



2021 Transportation, Distribution, and Logistics Task Force Report

**Illinois Workforce Investment Board
Transportation and Logistics Task Force
Grailing Jones, Chair**

August 31, 2021

Introduction:

The Illinois Workforce Investment Board (IWIB) reconvened the Transportation and Logistics Task Force on January 1, 2021 to develop recommendations for addressing the causes of worker shortages in transportation, distribution, and logistics sector. The task force was asked to focus on issues that required state level action.

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 these 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, Distribution, 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 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 TDL task force was chaired by Mr. Grailing Jones, who has over 41 years of experience in the transportation industry. The task force included representatives from various industry experts and employers representing different segments of transportation and logistics, community colleges, state education, workforce development, and economic development agencies. The task force members are listed in Appendix A.

The task force met 4 times between May 2021 and August 2021. All meetings were held virtually via Webex to accommodate Covid-19 safety guidelines. The task force chair presented interim reports to the IWIB periodically throughout the process.

First Meeting

The task force members reviewed the 2006 Transportation and Logistics Task Force Report. The task force also reviewed the findings from this report, focusing on the root causes of shortages and analyzed the 5 major issues from this report.

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 TDL industries

Major discussion questions followed from these findings that the current task force further analyzed. These questions included the following:

- What issues from the 2006 report remain relevant?
- What do you think is the biggest contributing factor to worker shortage?
- From where do you recruit your best talent?
- What steps have you taken to establish or strengthen talent pipelines?
- How can the TDL industry collaborate with the workforce & education systems in the short-term and long-term to address these barriers/ issues?
- Other business concerns and opportunities?

Second Meeting,

The task force addressed the need for a statewide and regional awareness campaign of WIOA system funding and LWIA WorkNet Centers. Questions from the previous meeting were further discussed, unpacking root causes of the shortage of TDL workers. Most all issues from the 2006 TDL Report remained relevant to the 2021 Task Force. A unanimous theme consisted among the group regarding the lack of supply in TDL for employers to hire from. Recruitment strategies have adapted to fit current industry expectations for employers due to the lack of eligible employees in the TDL sector. This supply gap was further explained and analyzed in subsequent meetings.

The TDL industry can collaborate with LWIA and Talent Pipeline Management programs that would better the relationships between employers and employees. The TPM infrastructure and programs were explained in the next meetings.

Third meeting:

The third meeting informed task force members of the occupational supply and demand analysis.

Fourth meeting:

The group reviewed the draft report of findings and recommendations and received a presentation on the US Chamber of Commerce Talent Pipeline Management initiative.

Transportation, Distribution and Logistics in Illinois

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

Illinois Transportation and Logistics Infrastructure

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

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-88, I-94 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. In addition to the interstates there are over 35,000 miles of state highways, making the interstate routes accessible from every region of Illinois.

Illinois is the center of the nation's rail network with Chicago being the largest rail hub in the nation. 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 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 3.9 million tons of cargo and approximately 20 million passengers annually. O'Hare has more than one arrival or departure every minute. The FAA reports that Midway serves 4.2 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 1.3 million tons and Peoria with 64,500 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. There are also Foreign Trade Zones in Rockford, the Quad Cities and Lawrenceville.

TDL Industry Snapshot

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

- 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

The approximately 701,000 TDL jobs in Illinois make up nearly 12% of total employment. These jobs fall into one of three main industries within the sector: 1) Transportation & Warehousing, 2) Wholesale Trade and 3) Management, Scientific & Technical Services.

Industry	TDL Jobs Base	% of State	% of Sector
Transportation & Warehousing	319,000	5.6%	45.5%
Wholesale Trade	295,000	4.8%	42.1%
Mgt, Scientific & Tech Services	87,000	1.4%	12.4%
Total	701,000	11.9%	100.0%

TDL sector employment is expected to grow 3.4% over the next ten years, from about 701,000 jobs to over 725,000 jobs. Over the same period, the State’s overall increase in jobs is expected to be approximately 1.0%.

Within the TDL sector, the Management and Tech Services industry is expected to grow the most, adding approximately 18,000 jobs over the next decade. Transportation and Warehousing is expected to add approximately 10,000 jobs over this period, while declines are expected for Wholesale Trade, which will shed about 3,000 jobs over the next decade.



TDL Occupations Snapshot

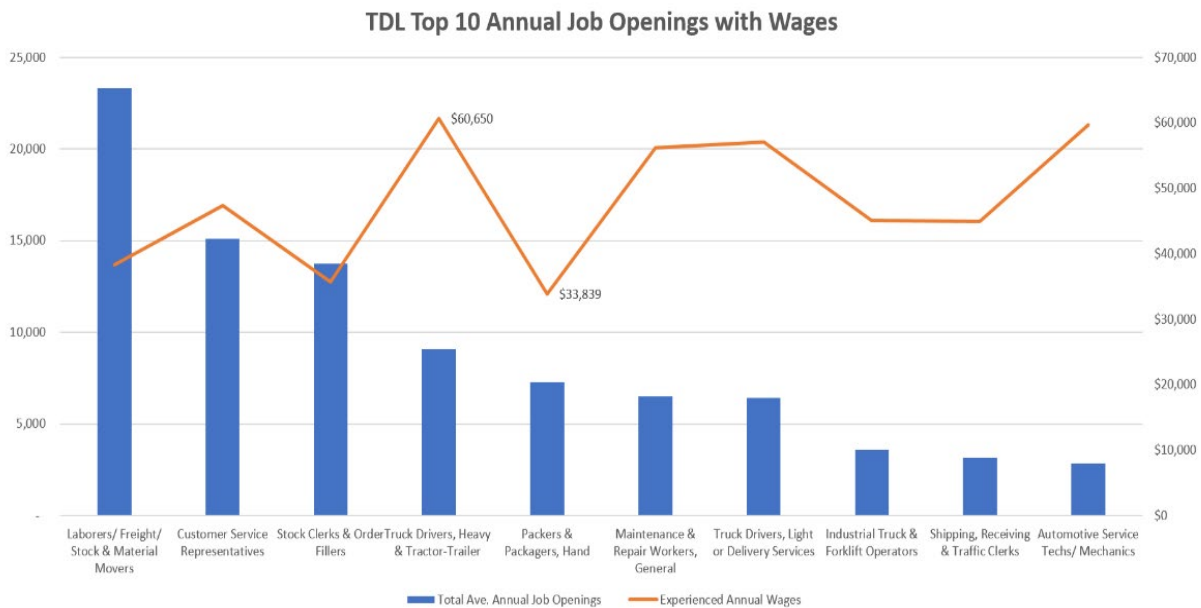
Occupations within the TDL sector fall into several categories: Transportation Ops, (Truck Drivers), Material Handling (Stock Clerks/Order Fillers), Machinery Maintenance (Industrial Machinery Mechanics), Supervisors/Managers (Supervisor of Production), Transportation Maintenance (Automotive Service Technicians), and Administrative/Operations Support (Customer Service Reps,).

Figures 1 and 2 represent those top occupations within the State of Illinois TDL industry that are expected to experience the most average annual job openings. Figure 2 displays both total average annual job openings and experienced annual wages. The top of the wage range is \$60,650 for Truck Drivers, Heavy & Tractor-Trailer, and the lowest point of \$33,839 for Packers & Package Handlers.

Figure 1

Occupation	Total Ave. Annual Job Openings	Experienced Annual Wages
Laborers/ Freight/ Stock & Material Movers	23,309	\$38,357
Customer Service Representatives	15,099	\$47,363
Stock Clerks & Order Fillers	13,756	\$35,699
Truck Drivers, Heavy & Tractor-Trailer	9,075	\$60,650
Packers & Packagers, Hand	7,281	\$33,839
Maintenance & Repair Workers, General	6,508	\$56,197
Truck Drivers, Light or Delivery Services	6,415	\$57,103
Industrial Truck & Tractor Operators	3,571	\$45,073
Shipping, Receiving & Traffic Clerks	3,161	\$44,992
Automotive Service Techs/ Mechanics	2,855	\$59,705

Figure 2

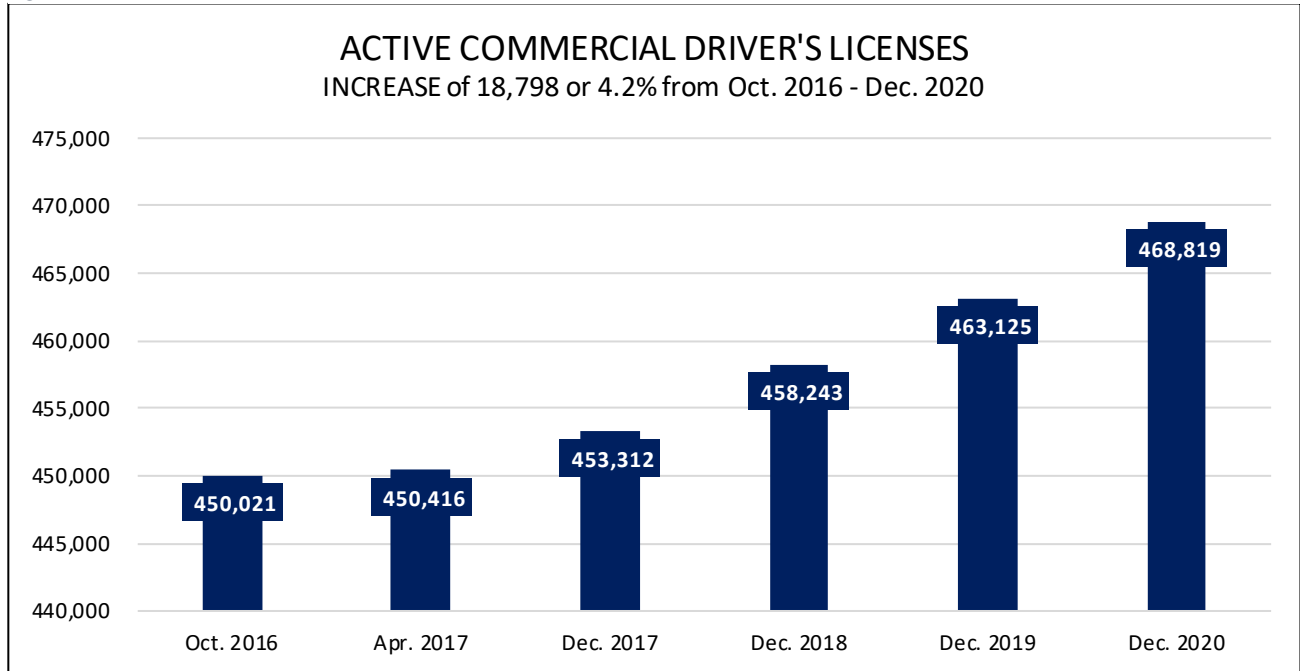


Truck Drivers and Active Commercial Driver's Licenses

Overall, the state of Illinois has seen an increase in the number of active commercial driver's licenses issued. There are nearly 20,000 more active CDL's in 2020 than in 2016,

an increase of 4.2%. At the end of 2020, there were 468,000 licensed truck drivers in Illinois.

Figure 3



As the Active Commercial Driver’s Licenses chart indicates in Figure 3, there has been a steady increase in the number of licensed truck drivers in Illinois. However, the continued influx of new drivers is not meeting demand. Trucking companies continue to struggle filling vacancies. The main strategies to attract drivers continue to include signing bonuses, generous wage rates and increased emphasis on work / life balance to allow drivers to have more predictable schedules and more time at home to reduce driver attrition rates. Continued progress in all these areas is necessary to if companies hope to meet the ever-growing demand for drivers.

Supply and Demand - Gap Ratio

In an effort to better understand the supply and demand for TDL occupations, this report calculated a supply gap ratio to highlight how supply relates to demand for selected occupations. The analysis bears out anecdotal evidence from sector businesses - this sector is facing significant shortages of workers. The gap ratio helps to better illustrate the degree to which occupations face the severest shortages when compared to other occupations in the industry.

Supply from this report includes the number of completers of training programs for that occupation from either a WIOA provider or educational institution such as a university or community college, and the estimated number of workers from that occupation who were unemployed as of June 2021. Figure 4 represents the total supply for these occupations.

Demand is measured by the projected average annual openings for these occupations. Note that by referring to average annual openings, we refer to several components that impact the employment levels. These include jobs added due to overall industry growth, transfers of employees into other occupations, and exits of employees due to withdrawal from the workforce. Figure 5 displays the number of total Supply vs. Demand for the top occupations in the industry.

In Figure 6, when reviewing the ratios, any value over '1' signifies there are more workers than openings, while any value under '1' suggests there is a shortage of workers trained for those job openings. Gap ratio is the difference between total Supply and total Demand for each of these occupations.

Figure 4- WIOA Completers, IBHE Completes, UI Claimants

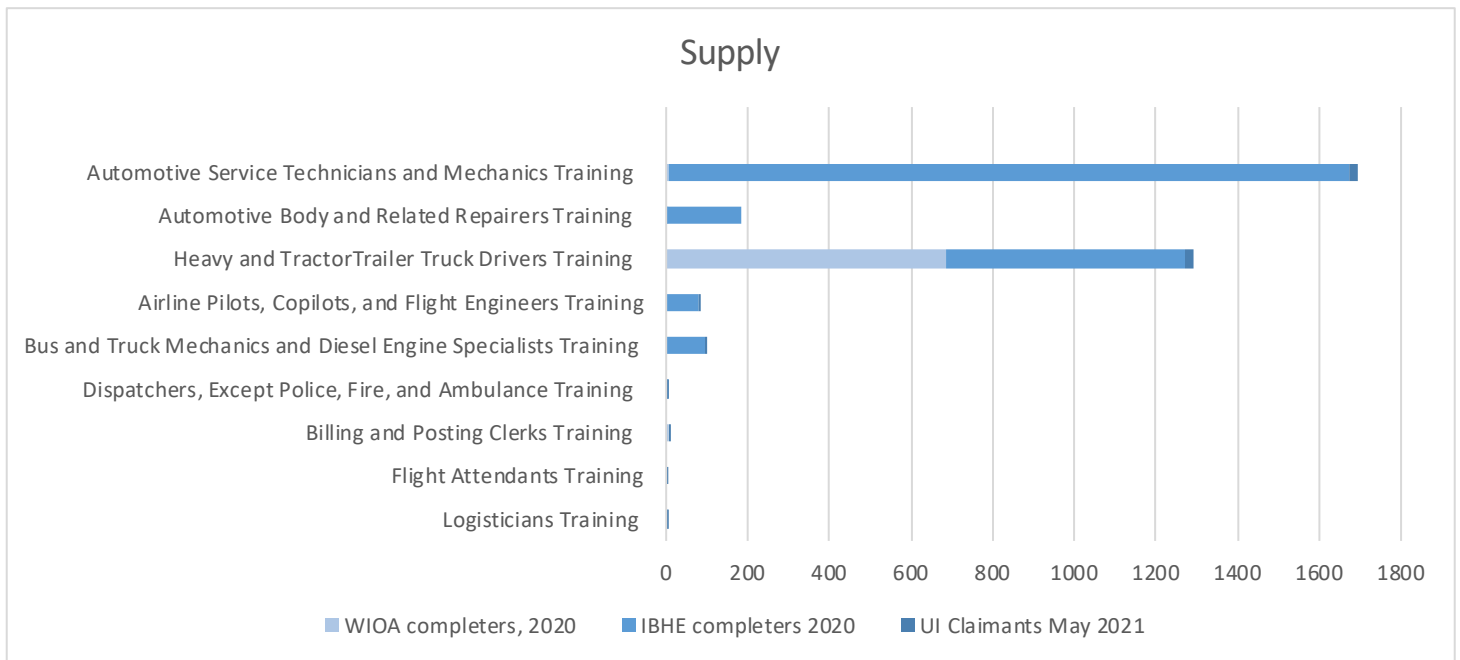


Figure 5

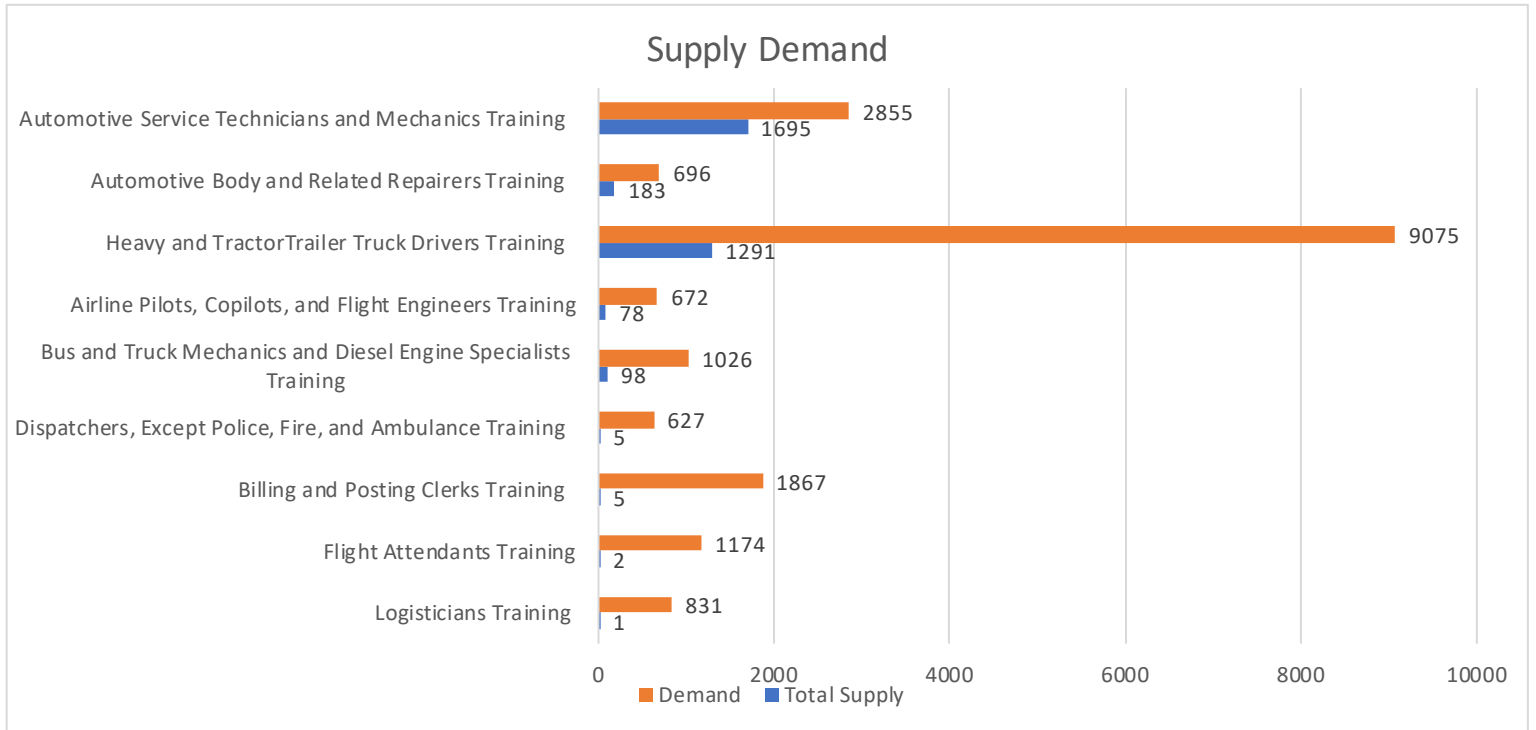
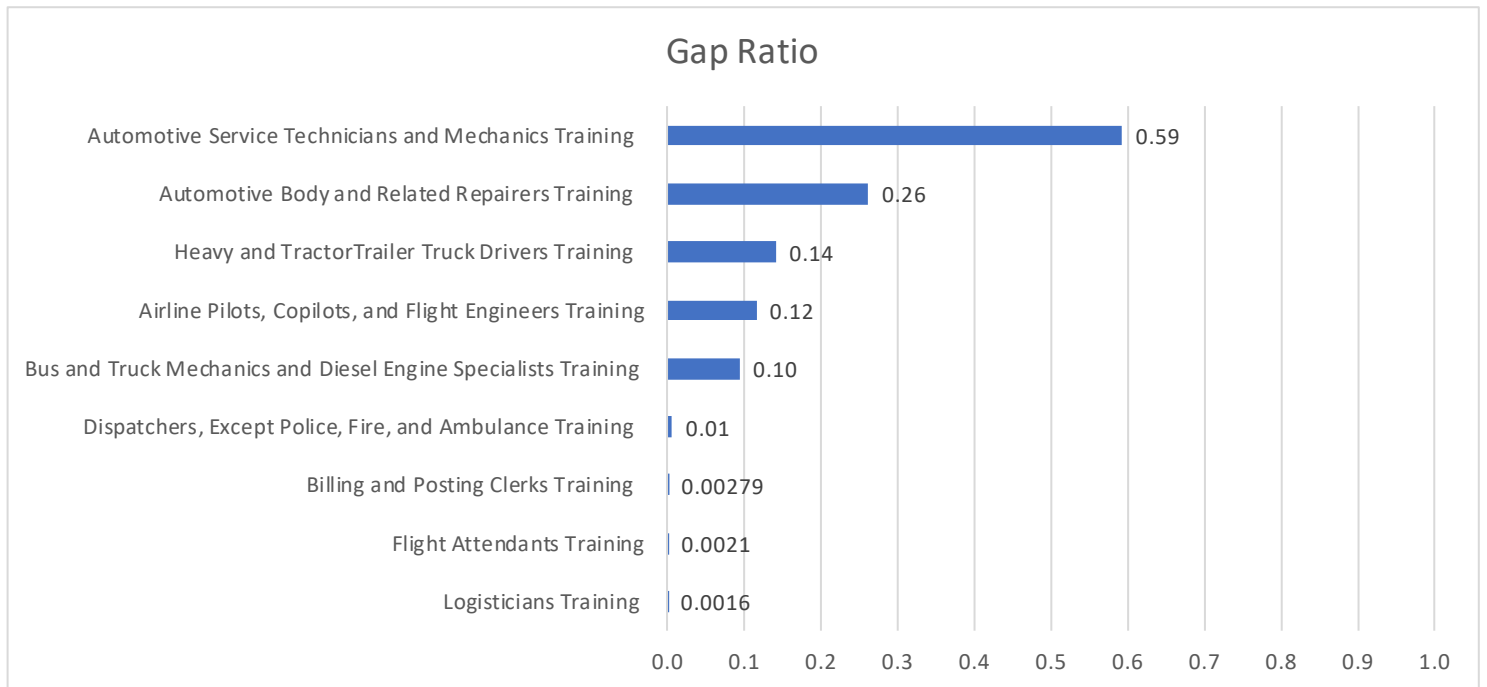


Figure 6



WIOA/WIA Funded Commercial Driver's License Training Volume & Outcomes

Illinois has seen a significant improvement in the percentage of CDL's earned by WIOA participants. Figure 7 below shows WIOA participants from PY14-PY20 that completed training (blue), earned a credential (orange), earned a CDL (grey), and entered training related employment (yellow). Notice how the gap between completing training and earning a certificate of completion compares to earning a CDL and entering training-related employment. Since PY14 the gap has narrowed significantly, and now nearly all WIOA completers are entering training-related employment.

Figure 7

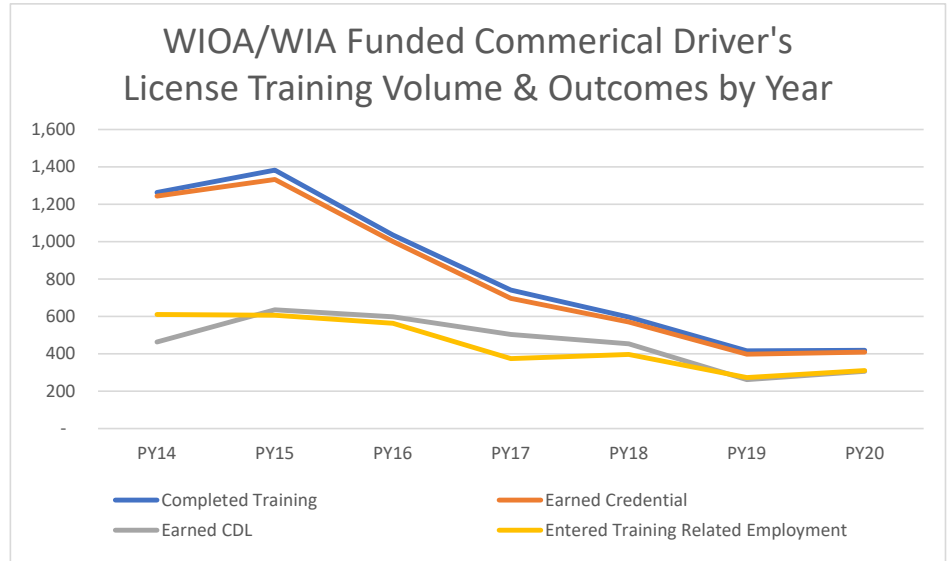
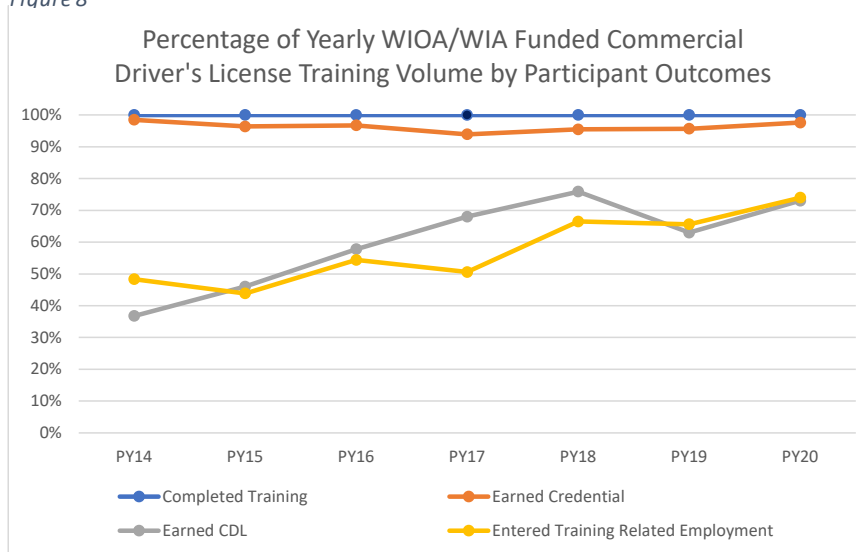


Figure 8 indicates the percentage of overall WIOA participants in the same categories. Note that in PY14, less than 40 percent of completers went on to obtain a CDL and less than 50 percent entered related employment. By PY20, this improved to over 70 percent earning a CDL and entering related employment.

Figure 8

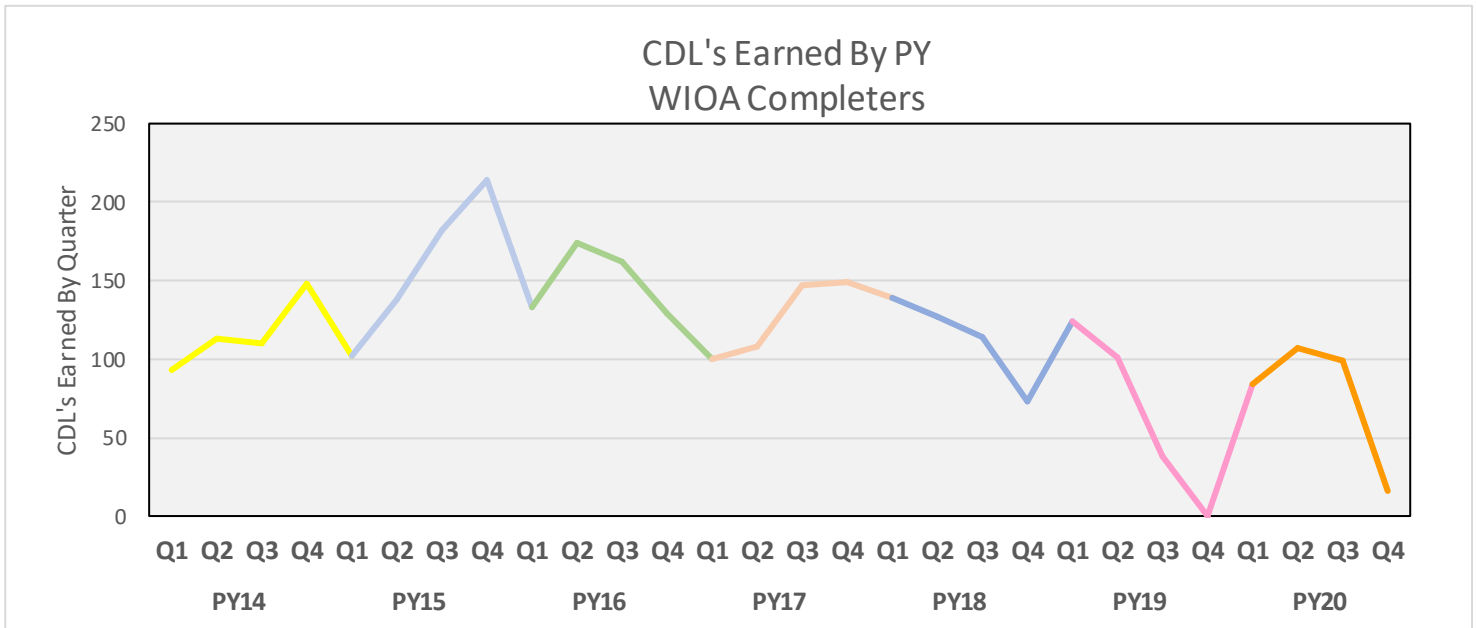


This is a strong indicator of the importance of tracking the meaningful metric. Note how the percent of completers earning a diploma has never dipped below 90 percent; but the percent entering employment went up in step with the percent earning a CDL.

Figure 9 illustrates the how the number of

WIOA participants has varied by calendar quarter since PY14. The Q3 number in PY19 is an anomaly due to the effect of the Covid-19 pandemic.

Figure 9



The latest validated data from the Illinois State Board of Education indicates just over 43 thousand K-12 students are enrolled in classes linked to one of five key TDL occupations. Illinois must continue to track enrollment and outcomes for TDL students, ensure alignment with demand skills and post-secondary education and training. See Appendix F for the breakout.

The Illinois Community College system recognizes several TDL-related programs at the various community colleges across the state. See Appendix F for the full list.

Total Number of Programs	431
<i>Associate of Applied Science Degree</i>	92
<i>Certificate Programs</i>	339
2020 Academic Year Completers	3,191

TDL Worker Data

The data in Appendix D provide insight into the current make up of TDL sector workers in Illinois. The charts include the following:

1. Job Qualifications by Years of Experience
2. Salary Overall
3. Salary by Education
4. Salary by Experience
5. Race Breakdown
6. Gender Breakdown
7. Age Breakdown

Appendix G shows a Burning Glass analysis of online job postings for selected TDL occupations in Illinois with the average number of days the postings for each were active from March 2020 through July 2021. Overall, in this time period, job postings were active for a month. At the extremes, the average life was a mere 12 days for Couriers and Messengers and 43 days for Supervisors of Sales Workers.

The economic impact of the COVID-19 pandemic continues to evolve rapidly. Hard data will take some time to become available, but the recent overarching labor market trends of 1) increasing worker quit rates and 2) increasing wages and benefits for low and mid-skilled workers are cause for concern for TDL companies to meet their talent needs. The developing national supply chain disruption highlights the vital role of TDL companies and workers in the national economy and their often unnoticed impact on the lives of all Americans.

Findings and Recommendations

Increasing Awareness of the Industry

The transportation and logistics industry is not well known or understood in Illinois. This is a main 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 statewide and regional awareness campaigns.

Recommendations

Illinois should launch a statewide and regional awareness campaign to increase awareness and understanding of transportation, distribution, 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
- 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.

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, specifically among younger students in Illinois. The proposed statewide and regional awareness campaign is a good first step in improving career awareness among K-12 students and their parents. Providing TDL industry awareness in these schools should captivate students which will in turn also promote the industry to their parents.

Some industries, such as healthcare, 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. Taking such efforts to fully engage students in exploring careers and improving their academic, technical, and workplace skills in the process can help this shortage. These industry efforts are instructive models for transportation, distribution, and logistics.

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, 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. Also, the lasting impacts of the Covid-19 virus have hindered the TDL sector's ability to grow and keep up with the changing industry needs. 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 task force discussed barriers to providing youth opportunities to pursue careers as truck drivers. Currently, federal law requires that most 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. Another potential avenue to explore are the internship opportunities employers can initiate to start these career paths at a younger age while encouraging a longer career in TDL.

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.

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 then promote the use of leading employer and training provider practices through industry and education forums and the promotion of a cooperative employment approach where businesses, training providers and the workforce system collaborate to guide students and program participants into employment.

Illinois should promote the implementation of these leading employer practices by providing training funds to employers to assist in recruiting, utilizing and retaining truck drivers. Illinois should then evaluate the effectiveness of these leading practices in reducing turnover and provide training funds for practices that have been proven effective. Illinois should also promote leading practices with training providers 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 refine these strategies.

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 key services to other integral industries such as manufacturing. The transportation, distribution, 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.

Another example of this is in LWIA 22 at Madison County Employment and Training where a comprehensive regional effort to expand the TDL initiative is being implemented. This

project focuses on supply chain and logistics coordinated training projects throughout the southwest region, working with partners such as Southern Illinois University Edwardsville, Southwestern Illinois College, Kaskaskia College, Lewis & Clark Community College, and Madison and St. Clair Counties. This project was initiated to create a coordinated education and training system for individuals seeking careers in the supply chain/ logistics sector. Individuals will be able to receive education training to enter or progress in the supply chain / logistics sector to provide a trained and skilled workforce to meet the needs of the ever-growing employment opportunities in the Southwestern IL region. The project consisted of three training phases to include short term training of 200 current front-line employees of regional supply chain and logistics companies, a coordinated education training plan developed and executed by the four educational partners, and outreach and education to high school and grade school students on the careers and opportunities in the supply chain and logistics industries.

Chicago/Cook Workforce Partnership is working with Morton College in another expansion of the TDL initiative to introduce private partnerships with the local LWIA to provide truck driver training to eligible students. The TDL initiative also included a TDL Sector Center Speaker Video Series which provides resources to the TDL industry and business owners. The HIRE Chicago Virtual Event for TDL will be held in August of 2021 and efforts have been put in place to collaborate with the next generation of TDL sector partnerships to re-introduce them to several employer partners. The Morton college Partnership efforts have secured and established referral and placement collaboration for the CDL Program offered with All Pro Trucking School through the college.

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

Analyze the gap ratio created from this task force 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.

Cooperative Employment Approach to Develop Talent Pipelines

Developing a robust talent pipeline requires a collaborative effort between the education systems, workforce system, training providers and businesses. Businesses must clearly and effectively communicate their talent needs to their suppliers, the education and workforce systems. Working together, they can develop and implement effective strategies for improved career awareness, training for relevant skills, promoting work-based learning where students and participants can learn and earn and employers can grow their own talent from within their region.

Recommendations

Use a sector strategies approach to improve communication between businesses and the workforce & education system to create regional talent pipelines. Expansion of work-based learning, such as incumbent worker training, apprenticeships and internships could prove helpful for companies to meet their talent development needs. Evolve job fairs into hiring events, with program participants / graduates pre-screened to interview with hiring companies.

Recap of Recommendations

1. Industry Visibility and Image:

Increasing awareness and understanding of the importance of the industry to the Illinois economy

Recommendations: Statewide public awareness campaign targeted at two key audiences, Public & private leaders and Current and future jobseekers, and include the following components:

- a) hold regional forums and employer-sponsored open houses with companies, economic development organizations and local workforce boards to promote greater understanding of industry issues and opportunities
- b) promote media coverage to inform the public of TDL-related activities
- c) sponsor career fairs & job hiring fairs to reach current and future jobseekers

2. Career Awareness:

Increasing awareness among adults and youth of the wide variety of career opportunities and how to prepare for these careers

Recommendations: Use the National Career Cluster Framework for Transportation careers to embed information on the sector into educational curricula for improved K-12 career awareness, including partnering with businesses to engage teachers and students through classroom-based career development projects.

3. Retention of Truck Drivers:

Improving the retention of truck drivers

Recommendations: Identify (1) employer practices in recruiting, utilizing, and retaining truck drivers contributing to turnover 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.

4. 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 TDL industries

Recommendations: Conduct a baseline analysis of current public and private education and training opportunities relevant for TDL careers to determine where they are available, if they provide for smooth transition to the next highest level and are they preparing students for employment, particularly to earn industry recognized credentials.

5. Cooperative Employment Approach to Develop Talent Pipelines

Employers, training providers and the workforce system must expand efforts to work cohesively to train for in-demand skills and place WIOA participants and student graduates into a TDL careers.

Recommendations:

Use a sector strategies approach to improve communication between businesses and the workforce & education system to create regional talent pipelines. Expansion of work-based learning, such as incumbent worker training, apprenticeships and internships could prove helpful for companies to meet their talent development needs. Evolve job fairs into

hiring events, with program participants / graduates pre-screened to interview with hiring companies.

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 concluded Illinois is at a critical crossroads in promoting the future growth of the transportation, distribution, 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 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 increase employees interested in TDL, and (5) promote a cooperative employment approach to cohesively place participants to careers.

Appendix

Appendix A:

Task Force members list

2021 Transportation, Distribution, Logistics Task Force Roster

Last Name	First Name	Company
<i>Private Sector / Eco Dev</i>		
Abell	David	AM Trucking
Alvarez	Alfredo	All-Pro Driving School
Boogemans	Mary	United Natural Foods, Inc.
Burkart	Alex	America's Central Port
Clark	Jane	National Lease
Drake	Raymond	UPS
Greenwood	Reggie	Gov. State University
Herman	Jennifer	JA Frate
Jedlicka	Shannon	ADM Transportation
Jones	Grailing	Chair
Lamie	Mary	Bi-State Development
Rebarcek	Renee	Dot Foods
Gayon	Ryan	Dot Foods
Schmidt	Craig	Calumet Area Industrial Commission
Snyder	Alisha	Coca-Cola
Wellhausen	Paul	SCF Lewis and Clark
Wesoloski	Jenny	Schneider National
<i>Local Workforce Innovation Areas</i>		
Fuhrmann	Anthony	Madison County Employment & Training Department
Moore	Patricia	Chicago / Cook Workforce Partnership
<i>Community College</i>		
Johl	Mike	Moraine Valley Community College
<i>WIOA State Agency Staff</i>		
Baker	Michael	DCEO
Doak	Samantha	DCEO
Nelson	Lavon	ICCB
Johnson	Marty	IDES
Lowery	Todd	IDES
Payne	Ron	IDES
Kim	Kuchenbrod	ISU

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/Agts/Brokers
460000	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
541614	Process, Physical Distribution, and Logistics Consulting Services
	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

Source: Illinois Department of Employment Security

Appendix B Continued:

North American Industrial Classification System (NAICS)

Code	Title
420000	Wholesale Trade
423000	Merchant Wholesalers, Durable Goods
424000	Merchant Wholesalers, Nondurable Goods
425000	Wholesale Electronic Markets/Agts/Brokers
460000	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

Source: Illinois Department of Employment Security

Appendix C:

Transportation and Logistics Occupational Clusters

Facility and Mobile Equipment Maintenance

Code	Standard Occupational Classification (SOC) Title	Base Year	Projected	Employment Change		Average Annual Job Openings due to			
		Employment 2018	Year Employment 2028	Number	Percent	Exits	Transfer	Growth	Total
49-3023	Automotive Service Techs/Mechanics	30,789	29,827	-962	-3.12	823	2,128	-96	2,855
53-7061	Cleaners of Vehicles & Equipment	18,709	19,388	679	3.63	949	1,824	68	2,841
49-3031	Bus/Truck/Diesel Engine Mechanics	10,532	10,885	353	3.35	298	693	35	1,026
49-3021	Automotive Body & Related Repairers	7,130	7,208	78	1.09	230	458	8	696
53-6031	Auto & Watercraft Service Attendants	2,595	2,659	64	2.47	117	271	6	394
49-3011	Aircraft Mechanics & Service Technicians	4,638	4,419	-219	-4.72	121	249	-22	348
49-3042	Mobile Heavy Equipment Mechanics	3,191	3,227	36	1.13	100	219	4	323
49-3043	Rail Car Repairers	3,191	3,220	29	0.91	100	219	3	322
49-9097	Signal & Track Switch Repairers	943	945	2	0.21	37	64	0	101
49-2093	Elec. & Electronics Installers-Trans.Equip.	614	617	3	0.49	11	43	0	54
49-3051	Motorboat Mechanics	459	477	18	3.92	18	28	2	48
49-3022	Automotive Glass Installers & Repairers	432	437	5	1.16	10	31	0	41
49-3052	Motorcycle Mechanics	271	292	21	7.75	11	17	2	30
49-2096	Elec/Equip. Repairers, Motor Vehicles	391	198	-193	-49.36	8	26	-19	15

Logistics Planning and Management Services

Code	Standard Occupational Classification (SOC) Title	Base Year	Year	Employment Change		Average Annual Job Openings due to			
		Employment 2018	Employment 2028	Number	Percent	Exits	Transfer	Growth	Total
13-1081	Logisticians	8,137	8,522	385	4.73	195	598	38	831
11-3071	Transportation/Storage/Distribution Mgrs	9,429	9,762	333	3.53	208	547	33	788
43-5032	Dispatchers, Ex. Police/Fire/Ambulance	6,889	6,720	-169	-2.45	239	405	-17	627

Sales and Service

Code	Standard Occupational Classification (SOC) Title	Base Year	Year	Employment Change		Average Annual Job Openings due to			
		Employment 2018	Employment 2028	Number	Percent	Exits	Transfer	Growth	Total
43-3021	Billing & Posting Clerks	16,329	16,938	609	3.73	684	1,122	61	1,867
53-6021	Parking Lot Attendants	5,635	5,240	-395	-7.01	279	551	-40	790
43-5011	Cargo & Freight Agents	4,407	4,518	111	2.52	159	264	11	434

Transportation Operations

Code	Standard Occupational Classification (SOC) Title	Base Year	Year	Employment Change		Average Annual Job Openings due to			
		Employment 2018	Employment 2028	Number	Percent	Exits	Transfer	Growth	Total
53-3032	Truck Drivers, Heavy & Tractor-Trailer	74,404	78,323	3,919	5.27	3,144	5,539	392	9,075
53-7064	Packers & Packagers, Hand	51,874	50,752	-1,122	-2.16	3,070	4,323	-112	7,281
53-3033	Truck Drivers, Light or Delivery Services	51,788	55,149	3,361	6.49	2,201	3,878	336	6,415
53-7051	Industrial Truck & Tractor Operators	30,258	31,338	1,080	3.57	922	2,542	108	3,572
53-1048	1st-Line Spvrs/Trans/Moving Material Workers	15,164	16,148	984	6.49	497	1,174	98	1,769
53-2031	Flight Attendants	10,741	10,496	-245	-2.28	557	641	-24	1,174
53-2011	Airline Pilots, Copilots & Flight Engineers	7,349	6,847	-502	-6.83	198	524	-50	672
53-6099	Transportation Workers, All Other	2,635	2,461	-174	-6.6	88	180	-17	251
43-5021	Couriers & Messengers	2,528	2,593	65	2.57	101	143	6	250
53-4031	Railroad Conductors & Yardmasters	2,629	2,640	11	0.42	51	197	1	249
53-6061	Trans. Attendants, Ex Flight Attendants	1,689	1,686	-3	-0.18	132	90	0	222
53-3099	Motor Vehicle Operators, All Other	1,048	1,087	39	3.72	108	71	4	183
53-4011	Locomotive Engineers	1,774	1,780	6	0.34	48	117	1	166
53-5021	Captains/Mates/Pilots of Water Vessels	1,289	1,255	-34	-2.64	34	87	-3	118
53-3011	Ambulance Drivers/Attendants, Ex EMTs	621	669	48	7.73	36	62	5	103
53-5011	Sailors & Marine Oilers	702	673	-29	-4.13	21	65	-3	83
53-2012	Commercial Pilots	578	584	6	1.04	16	43	1	60
53-7199	Material Moving Workers, All Other	304	306	2	0.66	15	24	0	39
53-4041	Subway & Streetcar Operators	352	359	7	1.99	15	22	1	38
53-6011	Bridge & Lock Tenders	277	279	2	0.72	10	20	0	30
53-7121	Tank Car, Truck & Ship Loaders	189	205	16	8.47	9	15	2	26
53-4013	Rail Yard Eng./Dinky Operators/Hostlers	214	214	0	0	6	14	0	20
53-7073	Wellhead Pumpers	54	54	0	0	2	5	0	7
53-7071	Gas Compressor/Pumping Station Operators	41	39	-2	-4.88	1	3	0	4

Transportation Systems/Infrastructure Planning, Management and Regulation

Code	Standard Occupational Classification (SOC) Title	Base Year	Year	Employment Change		Average Annual Job Openings due to			
		Employment	Employment	2018-2028		Exits	Transfer	Growth	Total
		2018	2028	Number	Percent				
53-2021	Air Traffic Controllers	793	796	3	0.38	19	55	0	74
53-2022	Airfield Operations Specialists	495	472	-23	-4.65	11	34	-2	43

Material Handling

Code	Standard Occupational Classification (SOC) Title	Base Year	Year	Employment Change		Average Annual Job Openings due to			
		Employment	Employment	2018-2028		Exits	Transfer	Growth	Total
		2018	2028	Number	Percent				
53-7062	Laborers/Freight/Stock & Material Movers	160,469	166,493	6,024	3.75	7,383	15,323	602	23,308
43-5081	Stock Clerks & Order Fillers	102,622	103,202	580	0.57	5,208	8,490	58	13,756
53-7064	Packers & Packagers, Hand	51,874	50,752	-1,122	-2.16	3,070	4,323	-112	7,281
53-7051	Industrial Truck & Tractor Operators	30,258	31,338	1,080	3.57	922	2,542	108	3,572
43-5071	Shipping, Receiving & Traffic Clerks	32,650	32,119	-531	-1.63	1,082	2,132	-53	3,161
43-5061	Production/Planning/Expediting Clerks	15,736	16,071	335	2.13	527	1,130	34	1,691
43-5032	Dispatchers, Ex. Police/Fire/Ambulance	6,889	6,720	-169	-2.45	239	405	-17	627
43-5011	Cargo & Freight Agents	4,407	4,518	111	2.52	159	264	11	434
43-5053	P.S. Mail Sorters & Machine Operators	5,464	4,634	-830	-15.19	232	186	-83	335
43-5111	Weighers/Measurers/Checkers/Samplers	1,834	1,912	78	4.25	86	127	8	221
53-7021	Crane & Tower Operators	1,778	1,841	63	3.54	57	154	6	217
53-7011	Conveyor Operators & Tenders	1,161	1,145	-16	-1.38	39	98	-2	135
53-7199	Material Moving Workers, All Other	304	306	2	0.66	15	24	0	39
53-7121	Tank Car, Truck & Ship Loaders	189	205	16	8.47	9	15	2	26
53-7071	Gas Compressor/Pumping Station Operators	41	39	-2	-4.88	1	3	0	4

Administrative and Operational Support

Code	Standard Occupational Classification (SOC) Title	Base Year	Year	Employment Change		Average Annual Job Openings due to			
		Employment	Employment	2018-2028		Exits	Transfer	Growth	Total
		2018	2028	Number	Percent				
43-4051	Customer Service Representatives	122,357	115,106	-7,251	-5.93	5,702	10,122	-725	15,099
15-1151	Computer User Support Specialists	25,743	26,705	962	3.74	482	1,668	96	2,246
15-1121	Computer Systems Analysts	28,967	29,412	445	1.54	555	1,553	44	2,152
53-2031	Flight Attendants	10,741	10,496	-245	-2.28	557	641	-24	1,174
15-1152	Computer Network Support Specialists	10,333	10,373	40	0.39	190	658	4	852
13-1081	Logisticians	8,137	8,522	385	4.73	195	598	38	831
15-1142	Network & Computer Sys. Administrators	12,071	11,714	-357	-2.96	200	630	-36	794
43-4181	Reservation/Transportation Ticket Agents	5,663	5,397	-266	-4.7	230	398	-27	601
43-9021	Data Entry Keyers	8,287	6,010	-2,277	-27.48	322	502	-228	596
41-3041	Travel Agents	4,332	3,949	-383	-8.84	241	309	-38	512
15-1141	Database Administrators	3,746	3,762	16	0.43	72	194	2	268
53-6061	Trans. Attendants, Ex Flight Attendants	1,689	1,686	-3	-0.18	132	90	0	222
39-7010	Tour & Travel Guides	1,101	1,108	7	0.64	85	108	1	194
43-9011	Computer Operators	1,517	1,099	-418	-27.55	63	96	-42	117
53-6051	Transportation Inspectors	785	827	42	5.35	24	57	4	85
53-2021	Air Traffic Controllers	793	796	3	0.38	19	55	0	74
53-2022	Airfield Operations Specialists	495	472	-23	-4.65	11	34	-2	43
53-6041	Traffic Technicians	114	115	1	0.88	4	8	0	12

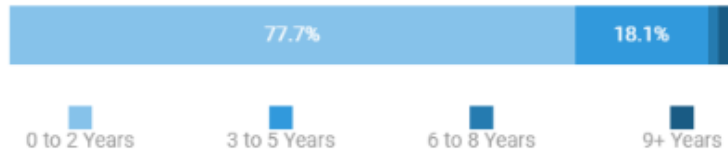
Machinery Maintenance

Code	Standard Occupational Classification (SOC) Title	Base Year	Year	Employment Change		Average Annual Job Openings due to			
		Employment	Employment	2018-2028		Exits	Transfer	Growth	Total
		2018	2028	Number	Percent				
49-9071	Maintenance & Repair Workers, General	64,864	66,351	1,487	2.29	2,300	4,059	149	6,508
49-9041	Industrial Machinery Mechanics	14,107	14,917	810	5.74	456	874	81	1,411
49-9043	Maintenance Workers, Machinery	3,654	3,924	270	7.39	142	200	27	369
49-2094	Elec. Repairers-Commercial/Industrial	2,080	2,086	6	0.29	36	145	1	182
49-9044	Millwrights	1,839	1,934	95	5.17	53	110	10	173
49-9012	Control & Valve Installers & Repairers	1,078	1,073	-5	-0.46	27	65	0	92
49-2092	Electric Motor/Power Tool Repairers	763	764	1	0.13	28	51	0	79
49-9096	Riggers	595	598	3	0.5	13	45	0	58
49-2093	Elec. & Electronics Installers-Trans.Equip.	614	617	3	0.49	11	43	0	54
49-2096	Elec/Equip. Repairers, Motor Vehicles	391	198	-193	-49.36	8	26	-19	15

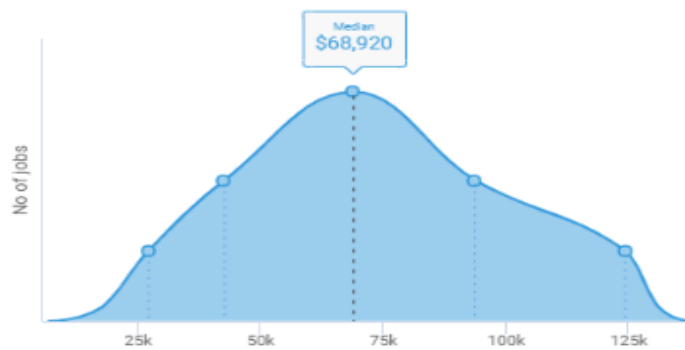
Appendix D

TDL Demographics

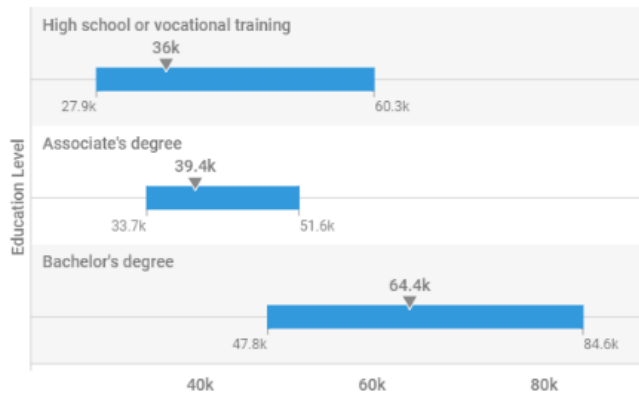
Job Qualifications - Years of Experience



Salary Overall

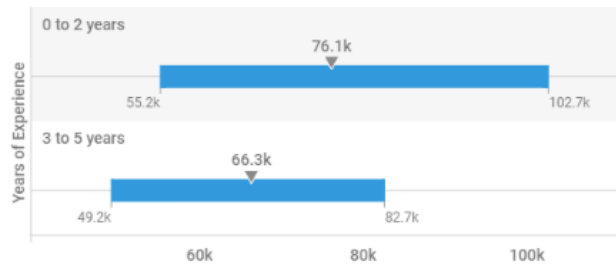


Salary By Education



Salary distribution is not shown for education levels with insufficient sample size

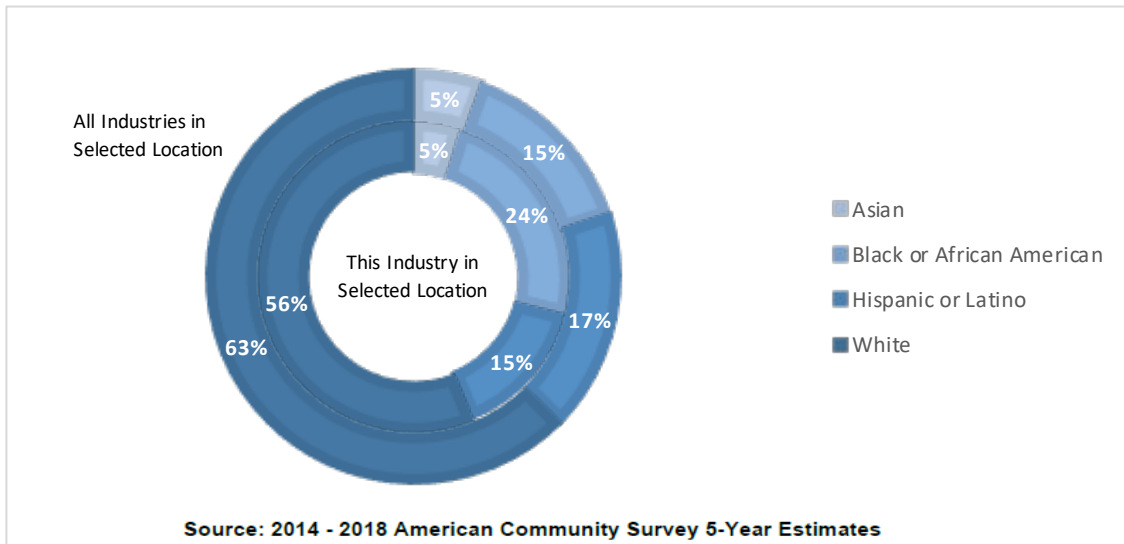
Salary By Experience



Salary distribution is not shown for experience levels with insufficient sample size

Appendix D Continued:

Race Breakdown



Gender Breakdown

69.2%

All Industries in Selected Location
47.9%



30.8%

All Industries in Selected Location
52.1%

Source: 2014 - 2018 American Community Survey 5-Year Estimates

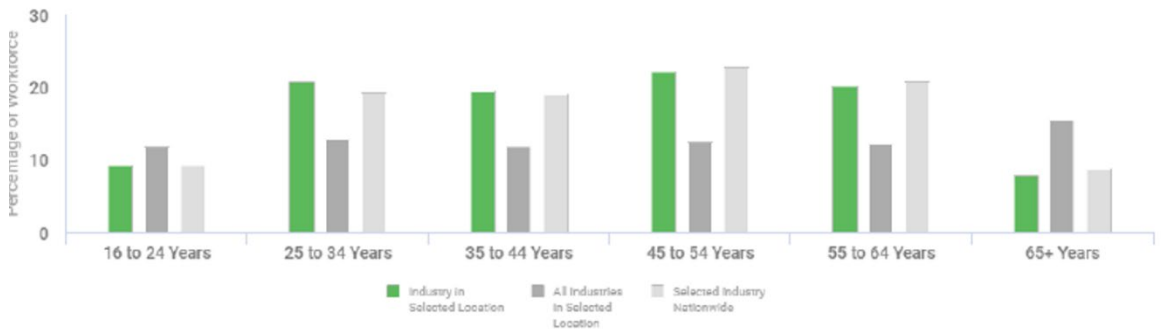
Age Breakdown

Median Age

This Industry in Selected Location
42 Years

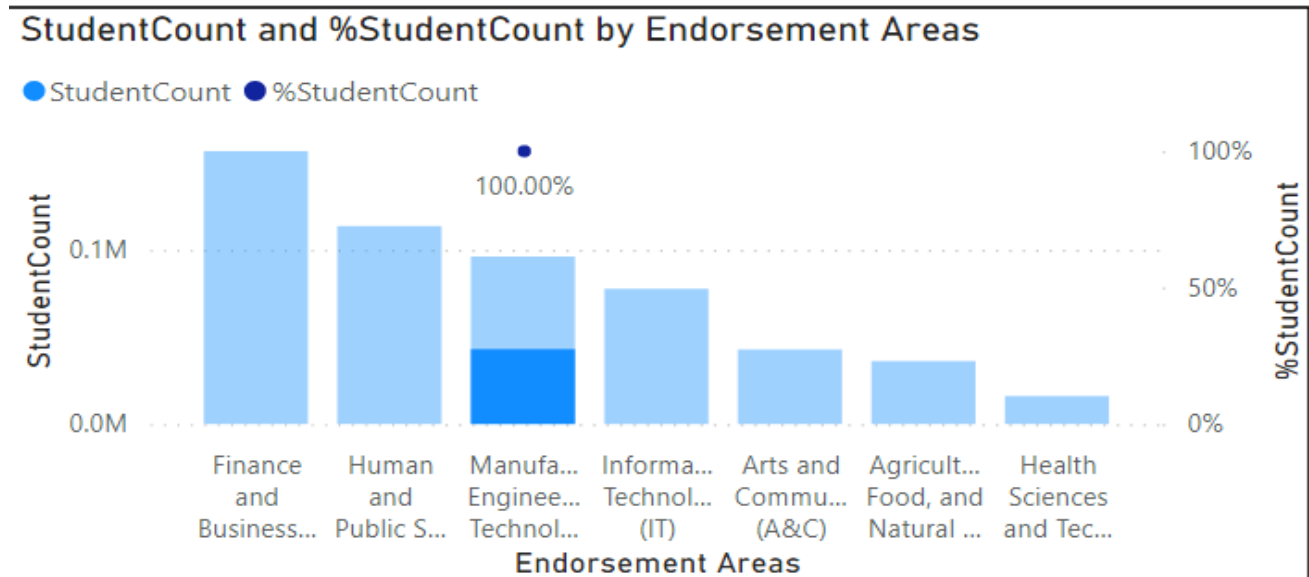
All Industries in Selected Location
39 Years

This Industry Nationwide
43 Years



Appendix E

This figure shows the percent of TDL programs that are part of the Manufacturing, Engineering, Technology and Trade (METT) area. There are 96,236 students enrolled in at least one METT course. This includes 43,035 TDL students.

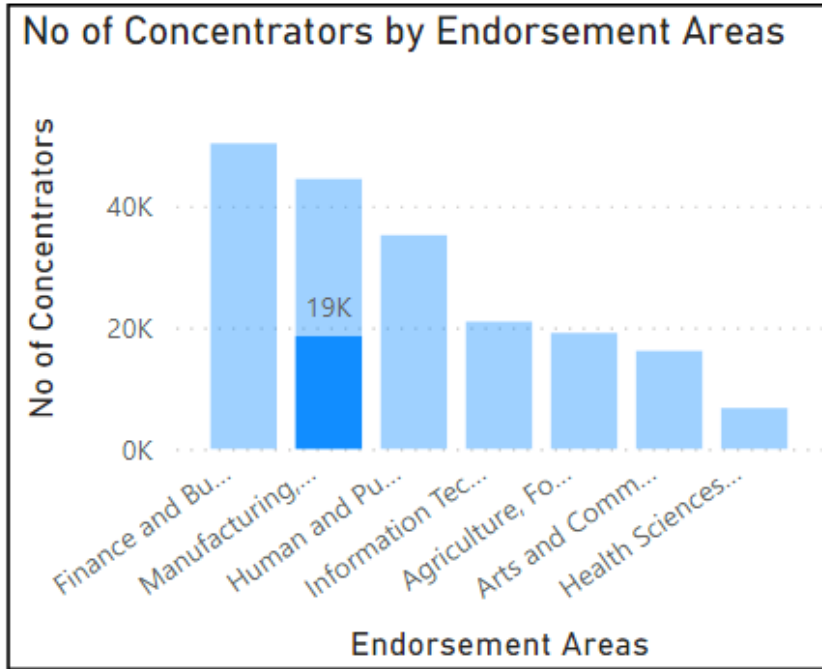


The table below shows the number of Illinois K-12 students participating in TDL-related education programs and the different areas of concentration.

Endorsement Areas	StudentCount
⊕ Autobody/Collision and Repair Technology/Technician.	27910
⊕ Automobile/Automotive Mechanics Technology/Technician.	42169
⊕ Forklift Operation/Operator.	27130
⊕ Small Engine Mechanics and Repair Technology/Technician.	29324
⊕ Truck and Bus Driver/Commercial Vehicle Operator and Instructor.	27130
Total	43035

Appendix E Continued:

This figure shows the number of METT concentrators (taken two or more courses in one area), of these there are approximately 19,000 students concentrating in TDL courses.



Appendix F:

TDL PROGRAMS AT IL CCS					
DISTRICT	COLLEGE	CIP	PROG TYPE	MINHRS	PROGRAM TITLE
501	01	470303	AAS	67.0	INDUSTRIAL TECHNOLOGY
501	01	470303	CERT	38.0	INDUSTRIAL TECHNOLOGY CERTIFICATE
501	01	470303	CERT	34.0	INDUSTRIAL ELECTRICITY
501	01	470303	AAS	66.0	INDUSTRIAL ELECTRICITY
501	01	470303	CERT	24.0	INDUSTRIAL SERVICE TECHNICIAN
501	01	470604	CERT	16.0	HEAT & AIR CONDITIONING CERTIFICATE
501	01	470604	CERT	24.0	ENGINE PERFORMANCE CERTIFICATE
501	01	470604	CERT	17.0	BRAKE AND SUSPENSION CERTIFICATE
501	01	470604	CERT	32.0	AUTOMOTIVE TECH BASIC CERTIFICATE
501	01	470604	AAS	70.0	AUTOMOTIVE TECHNOLOGY
501	01	470604	CERT	20.0	AUTOMOTIVE ELECTRICAL CERTIFICATE
501	01	470604	CERT	12.0	AUTOMOTIVE MAINTENANCE & INSPECTION
501	01	470604	CERT	18.0	AUTOMOTIVE PARTS SPECIALIST
501	01	470604	CERT	49.0	AUTOMOTIVE ADVANCED CERTIFICATE
501	01	470605	CERT	32.0	LIGHT DIESEL TECHNOLOGY
501	01	470605	AAS	63.0	LIGHT DIESEL TECHNOLOGY
501	01	490205	CERT	16.0	TRUCK DRIVER TRAINING
501	01	490205	CERT	7.0	TRACTOR/TRAILER DRIVER TRAINING
502	01	470604	CERT	50.0	MASTER AUTOMOTIVE SERVICE TECHNOLOGY
502	01	470604	AAS	68.0	MASTER AUTOMOTIVE SERVICE TECHNOLOGY
502	01	470604	CERT	34.0	ENTRY LEVEL AUTO SERVICE TECH CERT
502	01	470604	CERT	22.0	AUTOMOTIVE SERVICE MANAGEMENT
503	01	470604	CERT	17.0	WHEEL ALIGNMENT/SUSPENSION
503	01	470604	CERT	12.0	AIR CONDITIONING SPECIALIST
503	01	470604	CERT	16.0	BRAKE SPECIALIST
503	01	470604	CERT	43.0	AUTOMOTIVE REPAIR
503	01	470604	AAS	66.0	AUTOMOTIVE REPAIR TECHNOLOGY
503	01	520409	CERT	33.0	LOGISTICS & WAREHOUSING
503	01	520409	CERT	10.0	LOGISTICS & WAREHOUSING
504	01	470604	CERT	15.0	LIGHT VEHICLE MAINTENANCE CERT
504	01	470604	AAS	72.0	HONDA/ACURA (PACT) DEGREE
504	01	470604	CERT	58.0	HONDA/ACURA (PACT) CERTIFICATE
504	01	470604	AAS	73.0	AUTO: GENERAL MOTORS/AC DELCO
504	01	470604	CERT	19.0	AUTO BRAKE & SUSPENSION CERT
504	01	470604	CERT	24.0	AUTO ENGINE PERFORMANCE CERT
504	01	470604	CERT	22.0	AUTOMOTIVE TRANSMISSION REPAIR
504	01	470604	AAS	67.0	AUTOMOTIVE TECHNOLOGY
504	01	470604	CERT	52.0	AUTOMOTIVE TECHNOLOGY CERT
504	01	470604	AAS	64.0	AUTOMOTIVE SERVICE DEPT. MGMT.
504	01	470613	CERT	20.0	CVT BRAKE AND SUSPENSION CERT
505	01	470303	CERT	37.0	INDUSTRIAL MAINTENANCE TECHNOLOGY
505	01	470603	AAS	63.0	AUTO COLLISION REPAIR TECH
505	01	470603	CERT	32.0	AUTOMOTIVE COLLISION REPAIR TECHNCN
505	01	470604	CERT	7.0	BRAKES AND ALIGNMENT
505	01	470604	CERT	23.0	AUTO ELECTRICITY/ELECTRONICS
505	01	470604	CERT	39.0	AUTOMOTIVE TECHNICIAN
505	01	470604	AAS	73.0	AUTOMOTIVE TECHNOLOGY
505	01	470604	CERT	13.0	AUTOMOTIVE ENGINE OVERHAUL

Appendix F Continued:

505	01	470604	CERT	27.0	AUTOMOTIVE MAINTENANCE & LGHT REPAIR
505	01	470604	AAS	71.0	AUTOMOTIVE FORD ASSET PROGRAM
505	01	470604	CERT	11.0	AUTOMOTIVE POWER TRAINS
505	01	470605	AAS	70.0	DIESEL POWER EQUIPMENT TECHNOLOGY
505	01	470605	AAS	67.0	CNH SERVICE TECHNICIAN
505	01	490102	CERT	6.0	AVIATION: COMMERCIAL PILOT
505	01	490102	CERT	6.0	AVIATION: INSTRUMENT RATING
505	01	490102	CERT	6.0	AVIATION: PRIVATE PILOT
505	01	490199	CERT	9.0	ADVANCED UAS
505	01	490199	CERT	6.0	UNMANNED AIRCRAFT SYSTEMS
505	01	490205	CERT	7.0	TRACTOR-TRAILER DRIVER TRAINING
506	01	490205	CERT	10.0	TRUCK DRIVING PROGRAM
506	01	490205	CERT	18.0	TRUCK DRIVING ENTREPRENEURSHIP
507	01	470303	CERT	37.0	MAINTENANCE MECHANIC CERTIFICATE
507	01	470303	AAS	66.0	ADVANCED MANUFACTURING AAS
507	01	470303	CERT	18.0	ADVANCED MAINTENANCE MECHANIC
507	01	470303	CERT	24.0	MECHATRONICS
507	01	470604	CERT	26.0	BASIC AUTO TECHNOLOGY (DOC)
507	01	470604	CERT	13.0	ADVANCED AUTO TECHNOLOGY (DOC)
507	01	470604	AAS	62.0	AUTOMOTIVE TECHNOLOGY
507	01	470604	CERT	33.0	AUTOMOTIVE TECHNOLOGY- - CERTIFICATE
507	01	470604	CERT	12.0	FUNDAMENTALS OF AUTO TECHNOLOGY (AO)
507	01	490205	CERT	1.0	CLASS B CDL TRAINING
507	01	490205	CERT	11.0	TRACTOR TRAILER DRIVER I
507	01	490205	CERT	16.0	TRACTOR TRAILER DRIVER II
508	01	470603	CERT	40.0	COLLISION TECHNOLOGY
508	01	470603	CERT	22.0	AUTO. BODY RECONSTRUCTION TECH.
508	01	470603	CERT	22.0	AUTO. BODY REPAINTING TECHNOLOGY
508	01	470604	CERT	19.0	AUTOMOTIVE CHASSIS MAINTENANCE
508	01	470604	CERT	46.0	AUTOMOTIVE TECHNOLOGY
508	01	470604	AAS	66.0	AUTOMOTIVE TECHNOLOGY
508	01	470604	CERT	27.0	AUTOMOTIVE FUEL MGMT. TECHNOLOGY
508	01	470604	CERT	27.0	AUTOMOTIVE MAINTENANCE
508	01	470614	CERT	16.0	ALTERNATIVE FUEL VEHICLE TECHNOLOGY
508	04	470604	CERT	46.0	AUTOMOTIVE TECHNOLOGY
508	04	470604	CERT	20.0	AUTOMOTIVE TECHNOLOGY
508	04	470604	AAS	66.0	AUTOMOTIVE TECHNOLOGY
508	05	470604	CERT	19.0	AUTOMOTIVE CHASSIS MAINTENANCE
508	05	470604	CERT	46.0	AUTOMOTIVE TECHNOLOGY
508	05	470604	CERT	20.0	AUTOMOTIVE TECHNOLOGY
508	05	470604	AAS	66.0	AUTOMOTIVE TECHNOLOGY
508	05	470604	CERT	27.0	AUTOMOTIVE FUEL MGMT TECHNOLOGY
508	05	470604	CERT	27.0	AUTOMOTIVE MAINTENANCE
508	05	470605	CERT	50.0	DIESEL TECHNOLOGY
508	05	470605	CERT	19.0	DIESEL TECHNOLOGY
508	05	470605	AAS	70.0	DIESEL TECHNOLOGY
508	05	470614	CERT	16.0	ALTERNATIVE FUEL VEHICLE TECHNOLOGY
508	05	490205	CERT	3.0	CLASS C DRIVER TRAINING
508	05	490205	CERT	16.0	COMMERCIAL DRIVER TRAINING
508	05	490205	CERT	9.0	COMMERCIAL PASSENGER DRIVER-CLASS B

Appendix F Continued:

508	05	490299	CERT	2.0	FORK LIFT OPERATION AND SAFETY
508	05	520203	CERT	30.0	SUPPLY CHAIN MANAGEMENT & LOGISTICS
508	05	520203	CERT	15.0	SUPPLY CHAIN MANAGEMENT & LOGISTICS
508	05	520203	AAS	60.0	SUPPLY CHAIN MANAGEMENT & LOGISTICS
508	06	470303	CERT	38.0	FACTORY AUTOMATION
508	06	470303	CERT	22.0	FACTORY AUTOMATION
508	06	470303	CERT	35.0	MANUFACTURING TECHNOLOGY
508	06	470303	AAS	62.0	MANUFACTURING TECHNOLOGY
509	01	470303	CERT	25.0	INDUSTRIAL MAINTENANCE
509	01	470303	AAS	62.5	IST/MAINTENANCE TECHNOLOGY
509	01	470303	CERT	9.0	AUTOMATED ELECTRONIC SYSTEMS
509	01	470604	CERT	7.0	ENGINE MECHANICAL REPAIR SPECIALIST
509	01	470604	CERT	14.0	ENGINE PERFORMANCE SPECIALIST
509	01	470604	CERT	10.0	BRAKE AND SUSPENSION SPECIALIST
509	01	470604	CERT	12.0	TRANSMISSION & DRIVETRAIN SPECIALIST
509	01	470604	CERT	5.0	AUTO HEATING & AIR CONDITIONING-BVS
509	01	470604	CERT	10.0	AUTOMOTIVE ELECTRICAL SPECIALIST
509	01	470604	AAS	68.0	AUTOMOTIVE SERVICE TECHNOLOGY
509	01	490205	CERT	16.0	TRUCK DRIVING
509	01	490205	CERT	30.0	TRUCK DRIVING OWNER/OPERATOR
509	01	490299	CERT	1.0	CERTIFIED FORKLIFT OPERATOR
509	01	520203	CERT	18.0	SUPPLY CHAIN & LOGISTICS SPECIALIST
509	01	520203	AAS	60.0	SUPPLY CHAIN MANAGEMENT
510	01	470605	CERT	21.0	NAVISTAR DIESEL TECHNOLOGY
510	01	470605	AAS	63.0	COACH MAINTENANCE
511	01	470604	CERT	15.0	AUTO HEATING & AIR CONDITIONING CERT
511	01	470604	CERT	15.0	AUTOMOTIVE TRANSMISSION CERTIFICATE
511	01	470604	CERT	51.0	AUTOMOTIVE TECHNICIAN CERTIFICATE
511	01	470604	CERT	11.0	AUTOMOTIVE ELECTRICAL CERT.
511	01	470604	CERT	19.0	AUTOMOTIVE ENGINE PERFORMANCE CERT.
511	01	470604	CERT	9.0	AUTOMOTIVE ENGINE CERTIFICATE
511	01	470604	AAS	66.0	AUTOMOTIVE SERVICE TECHNOLOGY
511	01	470604	CERT	11.0	AUTOMOTIVE SUSPENSION & BRAKES CERT.
511	01	470607	CERT	47.0	AIRFRAME TECHNICIAN
511	01	470607	CERT	76.0	AVIATION MAINTENANCE CERT.
511	01	470607	AAS	82.0	AVIATION MAINTENANCE TECHNOLOGY
511	01	470608	CERT	46.0	POWERPLANT TECHNICIAN
511	01	520203	CERT	31.0	ADVANCED SUPPLY CHAIN MANAGEMENT
511	01	520203	CERT	16.0	FUNDAMENTALS OF SUPPLY CHAIN MGT
512	01	490199	CERT	16.0	DRONE TECHNOLOGY/APPLICATIONS
512	01	520409	CERT	12.0	INVENTORY/PRODUCTION CONTROL
512	01	520409	CERT	12.0	LOGISTICS
512	01	520409	CERT	18.0	SUPPLY CHAIN MANAGEMENT
512	01	520409	AAS	60.0	SUPPLY CHAIN MANAGEMENT
513	01	470303	CERT	28.5	INDUSTRIAL MAINTENANCE CERTIFICATE
513	01	470604	CERT	27.0	BASIC AUTOMOTIVE TECHNOLOGY
513	01	470604	CERT	29.0	ADVANCED AUTOMOTIVE TECHNOLOGY
513	01	470604	CERT	6.0	ENGINE PERFORMANCE
513	01	470604	CERT	12.5	DRIVEABILITY
513	01	470604	CERT	9.5	AUTO BRAKES

Appendix F Continued

513	01	470604	AAS	70.0	AUTOMOTIVE TECHNOLOGY
513	01	490205	CERT	16.0	TRUCK DRVR TRAINING ADV PROFICIENCY
513	01	490205	CERT	10.0	TRUCK DRIVER TRAINING
514	01	470303	CERT	27.0	INDUSTRIAL MAINTENANCE
514	01	470604	AAS	69.0	GM-AUTO SERVICE EDUCATIONAL PROGRAM
514	01	470604	AAS	63.0	AUTOMOTIVE TECHNOLOGY
514	01	470605	AAS	69.0	CATERPILLAR DEALER SERVICE TECH
514	01	490205	CERT	7.0	TRUCK DRIVER TRAINING PROGRAM
514	01	520203	CERT	27.0	MANAGEMENT OF SUPPLY CHAIN
515	01	470303	CERT	30.0	INDUSTRIAL MECHANIC
515	01	470303	AAS	61.0	INDUSTRIAL MECHANIC
515	01	470303	CERT	44.0	INDUSTRIAL MAINTENANCE TECHNICIAN
515	01	470604	CERT	11.0	AUTOMOTIVE HEATING/AIR COND. SPEC.
515	01	470604	CERT	11.0	AUTOMOTIVE BRAKE SPECIALIST
515	01	470604	CERT	15.0	AUTOMOTIVE TRANSMISSION SPECIALIST
515	01	470604	AAS	66.0	AUTOMOTIVE TECHNOLOGY
515	01	470604	CERT	11.0	AUTOMOTIVE ENGINES SPECIALIST
515	01	470604	CERT	7.0	AUTOMOTIVE ALIGNMENT SPECIALIST
515	01	470604	CERT	19.0	AUTOMOTIVE DRIVEABILITY SPECIALIST
515	01	470604	CERT	11.0	AUTOMOTIVE PARTS SPECIALIST
515	01	470604	CERT	47.0	AUTOMOTIVE SERVICES TECHNOLOGY
515	01	470604	CERT	17.0	AUTOMOTIVE SERVICE MANAGEMENT SPEC.
515	01	470605	CERT	10.0	DIESEL TECHNOLOGY
516	01	470603	CERT	16.0	BASIC AUTO BODY REPAIR
516	01	470603	CERT	38.0	ADVANCED AUTO BODY REPAIR
516	01	470603	AAS	60.0	AUTO BODY REPAIR
516	01	470604	CERT	14.0	LIGHT DUTY DIESEL REPAIR
516	01	470604	CERT	24.0	ENGINE PERFORMANCE
516	01	470604	CERT	11.0	AUTOMOTIVE BRAKE AND SUSPENSION
516	01	470604	CERT	17.0	AUTOMOTIVE TRANSMISSION/DRIVELINE
516	01	470604	AAS	60.0	AUTOMOTIVE TRANSPORTATION SERV TECH
516	01	470604	CERT	3.0	AUTOMOTIVE RECYCLING
516	01	470604	AAS	65.0	AUTOMOTIVE TECHNOLOGY
516	01	470604	CERT	15.0	AUTOMOTIVE ELECTRICAL/ELECTRONICS
516	01	470604	CERT	50.0	AUTOMOTIVE MAINTENANCE
517	01	470603	CERT	25.5	AUTO BODY REPAIR
517	01	470604	CERT	27.0	AUTO MECHANIC I
517	01	470604	CERT	47.5	AUTOMOTIVE MECHANICS
517	01	470604	AAS	63.5	AUTOMOTIVE MECHANICS
517	01	470604	AAS	66.0	AUTOMOTIVE TECHNOLOGY
517	01	470604	CERT	32.0	AUTOMOTIVE REPAIR TECHNICIAN
517	01	470604	CERT	15.0	AUTOMOTIVE SERVICE TECHNICIAN
517	01	490205	CERT	7.0	COMMERCIAL TRUCK DRIVING TRAINING
517	01	520409	CERT	10.0	WAREHOUSING & DISTRIBUTION SPECIALIST
518	01	470303	CERT	16.0	BASIC INDUSTRIAL & MFG MAINTENANCE
518	01	470303	CERT	30.0	INDUSTRIAL MECHANICAL MAINTENANCE
518	01	470303	AAS	60.0	PROCESS MAINTENANCE TECHNOLOGY-AAS
518	01	470604	CERT	13.0	ADVANCED ELECTRICAL AUTOMOTIVE
518	01	470604	CERT	29.0	AUTOMOTIVE TECHNOLOGY-CERTIFICATE
519	01	470303	CERT	34.0	INDUSTRIAL MAINTENANCE

Appendix F Continued:

519	01	470603	AAS	60.0	AUTO BODY REPAIR
519	01	470603	CERT	48.0	AUTOBODY REPAIR CERTIFICATE
519	01	470604	AAS	70.0	AUTOMOTIVE MECHANICS
519	01	470604	CERT	28.0	AUTOMOTIVE SERVICE - LEVEL I
519	01	470604	CERT	33.0	AUTOMOTIVE SERVICE-LEVEL II
519	01	490205	CERT	7.0	COMMERCIAL DRIVERS LICENSE PREP
520	01	470303	CERT	49.0	MILLWRIGHT
520	01	470604	CERT	20.0	ADVANCED DRIVETRAIN/POWERTRAIN
520	01	470604	CERT	6.0	BRAKES & ALIGNMENT
520	01	470604	CERT	6.0	DRIVELINES
520	01	470604	CERT	3.0	AUTOMOTIVE HEATING & AIR CONDITION.
520	01	470604	CERT	34.0	AUTOMOTIVE TECHNOLOGY
520	01	470604	AAS	64.0	AUTOMOTIVE TECHNOLOGY
520	01	520203	CERT	29.0	GLOBAL SUPPLY CHAIN
520	01	520203	CERT	14.0	SUPPLY CHAIN MANAGEMENT
521	01	470302	CERT	29.0	HEAVY EQUIPMENT TECHNOLOGY
521	01	470302	AAS	70.0	HEAVY EQUIPMENT TECHNOLOGY
521	01	470303	AAS	72.0	IND ELECTRONICS & MAINTENANCE TECH
521	01	470303	CERT	28.0	INDUSTRIAL MAINTENANCE TECHNICIAN
521	01	470303	CERT	20.0	INDUSTRIAL MAINTENANCE MULTI TECH
521	01	470303	CERT	18.0	ROBOTS AND AUTOMATION CERTIFICATE
521	01	470604	CERT	18.0	FORD MLR CERTIFICATE
521	01	470604	CERT	6.0	AUTOMOTIVE BRAKE
521	01	470604	CERT	10.0	AUTOMOTIVE TRANSMISSION
521	01	470604	CERT	50.0	AUTOMOTIVE TECHNOLOGY
521	01	470604	AAS	69.0	AUTOMOTIVE TECHNOLOGY
521	01	470604	CERT	6.0	AUTOMOTIVE ELECTRICAL
521	01	470604	CERT	7.0	AUTOMOTIVE ENGINE REPAIR
521	01	470604	CERT	5.0	AUTOMOTIVE AIR CONDITIONING
521	01	470604	CERT	6.0	AUTOMOTIVE SUSPENSION AND STEERING
521	01	470605	CERT	16.0	HEAVY EQUIPMENT TRANSPORTATION
521	01	470605	CERT	30.0	DIESEL TECHNOLOGY
521	01	490205	CERT	7.0	TRUCK DRIVER TRAINING
522	01	470303	CERT	47.0	INDUSTRIAL MAINTENANCE MECHANICS
522	01	470303	AAS	69.5	INDUSTRIAL MAINTENANCE MECHANICS
522	01	470303	CERT	16.0	STATIONARY ENGINEERING
522	01	470603	CERT	12.0	MECHANICAL SYSTEMS
522	01	470603	CERT	22.0	NON-STRUCTURAL REPAIR
522	01	470603	CERT	24.0	STRUCTURAL REPAIR
522	01	470603	CERT	15.0	AUTOMOTIVE REFINISHING
522	01	470603	AAS	68.0	AUTOMOTIVE COLLISION REPAIR TECH
522	01	470607	CERT	36.0	AIRFRAME
522	01	470607	AAS	60.0	AIRFRAME & POWERPLANT
522	01	470607	AAS	75.0	AVIATION MAINTENANCE TECHNOLOGY
522	01	470608	CERT	36.0	POWERPLANT
522	01	490102	CERT	34.0	AVIATION PILOT TRAINING
522	01	490102	AAS	64.0	AVIATION PILOT TRN AIRPLN/HELI
522	01	490104	CERT	22.0	AIRCRAFT DISPATCHER
522	01	490104	AAS	66.0	AVIATION MANAGEMENT
522	01	490205	CERT	7.0	CDL OPERATOR CERTIFICATE

Appendix F Continued:

522	01	520203	CERT	16.0	LOGISTICS & SUPPLY CHAIN MANAGEMENT
522	01	520409	CERT	10.0	WAREHOUSING & DISTRIBUTION
523	01	470603	CERT	45.0	ADVANCED COLLISION REPAIR
523	01	470603	AAS	60.0	COLLISION REPAIR TECHNOLOGY
523	01	470603	CERT	25.0	PRO-LEVEL I COLLISION REPAIR
523	01	470603	CERT	19.0	AUTO PHYSICAL DAMAGE APPRAISER
523	01	470604	CERT	24.0	BASIC AUTOMOTIVE TECHNOLOGY
523	01	470604	CERT	46.0	ADVANCED AUTOMOTIVE TECHNOLOGY
523	01	470604	AAS	61.0	AUTOMOTIVE TECHNOLOGY
523	01	470605	AAS	61.0	DIESEL POWER TECHNOLOGY
524	01	470303	CERT	40.0	MECHANICAL & FLUID POWER MAINTENANCE
524	01	470604	CERT	24.0	ENGINE DRIVEABILITY TECHNICIAN
524	01	470604	CERT	12.0	BRAKE AND CHASSIS TECHNICIAN
524	01	470604	CERT	16.0	DRIVETRAIN TECHNICIAN
524	01	470604	AAS	62.0	AUTOMOTIVE TECHNOLOGY
524	01	470604	CERT	12.0	AUTOMOTIVE CLIMATE CONTROL TECH
524	01	470604	CERT	48.0	AUTOMOTIVE SERVICE TECHNICIAN
524	01	470604	CERT	12.0	AUTOMOTIVE SERVICE ADVISOR
524	01	520203	CERT	41.0	ADVANCED SUPPLY CHAIN MANAGEMENT
524	01	520203	CERT	21.0	INTRO TO SUPPLY CHAIN MANAGEMENT
525	01	470303	CERT	17.0	INTEGRATED SYSTEMS
525	01	470303	CERT	38.0	INDUSTRIAL MAINTENANCE TECHNOLOGY
525	01	470303	CERT	19.0	INDUSTRIAL MAINTENANCE TECHNOLOGY
525	01	470303	AAS	67.0	INDUSTRIAL MAINTENANCE TECHNOLOGY
525	01	470303	CERT	36.0	OPERATIONS TECHNICIAN
525	01	470303	AAS	64.0	OPERATIONS TECHNICIAN
525	01	470303	CERT	41.0	OPERATIONS ENGINEERING
525	01	470303	AAS	66.0	OPERATIONS ENGINEERING
525	01	470604	CERT	10.0	BRAKE AND CHASSIS SPECIALIST
525	01	470604	CERT	19.0	AUTO ENGINE PERFORMANCE SPECIALIST
525	01	470604	CERT	13.0	AUTOMOTIVE DRIVE-LINE SPECIALIST
525	01	470604	CERT	32.0	AUTOMOTIVE SERVICE TECHNOLOGY
525	01	470604	AAS	67.0	AUTOMOTIVE SERVICE TECHNOLOGY - AAS
525	01	470604	CERT	50.0	AUTOMOTIVE SERVICE TECHNOLOGY (ADV)
525	01	470604	CERT	9.0	HYBRID & ELECTRIC VEHICLE SPECIALIST
525	01	470605	CERT	9.0	DIESEL MAINTENANCE SPECIALIST
525	01	520203	CERT	16.0	WAREHOUSING AND DISTRIBUTION - CCO
525	01	520203	CERT	30.0	SUPPLY CHAIN MANAGEMENT
525	01	520203	CERT	17.0	SUPPLY CHAIN MANAGEMENT
526	01	470303	CERT	37.0	INDUSTRIAL MAINTENANCE TECHNOLOGY
526	01	470603	AAS	62.5	COLLISION REPAIR TECHNOLOGY
526	01	470603	CERT	30.0	AUTO BODY REPAIR
526	01	470604	CERT	9.0	TIRE SERVICE AND SUSPENSION SYSTEMS
526	01	470604	CERT	9.0	BRAKES
526	01	470604	CERT	9.0	STEERING AND ALIGNMENT
526	01	470604	CERT	9.0	AUTO HEATING AND AIR CONDITIONING
526	01	470604	CERT	32.5	AUTOMOTIVE TECHNICIAN
526	01	470604	AAS	68.0	AUTOMOTIVE TECHNOLOGY
526	01	470607	AAS	81.0	AIRFRAME & POWERPLANT AVIATION MECH.
526	01	470607	CERT	42.0	AVIATION AIRFRAME TECHNICIAN

Appendix F Continued:

526	01	470608	CERT	41.0	AVIATION POWERPLANT TECHNICIAN
526	01	490104	AAS	61.0	AVIATION MANAGEMENT
526	01	490205	CERT	7.0	TRUCK DRIVER TRAINING CDL BASIC
527	01	470604	CERT	16.0	MAINTENANCE AND LIGHT REPAIR (MLR)
527	01	470604	CERT	16.0	AUTOMOTIVE MOBILE ELECTRONICS
527	01	470604	CERT	50.0	AUTOMOTIVE TECHNOLOGY
527	01	470604	AAS	64.0	AUTOMOTIVE TECHNOLOGY
527	01	470604	CERT	19.0	AUTOMOTIVE SERVICE
527	01	470614	CERT	35.0	ALTERNATIVE FUELS
527	01	520203	CERT	18.0	SUPPLY CHAIN MANAGEMENT
528	01	470604	CERT	45.0	ADVANCED AUTOMOTIVE TECHNICIAN
528	01	470604	CERT	12.0	AUTOMOTIVE CHASSIS
528	01	470604	AAS	65.0	AUTOMOTIVE TECHNOLOGY
528	01	470604	AAS	69.0	AUTOMOTIVE TECHNOLOGY MANAGEMENT
528	01	470604	CERT	12.0	AUTOMOTIVE ELECTRICAL
528	01	470604	CERT	24.0	AUTOMOTIVE MAINTENANCE TECHNICIAN
529	02	470303	CERT	16.0	IMT: LEVEL I
529	02	470303	CERT	16.0	IMT: LEVEL II
529	02	470303	CERT	16.0	IMT: LEVEL III
529	02	470303	AAS	60.0	Industrial Maintenance Technology
529	02	470603	AAS	68.0	COLLISION REPAIR TECHNOLOGY
529	02	470604	CERT	6.0	LIGHT VEHICLE DIESEL SERVICE
529	02	470604	CERT	12.0	AUTO MAINTENANCE & REPAIR
529	02	470604	CERT	12.0	AUTOMOTIVE REPAIR TECHNICIAN
529	02	470604	AAS	70.0	AUTOMOTIVE SERVICE TECHNOLOGY
529	02	470604	CERT	26.0	AUTO SERVICE TECHNOLOGY I
529	02	470604	CERT	26.0	AUTO SERVICE TECHNOLOGY II
529	02	490199	AAS	60.0	UNMANNED AERIAL TECHNOLOGY
529	02	490199	CERT	12.0	UNMANNED AERIAL PILOT
529	03	470605	AAS	69.5	DIESEL EQUIPMENT TECHNOLOGY
529	03	490205	CERT	7.0	TRUCK DRIVING
529	04	470604	CERT	6.0	LIGHT VEHICLE DIESEL SERVICE
529	04	470604	CERT	17.0	AUTO LIGHT REPAIR TECH
529	04	470604	AAS	68.0	AUTOMOTIVE TECHNOLOGY
529	04	470604	CERT	51.0	AUTOMOTIVE SERVICE SPECIALIST
530	01	470303	AAS	72.0	INDUSTRIAL MAINTENANCE
530	01	470603	CERT	18.0	PAINT & METAL TECHNICIAN
530	01	470603	AAS	66.0	AUTO COLLISION TECHNOLOGY
530	01	470603	CERT	50.0	AUTO COLLISION TECHNOLOGY
530	01	470604	CERT	49.0	AUTOMOTIVE SERVICES TECH
530	01	470604	AAS	71.0	AUTOMOTIVE SERVICES TECHNOLOGY
531	01	470603	CERT	6.0	AUTO BODY
531	01	470604	CERT	31.0	AUTOMOTIVE TECHNICIAN ASSISTANT
531	01	470604	AAS	62.0	AUTOMOTIVE TECHNOLOGY
531	01	470604	CERT	16.0	AUTOMOTIVE MAINTENANCE & LGT REPAIR
531	01	470605	CERT	28.0	DIESEL TECHNOLOGY
531	01	490205	CERT	16.0	TRUCK DRIVING
532	01	470303	CERT	17.0	MECHANICAL SERVICE TECHNICIAN I CERT
532	01	470303	CERT	18.0	MECHANICAL SERVICE TECHNICIAN II CERT
532	01	470603	CERT	14.0	DAMAGE ANALYSIS CERTIFICATE

Appendix F Continued:

532	01	470603	CERT	22.0	REFINISH TECHNICIAN
532	01	470603	CERT	23.0	STRUCTURAL REPAIR TECHNICIAN
532	01	470603	CERT	23.0	AUTOMOTIVE COLLISION REPAIR
532	01	470603	CERT	17.0	AUTOMOTIVE COLLISION REPAIR ASST
532	01	470603	AAS	60.0	AUTOMOTIVE COLLISION REPAIR AAS
532	01	470604	CERT	11.0	AUTO AIR CONDIT & HEATING SPECIALIST
532	01	470604	CERT	11.0	AUTO BRAKES & SUSPENSION SPECIALIST
532	01	470604	CERT	11.0	AUTOMOTIVE TRANSMISSION SPECIALIST
532	01	470604	CERT	11.0	AUTOMOTIVE ELECTRICAL SPECIALIST
532	01	470604	CERT	11.0	AUTOMOTIVE FUEL SYSTEMS SPECIALIST
532	01	470604	CERT	11.0	AUTOMOTIVE OIL CHANGE SPECIALIST
532	01	470604	CERT	53.0	AUTOMOTIVE SERVICE
532	01	470604	CERT	11.0	AUTOMOTIVE SERVICE SPECIALIST
532	01	470604	AAS	65.0	AUTOMOTIVE SERVICE AAS
532	01	520409	CERT	30.0	ADVANCED SUPPLY CHAIN MANAGEMENT
532	01	520409	CERT	15.0	INTRO TO SUPPLY CHAIN MANAGEMENT
532	01	520409	AAS	60.0	SUPPLY CHAIN MANAGEMENT
533	01	470604	CERT	31.0	BASIC VEHICLE REPAIR TECHNICIAN
533	01	470605	CERT	47.0	DIESEL TECHNOLOGY MHDT CERTIFICATE
533	01	470605	AAS	70.0	DIESEL TECHNOLOGY-MED HVY DUTY TRUCK
533	01	470605	AAS	70.0	DIESEL TECHNOLOGY-HEAVY EQUIPMENT
533	01	470611	CERT	28.0	POWERSPORTS TECHNOLOGY
533	01	490205	CERT	7.0	TRUCK DRIVING
534	01	470302	CERT	12.0	LOCOMOTIVE MECHANICAL
534	01	470302	CERT	21.5	PREVENTIVE MAINTENANCE
534	01	470605	CERT	34.0	RAIL TRANSP. & POWER SYSTEM TECH
534	01	490205	CERT	10.0	BASIC COMM. DRIVER TRAINING CERT
534	01	490205	CERT	17.0	COMMERCIAL DRIVER TRAINING CERT.
534	01	490205	CERT	16.0	TRUCK DRIVER TRAINING
534	01	520203	AAS	61.0	LOGISTICS AND OPERATIONS MANAGEMENT
535	01	470604	AAS	67.0	AUTOMOTIVE TECHNOLOGY
535	01	470604	CERT	28.0	AUTOMOTIVE TECHNOLOGY CERTIFICATE
535	01	470604	CERT	32.0	AUTOMOTIVE TECHNOLOGY POWERTRAIN CERT
535	01	520203	CERT	14.0	CANNABIS TRANS LOG & SUPPLYCHAIN MGT
536	01	470604	CERT	12.0	UNDERCAR SPECIALIST
536	01	470604	CERT	33.0	AUTO DRIVE LINE
536	01	470604	AAS	72.0	AUTOMOTIVE TECHNOLOGY
536	01	470604	CERT	34.0	AUTO PERFORM.
536	01	470605	CERT	31.0	DIESEL TECHNOLOGY
536	01	490205	CERT	18.0	INTEGRATED TRUCK DRIVER
536	01	490205	CERT	19.0	EXTENDED TRUCK DRIVER
536	01	520203	CERT	16.0	MANAGEMENT - LOGISTICS
537	01	470303	CERT	50.0	MACHINE REPAIR
537	01	470303	CERT	27.0	INDUSTRIAL MAINTENANCE
537	01	470603	CERT	25.0	DAMAGE ANALYSIS SPECIALIST
537	01	470603	CERT	14.0	PAINT AND REFINISH SPECIALIST
537	01	470603	CERT	19.0	MECHANICAL ELECTRICAL SPECIALIST
537	01	470603	CERT	48.0	MECHANICAL SYSTEMS
537	01	470603	AAS	68.0	COLLISION REPAIR TECHNOLOGY
537	01	470603	CERT	8.0	COLLISION GLASS SPECIALIST

Appendix F Continued:

537	01	470603	CERT	18.0	NONSTRUCTURAL REPAIR SPECIALIST
537	01	470603	CERT	6.0	PREPARATION DETAILER SPECIALIST
537	01	470603	CERT	22.0	STRUCTURAL REPAIR SPECIALIST
537	01	470604	CERT	46.0	SENIOR AUTOMOTIVE REPAIR TECHNICIAN
537	01	470604	CERT	15.0	AUTO. BRAKE
537	01	470604	CERT	15.0	AUTOMOTIVE TRANS. AND DRIVELINE SPEC
537	01	470604	CERT	11.0	AUTOMOTIVE HVAC SPEC.
537	01	470604	AAS	65.0	AUTOMOTIVE TECHNOLOGY
537	01	470604	CERT	11.0	AUTOMOTIVE ENGINE REBUILDER
537	01	470604	CERT	19.0	AUTOMOTIVE PERFORMANCE SPECIALIST
537	01	470604	CERT	7.0	AUTOMOTIVE SERVICE SPECIALIST
537	01	470605	CERT	44.0	SENIOR DIESEL TECHNICIAN
537	01	470605	CERT	12.0	DIESEL TRANSMISSION SPECIALIST
537	01	470605	CERT	12.0	DIESEL HVAC SPECIALIST
537	01	470605	AAS	63.0	DIESEL MEDIUM/HEAVY TRUCK TECH
537	01	470605	CERT	12.0	DIESEL ENGINE REBUILDER
537	01	470605	CERT	16.0	DIESEL DRIVE TRAIN SPECIALIST
537	01	470605	CERT	20.0	DIESEL PERFORMANCE SPECIALIST
537	01	470605	CERT	8.0	DIESEL SERVICE TECHNICIAN
537	01	470605	CERT	16.0	STEERING & SUSPENSION SPECIALIST
537	01	490205	CERT	2.0	TANKER VEHICLE TRAINING
537	01	490205	CERT	2.0	CLASS "B" LICENSE TRAINING
537	01	490205	CERT	7.0	TRANSPORTATION
539	01	470303	CERT	17.0	INDUSTRIAL TECHNICIAN-ELECTRICAL
539	01	470303	CERT	16.0	INDUSTRIAL TECHNICIAN-MECHANICAL
539	01	470303	AAS	64.0	INDUSTRIAL MAINTENANCE TECHNOLOGY
539	01	470605	CERT	33.0	DIESEL TECHNOLOGY CERTIFICATE
539	01	490205	CERT	16.0	TRUCK DRIVER TRAINING
539	01	520203	CERT	32.0	LOGISTICS
539	01	520203	AAS	64.0	LOGISTICS AND OPERATIONS MANAGEMENT
540	01	470303	CERT	16.0	FACILITIES MAINTENANCE SKILLS
540	01	470303	CERT	21.0	AUTOMATION TECHNOLOGY SKILLS
540	01	490205	CERT	13.0	ADVANCED TRUCK DRIVER

APPENDIX G:

Time to Fill Transportation / Logistics Occupations in Illinois	
Source: Burning Glass Online Job Postings	
Occupation	Median Posting Duration from Mar 2020 - Jul 2021
Supervisors of Sales Workers	43
Retail Sales Workers	37
Advertising, Marketing, Promotions, Public Relations, and Sales Managers	35
Top Executives	34
Sales Representatives, Wholesale and Manufacturing	34
Operations Specialties Managers	33
Supervisors of Office and Administrative Support Workers	32
Business Operations Specialists	31
Information and Record Clerks	31
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	31
Other Installation, Maintenance, and Repair Occupations	31
Financial Clerks	30
Computer Occupations	29
Other Production Occupations	29
Material Recording, Scheduling, Dispatching, and Distributing Workers	28
Air Transportation Workers	28
Rail Transportation Workers	26
Secretaries and Administrative Assistants	25
Supervisors of Transportation and Material Moving Workers	25
Motor Vehicle Operators	25
Material Moving Workers	25
Other Office and Administrative Support Workers	24
Total Across All Occupations in this Table	30

Time to Fill Warehousing Occupations in Illinois	
Source: Burning Glass Online Job Postings	
Occupation	Median Posting Duration from Mar 2020 - Jul 2021
Aircraft Mechanics and Service Technicians	36
General and Operations Managers	34
Airline Pilots, Copilots, and Flight Engineers	33
Flight Attendants	33
First-Line Supervisors of Office and Administrative Support Workers	32
Customer Service Representatives	32
Bus and Truck Mechanics and Diesel Engine Specialists	32
Reservation and Transportation Ticket Agents and Travel Clerks	31
Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	31
Cargo and Freight Agents	30
Bus Drivers, Transit and Intercity	30
Stockers and Order Fillers	30
Shipping, Receiving, and Inventory Clerks	27
Office Clerks, General	25
First-Line Supervisors-Transportation & Material Moving Workers, Except Air Cargo Handling Supervisors	25
Heavy and Tractor-Trailer Truck Drivers	25
Light Truck Drivers	25
Dispatchers, Except Police, Fire, and Ambulance	24
Industrial Truck and Tractor Operators	24
Packers and Packagers, Hand	22
Laborers and Freight, Stock, and Material Movers, Hand	19
Couriers and Messengers	12
Total Across All Occupations in this Table	27