one in five thought that a boss or colleague would let them know about a promotion opportunity within their firm – many reported learning of openings from signs in front of their buildings rather than through internal communication.

Referrals and word-of-mouth are still the most popular form of advertising of new jobs because they usually bring in quality people. As companies become more creative in their advertisement of job openings (internet, their own website), some employees are unable to find these openings or are unable to respond to them. In addition, as companies are restructuring, many new positions are being filled

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<sup>&</sup>lt;sup>2</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employer Findings, June 2004, pg. 17

by outside workers in order to change the cultures and direction of the company, overlooking older employees.

There is a continuing negative perception of the transportation, warehousing, and logistics industry, especially when related to pay, work hours, and difficulty of the job.

Participants in the CSSI employer survey were asked to identify the most common reason their colleagues leave their jobs. They cited the following:

- First not enough pay (32%),
- Second was they get promoted within the company (22%), and
- Third reason was working conditions are unpleasant (20%).<sup>3</sup>

Both former and current employees paint a vivid picture about what is wrong with employment conditions. This poor image is in some of the most high demand industries (rail, trucking, warehousing, etc.) sectors where employees are needed for expected growth.

Second, while respondents indicated that the rail industry also suffers from an image problem – little positive communication exists about the industry or its career opportunities. They reported that this image problem is at least in part self-created and probably deserved. Rail has been slow to adopt new technologies – one executive stated; "The rail industry has remained largely the same for 100 years. It's just less attractive than other industries for younger, technology-savvy talent." This poor perception was also confirmed in a focus group of 20-year-olds conducted in Chicago last year by the Association of American Railroads (AAR).

Third, unlike most other sectors, TWL operates on a 24/7 basis. In an attempt to attract new workers, the Association of American Railroads recently issued a press release on industry job opportunities that specifically states that railroad work "necessitates schedules that accommodate 24/7 operations". The Warehouse Education and Research Council (WERC) reports a "trend towards 24 hour/7 days a week operations" in the warehouse industry. Thus, a significant number of positions, particularly in operations and maintenance for all transportation modes, require shift work for both employees and front-line supervisors. This includes working weekends and most holidays.

<sup>4</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employer Findings, June 2004, pg. 10

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<sup>&</sup>lt;sup>3</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employer Findings, June 2004, pg. 13

# **Root Cause Category 2: Impact of Government Regulations**

# Increased security measures reduce the pool of eligible applicants

Respondents identified security as a key challenge – and an aspect of their business that had dramatically changed during the past several years. It is important to remember that standard transportation operating hardware was converted into weapons of mass destruction in both the terrorist attack in Oklahoma City as well as the attacks on the World Trade Center in New York. No other sector shares this dubious distinction.

Specifically, rail industry executives reported struggling to recruit and retain talent capable of passing more rigorous, security screens and background checks. Credit checks, in particular, were identified as a recent addition to the standard battery of background checks in the rail industry.<sup>5</sup>

Due to the complexity of terrorism and the real threat posed to the TWL industry, employers are either forced to screen their current and potential employees more carefully, or do so voluntarily. These background checks go deeper than before and, with the addition of other requirements, many more potential employees are unable to be hired. In May of this year the Transportation Security Administration issued new rules requiring all truck drivers currently qualified to haul hazardous materials to pass FBI background checks by September 2004. The Food & Drug Administration recently proposed new rules covering the security of food shipments.

Federal regulations have for some time required the licensing of both commercial truck drivers and railroad locomotive engineers. Pre-screening of employees for drug and alcohol is an accepted practice in the TWL sector, while Federal and State regulations require the random drug testing of many of these employees once hired. As a direct result of the various government regulations many otherwise qualified potential applicants are found not eligible for employment in the TWL sector.

# **Root Cause Category 3: Barriers to Learning**

Length of OJT time needed to train new workers and no alternative off-site training programs result in retention problems among new hires.

The firms in the CSSI employer survey expressed concern about both the image of their industry and the degree to which it lacks visibility – "It's hard to get into because it requires broad industry knowledge and depends primarily on word-of-

<sup>&</sup>lt;sup>5</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employer Findings, June 2004, pg. 9

mouth for recruiting and OJT for training." Many of these jobs require a great deal of knowledge and understanding about the industry, and because there are not many classes taught about the industry, the knowledge has to be passed down from older to younger employees.

Nationwide there are a number of university transportation and logistics programs at the undergraduate, graduate and doctoral levels, with several good ones here in the greater Chicago region. However, these programs are designed primarily for entry into management level or white-collar positions. The following universities and colleges in the region currently offer 4-year and graduate programs in logistics and transportation:

- Northwestern University, Evanston, IL,
- Elmhurst College, Elmhurst, IL,
- Loyola University, Chicago, IL, and
- Western Illinois University, Macomb, IL.

The current number of total graduates from these programs is less than 300 per year. All programs report adequate capacity for current enrollments. While Western Illinois University is not physically located in the Metropolitan Chicago region, a high percentage of its students come from this region. Northwestern University also offers a wide range of continuing education programs in logistics, transportation and supply chain management.

Similarly, both the education and outreach programs sponsored by the various TWL professional organizations are also heavily weighted toward the higher levels of corporate organizations. Thus, there seems to be a lack of both formal education and continuing education programs targeted for TWL skilled craft jobs as well as entry-level positions.

On-the-job training has been very beneficial and is the most useful form of training to the industry. Due to lack of prior knowledge about the careers and industries themselves, a majority of job skills are learned on the spot along with knowledge about the company. In many segments of the industry, new workers watch and learn before they do anything; depending on the industry, this could take days, weeks, or months. This can be frustrating for younger workers, anxious to learn and get on with the job. The majority of the large TWL companies provide their own classroom settings for learning processes, computer skills (largely for payroll, billing, and inventory control) and proper safety conduct in addition to on-the-job training to provide a higher level of initial efficiency and safety verses solely on-the-job training.

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<sup>&</sup>lt;sup>6</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employer Findings, June 2004, pg. 11

Preliminary research conducted by Thomas P. Miller & Associates cites training and educational opportunities in the region that are available to prospective employees considering the TWL sector. While this does not guarantee placement, it does show the employer community an aptitude and positive attitude for them to consider when recruiting for positions to fill. The training and education opportunities listed below are for Tier 1 and Tier 2 CSS occupations.

TWL Tier 1

CIP	SOC	Occupation	Producers
490205	533032	Truck Drivers, Heavy and Tractor-Trailer	Star Truck Driving School, Cicero (IPEDS) Star Truck Driving School, Bensenville (IPEDS) Elgin Community College (IPEDS)
470605	493031	Bus and Truck Mechanics and Diesel Engine Specialists	South Suburban College (WIC) Universal Technical Institute (WIC)
520411	434051	Customer Service Representatives	Careerworks, Inc (CIS) Chubb institute (CIS) Pyramid Career Institute (CIS) Tech Soft Services, Inc.—Computer Training Center (CIS) William Wright College (CIS)
151203 151294	151041	Computer Support Specialists	OJT
521803	533031	Driver/Sales Workers	OJT
480501	514041	Machinists	Richard J. Daley College (IPEDS) Oakton Community College (IPEDS) Waubonsee Community College (IPEDS) South Suburban College (IPEDS) Elgin Community College (IPEDS) Wilber Wright College (IPEDS) McHenry County College (IPEDS) Prairie State College (IPEDS) Moraine Valley College (IPEDS) College of Lake County (IPEDS) Triton College (IPEDS) Kankakee Community College (IPEDS) William Rainey Harper College (IPEDS)
499999	534011	Locomotive Engineers	OJT, Internal Promotion, and Formal Training Programs
110101	113021	Computer and Information Systems Managers	Absolute Solutions, Inc. (WIC) American Academy of Computer Training & Technology, Inc. (WIC) American Institute of Software Training (WIC) Argosy University/Chicago (WIC) Aurora University (WIC) Benedictine University (WIC) Cardean University (WIC) Chicago State University (WIC) Computer Systems Institute (WIC) DePaul University (WIC)

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CIP	SOC	Occupation	Producers
			DeVry University - Illinois (WIC) Dominican University (WIC) Elmhurst College (WIC) Governors State University (WIC) Harry S. Truman College (WIC) Lewis University (WIC) Loyola University of Chicago (WIC) Moraine Valley Community College (WIC) North Central College (WIC) North Park University (WIC) Northern Illinois University (WIC) Northwestern Business College - North Campus (WIC) Northwestern Business College - South Campus (WIC) Northwestern Business College - West Campus (WIC) Northwestern Business College - West Campus (WIC) Northwestern University (WIC) Saint Xavier University (WIC) University of Illinois at Chicago (WIC)
151031 151032	151030	Computer Software Engineers	University of Illinois at Chicago (IPEDS) DePaul University (IPEDS) Northern Illinois University (IPEDS) Loyola University Chicago (IPEDS) Benedictine University (IPEDS) Dominican University (IPEDS) Northwestern University (IPEDS) North Central College (IPEDS) Saint Xavier University (IPEDS) Governors State University (IPEDS) National-Louis University (IPEDS) Lewis University (IPEDS) Aurora University (IPEDS) Illinois Institute of Technology (IPEDS) Robert Morris College (IPEDS) Northwestern Business College (IPEDS)
110901	151081	Network Systems and Data Communications Analysts	Elmhurst College (IPEDS) Illinois Institute of Technology (IPEDS) Coyne American Institute, Inc. (IPEDS)
None	435032	Dispatchers, Except Police, Fire, and Ambulance	OJT
514121	514121	Welders, Cutters, Solderers, and Brazers	Kankakee Community College (IPEDS) Moraine Valley Community College (IPEDS) College of DuPage (IPEDS) Elgin Community College (IPEDS) College of Lake County (IPEDS) Prairie State College (IPEDS) Kennedy-King College (IPEDS) Triton College (IPEDS)

TWL Tier 2

CIP	SOC	Occupation	Producers
110201	151021	Computer Programmers	American Institute of Software Training Aquarius Institute of Computer Science Chubb Institute – Chicago Computer Systems Institute IT Quality Group Management and Information Technology Solutions, Inc. SOLEX Academy Westwood College of Technology – Chicago O'Hare
111011	151071	Network and Computer Systems Administrators	Absolute Solutions, Inc. (CIS) American Academy of Computer Science (CIS) American Institute of Software Training (CIS) Aquarius Institute of Software Training (CIS) Aquarius Institute of Software Training (CIS) Aurora University (CIS) Chubb Institute – Chicago (CIS) Chubb Institute – Villa Park (CIS) College of Lake County (CIS) College of Gffice Technology, The (CIS) Computer Systems Institute (CIS) Computer Training Labs of Chicago (CIS) Corridor Network Services (CIS) DePaul University (CIS) Elgin Community College (CIS) First Institute Career Training (CIS) Grayspace Technology Training Center (CIS) Harry S Truman College (CIS) ITT Technical Institute – Burr Ridge (CIS) ITT Technical Institute – Mount Prospect (CIS) Information Technical Institute (CIS) Joliet Junior College (CIS) Kankakee Community College (CIS) Kankakee Community College (CIS) Kennedy-King College (CIS) Lincoln Technical Institute (CIS) Management and Information Technology Solutions (CIS) MicroTrain Training Center (CIS) MicroTrain Training Center (CIS) Moroaine Valeey Community College (CIS) Morton College (CIS) NOW eLearning (CIS) New Horizons Computer Learning Center (CIS) Oakton Community College (CIS) Olympia College – Skokie (CIS) PC Center Training Institute (CIS) Prairie State College (CIS) Richard J. Daley College (CIS)

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CIP	SOC	Occupation	Producers
			Robert Morris College (CIS) Roosevelt University (CIS) Saint Xavier University (CIS) Softracks Computer School (CIS) South Suburban College (CIS) Taylor Business Institute (CIS) TechSkills (CIS) Triton College (CIS) University of St. Francis (CIS) Waubonsee Community College (CIS) Westwood College of Technology – Chicago O'Hare (CIS) Wilber Wright College (CIS) William Rainey Harper College (CIS) Zarem/Golde ORT Technical Institute (CIS)
490299	537051	Industrial Truck and Tractor Operators	Alamo Truck Driving School (CIS) American Truck Driving School (CIS) Best Way Truck Training, Inc. (CIS) Blue Horizon Driving School (CIS) Elgin Community College (CIS) Harold Washington College (CIS) Juarez Driving School (CIS) Mega Driving School (CIS) Olive-Harvey College (CIS) Prestige Driving School (CIS) Presto Driving School (CIS) Progressive Driving School, Inc. (CIS) Richard J. Daley College (CIS) Star Truck Driving School (CIS) Viking Driving School (CIS)
150399	173023	Electrical and Electronic Engineering Technicians	College of DuPage (CIS) College of Lake County (CIS) DeVry University (CIS) East-West University (CIS) Elgin Community College (CIS) ITT Technical Institute – Burr Ridge (CIS) ITT Technical Institute – Matteson (CIS) Joliet Junior College (CIS) Kankakee Community College (CIS) Kishwaukee College (CIS) Lincoln Technical Institute (CIS) McHenry County College (CIS) Moraine Valley Community College (CIS) Oakton Community College (CIS) Prairie State College (CIS) Roosevelt University (CIS) South Suburban College (CIS) Triton College (CIS) Waubonsee Community College (CIS) William Rainey Harper College (CIS)
110501	151051	Computer Systems Analysts	Cardean University (CIS) Cyscoexpert Corporation (CIS) DePaul University (CIS)

CIP	SOC	Occupation	Producers
			DeVry University (CIS) Elmhurst College (CIS) Illinois Institute of Technology (CIS) Moraine Valley Community College (CIS) National Louis University (CIS) SOLEX Academy (CIS) Triton College (CIS)
110802	151061	Database Administrators	Aspira Technical College (CIS) Benedictine University (CIS) Bits and Bytes Training Institute (IBHE) Chubb Institute (CIS) CompUSA – Schaumburg (IBHE) Computer Systems Institute (CIS) Computer Training Labs of Chicago (CIS) DMD Career Center (CIS) DePaul University (CIS) DeVry University (CIS) Dominican University (CIS) Elmhurst College (CIS) Focal Advantage Computer Technology, Inc. (CIS) IT Quality Group, Inc. (CIS) Illinois Institute of Technology (CIS) Information Technical Institute (CIS) John Marshall Law School (CIS) Jump Start Career (CIS) Management and Information Technology Solutions, Inc. (CIS) Micro Train Training Center (CIS) National-Louis University (CIS) Northwestern University (CIS) Olivet Nazarene University (CIS) Roosevelt University (CIS) Trinity Christian College (CIS)
490205	533033	Truck Drivers, Light or Delivery Services	Alamo Truck Driving School (CIS) American Truck Driving School (CIS) Best Way Truck Training, Inc. (CIS) Blue Horizon Driving School (CIS) Elgin Community College (CIS) Harold Washington College (CIS) Juarez Driving School (CIS) Mega Driving School (CIS) Olive-Harvey College (CIS) Prestige Driving School (CIS) Presto Driving School (CIS) Progressive Driving School, Inc. (CIS) Richard J. Daley College (CIS) Star Truck Driving School (CIS) Viking Driving School (CIS)

# Root Cause Category 4: Level of Job Satisfaction

Due to competition and increasing costs, wages and benefits are not competitive. In order to recruit qualified candidates they need to have more incentives for working in the industry.

Truck drivers, for example, know they are in high demand but expressed frustration at "not getting pay increases because their employers are locked into contracts that assumed a lower price of gas – but "when is a good time to get a raise?"

For some time now motor carriers have had extreme difficulty hiring and retaining qualified drivers. Historically, turnover rates approaching 100 per cent were the norm in the truckload sector. During a Bear, Stearns & Co. transportation forum held in May 2004, executives of less-than-truckload carriers Con-Way Transportation and New England Motor Freight, along with truckload carriers J.B. Hunt Transport Services, Celadon Group, Swift Transportation, U.S. Xpress Enterprises, Covenant Transport and Marten Transport all commented that fleets were not adding capacity in large part because they could not find qualified drivers, a problem stemming from low wages.<sup>8</sup> The industry consensus at this gathering was that truckers would have to substantially raise rates in order to raise wages.

The trucking industry has been aggressively increasing rates an average of 3-5 percent in the first half of 2004, with some industry analysts predicting across-the-board increases of 5-7 percent by the end of the year. The president of U.S. Xpress Enterprises, a major truckload carrier, recently remarked that this is "the best pricing environment since 1971". However, it remains to be seen whether these increases actually translate into higher pay for drivers.

In January 2004 the Federal government overhauled rules on hours of service (HOS) for commercial truck drivers. The trucking industry is still trying to come to grips with the full nature and impact of these changes but the early consensus is that they made a bad situation worse. Among other things the new regulations reduced drivers' total time allowed on duty and changed the method for calculating allowed driving time on duty. These changes have reduced gross earnings for many drivers in the short-term and increased cost pressures for trucking companies.

It should be noted that these problems also directly affect the public warehousing sector in the Chicago region, since all of the larger warehouse operators also

<sup>8</sup> Executives Say Lack of Drivers Stems From Low Pay Levels. *Fleets Say They Are Unable to Add Capacity*. By Tiffany Wlazlowski. http://www.ttnews.com/members/topNews/0011465.html

<sup>&</sup>lt;sup>7</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employee Findings, June 2004, pg. 10

include local and regional trucking services in their customer offerings, either directly or through wholly-owned trucking subsidiaries.

Wages and benefits for railroad-operating jobs appear very competitive. However, these jobs also come with high stress levels caused by the requirement for on-call shift work or rotating shift work or permanent shift work on a 24/7 basis, frequently in difficult outdoor conditions.

# Inflexible work culture in the rail industry slows the process of passing working experience from older to younger workers

Most employers noted in the CSSI survey that the industry has evolved with very specific hierarchies – it lacks a flexible work culture. Due to restructuring into specific roles, allocating different responsibilities and new approaches to the work environment has been difficult. A challenge is trying to achieve worksite learning through interaction using contracts and job descriptions so that new workers can learn from their more experienced colleagues, and vice-versa, has been very difficult.<sup>9</sup>

In the rail industry in particular, older employees have been a great asset to companies with their experience and knowledge about their work. As new employees progress through the training process for their craft, they are allowed to start working on their own after internal testing and certification. This is not always with close supervision as they fill open vacancies on various shifts working with other employees of varying amounts of experience. The new employee receives continuing input and evaluation from peers, union officials, and front line supervisors during the process. The new employees are exposed to many different levels of experience, efficiency, comprehension and safety. If the new employee stays then the next two to three years establishes how well they will perform over the course of their careers. Therefore, it becomes important to ensure that they receive a solid foundation from someone with strong experience and knowledge.

Much of the TWL sector will be affected by the higher turnover and replenishment rates due to the change in retirement age, replenishment and expansion of jobs due to the expanding economy. It is important for new employees to learn from senior employees, but it is also an opportunity for employers to bring on a new generation that adopts and embraces technological change at a faster pace than the generation they are replacing.

# **Root Cause Category 5: Influence of Structural Factors**

Aging of the workforce: Older, experienced workers are retiring and there are few younger entrants to the workforce with interest in the sector

<sup>&</sup>lt;sup>9</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employer Findings, June 2004, pg. 9-10

The Workforce Boards of Metropolitan Chicago's *CSSI Transportation*, *Warehousing & Logistics Industry-Employer Findings*, June 2004 mentions "in 2002, the Railroad Retirement Act lowered the age at which workers can receive full retirement benefits from 62 to 60 for individuals with 30 years of service." Because this industry maintains a workforce that is much older than the US average, 40 percent of rail workers are eligible to retire in the next ten years. This two-year difference then becomes very significant. One firm participating in the project reported having just completed a survey that found 75 percent of workers were 53 years of age or older, and would be retiring at age 60 – in seven years or less.<sup>10</sup>

The issue of an aging TWL workforce appears to be widespread. The highly respected Ohio State University Annual Survey of Career Patterns in Logistics looks at the age of respondents in its annual survey. In its 2003 survey, OSU found that the median age of logistics managers and executives was 47.5 years, meaning that half of the respondents were in their 50's and 60's. The issue of an aging workforce applies across the board as the labor supply "bubble" of the baby boomer generation retires from the workforce. TWL is faced with the double challenge of replacing large numbers of existing workers while at the same time having to increase its overall number of workers.

# Inability to recruit/attract a diverse workforce

Employers responding to the CSSI survey noted a need to find ways to recruit more diverse workers. While racial diversity has been a characteristic of the industry for some time, at least among entry and mid-level employees, firms reported having had less success in promoting diverse employees to higher-level positions, or in attracting women for positions other than office work. This may be reflective of the physically demanding working conditions required by many of the TWL job classifications, especially in the areas of operations and maintenance. An AAR press release describes railroad jobs as "often physically demanding...performed outside in all types of weather".

A publication on developing job descriptions for the warehouse industry, by the Warehouse Education and Research Council (WERC), describes "Physical Ability – ability to physically handle the work", as a functional competency for warehouse workers. WERC defines physical ability as:

- able to bend and lift heavy items
- able to stand for long periods of time
- able to work in an environment that may be hot, cold or dusty.

<sup>10</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employer Findings, June 2004, pg. 9

<sup>&</sup>lt;sup>11</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry – Employer Findings, June 2004, pg. 19

The issue of integrating more women into the TWL workforce and expanding their opportunities for advancement seems to be widespread. The 2003 Annual Survey of Career Patterns in Logistics, conducted by Ohio State University, shows clearly that even at the professional and managerial level, logistics is a male-dominated sector, with only 9 percent of survey respondents identified as female. In the Ohio State Annual Survey on Career Patterns of Women in Logistics, 85-90 percent of respondents (all female) reported that either their immediate supervisor or the supervisor's superior was male. Yet there may be some cause for optimism here as over 90 percent of the respondents in the women's career survey reported that "the opportunities for building a sound professional career in logistics are better today than ever before".

# **Summary of TWL Root Cause Ranking**

A panel of industry representatives and regional educators ranked the various root causes developed by 3 categories: primary, secondary and other.

Primary	Secondary	Other
Lack of awareness of specific TWL job opportunities	Lack of support for diverse workforce.	Little advocacy in schools.
Lack of awareness or interest in TWL.	OJT time needed for new hires creates retention problems	Weak interaction/presence of employers with communities/schools.
Few younger entrants to workforce with sector interest.	Negative perception of TWL sector.	New technologies are changing skill mix faster than capacity to upgrade skills.
Retirement of older experienced workforce.	Inflexible work culture-not supportive of younger workers.	
	Increased security measures reduce eligible pool.	

# CONCLUSION

Based on the root causes developed and described in this report, the TWL sector faces serious workforce challenges.

An efficient transportation system requires a good physical infrastructure. Yet anyone who travels in this region, and has dodged potholes on the highway, been stuck in interminable traffic delays, or sat waiting forever at railroad grade crossings, knows that the transportation infrastructure in the Chicago region has some serious problems. An efficient transportation, warehousing and logistics sector also requires a good workforce infrastructure. Yet this report clearly shows that the TWL workforce infrastructure has some serious problems of its own.

First, like the physical infrastructure, the workforce infrastructure is suffering from an aging workforce, with the retirement of a large number of older experienced workers. At the same time the TWL sector is having great difficulty in getting young workers interested in a TWL career. Second, the TWL sector appears to have a major image or perception problem in the community as a whole, with a wide variety of interest groups and stakeholders complaining about lack of awareness and information about careers and jobs in this sector.

The only good news here may be that most of these problems do not appear limited to the Metropolitan Chicago region but rather are an industry-wide phenomenon. The key concern is that the Chicago region is the largest freight hub in the U.S. and the world, and how well TWL functions here affects everyone. The root causes for Critical Skill Shortages in the TWL sector require careful scrutiny for developing effective solutions as improvements help not only the Chicago region but also the entire United States. Various TWL industry constituencies also share many of these problems and concerns. Many of them are working on developing solutions as this report is being prepared. Thus, there may be real opportunities to form public-private partnerships to address these workforce issues in the Metropolitan Chicago region.

# **APPENDIX A**

# **Letters of Support**

# **APPENDIX B Leadership, Regional and One-Stop Council Members**

Leadership Council			
Name	Title	Organization	
Rita Athas	Director of Regional Programs, Office of the Mayor	City of Chicago	
Nancy Clawesome	Director	UBS Financial Services	
The Honorable Richard M. Daley or Designee	Mayor	City of Chicago	
Al Friedman	President	Friedman Properties	
B.J. Walker	Chief of Human Infrastructure, Office of the Mayor	City of Chicago	
Michael Johl	DuPage County Workforce Board Chair	United Parcel Service	
Robert Schillerstrom	DuPage County Board Chair	DuPage County	
Sandy Erschen	Branch Manager	Manpower	
Karl Kruse	Chairman, Kankakee County Board	Kankakee County	
Paul Nelson	Grundy County Board Chair	Grundy County	
Suzi Schmidt	Lake County Board Chair	Lake County	
Arnie Silberman	Lake County Workforce Board Chair	A.D. Silberman & Associates	
Virginia Peschke	McHenry County Board	McHenry County	
Sandra Pierce	McHenry County Workforce Board Chair	Phoenix Woodworking	
Michael Tryon*	McHenry County Board Chair	McHenry County	
David Carlquist	North Cook Workforce Board Chair	IBM Corporation	
Steve Fallek	V.P. Strategic Planning	Zurich North America Insurance Group	
George VanDusen	Mayor	Village of Skokie	
John Church	Chairman, Kendall County Board	Kendall County	
Chris Manheim	River Valley Workforce Board Chair	Elgin Chamber of Commerce	
Michael McCoy	Kane County Board Chair	Kane County	
Dennis Sands	Chairman, DeKalb County Board	DeKalb County	
James Eldridge, Jr.	CAO, Bureau of Administration	Cook County	
Dennis J. Irvin	South and West Cook Workforce Board Chair	Highland Community Ban	
John H. Stroger	Cook County Board President	Cook County	
John Crowe	Will County Workforce Board Co- Chair	Sprint PCS	
Joseph Mikan	Will County CEO	Will County	

Regional Council		
Name	Title	Organization
Carol Adams	Secretary	Illinois Department of Human Services
Gretchen Alexander	Executive Director	West Cook ISC
Rita Athas	Director of Regional Programs	Office of the Mayor, City of Chicago
Tom Balanoff	President	Service Employees International Union Local 1
Marguerite Boyd	President	Truman College
Thomas Centowski	Regional Superintendent	Grundy/Kane ROE
Lori Clark		DCEO
Gwendolyn Clemons	Director, Planning and Economic Development	Cook County Planning and Economic Development
Kathie Collins	Economic Development Coordinator	Village of Bartlett
Tom Cuculich	Director of Economic Development	DuPage County
Sharon Dixon		
Patricia Doherty- Wildner	Vice President	Community and Economic Development Association
Lynn DuBajic		Yorkville Economic Development Corporation
Arne Duncan	CEO	Chicago Public Schools
Richard Duran	Regional Superintendent	Will County ROE
Donald Englert	Regional Superintendent	McHenry County ROE
Steve Fallek	V.P. Strategic Planning	Zurich North America Insurance Group
Margot Fennelly	Deputy Superintendent	Suburban Cook ROE
Mike Finnegan		Kankakee County Economic Development Council
Dennis Gannon	President	Chicago Federation of Labor
Nester Garcia		Kane County ROE
John Greuling	President and CEO	Center for Economic Development Joliet/Will County
Diana Grossi	Executive Director	South Cook ISC
Josh Grozdin		DuPage County Economic Development
Barbara Habschmidt	Executive Director	North Cook ISC
Ashref A. Hasim	President	Blackstone Group
Sarah Hawker	VP for Workforce Development	Illinois Community College Board
Manny Hoffman		State Farm Insurance

Regional Council		
Roger Hopkins		DeKalb Economic Development Council
Tom Howard		International Union of Operating Engineers, Local 399
Robert Ingraffia	Regional Superintendent	Suburban Cook ROE
Chuck Jenrich	VP, US Operations	GBJD Registrars
Candice King		DuPage Federation
Anne Ladky	Executive Director	Women Employed
Shirlanne Lemm	President	Greater O'Hare Association
Sheila Lyne, RSM	Chief Executive Officer	Mercy Hospital and Medical Center
Jeff May	Executive Director	Grundy/Kendall ROE
Therese McMahon	Deputy Director, Bureau of Workforce Development	Department of Commerce and Economic Opportunity
Bill McMillan	Associate Vice Chancellor of Occupational Programs	City Colleges of Chicago
Janice Miller	Education to Careers	Kankakee County ROE
Gilbert Morrison, Jr.	Regional Superintendent	DeKalb County ROE
Nancy Norton Ammer		Grundy County Economic Development Council
Paul O'Connor	Executive Director	World Business Chicago
lan Ostergaard		LaSalle Bank Corporation
Walter Packard	President	McHenry County College
Edward Paesel	Executive Director	South Suburban Mayors and Managers
Kay Pangle	Regional Superintendent	Kankakee County ROE
Karen Patel	President	McHenry County Economic Development Corporation
Don Petkus	President and CEO	Enterpriz Cook County
Sylvia Ramos	President	Daley College
J.D. Ross	President	Joliet Junior College
Darlene Ruscitti	Regional Superintendent	DuPage ROE
Brenda Russell	Director	Illinois Department of Employment Security
Carrie Simmons	Director of Operations	World Business Chicago
Whitney Smith	Senior Policy Associate	Chicago Jobs Council
Don Turner	President Emeritus	Chicago Federation of Labor
John Vrba	Administrator	HCR Manor Care
Robert Wharton	Executive Director	Community Economic Development Association

Regional Council		
Roycalee Wood	Regional Superintendent	Lake County ROE
Dave Young	President	Lake County Partners

One Stop Council		
First		
Name	Last Name	Company/Organization
Carol	Adams	Illinois Department of Human Services
Roger	Allen	Local 150 - Operating Engineers
Francisco	Alvarado	Illinois Department of Human Services
Peter	Andrews	Illinois Department of Employment Security
Geraldine	Baader	Bloom Township High School District 206
James	Ballee	Northwest Suburban Employment & Training Center
Deb	Banker	Kane County Dept. of Employment and Education
Greg	Battle	Illinois Department of Human Services
Phyllis	Baxter	IDHS
Terri	Berryman	College of Lake County
O a l ali a	Boldridge-	Francis Township High Cohool
Goldie	Brown	Evanston Township High School
Carole	Bulakowski	College of Lake County
Diane	Carter-Zubko	Harper College
Marta	Cerda	Chicago Workforce Board
Mary	Charuhas	College of Lake County
Sue	Clark	DuPage County Workforce Development
Vincent	Clark	Kankakee County Community Services, Inc.
Pat	Coleman	McHenry County College
Diane	Cooper	Kane County Dept. of Employment and Education
Margaret	Cooper	KCC/Workforce Investment Act (WIA)
Vernon	Crawley	Maraina Vallay Community Callaga
O. Gloria	Curtin	Moraine Valley Community College
		Couth Cuburban College
George	Dammer	South Suburban College Three Divers Construction Alliance
Thomas	Dardis	Three Rivers Construction Alliance
laba	Davi	DuDose Housing Authority
John	Day	DuPage Housing Authority
Mike	DeWolfe	McHenry County College
Peggy	Drey	Will County Workforce
Ronald L.	Edgecomb	Illinois Department of Employment Security
Pedro	Enriquez	Illinois Migrant Council
Carroll	Evans	IDHS/Community Operations
Ann	Fettinger	IDES
Lynn	Fieldman	Will-Grundy County Building Trades Council
Susan	Flessner	Workforce Services Division of Will County
James A.	Floyd	Housing Authority of the County of Cook

One Sto	p Council	
First		
Name	Last Name	Company/Organization
Sandy	Freeman	Elgin Housing Authority
Joyce	Gallagher	Chicago Department of Aging
Theodia	Gillespie	Quad County Urban League
Tom	Gollan	IDHS/ORS
Patricia	Granodos	Triton College
Mitch	Hallgren	DeKalb Co. Housing Authority
Ingrid	Halvorsen	Office of Rehabilitation Services
Jean	Hansen	Illinois Department of Employment Security
Ronald	Hansing	I.B.E.W., Local 117
Katherine	Harris	SER, Jobs for Progress
Sandy	Harris	Waukegan Housing Authority
carray	Tiarrio	Traditional stations
Will	Harris	Illinois Department of Human Services - Office of Rehabilitation Services
Ashref	Hashim	The Blackstone Group
Dennis	Haynes	Joliet Junior College
Peg	Hendershot	Ball Foundation
Julie	Hennig	Harper College
Julie	Herscher	City of Kankakee Senior Services
Robert	Holas	IDHS
	†	
Grace	Hou	Illinois Department of Human Services
Andre	Howard	Department of Human Services – Office of Rehabilitation Services
Terry	Irby	Joliet Junior College
Michael	Irwin	National Able Network
John	Jacobs	IL Dept of Human Services/TANF
Gerry	Jones	Aurora Housing Authority
Lucia West		Northeastern Illinois Area Agency on Aging
	Jones Jordan	CEDA Northwest
Ronald		
Victoria	Kanellis	Illinois Department of Human Services
Len	Kaufmann	McHenry Co. Job Training
Robert	Kilbury	Illinois Department of Human Services, Office of Rehabilitation Services
Brent	Knight	Morton College
Jeffrey	Knox	Illinois Dept. of Human Services/Office of Rehabilitation Services
Eldon	Lafever	Ironworkers Local 444
Brooks	Lockhart	California Indian Man Power Consortium
Alicia	Mazur Berg	Chicago Department of Planning and Development
Paul J.	Mc Carty	Prairie State College
Sheila	McCraven	Kane County Dept. of Employment and Education
Claire	McElroy	Kankakee Community College/Adult Education

One Stop Council		
First		
Name Thomas	Last Name	Company/Organization
Lee	Miller	Illinois Department of Employment Security
Sandra	Mol	Joliet Junior College
Lauren	Morales	Paul Simon Chicago Job Corps Center
Glen	Murrin	IDES
0.0		
Francis	Muthu	Cook County President's Office of Employment Training
		The same of the sa
Steven	Nunes	Prairie State College
Mary Ann	Olson	Triton College
Jim	Pandolfi	PTW & Co. Ltd.
Joyce	Parnell	Workforce Development
Chris	Picard	College of DuPage
Lou	Piskur	NECA-IBEW #176 JATC
Gloria	Richard	Illinois Dept of Employment Security
Roberto	Rivera	Cook County President's Office of Employment Training
Barbara	Rizzo	Oakton Community College
Waverly	Robinson	Illinois Department of Employment Security
Anne		
Marie	Rosen	College of DuPage
Drondo	Duggell	Illinois Department of Employment Security
Brenda Deb	Russell Russell	Illinois Department of Employment Security Chicago Workforce Board
Johnetta		C.I.S.C.O.
	Ryan Salazar	Illinois Migrant Council
Eloy Aida	Sanchez	Illinois Dept. of Human Services
Alua	Sanchez	Tillitois Dept. of Fluthart Services
Amy	Santacaterina	Mayor's Office of Workforce Development
All	Saulys	Business and Career Services, Inc.
Rhonda	Serafin	Township High School District 214, NWSAPC
Miorida	Jordini	10 mionip riigii Oonooi Biotilot 217, MWOATO
Linda	Shumate	Illinois Department Of Human Services South Suburban Local Office
Stanford	Simmons	Education to Careers Partnership
Cheryl	Smith	
Michael	Smith	Kankakee Federation of Labor (AFL-CIO)
Dennis	Sorenson	Kankakee Community College/Perkins Act
Jennifer	Stephen	IL Dept of Human Services/TANF
Gayle	Stricklin	Illinois Department of Human Services
Joe	Strong	Plumbers and Pipefitters Union Local 422
Jim	Van Bosch	McHenry County College
Patricia	Vance	Evanston Township
. attiola	1 41100	
Ray	Vazquez	Chicago Department of Human Services
Daniel	Walsh	IDHS/Community Operations

One Stop Council		
First Name	Last Name	Company/Organization
Joe	Ward	I.U.O. E. Local 150
Kris	White	Center for Community Concerns
Mary	White	Lake County Partners
Amy	Wiatr	Suburban Area Agency on Aging
Russ	Wilder	McHenry County Bldg.Trades
Luther	Wren	Illinois Department of Employment Security

# **APPENDIX C**

# **Summary of End Notes and Web Page Links**

- <sup>1</sup> Bureau of Labor Statistics, 2004-2005, Career Guide to Industries. Based on employment of wage and salary workers in truck transportation and warehousing by occupation, 2002 and projected change, 2002-2012. http://www.bls.gov/oco/cg/cgs021.htm
- Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry Employer Findings, June 2004, pg. 17
- <sup>3</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing, & Logistics Industry Employee Findings, June 2004, pg. 9
- <sup>4</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing,
- & Logistics Industry Employer Findings, June 2004, pg. 13
- <sup>5</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing,
- & Logistics Industry Employer Findings, June 2004, pg. 10
- <sup>6</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing,
- & Logistics Industry Employer Findings, June 2004, pg. 9
- Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing,
- & Logistics Industry Employer Findings, June 2004, pg. 11
- <sup>8</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing,
- & Logistics Industry Employee Findings, June 2004, pg. 10
- <sup>9</sup> Executives Say Lack of Drivers Stems From Low Pay Levels. *Fleets Say They Are Unable to Add Capacity*. By Tiffany Wlazlowski.
- http://www.ttnews.com/members/topNews/0011465.html
- Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing,
- & Logistics Industry Employer Findings, June 2004, pg. 9-10
- <sup>11</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing,
- & Logistics Industry Employer Findings, June 2004, pg. 9
- <sup>12</sup> Workforce Boards of Metropolitan Chicago CSSI Transportation, Warehousing,
- & Logistics Industry Employer Findings, June 2004, pg. 19

## Web Sources

US Department of Labor-Bureau of Labor Statistics-Career Guide to Industries Web Site: <a href="http://www.bls.gov/oco/cg/cgs021.htm">http://www.bls.gov/oco/cg/cgs021.htm</a>

Excerpts of press release from the Association of American Railroads dated April 28, 2004: http://www.aar.org/ViewContent.asp?Content ID=2155

Metropolitan Planning Council of Chicago: Transportation Employment Statistics from Business Leaders for Transportation April 2002. www.metroplanning.org