

Transportation and Logistics Task Force Report: Findings and Recommendations

Illinois Workforce Investment Board
Transportation and Logistics Task Force
Mike Johl, United Parcel Services, Chair

December 14, 2006

Introduction

The Illinois Workforce Investment Board (IWIB) established the Transportation and Logistics Task Force on December 9, 2005 to develop recommendations for addressing the causes of worker shortages in transportation and logistics as documented in regional reports from the Critical Skill Shortages Initiative (CSSI). The task force was asked to focus on issues that required state level action. The IWIB requested that the task force present findings and recommendations at the September 2006 IWIB meeting.

The Illinois Workforce Investment Board (IWIB) established this task force because of the critical importance of the transportation and logistics industry to the future economic development of the state and its regions. Illinois is at a critical crossroads in promoting the future growth of the transportation and logistics industry. Illinois currently has the advantages of location and a well-developed physical infrastructure. However, to retain these advantages, Illinois must take immediate actions to upgrade and expand the capacity of its infrastructure. Illinois must also address some critical workforce challenges that threaten the future growth of the industry. The task force focused on addressing those critical workforce challenges and making recommendations on what Illinois must do to support the continued growth of the transportation and logistics industry in Illinois.

This report summarizes the major findings and recommendations of the Transportation and Logistics Task Force. The first section provides background information on the formation of the task force, task force meetings, and the major issues addressed. The second section provides a definition of transportation and logistics and provides some basic facts on the size and importance of the sector in Illinois. This section also highlights the major worker shortages. The final section summarizes the task force findings and recommendations and proposed next steps.

Background

The Transportation and Logistics Task Force was chaired by Mike Johl, Manager of Community Relations, United Parcel Services (UPS). The task force included representatives from employers and labor unions representing different segments of transportation and logistics, community colleges, and state education, workforce development and economic development agencies. The task force members are listed in Appendix A.

The task force met six times between March 2, 2006 and August 8, 2006 and held a conference call on August 17, 2006 to review and approve the final draft

report before submitting the report to the IWIB. The task force chair presented interim reports to the IWIB at the March and June 2006 meetings.

At the first meeting, the task force reviewed the CSSI findings on shortages and identified the major occupational clusters to address. The task force also reviewed CSSI findings on the root causes of shortages and identified five major issues to address:

1. Industry Visibility and Image: Increasing awareness and understanding of the importance of the industry to the Illinois economy.
2. Career Awareness: Increasing awareness among adults and youth of the wide variety of career opportunities and how to prepare for these careers.
3. Retention of Truck Drivers: Improving the retention of truck drivers.
4. Workplace Skills Preparation: Improving the basic workplace skills of youth and adults including basic academic skills, soft skills, and employability skills.
5. Capacity and Alignment of Education and Training Programs: Improving the capacity and alignment of training programs at all levels—K-12, community colleges, and universities—to address the current and future needs of the industry.

At the second meeting, the task force addressed the need for a statewide and regional awareness campaign to improve industry visibility and image. The second meeting also addressed existing and new programs being implemented by universities, community colleges, and high schools. In particular, the task force received information on planning grants from the Illinois Community College Board to expand logistics and warehousing and distribution programs in community colleges. The third meeting focused on reviewing and editing draft recommendations for a statewide and regional awareness campaign. The task force also addressed the need to develop recommendations for conducting a baseline inventory and gap analysis of secondary and postsecondary programs in Illinois at the state and regional levels. The fourth meeting focused on addressing K-12 career awareness and developing draft recommendations. This meeting also identified some major issues in addressing truck driver shortages. The fifth meeting focused on reviewing draft recommendations on K-12 career awareness and making edits to the draft report. The sixth meeting focused on reviewing draft recommendations on addressing truck driver shortages and reviewing the draft of the final report. The final meeting, conducted by conference call, focused on reviewing the task force report and making final changes.

Transportation and Logistics in Illinois

The transportation and logistics industry is a large and rapidly growing component of the Illinois economy in all major regions. Illinois is uniquely positioned to support the continuing growth of the transportation and logistics industry.

Illinois Transportation and Logistics Infrastructure

Illinois is located at the center of the nation at the crossroads of all major transportation networks and has an excellent transportation infrastructure. The Illinois transportation system utilizes air, ground transportation, rail and waterways to provide direct routes to every U.S. market and international ports.

Illinois lies at the heart of the nation's interstate highway system. Three coast-to-coast interstates (I-70, I-80, and I-90) pass through Illinois. These are joined by major north-south interstates, including I-39, I-55, and I-57; major east-west interstates that include I-24, I-64, and I-74; as well as I-72, I-94, I-88 and I-155. In all, 2,164 miles of interstate highway serve Illinois. Only two states have more interstate miles. Illinois also benefits from major east-west and north-south interchanges located in more than a dozen communities around the state. Augmenting the interstates are over 35,000 miles of state highways, making the interstate routes accessible from every region of Illinois.

A major highway project in progress is the extension of I-355 from I-55 to I-80, with discussions proceeding on extending the interstate further south into Kankakee County. The state's Highway Improvement Program for Fiscal Years 2007 to 2012 allocates \$10.425 billion to maintaining the current highway system including improvements to 4,280 miles of highways and improvements to 884 bridges. The plan targets key projects in northeastern Illinois. These projects address congestion such as funding additional lanes on I-55 from I-80, reconstruction of I-90/94 from I-57 and I-80 from I-94 to the Indiana state line. The plan provides for investment in downstate Illinois for highways such as I-80 and US 51, US 20, US 67, US 136 and US 40.

Illinois is the center of the nation's rail network. Chicago is the largest U.S. rail gateway, and other major rail centers are located in East St. Louis and Galesburg. In all, 56 railroads are able to provide service from Illinois to every part of the United States. The Union Pacific's new Global III Intermodal Facility in Rochelle is the industry's newest state-of-the-art terminal. This new facility offers customers multiple business advantages, including direct interstate highway routes with easy access to major east-west and north-south markets, the efficient interchange of shipments to and from rail connections, and expedited operations of over 25 trains and 3,000 containers daily. New and

expanded intermodal facilities are also planned for Joliet and other locations in the southern part of the Chicago area.

Illinois' central location makes it a natural hub for air travel. Home to Chicago's O'Hare International Airport (one of the world's busiest airports), as well as a major commuter hub at Midway Airport and with more than 118 public use airports, 273 heliports and over 1,000 aviation facilities, Illinois is a convenient location for those needing air transport. In fact, an airport with commercial airline service or the capability to handle business jets serves virtually every Illinois city with a population exceeding 30,000. According to the most recent Federal Aviation Administration (FAA) figures, O'Hare reported 2.4 million tons of cargo and approximately 36 million passengers. O'Hare has more than one arrival or departure every minute. The FAA reports that Midway serves 8 million passengers and three downstate airports serve between 100,000 to 400,000 passengers. Two other airports outside of the City of Chicago also report significant cargo figures--Rockford with 677,000 tons and Peoria with 110,000 tons per year.

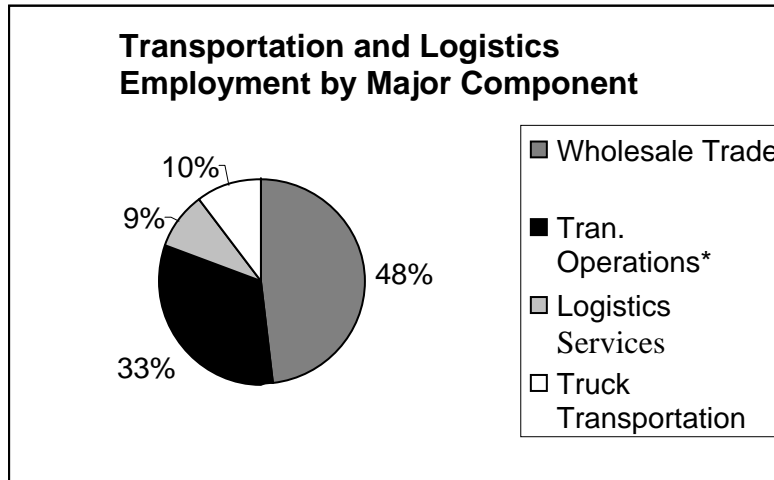
Illinois has 1,118 miles of navigable waterways bordering or passing through the state. These waterways provide Illinois with a link between the Atlantic Ocean (through the St. Lawrence Seaway and Great Lakes) and the Gulf of Mexico. The Port of Chicago provides terminals that handle ocean and lake vessels, as well as barges. The Port of Chicago is the world's third largest intermodal port and offers shippers two large multi-ship facilities. The port is also served by seven railroads with direct access to Interstates 90 and 94. Twelve other port districts are located along Illinois rivers. The Illinois International Port District in Chicago, the Heart of Illinois Regional Port District in Peoria and the Tri-City Regional Port District near St. Louis are Foreign Trade Zones, and there are also Foreign Trade Zones in Rockford, the Quad Cities and Lawrenceville.

The Transportation and Logistics Industry in Illinois

As shown in Appendix B, the transportation and logistics industry includes:

- Wholesale trade in both durable and non-durable goods
- Transportation operations including air, rail, water, truck, mass transit, and pipeline transportation as well as direct support activities such as equipment leasing and servicing
- Warehousing and distribution center operations including distribution centers for major manufacturers and retailers
- Logistics planning and management services and related management and technical consulting services including third-party logistics providers
- Postal and messenger services

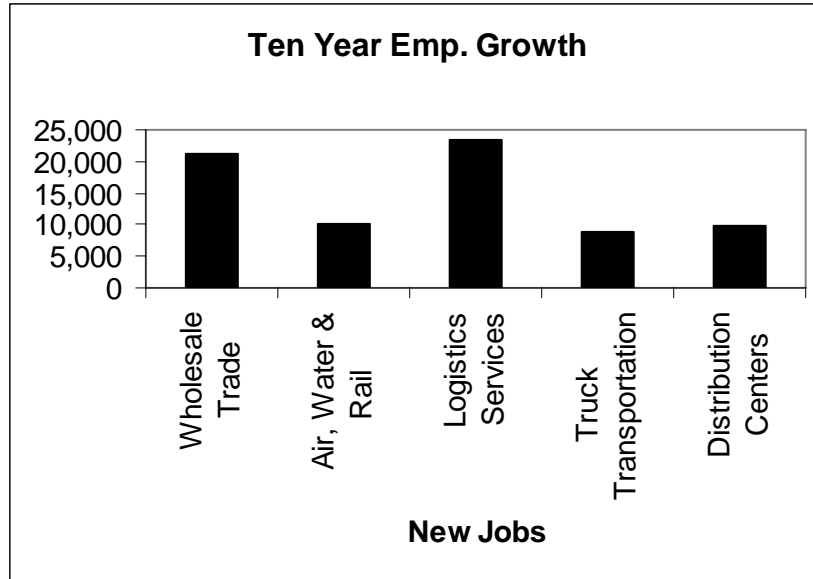
Wholesale trade and transportation operations represent the largest share of employment in the transportation and logistics industry. Wholesale trade represents 48% of the industry and has over 300,000 workers. Transportation operations and related support services represents 43% of the industry and has over 270,000 workers, with the largest number--over 65,000 workers--employed in truck transportation. Nearly 60,000 workers are employed in management and technical services (includes logistics and planning services) which is 9% of the industry.



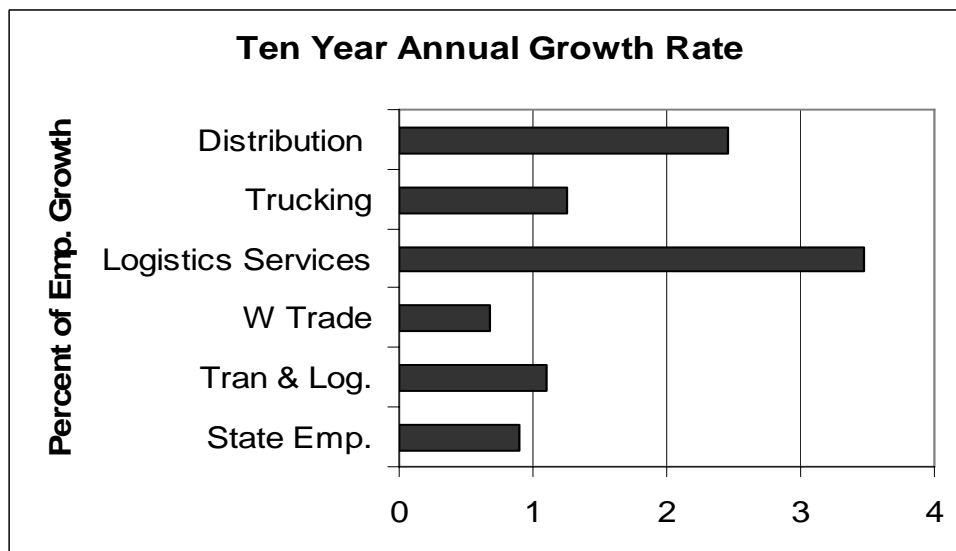
*Transportation Operations excludes Truck Transportation

The transportation and logistics industry is expected to grow over the next ten years from about 640,000 jobs to over 710,000 jobs. That is an 11.5% increase in employment over this period and a 1.1% annual compound rate of change. This is a faster growth rate than the state's overall increase of 9.8 % during this period. The transportation and logistics industry will slightly grow as a share of the state's overall employment base from 10.1% to 10.3% over this ten-year period.

The largest numbers of jobs will be added in transportation operations and related support services. This includes large numbers of jobs in truck transportation (8,700), distribution centers (9,900) and the balance of this sector which includes air, water and rail transportation (10,400). Transportation logistics and planning services (23,000) and wholesale trade (21,000) will also provide healthy job growth.



The fastest growing segments of the transportation and logistics industry are in logistics planning and management services and warehousing and distribution center operations. The employment in logistics planning and management services is expected to provide the largest amount of employment growth over the next ten years. This sector will grow 40.8% in employment or a 3.5% annual compound rate of change over this period. Compared to the state's overall employment base annual rate of .9 % and the overall transportation and logistics industry annual rate of 1.1%, this sector will experience rapid growth.



The warehousing and distribution center operations will also experience accelerated growth compared to the state's overall employment growth and

employment growth in the transportation and logistics industry. Warehousing and distribution center employment will grow 27.4% representing a 2.5% annual compound growth rate (See Appendix B).

The transportation and logistics industry is projected to face serious shortages of qualified workers over the next ten years. These shortages will be at all levels ranging from logistics, transportation and distribution center managers and logistics professionals including international logistics to administrative and information technology support workers, truck drivers, distribution center operators and material handlers, and machinery and transportation equipment maintenance workers. The Critical Skill Shortages Initiative (CSSI) identified six major occupational clusters where shortages must be addressed: (1) administrative and operational support, (2) transportation operations, (3) material handling, (4) maintenance, (5) supervisors and managers, and (6) transportation maintenance (See Appendix C).

To support the continued growth and development of the transportation and logistics industry, Illinois must address critical workforce needs now facing the industry. In particular, Illinois must address the major problems and issues identified by the task force and implement the following recommendations.

Findings and Recommendations

Increasing Awareness of the Industry

The transportation and logistics industry is not well known or understood in Illinois. This is one major reason why employers are facing serious problems in recruiting qualified workers and educational institutions are facing challenges in establishing and expanding programs and recruiting students for these programs. Illinois must take immediate steps to increase public awareness of the industry by launching a statewide and regional awareness campaign.

Recommendations

Illinois should launch a statewide and regional awareness campaign to increase awareness and understanding of transportation and logistics at the state and local levels. This campaign should be designed to achieve specific objectives for two major audiences:

- **General Public and Private Leaders.** The campaign should be designed to increase awareness in the general public and among public and private leaders at the state and local levels. The campaign should have a theme that conveys the importance of the industry to the Illinois

economy and provides the basis for a unifying brand identity. Major attention should be given to increasing awareness and knowledge among elected public officials including state office holders, legislators, and local elected officials including school board members and county and city officials. The campaign objective should be that all major public officials at the state and local levels are aware of: (1) the size and importance of the industry in the state and their own regions and communities and the unifying brand identity used in the campaign, and (2) the major employers representing different parts of the industry in the state and their own regions or communities. The campaign should first be launched in targeted regions with strong regional and local leadership, strong industry support, and high concentrations of transportation and logistics employment.

- Current and Future Job Seekers. The campaign should also be designed to increase awareness among current and future job seekers. This should be done at two levels. The campaign should first focus on the educators, guidance counselors, and workforce development professionals that provide information and career guidance to adult and youth job seekers. The campaign objectives should be that this targeted audience should have awareness and knowledge of the industry and major employers in their regions and communities and should be able to identify the major types of career opportunities for job seekers and what types of education and training are required. The campaign should then focus on student and adult job seekers using the same campaign objectives. These efforts should be evaluated based on their success in increasing career interests and enrollments in targeted transportation and logistics education and training programs.

The statewide and regional awareness campaign should use at least four major strategies:

- Develop Industry Web Site. Illinois should develop a web site, linked to and supported by Illinois workNet, that provides easily accessible information on the industry. This web site should contain:
 - Definition of the industry (as recommended in this report)
 - Facts and figures with national and regional comparisons including comparisons within the Midwest.
 - Definitions of key functions and roles including logistics planning and management (e.g., third-party logistics), distribution center operations, and transportation operations for the major

transportation modes—rail, water, roadway, air, and mass transit

- Profiles of employers playing these key roles and functions in each region
 - Virtual tours of employer workplaces highlighting critical functions and working environments and the growing use of technology in all aspects of the industry
 - Career opportunities highlighting growing occupations and those with projected shortages. This should provide information on how to prepare for these career opportunities and education and training programs that are available. It also should have success stories that illustrate how people were successful in preparing for these careers. This section of the web site should include video content wherever possible and should be built from and linked to existing career information resources including Illinois' portal for career and education information-- Illinois workNet.
- Conduct Regional and Local Forums and Meetings. Illinois should work with regional and local public and private leaders and organizations such as local workforce investment boards and local and regional economic development organizations, to sponsor regional forums and meetings addressing the industry. These forums and meetings should include:
 - Forums and Meetings. These forums and meetings should be conducted in cooperation with business organizations such as chambers of commerce and industry associations, unions, economic development organizations, and local workforce investment boards
 - Employer-Sponsored Open Houses. Employers should be asked to host open houses to explain what they do and the career opportunities they provide.
 - Promote Media Coverage. Illinois should work with regional and local leaders and organizations to promote media coverage at forums and meetings, employer-sponsored open houses, and new developments in the industry such as employer expansions and startups and updates on the growth in the industry at the regional and local levels.
 - Sponsor Career/Job Fairs and Events. Illinois should work with regional and local partners to sponsor targeted career and job fairs and related events to expand awareness of career opportunities and improve the relationships between employers and employment and

training organizations serving the industry. These career and job fairs and events should be promoted and supported by the industry web site with career information and media coverage.

Capacity and Alignment of Education and Training Programs

The transportation and logistics industry is a critical mainstay of the Illinois economy that must be supported so it can continue to grow and provide critical services to other key industries such as manufacturing. The transportation and logistics industry is facing serious problems in recruiting and retaining qualified workers. These shortages will become more serious in the future if Illinois does not increase the capacity and improve the alignment of secondary and postsecondary education programs at the state and regional levels including private sector training programs such as union apprenticeship and training programs. These shortages also will become more serious if we do not expand opportunities for more workers to pursue careers in this critical sector, including women and minorities.

Illinois has taken great strides already in addressing the needs of the industry. For example, the Critical Skill Shortages Initiative (CSSI) recently launched new programs in the Northeast and Northwest regions to address shortages in many key occupations. The Illinois Community College Board (ICCB) recently provided planning funds to community colleges to develop new programs in logistics and warehousing and distribution including warehousing operations and bridge programs. The ICCB purchased an entry level Transportation, Warehousing Distribution, and Logistics curriculum package and made it available to all the community colleges. To date, fifteen community colleges are pursuing the program. The planning funds have allowed for a wide variety of approaches to addressing the TDL needs - both supply and demand. For example, the community colleges in the South Cook region - Joliet, Kankakee, Prairie State, and South Suburban jointly developed a curriculum and will be offering the classes on a collaborative basis and Moraine Valley has developed an entire job readiness training package for workers in the transportation and logistics industry. In addition, grant money was used to create curriculum for an Introduction to Business Logistics course providing an overview of the TDL industry as well as career awareness/career path information. These are just two examples from among over twenty projects around the state with community colleges and adult education providers. Universities are now exploring expanding their programs. The Illinois State Board of Education is sponsoring projects to explore how to introduce logistics and transportation into secondary schools.

However, there still remain many unanswered questions about the capacity and alignment of programs in Illinois and whether these programs can meet the

growing need for qualified workers in Illinois. What is the proper number and mix of programs in different regions of the state? Are we focusing in the most critical areas to promote regional economic development and provide career opportunities? Are we effectively reaching out to the entire workforce? Are we really providing access to opportunities for all workers to pursue careers including women and minorities?

In particular, there still remain major questions about whether Illinois is providing people with the opportunities to acquire basic workplace skills necessary to enter growing employment opportunities in entry-level positions. Many employers are finding it difficult to find job seekers for these entry-level positions, such as distribution center jobs, who have these basic workplace skills including basic literacy, computer, safety, work readiness, teamwork, and related soft skills. In addition, employers are having difficulty finding workers who can pass drug tests to work in a drug-free workplace. This severe shortage in qualified workers for entry-level positions is a major area that must be addressed.

Recommendations

Illinois should conduct a systematic baseline inventory of secondary and postsecondary education programs at the statewide and regional levels and evaluate the alignment of these programs to ensure seamless transitions between programs and into the workforce. This inventory should include all types of publicly funded and regulated programs including programs offered by universities, community colleges, community-based organizations, proprietary schools, and high schools. It also should include private training programs wherever possible including union apprenticeship and training programs. This inventory should address whether programs are providing access to career opportunities for Illinois workers including women and minorities. Finally, this inventory should address whether programs are preparing workers to gain credentials that matter to employers including industry-recognized certifications.

This baseline inventory should specifically address whether Illinois is establishing programs, such as transportation and logistics bridge programs, to provide job seekers with the basic workplace skills needed to get and retain entry-level jobs in the industry. In general, bridge programs are programs designed to prepare individuals, particularly individuals with literacy levels below the ninth grade, to enter education and training and employment leading to career advancement. This effort should identify the core set of workplace skills needed for entry-level positions in transportation and logistics that should be incorporated into bridge programs. Illinois should then use this analysis to identify leading models for bridge programs in Illinois and how they are linked to and aligned with other programs to provide access to career pathways within the industry.

Illinois should then use this baseline inventory to conduct a gap analysis at the statewide and regional levels to determine whether the state and regions have the right size and mix of programs to address projected demand, supply and shortages for major types of occupations and occupational areas. This gap analysis should promote the exchange of information and program models between regions and provide recommendations for expanding program capacity and improving alignment. Illinois also should use this baseline inventory and gap analysis to develop more accurate estimates of the demand and supply of truck drivers and the size of the shortage at the state and regional levels.

Illinois should engage local workforce investment boards, universities, community colleges, schools and employers and unions in conducting regional baseline and gap analyses. They should also be asked to develop and implement plans to expand the capacity and improve the alignment of education and training programs serving the transportation and logistics industry. These plans should address how to expand access and participation for a larger share of the Illinois workforce, especially women and minorities, based on leading national and state models. This effort should focus on making transportation and logistics bridge programs available in every region of the state.

K-12 Career Awareness

As described earlier, one major cause of worker shortages in the transportation and logistics industry is the lack of awareness of career opportunities. The proposed statewide and regional awareness campaign is a good first step in improving career awareness among K-12 students and their parents. However, providing career information in printed materials and on web sites is not enough. Illinois must go further.

Some industries, such as the healthcare industry, have promoted career opportunities in their industries by developing and supporting career development curriculum materials that provide students with hands-on learning experiences and K-12 classroom activities. The Illinois Workforce Investment Board's Healthcare Task Force recommended that Illinois use the nationally-developed Health Sciences Career Cluster materials based on the national career cluster's framework. These materials are now being promoted in schools throughout Illinois. Some employers and unions in the construction industry have sponsored community-based learning experiences where students can engage in hands-on activities and interact with adult role models from the industry. These efforts take the necessary steps to fully engage students in exploring careers and improving their academic, technical and workplace skills in the process. These industry efforts are instructive models for transportation and logistics.

The Illinois State Board of Education (ISBE), in cooperation with the Illinois Department of Commerce and Economic Opportunity (DCEO), is exploring the use of classroom-based career development projects that teachers can do with their students in cooperation with a sponsoring employer. This effort is based on the national career cluster's framework that was developed in cooperation with the transportation and logistics industry (See Appendix D). The Illinois Office of Educational Services (IOES) at Southern Illinois University conducted a curriculum enrichment project last year to develop and pilot-test career development instructional modules designed for use in high school (primarily 9th and 10th grades). These modules are designed as problem-based learning scenarios or projects that apply and integrate technology education, science and mathematics knowledge and skills in addressing real-world problems in the transportation and logistics industry developed by employer partners. These problem-based scenarios or projects allow students to explore careers in different pathways within the national framework. This year IOES is conducting an ISBE-funded mathematics and science staff development project to train technology education, mathematics, and science teachers to develop and use problem-based scenarios in cooperation with university and community college faculty and industry partners. These two projects have been successful in expanding awareness and understanding of both career and technical education and academic teachers of career opportunities in the transportation and logistics industry. They also have been effective in engaging industry partners in classroom based career development activities with students and teachers. Industry engagement is critical in the success of these activities. They provide a model of how to integrate career development activities into schools.

Recommendations

Illinois should develop and pilot-test a comprehensive set of career development materials based on problem-based learning scenarios that allow students to explore careers in the transportation and logistics industry. These materials should be designed for use in a career exploration or orientation course or as instructional models within existing mathematics, science, and career and technical education courses. These materials should be based on the national career clusters framework and be supported by career awareness materials developed for the statewide and regional career awareness campaign.

These classroom-based career development materials should be pilot-tested in two to three regions that have the strongest industry and education support for promoting career opportunities in the transportation and logistics industry. Regions should be selected based on commitments from regional industry leaders and employers, universities, community colleges, and schools that they will work together to develop and pilot-test these materials using problem-based

scenarios developed in cooperation with regional employers. Illinois should then evaluate the results from the pilot-test regions, make necessary modifications, and expand the use of a comprehensive set of career development materials in all regions of the state as part of the ongoing awareness campaign.

Illinois should also develop a sustainability plan to maintain and update these career development materials and support their use in schools throughout Illinois as part of a larger K-12 career development system in Illinois. This sustainability plan should address how to raise and maintain adequate public and private funding for: (1) creating and updating career development materials, (2) teacher training, and (3) engaging industry and postsecondary partners in K-12 career development activities. This plan should also specify who will be accountable for setting and achieving annual goals on: (1) how many schools and students will participate in career development activities, and (2) how many students who participate in these activities are successful in attaining the academic skills necessary for success in transportation and logistics careers and enrolling in secondary and postsecondary programs in transportation and logistics. This plan should require annual reporting of results to determine whether this career development effort is successful in reaching the goals. This plan should be part of a larger strategic plan for expanding K-12 career development opportunities for all career areas in Illinois.

Addressing Truck Driver Shortages

Truck transportation is a large and growing component of the transportation and logistics industry in Illinois. Illinois employers are projected to post over 4,000 job openings every year for truck drivers through 2010.

Illinois, like other states, is facing a severe shortage of truck drivers. This shortage is, in part, due to the rapid growth of the truck transportation industry relative to the capacity of training programs in Illinois. Another reason for the shortage is the high turnover rate of truck drivers. A preliminary analysis of program completers from community college programs and programs funded by Workforce Investment Act (WIA) funds show high rates of turnover.

Illinois must take steps to expand the capacity of training programs and increase the number of truck drivers being trained and licensed and entering employment in transportation and logistics. But, this will not be enough. Illinois will not be effective in addressing this shortage unless employers and other industry representatives work cooperatively with government and education to address the root causes of high turnover rates among truck drivers.

The Critical Skill Shortage Initiative (CSSI) regional reports and task force discussions identified a wide variety of factors that contribute to high rates of turnover among truck drivers:

- Home Time: Balancing Work and Family Life. Many truck drivers are away from home too much and cannot effectively balance work and family responsibilities. Drivers cannot spend time with spouses and children and cannot get home for family emergencies.
- Work Environment: Increasing Job Stress. Most truck drivers are facing more stressful work environments because of growing competition in the trucking industry and new rules and regulations and job responsibilities. They are also facing additional stress because of growing traffic congestion and new skill requirements including the expanded use of computers in daily job functions.
- Compensation: Matching Pay with Job Responsibilities and Stress. Some employers are not providing the level of wages and benefits needed to attract and retain truck drivers. Some truck drivers are not able to earn enough money to compensate for the hours they are working and days they are gone combined with the added job stress.

In addition, the task force discussed problems in providing youth opportunities to pursue careers as truck drivers. Currently, Illinois requires that all truck drivers be 21 years of age or older. In addition, some employers only hire truck drivers with experience because of insurance issues. This makes it difficult for recent high school graduates or youth between 18 and 21 to pursue training to be a truck driver. The task force discussed one possible solution. Employers could work with industry and education partners to establish and promote clearly defined career pathways for both youth and adults to work in the industry before entering truck driver training programs. One promising career pathway is for workers to start their careers in distribution centers where they can learn more about trucking and distribution center operations and then enter truck driving programs after they become 21 years old.

The task force identified two major areas that should be explored in identifying the most important root causes and developing strategies for reducing truck driver turnover: (1) employer practices in recruiting, utilizing, and retaining truck drivers and (2) education and training provider practices in recruiting, screening, and educating students to make sure that they are fully prepared for the realities of being a truck driver. These efforts should be supported by significant national efforts to address truck driver shortages including the national studies being sponsored by the American Trucking Association.

Recommendations

Illinois should develop more precise estimates of statewide and regional shortages of truck drivers and the contributions of turnover and other types of leakages to shortages by improving the capacity to identify and track students completing training programs and receiving their licenses in Illinois. Illinois should use this data capacity to produce a report on the size and distribution of trucker turnover in Illinois and its relative contribution to current shortages.

Illinois should also conduct a study to identify the major causes and potential solutions to the problem. This study should analyze the root causes of truck driver turnover with a special focus on employer and education and training practices. This analysis should also identify leading employer and education practices that have been successful in reducing truck driver turnover. This analysis should include leading employer practices in providing career pathways for youth and adults to explore truck driving careers while working in the transportation and logistics industry.

Illinois should then promote the use of leading employer and training provider practices through industry and education forums and the funding of demonstration and pilot projects. Illinois should promote the implementation of these leading employer practices by providing training funds to employers to assist in implementing leading practices in recruiting, utilizing and retaining truck drivers. Illinois should then evaluate the effectiveness of these leading practices in reducing turnover and provide training funds to more employers for practices that have been proven effective. Illinois should also provide training funds to training providers to assist in implementing leading practices in recruiting, screening, and educating students to make sure that they are fully prepared for the realities of being a truck driver. Illinois should then evaluate the effectiveness of these leading practices in reducing turnover and provide training funds to more training providers for implementing proven practices.

Conclusions and Next Steps

The Illinois Workforce Investment Board (IWIB) established the Transportation and Logistics Task Force to develop recommendations for addressing worker shortages in transportation and logistics. The Illinois Workforce Investment Board (IWIB) established this task force because of the critical importance of the transportation and logistics industry to the future economic development of the state and its regions.

This task force has concluded that Illinois is at a critical crossroads in promoting the future growth of the transportation and logistics industry. Illinois is currently a leading state in the transportation and logistics industry. Illinois is located at the center of the nation at the crossroads of all major transportation networks and has an excellent transportation infrastructure. To retain its leadership

position, Illinois must take immediate actions to upgrade and expand the capacity of its infrastructure. Illinois must also address some critical workforce challenges that threaten the future growth of the industry. The IWIB Transportation and Logistics Task Force recommends that Illinois take immediate actions to: (1) increase awareness of the industry, (2) increase the capacity and improve the alignment of secondary and postsecondary education and training programs, (3) expand K-12 career awareness, and (4) address truck driver shortages by promoting efforts to reduce turnover rates.

Appendix A

Illinois Workforce Investment Board Transportation and Logistics Task Force

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Appendix B

Transportation and Logistics Industry North American Industrial Classification System Codes (NAICS)

420000 **Wholesale Trade**
423000 Merchant Wholesalers, Durable Goods
424000 Merchant Wholesalers, Nondurable Goods
425000 Wholesale Electronic Markets/Agents/Brokers

48-49 **Transportation & Warehousing**
481000 Air Transportation
482000 Rail Transportation
483000 Water Transportation
484000 Truck Transportation
485000 Transit & Ground Passenger Transportation
486000 Pipeline Transportation
487000 Scenic and Sightseeing Transportation
488000 Support Activities for Transportation
491000 Postal Service
492000 Couriers and Messengers
493000 Warehousing and Storage

541600 **Management, Scientific & Tech. Services**

Consulting activities included under NAICS 541614:
Efficiency management (i.e., efficiency expert) consulting services

Freight rate auditor services

Freight rate consulting services

Freight traffic consulting services

Inventory planning and control management consulting services

Logistics management consulting services

Manufacturing management consulting services

Manufacturing operations improvement consulting services

Materials management consulting services

Operations research consulting services

Physical distribution consulting services

Production planning and control consulting services

Productivity improvement consulting services

Tariff rate consulting services

Tariff rate information services

Transportation management consulting services

Transportation and Logistics Industry Statewide Employment Projections 2002-2012

North American Industrial Classification System (NAICS)	2002 Base Year	2012 Projected Year	Net	Annual
	Employment	Employment	Change	Compound % Change
Total for Tran. & Logistics	638,453	711,722	73,269	1.1
420000 Wholesale Trade	306,090	327,292	21,202	0.7
423000 Merchant Wholesalers, Durable Goods	175,315	190,138	14,823	0.8
424000 Merchant Wholesalers, Nondurable Goods	108,704	113,080	4,376	0.4
425000 Wholesale Electronic Markets/Agents/Brokers	22,071	24,074	2,003	0.9
48-49 Transportation & Warehousing	274,851	303,473	28,622	0.9
481000 Air Transportation	41,730	46,483	4,753	1.1
482000 Rail Transportation	17,448	17,076	-372	-0.2
483000 Water Transportation	1,894	1,961	67	0.4
484000 Truck Transportation	65,630	74,355	8,725	1.3
485000 Transit & Ground Passenger Transportation	20,531	23,748	3,217	1.5
486000 Pipeline Transportation	950	767	-183	-2.1
487000 Scenic and Sightseeing Transportation	984	1,032	48	0.5
488000 Support Activities for Transportation	26,928	28,226	1,298	0.5
491000 Postal Service	43,443	40,394	-3,049	-0.7
492000 Couriers and Messengers	19,115	23,328	4,213	2.0
493000 Warehousing and Storage	36,198	46,103	9,905	2.5
541600 Management, Scientific & Tech. Services	57,512	80,957	23,445	3.5

Source: Illinois Department of Employment Security

Appendix C

Transportation and Logistics Occupational Clusters with Shortages Identified in the Critical Skill Shortages Initiative

Occupation Code	Cluster and Occupational Titles
	1 Administrative & Operational Support
15-1041	Computer support specialists
15-1051	Computer systems analysts
15-1061	Database administrators
15-1071	Network and computer systems administrators
15-1081	Network systems and data communications analysts
39-6021	Tour guides and escorts
39-6022	Travel guides ³
39-6031	Flight attendants
39-6032	Transportation attendants, except flight attend, porters
41-3041	Travel agents
43-4051	Customer service representatives
43-4181	Reservation and transportation ticket agents & travel clerks
43-9011	Computer operators
43-9021	Data entry keyers
49-2091	Avionics technicians ⁶
53-2021	Air traffic controllers
53-2022	Airfield operations specialists ³
53-6041	Traffic technicians ³
53-6051	Transportation inspectors
	2 Transportation Operations
53-2011	Airline pilots, copilots, and flight engineers
53-2012	Commercial pilots
53-3021	Bus drivers, transit and intercity
53-3022	Bus drivers, school
53-3032	Truck drivers, heavy and tractor-trailer
53-3033	Truck drivers, light or delivery services
53-3041	Taxi drivers and chauffeurs
53-4010	Locomotive engineers and firers
53-4039	Subway, streetcar operators and all other rail tran workers
53-5011	Sailors and marine oilers ¹
53-5022	Motorboat operators ³
	3 Material Handling
43-5011	Cargo and freight agents
43-5032	Dispatchers, except police, fire, and ambulance
43-5053	Postal service mail sorters, processors, & proc mach optrs
43-5061	Production, planning, and expediting clerks
43-5071	Shipping, receiving, and traffic clerks

43-5081 Stock clerks and order fillers
 43-5111 Weighers, measurers, checkers, & samplers, recordkeeping
 53-7011 Conveyor operators and tenders⁶
 53-7021 Crane and tower operators
 53-7041 Hoist and winch operators²
 53-7051 Industrial truck and tractor operators
 53-7062 Laborers and freight, stock, and material movers, hand
 53-7064 Packers and packagers, hand
 53-7071 Gas compressor and gas pumping station operators⁴
 53-7072 Pump operators, except wellhead pumpers⁴
 53-7121 Tank car, truck, and ship loaders⁶

4 Machinery Maintenance

49-2092 Electric motor, power tool, and related repairers
 49-2093 Electrical and electronics installers and repairers, tran eqp
 49-2094 Electrical and electronics repairers, commercial & ind eqp
 49-2096 Electronic equipment installers & repairers, motor vehicles
 49-9012 Control and valve installers and repairers
 49-9041 Industrial machinery mechanics
 49-9042 Maintenance and repair workers, general
 49-9043 Maintenance workers, machinery
 49-9044 Millwrights
 49-9096 Riggers⁶

5 Supervisors and Managers

11-3051 Industrial production managers
 11-3071 Transportation, storage, and distribution managers
 11-9131 Postmasters and mail superintendents
 49-1011 First-line superv/managers of mech, installers, & repairers
 First-line supervisors/managers of production & operating
 wks
 51-1011 Aircraft cargo handling supervisors³
 53-1011 First-line superv/managers of hlprs, laborers, & mat movers
 53-1021 First-line superv/man of tran & mat-moving mach & vehicle
 operations
 53-1031 Railroad conductors and yardmasters
 53-4031 Captains, mates, and pilots of water vessels
 53-5021 Ship engineers⁶

6 Transportation Maintenance

49-3011 Aircraft mechanics and service technicians
 49-3021 Automotive body and related repairers
 49-3022 Automotive glass installers and repairers
 49-3023 Automotive service technicians and mechanics
 49-3031 Bus and truck mechanics and diesel engine specialists
 49-3042 Mobile heavy equipment mechanics, except engines
 49-3043 Rail car repairers¹
 49-3051 Motorboat mechanics¹
 49-3093 Tire repairers and changers

49-9097	Signal and track switch repairers ⁶
53-4021	Railroad brake, signal, and switch operators ⁶
33-3052	Transit and railroad police ⁶
47-4061	Rail-track laying and maintenance equipment operators ⁶
53-6011	Bridge and lock tenders ⁶
53-7061	Cleaners of vehicles and equipment

Appendix D

Transportation and Logistics Career Cluster Framework



Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Sample of Career Specialties / Occupations	<p>Air/Space Transportation: Transportation managers—air * Airplane pilots/copilots * Commercial pilots * Flight engineers * Flight attendants * Dispatchers-air * Traffic managers * Air traffic controllers * Aircraft cargo handling supervisors * Airfield operations specialists</p> <p>Rail Transportation: Transportation managers--rail * Dispatchers-rail * Traffic managers * Locomotive engineers, * Locomotive firers * Railyard conductors and yardmasters * Railroad brake, signal and switch operators (including train crew members and yard workers) * Railyard engineers,</p> <p>Water Transportation: Transportation managers—water * Dispatchers—water * Traffic managers * Captains * Mates * Pilots of water vessels * Sailors * Able seamen * Ship and boat captains * Ship engineers * Motorboat operators * Bridge and lock tenders *</p> <p>Road Transportation Transportation managers—road * Dispatchers--Truck/bus/taxi, traffic managers * Truck drivers-heavy * Truck drivers-tractor-trailer * Truck drivers—light or delivery services * Bus drivers-transit and intercity * Bus drivers * Taxi drivers and chauffeurs *</p> <p>Transit Systems: Transportation managers—mass transit * Dispatchers-bus * Traffic managers* Traffic managers * Bus drivers—transit * Subway and streetcar operators</p>	<p>Logisticians * Logistics managers * Logistics Engineers * Logistics analysts * Logistics consultants * International logistics</p>	<p>Warehouse managers * Industrial and packaging engineers * Traffic, shipping and receiving clerks * Production, planning, expediting clerks * First-line supervisors/managers of helpers * Laborers, and material movers-hand * First-line supervisors/managers * Laborers and freight, stock and material movers, hand * Packers and packagers-hand</p>	<p>Facility: Facility maintenance managers and engineers * Industrial equipment mechanics * Industrial electricians, * Electrical/electronic technicians * Mobile Equipment: General--Mobile equipment maintenance managers <u>Air/Space</u>—Aerospace engineering and operations technicians * Airframe mechanics * Power plant mechanics * Aircraft engine specialists * Aircraft body and bonded structure repairers * Avionics technicians. <u>Water</u>—Motorboat mechanics * Ship mechanics and repairers * Motorboat mechanics <u>Rail</u>—Rail car repairers * Signal and track switch repairers * Rail locomotive and car mechanics and repairers <u>Road</u>—Automotive body and related repairers * Automotive service technicians and mechanics * Bus and truck mechanics and diesel engine specialists * Motorcycle mechanics</p>	<p><u>General—Intermodal-</u> -Urban and regional planners * Civil engineers * Engineering technicians * Surveying and mapping technicians * Environmental compliance inspectors <u>Air/Space</u>—Air traffic controllers * Aviation inspectors <u>Road</u>—Traffic engineers * Traffic technicians * Motor vehicle inspectors * <u>Rail</u>—Railroad inspectors <u>Water</u>—Marine cargo inspectors * Vessel traffic control specialists <u>Transit</u>—Public transportation inspectors <u>Other</u>---Other government agency managers *</p>	<p>Health and safety managers * Industrial health and safety engineers * Environmental scientists and specialists * Environmental science and protection technicians * Environmental managers and engineers * Environmental compliance inspectors * Safety analysts</p>	<p>Marketing managers, * Sales managers * Sales representatives — transportation/logistics services * Reservation, travel and transportation agents/clerks * Cargo and freight agents * Customer service managers, * Customer service representatives * Customer order and billing clerks * Cashiers, counter and rental clerks</p>
Pathways	Transportation Operations	Logistics Planning and Management Services	Warehousing and Distribution Center Operations	Facility and Mobile Equipment Maintenance	Transportation Systems/ Infrastructure Planning, Management, and Regulation	Health, Safety and Environment Management	Sales and Service
Cluster K&S	<p style="text-align: center;">Cluster knowledge and skills</p> <p style="text-align: center;">◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills</p>						