NORTHEAST ECONOMIC DEVELOPMENT REGION (NEEDR)

Regional WIOA Plan, 2020-2024

ILLINOIS **work**Net® CENTER
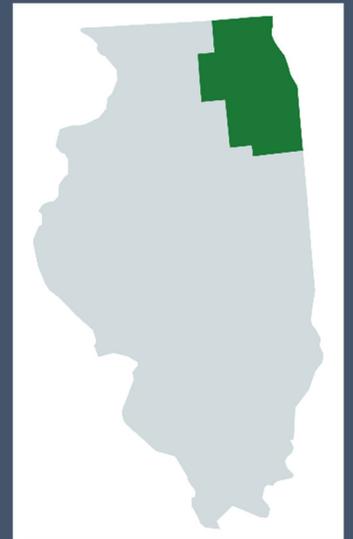
CHAPTER 1: ECONOMIC & WORKFORCE ANALYSIS

A.   Provide an analysis of the:

1. Economic conditions including existing and emerging in-demand industry sectors and occupations (Sec. 679.560(a)(1)(i))

> Targeted industries, high-impact industry clusters, and in-demand occupations
>
> Industries and occupations with favorable LQ
>
> Industries and occupations with demand projections based on growth
>
> Industries and occupations with demand projections based on replacements
>
> Industries and occupations considered mature, but still important to the economy
>
> Industries and occupations considered emerging in the Regional economy
>
> Sources of supply and demand data used to determine the targeted industries, occupations, and skills

Through the Illinois' Workforce Innovation and Opportunity Act (WIOA) Unified State Plan, the State has provided direction on analysis of economic conditions. The Illinois Northeast Economic Development Region (NEEDR) plan will use similar analysis. Table 1 details the changes in gross domestic product (GDP), employment, and earnings for the NEEDR, Illinois, and United States between 2008-2013, 2013-2018, and 2008-2018. Data was collected through the U.S. Bureau of Economic Analysis.

The NEEDR's GDP changed at a similar rate as the state and nation. Between 2008-2013, the GDP trailed both the state and national GDP percent change rate, however between 2008-2018, the NEEDR exceeded the state's GDP percent change rate, but trailed the nation.

Over the last ten years, employment in the NEEDR has continued to grow. Between 2008-2018, employment in the NEEDR grew by 8.5%, which was more than both the state and national employment change during that time period. While the state and nation experienced slight decreases in employment between 2008-2013, the NEEDR experienced increased employment (0.4%).

Earnings in the Region, state, and nation have continually increased between 2008-2018. Throughout each time comparison, the nation experienced the greatest percent change in earnings than the Region or Illinois, however, the NEEDR experienced greater percent growth in earnings in 2013-2018 and 2008-2018 than the state.

Table 1: Region vs. Illinois vs. Nation: Change in GDP, Employment, and Earnings Over Last 10 Years

	Gross Domestic Product ($)			% Change		
	2008	2013	2018	08-13	13-18	08-18
NEEDR[1]	479,709	546,387	654,298	13.9%	19.8%	36.4%

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[1] The NEEDR Region is comprised of 10 Illinois counties: Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, & Will

	2008	2013	2018	08-13	13-18	08-18
Illinois	646,367	739,628	865,310	14.4%	17.0%	33.9%
USA	14,712,845	16,784,851	20,580,223	14.1%	22.6%	39.9%
	Employment			**% Change**		
	2008	**2013**	**2018**	**08-13**	**13-18**	**08-18**
NEEDR	5,350,959	5,372,343	5,804,719	0.4%	8.1%	8.5%
Illinois	7,553,059	7,503,158	7,952,370	-0.7%	6.0%	5.3%
USA	141,576,000	141,103,000	153,133,000	-0.3%	8.5%	8.2%
	Earnings			**% Change**		
	2008	**2013**	**2018**	**08-13**	**13-18**	**08-18**
NEEDR	235,057,437	247,876,619	302,130,647	5.5%	21.9%	28.5%
Illinois	303,356,416	320,099,420	382,942,059	5.5%	19.6%	26.2%
USA	6,534,248,000	7,113,178,000	8,888,491,000	8.9%	25.0%	36.0%

Source: U.S. Bureau of Economic Analysis; Regional Data, GDP & Personal Income; Personal Income and Employment by County and Metropolitan Area, Compensation of Employees by Industry; Gross Domestic Product by County and Metropolitan Area, GDP in current Dollars.

Location quotient is a helpful way of better understanding how concentrated a specific industry is in a Region compared to the nation and what makes a Region "unique" in comparison to the national average. Industry sectors are defined in three separate groupings based on location quotient. These grouping detail the level of demand the industry is in the Region:

- **Leading Industries:** industries that are expected to grow during the projection period, and which are important within the state (i.e., have a location quotient greater than 1.0)
- **Emerging Industries:** industries that are not strongly represented in the current economy (i.e., have a location quotient that is less than 1.0), but are expected to grow during the projection period.
- **Maturing Industries:** industries that are important within the state but are not expected to grow during the projection period.

Table 2 details industry sectors in the NEEDR at the 2-digit NAICS (North American Industry Classification System) level, as well as employment changes between 2016-2026, location quotient and demand.

The top industries in the NEEDR at the 2-digit NAICS level are Professional & Business Services (869,155 jobs); Health Care & Social Assistance (602,438 jobs); Leisure & Hospitality (493,027 jobs); and Retail Trade (440,934 jobs). The greatest job change is projected to be in Professional & Business Services, projected to add over 79,500 jobs between 2016-2026. The Information Sector is projected to experience the greatest decline in jobs over the same time period, losing over 2,100 jobs.

Leading industries in the NEEDR include Wholesale Trade; Transportation & Warehousing; Professional & Business Services; Financial Activities; Manufacturing; and Other Services.

Table 2: Regional Employment By Sector

NAICS Title	2016 Employment	2026 Employment	Net Employment Change	Percent Employment Change	Location Quotient	Demand
Professional & Business Services	789,616	869,155	79,539	10.1%	1.33	Leading
Health Care & Social Assistance	546,828	602,438	55,610	10.2%	0.97	Emerging
Leisure & Hospitality	433,597	493,027	59,430	13.7%	0.94	Emerging
Retail Trade	429,723	440,934	11,211	2.6%	0.96	Emerging
Educational Services	382,081	389,180	7,099	1.9%	*	Maturing
Manufacturing	376,570	387,520	10,950	2.9%	1.05	Leading
Financial Activities	297,293	305,504	8,211	2.8%	1.22	Leading
Wholesale Trade	235,385	253,942	18,557	7.9%	1.42	Leading
Government	218,012	221,181	3,169	1.5%	*	Mature
Transportation & Warehousing	216,533	236,881	20,348	9.4%	1.41	Leading
Self Employed Workers	189,968	189,645	(323)	(0.2%)	0.75	N/A
Other Services	189,786	190,333	547	0.3%	1.01	Leading
Construction	154,576	169,978	15,402	10.0%	0.75	Emerging
Information	79,064	76,937	(2,127)	(2.7%)	0.99	N/A
Utilities	12,754	13,210	456	3.6%	0.81	Emerging
Agricultural Production	10,690	10,794	104	1.0%	0.16	Emerging
Natural Resources & Mining	1,386	1,357	(29)	(2.1%)	0.07	N/A

Source: Illinois Department of Employment Security[2]

Table 3 details the top occupations at the 2-digit SOC (Standard Occupational Classification) level. The top occupations in the NEEDR in 2016 included Office and Administrative Support Occupations (646,649 jobs); Sales and Related Occupations (419,665 jobs); Food Preparation and Serving Related Occupations (341,034 jobs); Transportation and Material Moving Occupations (334,366 jobs); and Management Occupations (319,967 jobs). Office and Administrative Support Occupations, which makes up the largest percentage share of occupations in the NEEDR in 2016, is projected to experience the greatest decline in jobs between 2016-2026 (-22,393 jobs). It also has the greatest number of average annual job openings due to replacement jobs.[3] Transportation and Material Moving Occupations is projected to add the greatest number of jobs during that same time period (46,640 jobs) and has the largest number of average annual job openings due to growth.

Occupations with the high LQ score include Management Occupations (1.50); Legal

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[2] *Note: Financial Activities and Transportation & Warehousing are highly concentrated here. Professional and Business Services are expected to be the greatest source of job growth (and overall employment) in the Region, while also being a highly concentrated industry.*

*LQs for Educational Services and Government are not displayed due to discrepancies in how different BLS data sources treat these industry classifications

[3] Job Openings = Growth + Replacements

Occupations (1.20); Transportation and Material Moving Occupations (1.19); and Business and Financial Operations Occupations (1.12).

Table 3: Regional Employment by Major Occupational Sector

SOC	Job Title	2016 Jobs	% Share of 2016 Jobs	2026 Jobs	Employment Change		LQ	Average Annual Job Openings Due To:	
					Job Change	% Change		Growth	Replace-ment
43-0000	Office and Administrative Support Occupations	646,649	15.5%	624,256	(22,393)	(3%)	0.99	2,468	70,814
41-0000	Sales and Related Occupations	419,665	10.1%	409,020	(10,645)	(3%)	0.98	1,897	55,630
35-0000	Food Preparation and Serving Related Occupations	341,034	8.2%	380,344	39,310	12%	0.90	4,776	60,954
53-0000	Transportation and Material Moving Occupations	334,366	8.0%	381,006	46,640	14%	1.19	5,576	44,623
11-0000	Management Occupations	319,967	7.7%	353,738	33,771	11%	1.50	3,819	26,498
51-0000	Production Occupations	285,890	6.9%	276,971	(8,919)	(3%)	1.06	2,017	31,779
25-0000	Education, Training, and Library Occupations	250,437	6.0%	264,640	14,203	6%	1.02	2,109	21,513
13-0000	Business and Financial Operations Occupations	243,531	5.8%	268,605	25,074	10%	1.12	3,085	22,712
29-0000	Healthcare Practitioners and Technical Occupations	236,805	5.7%	263,908	27,103	11%	0.96	3,141	12,983
49-0000	Installation, Maintenance, and Repair Occupations	136,973	3.3%	144,425	7,452	5%	0.85	1,305	13,192
15-0000	Computer and Mathematical Occupations	132,343	3.2%	144,909	12,566	9%	1.05	1,820	9,011
39-0000	Personal Care and Service Occupations	120,384	2.9%	158,578	38,194	32%	0.82	3,973	21,221
37-0000	Building and Grounds	118,560	2.8%	124,535	5,975	5%	0.90	1,008	14,986

	Cleaning and Maintenance Occupations							
47-0000	Construction and Extraction Occupations	116,801	2.8%	126,046	9,245	8%	0.69	1,318	12,208
31-0000	Healthcare Support Occupations	116,695	2.8%	130,354	13,659	12%	0.95	1,971	13,298
33-0000	Protective Service Occupations	109,676	2.6%	114,330	4,654	4%	1.10	762	12,341
17-0000	Architecture and Engineering Occupations	59,403	1.4%	62,240	2,837	5%	0.79	533	4,304
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	56,093	1.3%	57,912	1,819	3%	1.00	538	5,581
21-0000	Community and Social Service Occupations	54,948	1.3%	62,807	7,859	14%	0.91	872	6,200
23-0000	Legal Occupations	38,257	0.9%	42,031	3,774	10%	1.20	403	2,393
19-0000	Life, Physical, and Social Science Occupations	27,274	0.7%	28,515	1,241	5%	0.77	310	2,454
45-0000	Farming, Fishing, and Forestry Occupations	5,640	0.1%	5,836	196	3%	0.19	85	833
TOTAL		**4,171,390**	**100.0%**	**4,425,007**	**253,617**	**6.1%**		**43,785**	**465,528**

Source: Emsi 2019.4 Occupational Data

2. Employment needs of employers in existing and emerging in-demand industry sectors and occupations (Sec. 679.560(a)(1)(ii)

The NEEDR has chosen to focus sector efforts on the following industries, with the understanding that information technology (IT) underlies all of these and is an important economic driver in its own right:

- Healthcare and Social Assistance (and Life Sciences)
- Manufacturing (with an emphasis on Advanced Manufacturing)
- Transportation and Warehousing

As outlined in Table 2, these sectors are critical to the NEEDR economy and are emerging or leading sectors. NEEDR has broadened its understanding of the Healthcare industry to include the broader Life Sciences industry, in keeping with the State Plan, and recognizing the value to the local economy of industry that bridge sectors such as pharmaceuticals, food manufacturing, environmental and ecological sciences, biotechnology and more. Local Workforce Innovation Areas (LWIA) in the NEEDR also focus on additional sectors as warranted by local conditions.

The economic impact these industries have in the NEEDR is considerable. Table 4 details the aggregate effect on jobs for the Region by industry.

Table 4: NEEDR Annual Impact By Sector (Event Size = 100)[4]

	Initial	Direct	Indirect	Induced	Total
Healthcare Employment	100	21	10	77	108
Healthcare Earnings	$6,349,727	$1,374,685	$692,030	$4,480,519	$12,906,962
IT Employment	100	96	44	268	508
IT Earnings	$10,380,918	$6,122,167	$2,746,371	$16,333,925	$35,583,381
Manufacturing Employment	100	44	26	174	343
Manufacturing Earnings	$9,329,589	$3,480,034	$1,745,429	$10,440,649	$24,995,701
Transportation & Warehousing Employment	100	37	14	101	252
Transportation & Warehousing Earnings	$6,478,844	$2,069,945	$936,326	$6,049,685	$15,534,800

Source: Emsi 2020.1, Illinois Department of Employment Security, Bureau of Economic Analysis

Table 5: NEEDR Changes in Taxes on Production and Imports (TPI)

	Local	State	Federal
Healthcare	$469,147	$398,940	$211,551
IT	$2.2M	$2.0M	$1.4M
Manufacturing	$1.3M	$1.1M	$779,703
Transportation & Warehousing	$1.2M	$978,859	$462,084

Source: Emsi 2020.1, Illinois Department of Employment Security, Bureau of Economic Analysis

Manufacturing is, and continues to be, a sector with tremendous innovation. The Region has always been at the forefront of technological innovation in this industry and intends to

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[4] Initial: the initial change in jobs. To identify the impact of the industry, the 2-digit NAICS for each industry was converted into 6-digit NAICS, then the percentage of share of those jobs for the industry were entered in the "change in jobs" to reflect the percentage change of each job at the 6-digit NAICS.
Direct: the effect of new input purchases by the industries. This is the first round of impacts the industry has on the region.
Indirect: the ripple effect in further supply changes resulting from the direct change.
Induced: the impact of the new earnings, investments created by the initial, direct, and indirect changes.

maintain that place in national leadership. The manufacturing sector also is a driver in terms of sales and employment creation in the Region.

> **3. Knowledge and skills needed to meet the employment needs of the employers in the Region, including employment needs in in-demand industry sectors and occupations (Sec. 679.560(a)(2))**

What are the targeted career pathway clusters in the Region?
What are the skills that are in demand in the Region?
How well do the existing skills of job seekers match the demands of local businesses?

The Region is targeting the four main industry sectors of Healthcare and Social Assistance, Manufacturing, Transportation and Warehousing, and Information Technology for its work overall, and each is also an area where the Region has developed comprehensive career pathways.

In 2016 the Region received funding from DCEO and hired a consultant (EDSI, Inc.) to develop industry guides and manuals, industry and occupational focused PowerPoint templates, industry sector information sheets, and demand occupation information sheets. This project is intended to aid both One-Stop staff and job seeking customers in understanding opportunities in the nine county Region in the four main industry sectors:

- Healthcare
- Information Technology (industry-occupation hybrid)
- Manufacturing
- Transportation/Logistics (including Wholesale Trade)

The guides and manuals incorporate career pathway materials and information to help individuals, workforce career counseling staff, other staff and business customers in developing pathway-focused training and worker preparation activities. Additionally, the Region utilizes the *Illinois Pathways* web platform as well as tools developed and utilized by community colleges in the Region and from other sources to provide graphic pathway maps and the details that align with them.[5]

Please refer to Attachment A for a crosswalk between the detailed (3-digit) industry clusters and the occupational pathways for the Region. This crosswalk identifies occupations related to the industry clusters identified LEADING, EMERGING and MATURING.

The table below details the most in-demand technical skills for each of the targeted industries in the NEEDR as identified in job postings within those industries in the Region.

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[5] (currently at https://www.illinoisworknet.com/ilpathways/Pages/default.aspx)

Table 6: Technical Skills for Targeted Industries in the NEEDR

Healthcare	Information Technology	Manufacturing	Transportation & Logistics
• Nursing • CPR • Caregiving • Basic Life Support • Home Care • Pediatrics • Rehabilitation	• Customer Relationship Management • Software Engineering • Agile Software Development • New Product Development • Software as a Service (SaaS) • Java • Software Development • SQL (programming language)	• Packaging & Labeling • Warehousing • Customer Satisfaction • Correct & Preventive Action (CAPA) • Good Manufacturing Practices • Key Performance Indicators (KPIs) • Automation • Sales Management	• Flatbed Trucking • Warehousing • Truckload Shipping • Food Services • Office Assistant • Forklift Truck • Purchasing • Mechanics

Source: Emsi 2020.1; Job Posting Analytics

4. Regional workforce considering current labor force employment and unemployment data, information on labor market trends, and educational and skill levels of the workforce, including individuals with barriers to employment (Sec. 679.510(a)(1)(iv) and Sec 679.560(a)(3))

How is the Region changing in terms of demographics, labor supply, and occupational demand?

What special populations exist in the Region, what is their magnitude, and what are the policy and service implications to meet the needs of these individuals?

Labor Force Size, Demographics, Employment and Unemployment

Table 7 details the labor force statistics of the NEEDR between 2008-2018. In 2018, the NEEDR had a total of 4,318,702 individuals employed. Unemployment in the NEEDR has continually decreased since 2010 and has hit its lowest mark in 2018 with 181,159 individuals unemployed – a difference of 296,605 since its highest mark in 2010.

**Table 7: Labor Force Statistics in the NEEDR, 2008-2018**

Year	Labor Force	Employment	Unemployment
2008	4,535,480	4,254,512	280,968
2009	4,516,319	4,054,537	461,782
2010	4,510,185	4,032,421	477,764
2011	4,495,876	4,045,713	450,163

2012	4,519,778	4,104,093	415,685
2013	4,538,130	4,123,341	414,789
2014	4,521,819	4,198,899	322,920
2015	4,521,725	4,254,200	267,525
2016	4,559,757	4,298,215	261,542
2017	4,526,044	4,307,103	218,941
2018	4,499,862	4,318,703	181,159

Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2008-2018

The unemployment rate for the NEEDR has continued to decline since the Great Recession in 2010. Between 2008-2018, the unemployment rate for the NEEDR was at its highest in 2010 (10.6%) and was at its lowest in 2018 (4.0%). This is similar for both Illinois and the United States.

Figure 1: Unemployment Rate, 2008-2018
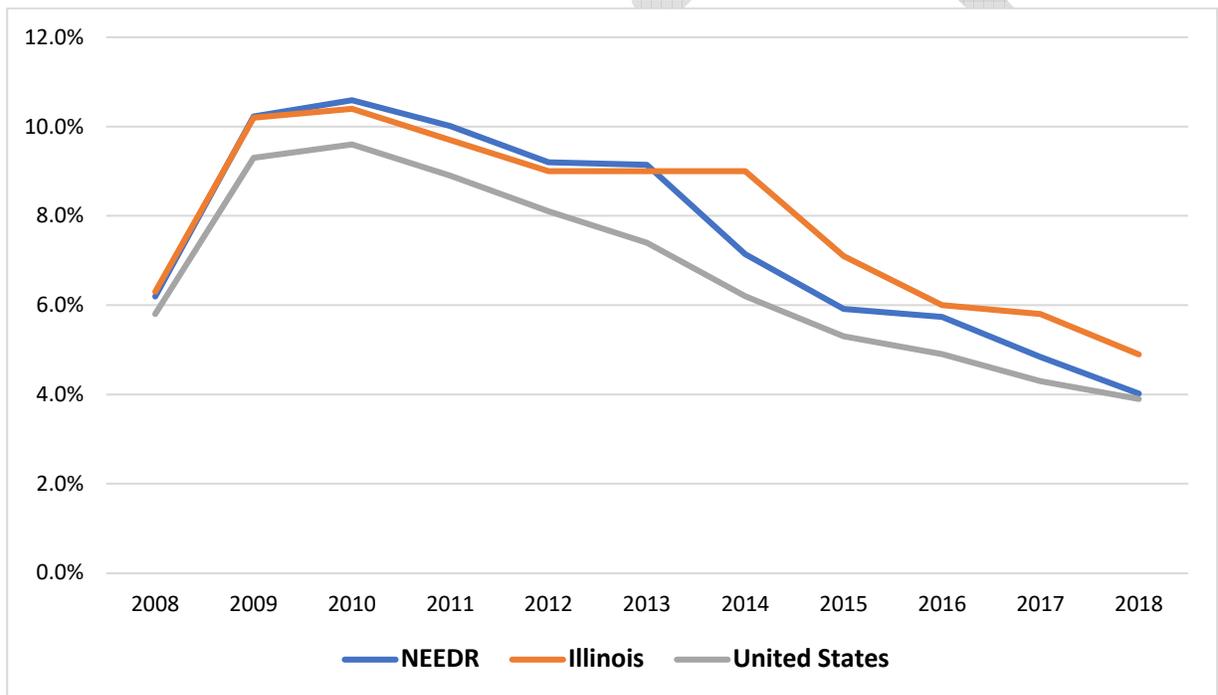
Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2008-2018

The NEEDR population in 2018 was 8,738,157 – an increase of 110,996 since 2008. The largest demographic population was White, followed by Hispanic (22.9%), Black (16.4%), Asian (7.5%), Two or More Races (1.5%), and American Indian or Alaskan Native (0.1%). Two populations in particular, Hispanic and Asian population groups have shown marked increases in the region during the past decade.

The NEEDR Region has an aging population. The population cohorts that increased the most between 2008-2018 were the cohorts from 55-64 and over 65 years of age. Individuals between

the ages of 35-54 experienced the greatest decline (-188,644). Additionally, the future workforce currently under the age of 19 has recorded a decline.

The statewide median income for all households was $61,229, which is 6% higher than the national level of $57,652. In the Region, median income for married couples with children ranges from $87,142 in DeKalb County to $123,913 in DuPage County.

Table 8: Population by Age in the NEEDR, 2008-2018

| Age Cohort	2018 Population	2008-2018 Change		2018 % of Cohort
Under 5 years	528,078	(65,104)	(11%)	6.0%
5 to 19 years	1,678,666	(165,685)	(9%)	19.2%
20 to 34 years	1,845,754	8,062	0%	21.1%
35 to 54 years	2,313,760	(188,644)	(8%)	26.5%
55 to 64 years	1,109,535	213,871	24%	12.7%
65 years and over	1,262,365	308,499	32%	14.4%
TOTAL	8,738,157	110,996	1%	100.0%

Source: Emsi 2019.4

Table 9: Population by Race/Ethnicity in the NEEDR, 2008-2018

Race/Ethnicity	2018 Population	2008-2018 Change		2018 % of Cohort
White	4,501,479	(230,802)	(4.9%)	51.5%
Hispanic	2,003,626	232,180	13.1%	22.9%
Black	1,435,179	(68,929)	(4.6%)	16.4%
Asian	651,360	147,170	29.2%	7.5%
Two or More Races	133,857	32,435	32.0%	1.5%
American Indian or Alaskan Native	10,512	(1,027)	(8.9%)	0.1%
Native Hawaiian or Pacific Islander	2,144	(32)	(1.5%)	0.0%
Total	8,738,157	110,996	1.3%	100.0%

Source: Emsi 2019.4

The NEEDR has a higher educational attainment of those with a four-year degree or higher than the state. Nearly a quarter of the Region's population has a Bachelor's degree (23%) and 15% have a Graduate of Professional Degree.

Figure 2: Educational Attainment of Population 25 & Over, NEEDR
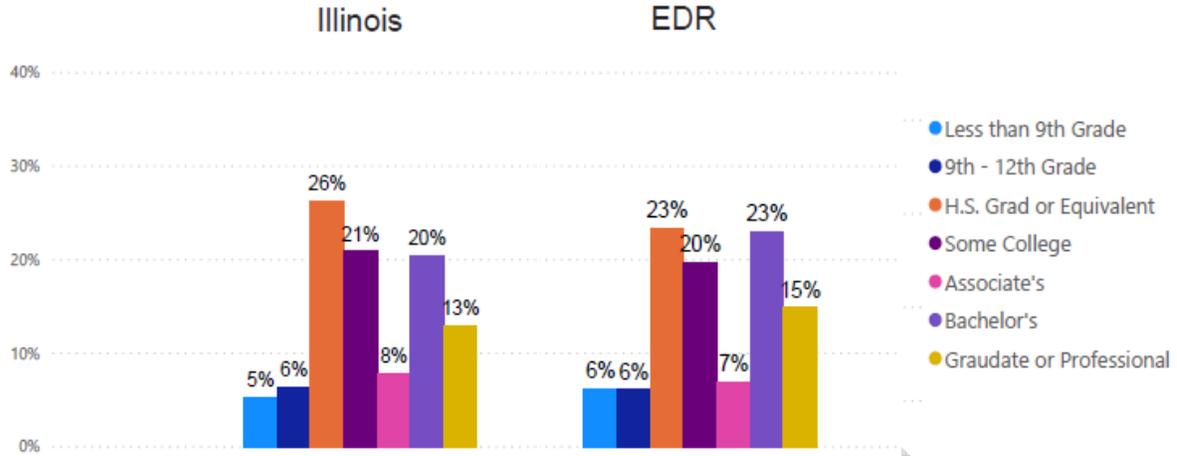
Less Than 9th Grade	9th – 12th Grade	High School Graduate or Equivalent	Some College	Associate's Degree	Bachelor's Degree	Graduate or Professional Degree	Total
360,643	359,426	1,376,167	1,164,610	410,519	1,355,930	876,947	5,904,242

Source: American Community Survey, 2017, Table S1501

Labor Market Trends and Education and Skill Levels including individuals with barriers to employment

The NEEDR's labor market is characterized by high educational attainment and a large labor force. Since the Great Recession of 2008, the unemployment rate for the Region has declined and more individuals are in the workforce earning more than ever before. Occupational skill requirements are increasing in many industries, both across the nation and in the northeast Illinois Region, as are the typical entry-level educational attainment. Table 10 details the 2018 employment by typical entry-level education in the United States.

Table 10: Employment, Wages, and Projected Change in Employment by Typical Entry-Level Education (employment in thousands)[6]

Typical Entry-Level Education	2018 Employment		Employment Change	Median Annual Wage, 2018
No Formal Educational Credential	38,392.3	23.8%	5.0%	$24,430
High School Diploma or Equivalent	62,426.8	38.8%	2.9%	$37,020
Some College, No Degree	4,105.6	2.5%	1.4%	$35,820
Postsecondary Non-Degree Award	9,993.1	6.2%	8.2%	$38,640

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[6] Data are from the Occupational Employment Statistics program, U.S. Bureau of Labor Statistics. Wage data cover non-farm wage and salary workers and do not cover the self-employed, owners and partners in unincorporated firms, or household workers.

Note: The occupational employment and growth rates shown in this table include projected growth in all jobs from 2018—28, not just entry-level jobs. Entry-level education reflects 2018 requirements—BLS does not project educational requirements.

Associate's Degree	3,572.6	2.2%	7.9%	$53,700
Bachelor's Degree	35,479.2	22.0%	7.7%	$73,960
Master's Degree	2,685.1	1.7%	13.7%	$73,580
Doctoral or Professional Degree	4,382.9	2.7%	9.0%	$105,700
Total	**161,037.7**	**100.0%**	**5.2%**	**$38,640**

Source: U.S. Bureau of Labor Statistics, Employment Projections Program

The education and skill levels of individuals with barriers to employment are an ever-present challenge in the NEEDR. In Illinois, 2.9% of the population living below poverty report working full-time all year. In contrast, 43% of the working age population living in poverty do not work and 38.5% of the population living below poverty report working part-time or seasonally. Figure 3 details the population living below poverty in the NEEDR.

Figure 3: Population Below Poverty
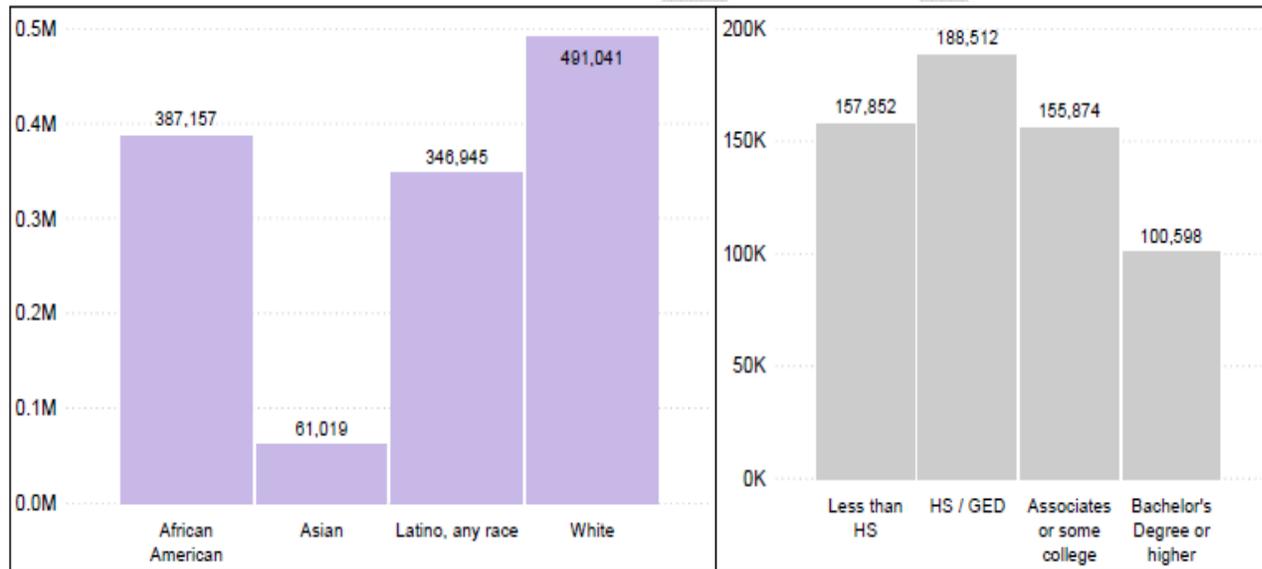
Source: American Community Survey, 2017, Table S1701

The NEEDR has approximately 845,225 disabled individuals.[7] Over one-third of those individuals are between the ages of 25-64 and only 11% of disabled individuals in the NEEDR are self-cared. Table 11 provides a snapshot of additional target population statistics in the NEEDR, as provided by the state.

Table 11: Target Population Statistics

Low-Income Indicators	
TANF Cases Monthly Average 2017	16,365
TANF Persons Monthly Average 2017	42,731
SNAP Households Monthly Average 2018	594,394
SNAP Persons Monthly Average 2018	1,165,408

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[7] American Community Survey, 2017

Disability Indicators (DHS/DVR Vocational Rehabilitation Program FY2019)	
Served Age Less Than Age 25	17,157
Plan Status Less Than Age 25	9,598
Successful Employment Less Than 25	1,355
Served Age 25 and Over	9.989
Plan Status Age 25 and Over	3,023
Successful Employment Age 25 and Over	1,323
Department of Corrections Indicators	
Adult Prison Population (committing county)	24,835
Adult Parolee Population (residing county)	15,731
Juvenile Justice Detention Admissions	4,879
Other Indicators	
Single parents/Male Householder	8,120
Single parents/Female Householder	25,974
Age 16 and Over w/o a High School Diploma	448,173

Source: Illinois Department of Employment Security

Subpopulations with barriers to employment in the Region which are targeted by the Regional system include:

- *Basic skills deficient*. Title II entities throughout the Region work directly with individuals to raise basic skill levels. Title II adult basic education plans align with WIOA Regional and Local plans.
- *Individuals with Disabilities.* The Illinois Department of Human Services Division of Rehabilitation Services (DRS) works to ensure that individuals with a disability have access to assistive technology throughout the One-Stop system, access to Employer Networks/Ticket To Work programs, and a coordinated Regional network of organizations. Vocational Rehabilitation is an active, vibrant partner in the Region providing professional services to this population, including job readiness for youth, Pre-employment training services, comprehensives evaluations, vocational counseling and access to assistive technology, and staff that serves customers at various sites such as, local high schools, and community-based organizations. The Bureau of Blind Services offers individualized services for the blind and visually impaired individuals and businesses that hire these individuals throughout the Region.
- *Returning citizens*. There is an effort across the Region to prepare returning citizens for reentry into the workforce. The One-Stop system across the Region partners with local court, health and mental health groups, county jails, the Department of Corrections and a network of organizations and providers to deliver work-readiness training and make connections to employers hiring.

Service/policy implications of these targeted population groups include the need for more intensive career services including more intensive upfront job readiness/essential skills services prior to employment and training. Making it imperative that partners implement service integration to ensure the right mixture of career services are being delivered to the priority populations throughout the one-stop system. The One-Stop service integration action plans

provide the framework for partners to leverage programs and services to increase service strategies when working with individuals with barriers to employment.

Local Workforce Innovation Boards set priority of services policies. These local policies include priority of service for veterans and qualified spouses, persons receiving public assistance, and low income and/or basic skills deficient individuals as well as individuals with a disability. Local areas take steps to promote awareness in the employer community about the benefits of hiring special populations, particularly Veterans, Individuals with Disabilities, and others prioritized for workforce services by the State of Illinois. As noted in Chapter II, local areas invest in a variety of strategies to serve individuals with barriers to employment across partnering agencies including TANF, Title II, CDBG, Title V, IDES, the Department of Corrections, Veterans Affairs, community based organizations and Small Business Development Centers among others.

B. Describe the development and implementation of sector initiatives for in-demand industry sectors or occupations for the planning Region (Sec. 679.510(a)(1)(iii)). Plans must answer the following questions:

How will the workforce partners convene employers, foundations, and Regional institutions to help lead sector partnerships and make coordinated investments?

Identify industry sector partnerships in the Region

What other sector-based partnerships exist in the Region? Are they business-led and what is their role in planning?

What other public-private partnerships exist in the Region?

What neutral conveners with the capacity to help establish sector partnerships exist in the Region?

The NEEDR has significant experience in sector-based workforce initiatives. The Workforce Partners of Metropolitan Chicago (WPMC) is a consortium comprised of the Directors of the Workforce Development Boards (WDBs) and the Title I providers in the NEEDR. This group formed a formal partnership more than 15 years ago. Since then, WPMC has been working together for the purpose of conducting WIOA planning and implementation, integrating Regional business services, developing workforce sector strategies, and coordinating activities with WIOA core partners, economic development entities, community colleges/training providers, and other stakeholders. WPMC recognize that the economic vitality of each local area and county is impacted by cross-geographic issues and that geographic boundaries are often meaningless to businesses and residents. WPMC also realize the importance of collaboration to produce a greater impact across the Region. WPMC focuses on Regional initiatives aimed at supporting business and sustaining the Region's economic vitality. By building a progressive system of change strategies and initiatives, WPMC support an education and workforce system that can be more closely aligned with what industries need in a quality workforce and ensures continued economic growth of the Region and the state.

The Workforce Partners of Metropolitan Chicago are committed to building a demand-driven

workforce system that provides skilled employees for employers and develops real career opportunities for job seekers and career changers. The system makes it easy for business to access qualified applicants and an abundance of workforce development services.

Each local area has a Business Service Team (BST) that implement job development and job placement and layoff aversion initiatives and a range of work-based opportunities including On-the-Job Training (OJT), Customized or Incumbent Worker Training, Paid Work Experience, and Re-Entry. BSTs are the teams that facilitate services and workshops in response to the Worker Adjustment and Retraining Notification (WARN) and coordinating and delivering hiring events and resource fairs. BST serve the Regional business community contributing to various sector-focused committees and/or initiatives.

The WPMC have initiated a Regional Integrated Business Services Team (BST) for NEEDR made up of the individual BST's from each of the seven local workforce areas, including all partners' business facing staff. The goal of the Regional Integrated Business Services Team is to coordinate business services across the Region, including addressing needs of Regional businesses, integrating core partner agencies (and other partners in the future), identifying and sharing best practices, discussing challenges and identifying solutions, and engaging in professional development activities. Key accomplishments include hosting regional hiring events, Business U, sharing promising practices, joint business meetings, and coordinating responses to major employers with large and critical needs. The BST works with local, Regional, state and federal elected officials and others on the creation of policy and implementation of workforce initiatives designed to decrease unemployment and increase skilled workers. As businesses and employers relocate to the Region and expand across the Region, the BST has responded through customized hiring and talent connection events. Amazon is the most recent employer to open multiple facilities across the Region and utilize the local One-Stop systems to meet immediate and ongoing hiring needs.

In LWIA #7, the Business Relations and Economic Development (BRED) Unit collaborates with local and national business communities to develop diverse and innovative projects and programs to meet their business workforce needs as well as the needs of those seeking employment opportunities. BRED has modeled specialization for the wider BST, with their Business Relations Specialists each assigned to focus one or more of the Region's high growth, high demand industry sectors. They support the wider Regional BST by offering expertise in each of their targeted industries.

The WPMC have formed a coalition with the Community College Presidents in the NEEDR – the Northeastern Illinois Workforce Coalition (NIWC). The coalition was originally formed as a result of the Critical Skills Shortage Initiative (CSSI) sector work more than a decade ago and continues to coordinate sector-driven and employer-focused initiatives. The members of the coalition meet quarterly, have developed key strategies to work together on, have joined together on grant applications, shared information and coordinated resident and business services throughout the Region. NIWC has continued to expand this in-district tuition model for WIOA customers receiving tuition vouchers. It is an agreement that workforce boards and community

colleges have agreed to, charging in-district tuition for all students accessing WIOA ITAs.

In 2019 WPMC received a grant from the Illinois Department of Commerce and Economic Opportunity (DCEO) to hire and support two Regional Apprenticeship Navigators. Working primarily in the Healthcare, Manufacturing, and Transportation, Distribution and Logistics sectors (and the technology related to these sectors), the Navigators are working with local business service teams or resource teams to identify employers interested in establishing or expanding apprenticeship programs, including pre-apprenticeship and youth apprenticeship programs.

In 2019 WPMC began working together on incumbent or current worker training projects. WPMC received a grant from DCEO to support incumbent worker training in the TDL and manufacturing industries. WPMC targeted projects that cover at least three of the seven workforce areas in the Region. WPMC completed a project with Ford Dealerships throughout the Region training current technicians. In addition, WPMC has completed Regional training projects with multiple TDL businesses across the Region training incumbent workers in equipment maintenance management.

While individual areas regularly interact with their philanthropic peers in the workforce development space, no major coordinated projects have been developed at the Regional level. The NEEDR partner workforce areas and WPMC have this as a priority and will capitalize on existing relationships such as that with the Chicagoland Workforce Funders Alliance, a partnership of more than 30 foundations and other funders focusing on workforce development.

Working together on Regional sector initiatives goes as far back as the state's Critical Skills Shortage Initiative (CSSI) through which the Region applied sector-based labor market analysis to workforce investments across the Region. More recently workforce, education, economic development and human services entities have collaborated on significant sector projects. The infrastructure, relationships and lessons learned from these projects will drive the Region's sector-based programs into the future. These Regional initiatives tend to be grant-funded and the NEEDR has been competitive in receiving these funds. All initiatives are driven by the Region's employer-led local workforce boards.

The Region works across a broader range of sector-based partnerships, including business-led partnership and not contingent on grant funding including partnerships with Regional economic development groups, state and Regional business and industry associations; community college advisory boards; Small Business Administration; and Anchor institution advisory committees.

Collaboration across partners and the Region will continue to focus strategies around Regional partners engaging with small employers and employers in in-demand industry sectors and occupations. Work with community colleges will continue to focus around industry sector talent development especially where industry-recognized credential attainment is necessary. Business service teams and One-Stop partners work with partners such as IDES, DRS, DCEO RED

team to work with local businesses and Regional employers.

The Region will promote entrepreneurial skills training and microenterprise services working with the IWIB and the Business Integration Team to meet the goals set out by the Illinois Integrated Business Services Team. A representative from the Region serves on the Illinois Integrated Business Services Team and shares information with WPMC and partners as the Region works towards integrated business services. In addition, the Region actively fosters relationships with Regional foundations with a vision and mission on workforce strategies and ongoing *coordination with Illinois Office of Minority Economic Empowerment to develop outreach and training grants for workforce skills enhancement*

In addition to sector initiatives in the Title I program, there has been significant development in Title II programs to align adult education with sector-specific career planning and skills training. A number of the Region's community colleges offer the Integrated Career and Academic Preparation System (ICAPS) model, through which adult education students (including ESL, Adult Basic Education, and Adult Secondary Education) simultaneously receive basic skills instruction that is contextualized to a specific industry sector and credit-bearing, industry-recognized college coursework that leads to a credential for jobs with family-sustaining wages. These programs offer robust support services, cohort models, team-teaching strategies, and yield high completion rates in various career cluster areas, such as Manufacturing, Healthcare, IT, and TDL. All Title II- funded adult education providers (colleges and community-based organizations) in the Region also provide at least one bridge program for adult learners, which help transition underprepared adults to career pathway programs. These programs deliver contextualized instruction and career planning in Healthcare, Early Childhood Education, Industrial Arts/Manufacturing, IT, TDL/Automotive, and Office Administration.

One example of a provider that has established a sector partnership and developed a career pathway training program in the Region is the Jane Addams Resource Corporation (JARC). JARC operates the Manufacturing Career Pathways Bridge Training Program which is a training program to equip job seekers with industry-related skills needed to secure employment and progress along their career pathway in the manufacturing sector. Career pathways training allows low-skilled job seekers to combine work and education while obtaining in-demand postsecondary credentials. Orientations include an overview of the targeted industry including labor market data, a map of the pathway or occupational ladder within the industry, a listing of occupations and average earnings as well as a thorough overview of the specific Career Pathway Bridge Training Program pre-requisites and WIOA eligibility requirements. Prior to starting the training program each participant must have a thorough understanding of the expectations and rules of the program. The program includes career exploration, contextualized instruction that integrates reading, math and language skills with industry and occupation knowledge and "hard" or technological skills as well as instruction in soft skills and job seeking skills such as job interviewing and resume development. The training may also include internships, work experience and site visits to employers.

The Region's local areas have been successful in utilizing WIOA funding as well as private funds to implement a wide array of business-led sector initiatives. These include:

- The Chicago Cook Workforce Partnership (The Partnership)'s workforce system includes One-Stop "Sector Centers" in three industries in the Region. National ABLE Network operates a sector center for IT businesses and job-seekers interested in information technology careers. The Chicagoland Retail & Hospitality Sector Center is operated by Pyramid Partnership, Inc. and the Chicagoland Healthcare Sector Center is operated by ResCare Healthcare. Additionally, the Partnership delivers ConstructionWorks, a contract from the Illinois Toll Highway Authority (Illinois Tollway), somewhat similar to a sector center with a focus on expanding access to employment opportunities in construction for populations traditionally not well represented in the skilled trades. ConstructionWorks delivers recruiting, facilitates pre-apprenticeship and builds career pathways through apprenticeship and into employment, as well as focusing significantly on retention and advancement in the industry.

- Four Chicago-area hospitals (Ann & Robert H. Lurie Children's Hospital of Chicago, NorthShore University HealthSystem, Rush University Medical Center, and the University of Chicago Medicine) are partnering with the regional workforce entities to create a new healthcare pathway program to help existing employees in entry-level and majority non-clinical roles transition to medical assistant roles. Healthcare system partners view this innovative collaboration as a vehicle to fill high-demand jobs and increase talent retention and advance front-line employees. The hospitals, all members of the employer-led Chicagoland Healthcare Workforce Collaborative, worked with partners, including Malcom X College, West Side United, Civic Consulting Alliance, World Business Chicago, and the Chicago-Cook Workforce Partnership to create a structure that provides incumbent worker training to employees at no cost while mitigating risk for the employers.

- The Workforce Partners of Metropolitan Chicago (WPMC) have successfully implemented sector initiatives over the past decade. Several of the initiatives noted here have demonstrated results that met the needs of the industries, increased the number of customers earning industry credentials and obtaining employment, and developed regional promising practices that continue to be replicated in like projects.
  - The Accelerated Training for Illinois Manufacturing (ATIM) program brought together a regional network of manufacturers, Local Workforce Boards Illinois workNet Centers (also known as WorkNet Centers but referenced as Illinois workNet Centers throughout this Plan) economic development organizations, and industry associations working together to develop industry awareness tools and communications; screening candidates and identifying workplace competencies. Participants earned industry credentials and occupational competencies in paid work experiences/internships or employment.
  - The Health Professions and Opportunity Program (HPOG) grant from the U.S. Health

and Human Services Department trained low-income individuals in healthcare occupations. The initiative was a unique partnership among the Region's Local Workforce Boards, the Illinois Department of Human Services (IDHS), community colleges and community-based workforce organizations Through bridge educational programs and occupational training the initiative provided access to healthcare careers for TANF participants and other low-income individuals.

- A Job Driven NEG Grant funded a Regional project that provided services, occupational and work-based training, certification(s) and job placement in the information technology sector, focusing on long-term unemployed job seekers, recipients who have been profiled as likely to exhaust benefits, and foreign-trained immigrant workers who qualify as dislocated workers and face barriers to obtaining employment in their trained field or profession.

- Lake County Workforce Development has worked with partners to launch the Lake County Workforce Ecosystem – a business outreach and workforce solution initiative led by a core partnership of Lake County Workforce Development, Lake County Partners, and College of Lake County. The Ecosystem drives talent development through an industry sector strategy.

- The Workforce Board in Will County is a part of the Will County Community Friendly Freight Plan. This unique plan is aiming to address issues of land-use and community livability in this fast-growing business sector in the County. The Freight Plan will encompass a holistic planning approach covering freight mobility, land-use integration, workforce development, education/training and community livability. Workforce issues were identified by Freight companies in the County to be one of the top concerns of growing the industry locally and as such will be carefully considered and addressed in the plan.

- DuPage County has developed a healthcare talent pipeline in conjunction with Edward-Elmhurst Health and Northwestern Medicine to increase volume of patient care technicians and medical assistants in the local workforce area-- conducting outreach for those career paths, steering more WIOA eligible individuals toward that need, using incumbent worker training to train/promote current workers in areas like housekeeping or patient transporting, etc.

There are many other sector-based initiatives in the Region that are either led by local areas or with which Local Workforce Boards and system partners collaborate. Sector initiatives not described above are listed in the table below. These are examples and not meant to be a comprehensive list of sector initiatives that have been discussed regionally for purpose of sharing innovation, identifying areas of improvement, expanding participation locally and regionally, and documenting processes and successes for possible regional replication.

Table 12: Other Regional Sector Initiatives

Initiative	Key Partners	Geographic Area	Industries Targeted
Pharmacy Tech Program	• Waukegan High School • College of Lake County • Walgreens	• Lake County	• Healthcare
Healthcare Professional Education Consortium Rosalind Franklin University led consortium of education leaders focused on workforce solutions in healthcare sector	• Rosalind Franklin • College of Lake County • McHenry Community College • Universities/Colleges • Lake County Partners • Lake County Workforce Board • McHenry County Workforce Network • Northwestern Medicine • Private Sector	• Lake County • McHenry County	• Healthcare
National ABLE Network IT cohort training and work experience	• Nation ABLE Network • Job Center of Lake County • Lake County Tech Hub • IDES	• Lake County	• IT
Pipeline Grant	• Manufacturers • MCEDC • McHenry County College	• McHenry County	• Manufacturing (industrial maintenance technician training for incumbent workers)
Manufacturing and Healthcare Career Training and Internship Program for O/S Young Adults	• Private Business • McHenry County College	• McHenry County	• Manufacturing • Healthcare

Harvard and Woodstock Enterprise Zone	• Local Economic Development	• McHenry County • Boone County	• Agriculture and Food Processing • Manufacturing • Healthcare
Manufacturing Careers Internship Program (MCIP); Designed to help employers find and hire young adults interested in manufacturing and provide out- of-school youth with an opportunity to start a career in manufacturing	• Business Career Services (BCS)	• Kane County (youth ages 18-21) • Cook County	• Manufacturing
My Way	• Private Business	• DuPage County	• Manufacturing • TDL • Hospitality
Disability Employment Initiative Grant	• Downers Grove High School • College of DuPage	• DuPage County	• IT
1E Grant	• Business and Training Providers	• DuPage County	• Manufacturing • TDL • Hospitality • IT
Title 1 Sector-Based Career Pathway Training and Bridge Programs	• Greater West Town • Instituto del Progresso Latino • Jane Adams Resource Corporation • Symbol	• Cook County • Chicago	• Manufacturing • Shipping & Receiving
TWL (CDL) Employer Services	• Local TDL Employers	• Grundy County • Kankakee County • Livingston County	• TDL
Community Friendly Freight Plan	• Will County Center for Economic Dev • Will County WDB	• Will County	• TDL

	• Will County • Private Business		
One-Stop Sector Centers	• The Chicago Cook Workforce Partnership • Pyramid Partners • ResCare Healthcare • National ABLE Network • Private Business	• Cook County • Chicago	• Healthcare • Retail • IT

CHAPTER 2: STRATEGIES FOR SERVICE INTEGRATION

A. Provide an analysis of workforce development activities, including education and training, in the Region. This analysis must include the strengths and weaknesses of workforce development activities and capacity to provide the workforce development activities to address the education and skill needs of the workforce, including individuals with barriers to employment, and the employment needs of employers (Sec. 679.560(a)(4)). Plans must respond to the following:

> Analyze the strengths and weaknesses of the workforce development activities in the Region
>
> Analyze the capacity of the Regional partners to provide workforce development activities to address the education and skill needs of the workforce including individuals with barriers to employment
>
> Analyze the capacity of the Regional partners to provide activities to address the needs of employers
>
> How well do existing training programs in the Region and local areas prepare job seekers to enter and retain employment with Regional businesses
>
> Summarize the commitments of each program partner to implement the selected strategies described in the "Action Plan for Improving Service Integration in the Region."

Title I is operated through the Local Workforce Innovation (LWIAs) There are seven LWIAs in the Northeast Economic Development Region and ten counties: Cook, Dekalb, DuPage, Will, McHenry, Lake, Grundy, Kane, Kankakee and Kendall. Residents are served through a range of comprehensive One-Stop Centers, affiliate organizations, and training providers. Title II (Adult Education) is administered through community colleges and providers throughout the Region. Title III (Wagner-Peyser) is administered through Illinois Department of Employment Security. Title IV (Vocational Rehabilitation) is administered by the Illinois Department of Human Services Vocational Rehabilitation. Each partner delivers services and activities at partner sites as well as through co-location in the comprehensive One-Stop Centers. There are 17 community college districts in the NEEDR.

The Region has developed important points of coordination that provide ongoing opportunities to deploy integrated strategies in the Region. One is the Northern Illinois Workforce Coalition that convenes quarterly meetings of the Community College Presidents and Local Workforce Board Directors. The coalition was originally formed as a result of the CSSI sector work; the partnership was formalized 6 years ago. The coalition has joined together for grant applications, shared information and coordinated individual and business services throughout the Region. As described in Chapter 1, the Workforce Partners of Metropolitan Chicago is the coalition of Local Workforce Boards developed nearly 15 years ago that is the platform for developing many of the NEEDR's sector strategies. The collaboration recently changed its name to make it inclusive of all partners and will expand under WIOA to include Title I Administrators from each LWIA and provide a forum as coordinated planning with core partners is needed. The Workforce Partners of Metropolitan Chicago undertakes join grant applications, project coordination and information sharing.

Due to the large geographic size of the NEEDR and the diversity of its economy, level of development, and needs of residents and businesses, the types of workforce development services offered vary. Each local area has different strategies, toolboxes and areas of focus for best servicing the needs of its residents and employers. There are, however, many commonalities of workforce development activities and types of services with promising return-on-investment (ROI) that warrant continued focus and development.

- Work-Based Learning Opportunities: Several of the Local Workforce Boards use On-the-Job-Training (OJT), Apprenticeships, internships and work-experiences to provide the skills needed for job- seekers to be successful in the workplace. In addition, all of the community colleges coordinate internships, on-the-job-training, apprenticeships, and incumbent worker training within the Region. Efforts have begun to better connect adult education students to these opportunities. Overall, these types of programs are an opportunity for growth under WIOA. A model example is the Nicor Gas Co partnership with the Quad County Urban League which launched the Nicor Gas Career Academy - a six-week job-readiness program designed to prepare participants for entry-level work in the utility industry, with a focus on natural gas.
- Career Pathways: Workforce development and education partners in the NEEDR are increasingly developing Career Pathway programs to prepare individuals to be successful in secondary and post-secondary education as well as help individuals enter or advance within a specific occupational cluster. Community colleges offer stackable credentials in many sectors, providing a pathway approach for adult learners, who can complete one credential and advance to the next credential. ICAPS programs, bridge programs, transition coordinators, faculty (through specialist job-skills courses), and career development service areas provide goal-setting, academic advising, and enrollment assistance. This type of coordination/advising will be necessary within the One-Stop centers in order to meet the needs of clients/students.
- Sector Strategies: As detailed in Chapter 1, the NEEDR provides an extensive array of sector-based workforce development services for residents and businesses including comprehensive sector centers and multiple business-driven, multi-area partnerships, many funded through competitive grants the region has secured.

Many promising cooperative service delivery strategies are currently present within the Region. Additionally, the Regional plan will provide opportunities for new Regional cooperative agreements.

NEEDR Strengths and Weaknesses of Workforce Development Activities
An online survey was distributed to Partners in NEEDR to identify the strengths and weaknesses of Regional workforce development activities.

Strengths of the Region's workforce system as identified by core partners.

Demographic/Location Strengths
- Access to large quantities of diverse talent

- Access to transportation and transportation routes (i.e., highways, roads, etc.)
- Overall, a highly educated workforce with sub-Regional differences
- Diverse industry and employer base
- Wage and employment growth, acting as the economic driver of the state

Relationship and Partner Advantages
- Long history of partnership and collaboration through the Workforce Partners of Metropolitan Chicago
- WIOA system partnerships are strong across all of the mandatory partners of the WIOA system and beyond.
- Partners are committed greater service integration and beginning to work on service integration action plans (see Service Integration section)
- Existing local partnerships across the WIOA system
- Strong employer partnerships
- Commitment to work-based learning opportunities
- Strong partnership with Regional education systems (high schools/K-12, community colleges, and other training institutions)
- Economic development partnerships with shared goals
- Customer-centric

Existing Training Programs That Meet the Needs of Employers
- Apprenticeship – There are many apprenticeship efforts happening in the Region and these are well coordinate among many partners
- Organized work-based learning (on-the-job training, incumbent worker, work experience, internships)
- Strong training programs in multiple career paths, especially in transportation and logistics, building trades, manufacturing, and healthcare
- Quality workforce
- Funding – The Region and the local areas are able to leverage many sources of funding including competitive grants in addition to WIOA formula funds
- Strong partnership with training and educational providers

Policy and Advocacy Capacity: The Workforce Partners of Metropolitan Chicago are skilled at analyzing the current state of the workforce system and advocating for policies that can support improved systems and services.

Challenges of the Region's workforce system as identified by core partners.

Resource Challenges
- Federal funding inconsistencies and aggressive timelines which affect planning and implementation of programs over time
- Lack of awareness of all the resources available to jobseekers
- Lack of sufficient and flexible resources to serve jobseekers that present in the WIOA system with multiple barriers to employment, including basic-skills deficient, criminal records, and undocumented NEED workers.

Geographic Challenges
- Lack of consistent public transportation throughout the NEEDR
- Minimal access to services to rural communities in the NEEDR
- Deteriorating infrastructure in rural communities
- Lack of transportation access and options to less urban areas

Demographic Challenges
- Large number of non-English speaking individuals
- Cultural barriers to employment of diverse population
- Lack of technical skills
- Aging population
- Decline in overall population numbers with sub-Regional differences

Systems-level Challenges
- Shared responsibility among partners and expectations of collaboration. In terms of governance and service integration, Title I shares most responsibility for the success of the MOU, coordination and core service delivery while other partners may not receive consistent levels of guidance from national and state agencies.
- Silos among Titles (opportunities for coordination under WIOA) remain at the Federal and State level.
- Lack of an integrated, shared data system across the core partners for job seeker and business customer data and case management.

Capacity to provide workforce development activities to individuals with barriers to employment

Due to the large geographic area and the differences in population throughout the Region, as well as access to different funding sources, each local area focuses on individuals with different barriers to employment. Examples are provided in the sub-sections below related to key populations.

Low-Skilled Adults

The Region's education partners including the community college partners of each local workforce area are also focusing on deliver of the Integrated Career & Academic Preparation System (ICAPS). ICAPS aims to provide an integrated pathway in Career and Technical Education (CTE) for college credit and program certificate opportunities for Adult Education and Literacy (AEL) students that lack basic skills. Through ICAPS programs students work to complete their high school equivalency and are co-enrolled in credit CTE courses/certificates through an integrated instructional model including contextualized and industry-focused basic skills education. The model provides career pathway/employment opportunities for students while enabling their transition into additional postsecondary certificate/degree programs.

The adult education programs at many of the region's colleges are working to incorporate workforce development activities into programming for low-skilled adults. At Triton College, adult education will work with The Chicago Cook Workforce Partnership to create and promote

accelerated high school completion courses and short-term job skills courses to reduce the time between school and employment. Many adult education providers in the Region include career readiness activities within the ABE/ASE/ESL curriculum. For example, at South Suburban, it is mandatory for students to complete a resume with a transitions coach, and this is a classroom activity, along with attending an on-site job fair as a field trip once per year. The College of Lake County makes available workforce activities lesson plans to its instructors through a Blackboard community page. Elgin Community College's adult education division includes a workforce development department wherein various employment-related programs and services are available, including unemployment services, resume assistance, a TANF program, two WIOA programs for youth, and an AARP program for adults. The College of Lake County has and Adult Education Student Success Team that provides coaching, mentoring, and job assistance to students and to clients at the Job Center of Lake County. Co-enrollment for adult education students in these programs is common. McHenry County, Kankakee and Grundy counties offers ABE/ ESL / GED on site at the One-Stop center.

Many areas in the region utilize WIOA funding to support Bridge programs, which enroll adults with basic skills deficiencies in literacy and numeracy and transition them into occupational training and employment. Bridge programs typically enroll participants at a 6.0 grade level in reading and math, contextualize their education to a specific industry and occupation, and offer supportive services to adults. The Partnership currently funds four Career Pathway and one Bridge programs across two industries. The region supports those bridge programs that have a strong track record of increasing participants' education levels to at least an 8.9 in reading and math, offering entry-level industry recognized credentials, and transitioning participants to occupational training and employment. As a supporter of career pathway models, The Partnership recognizes the importance of collaborating with those adult education programs that enroll participants at lower levels than 6.0 – those programs are some of the strongest feeders for the bridge programs. The Partnership has representation in the Illinois Community College Board Area Planning Council (APC) in Chicago. The APC is a mandated group of local adult education providers that come together on a quarterly basis to provide the development and coordination of adult basic education programs in the city.

Individuals with Disabilities
Local Title I providers coordinate with Vocational Rehabilitation staff and other WIOA system partners in delivery of services for people with disabilities. Local areas have Disability Navigators embedded within the One-Stops or within the system to target and serve people with disabilities.

As part of service integration and coordination activities, the Region has engaged an expert trainer to deliver training to companies (leadership/owners, managers and line staff) on key disability issues, how to develop and maintain an inclusive workplace and ensure accessibility both physical and cultural. This includes a model disability inclusion training: Training and Performance Management for Employees with Disabilities. This training is based on real-world scenarios and includes practice interactions and includes:

- An overview of disability types, common accommodations used and guidance for etiquette when interacting with individuals with those disabilities.
- Guidance on and techniques for specific learning and communication modalities
- How to leverage these techniques with people with a variety of different kinds of disabilities to maximize their job performance.

Examples of some innovative projects in local areas that can be replicated or expanded throughout the Region include:

- Waukegan Housing Authority participated in the Mainstream Voucher Program (MVP). The purpose of MVP is to assist non-elderly person with disabilities and their families (age 18-61) who meet certain requirements to live independently in the community.
- Will County has a pilot on-the-job training project for individuals with disabilities, which includes both work experience and a job coach.
- Parents Alliance Employment Project is a community based organization located in the workNet DuPage Career Center which provides a variety of programs and services to individuals with developmental disabilities including career counseling, job training and preparation, job development, job placement, and job coaching and follow-up services. Project Search, which is administered by Parent Alliance Employment Project, is in place in McHenry, Kane, Kendall and DeKalb counties as well as in DuPage. Project Search is focused on providing education and training to young adults with intellectual and developmental disabilities through an internship format. It is a one-year program geared toward selected high school seniors who are entering their last year of a transitional high school program. Funding for teachers is from Vocational Rehab and Parents Alliance provides the job coaches who are funded through WIOA. Central DuPage Hospital provides the space and wages for the students who are rotated through multiple positions at the hospital and then hired full time in the position they are best suited for upon completing the program. Other partners include SASED, Cadence Health, Community High School 84, District 200, and the Department of Commerce (Commerce).
- In addition, in DuPage County, there is a Disability Employment Initiative (DEI) grant that is a partnership with Vocational Rehabilitation, the College of DuPage and Downers Grove High School to transition youth with disabilities from high school to community college.
- Lake County Workforce Development has created partnerships through formal MOU agreements with Department of Rehabilitation Services (DRS) and several agencies that serve disabled individuals. The partnerships are based on creating a referral network among the agencies and participating where appropriate as part of the integrated resource teams.
- College of Lake County delivers the Personal Success Program (PSP) which provides vocational skills training to students challenged with mild to moderate cognitive disabilities. PSP opens the door to students who may not otherwise enter post-

secondary education. The purpose is to introduce basic skills and concepts for a variety of professions, while also providing opportunities to experience college life.

- In 2017, the Mayoral Task Force on Employment and Economic Opportunity for People with Disabilities was created in Chicago. Comprised of 26 members representing workforce agencies, disability leaders, job seekers, employers, and representatives from local and state government agencies, the Task Force has focused on four (4) areas to improve employment outcomes of people with disabilities:
  - o Encourage economic development through entrepreneurship
  - o Align, enhance, and promote comprehensive job training and placement
  - o Facilitate greater participation of students in higher education for careers
  - o Examine the City of Chicago policies that promote and/or discourage employment

Adult education providers have always been strong in serving individuals with learning disabilities. Excellent professional development is available, leading to a Special Learning Needs credential for adult educators and staff working with potentially learning disabled students. Accommodations are available to adult education students with disabilities through the ADA coordinators at each college campus, as well.

Vocational Rehabilitation staff has a regularly scheduled presence and meetings with center managers and is co-located in most workforce areas One-Stops. In addition, there is cross training of staff in proper and effective processes for providing services to customers with disabilities. All One-Stop centers are required to provide auxiliary aids and accommodations to customers with disabilities upon request. Vocational Rehabilitation provides technical assistance in these and other areas to the One-Stop centers. Vocational Rehabilitation and career center business services staff work together to share information on how to effectively work with employers to provide employment opportunities for individuals with disabilities. Through the Regional Integrated Business Service Team, these discussions will be formally scheduled on a quarterly basis and will be included in the memorandum of understanding. Under WIOA, The Chicago Cook Workforce Partnership will have a standing committee for providing services to customers with disabilities. This committee will develop policies and procedures related to the memorandum of understanding to enhance the coordination of career center services with those offered by Vocational Rehabilitation.

Returning Citizens
The NEEDR includes a number of communities that are major points of re-entry for those being released from the Corrections system. The WBMC and local areas collaborate closely with the Illinois Department of Corrections (IDOC) and key providers of re-entry and other services for returning citizens (formerly incarcerated individuals) and in particular those recently released. Several areas (Lake County, Kane DeKalb Kendall, and Will County) provide mini-One-Stop services on-site at local prisons and jails, in order to deliver services prior to an individual's release.

Lake County Workforce Development and College of Lake County participate in the Lake County Coalition to Reduce Recidivism providing community-based reentry services and assisting returning individuals in becoming productive members of the community through programs and supportive services. This includes Revive Lake County, a five-week program that is delivered at two location – the Lake County Adult Corrections Facility and the Job Center of Lake County – to provide accessibility to individuals throughout all stages of the rehabilitation process. Training topics include career awareness, employability skills, communication pointers, and transferable skills. The program includes a hands-on curriculum organized in five distinct modules. Each module is designed to instill foundational workplace values and behaviors that are critical to obtaining and keeping a job, including: career awareness, employability skills, communication pointers, and transferable skills. In addition to the modules, participants complete activities in "Bring Your 'A' Game" — a workforce development curriculum shaped by input of 1,500 national employers regarding essential workplace skills. The program concludes with a capstone presentation prepared by each participant and presented at a ceremony attended by program partners, participant supporters, and local business leaders. The participants summarize new skills, individual goals, and a plan for success. The capstone empowers participants to take ownership of their professional development by identifying personal hinderance, sharing progress, and planning for success alongside peers. The College of Lake County's Adult Education program delivers ESL and High School Preparation classes at the Lake County Jail to develop their skills necessary for life after release. Lake County also has a Transitional Jobs program delivered in conjunction with area adult transition centers and other partners.

In 2019, The Chicago Cook Workforce Partnership, together with the Chicago Justice Advisory Council, received a grant to design a coordinated re-entry system for returning citizens in Chicago and Cook County. The Partnership is convening a Re-entry Council to generate system-wide recommendations and design a demonstration project. The demonstration project will attempt to provide appropriate pre- and post-release services to participants with the goal of reducing recidivism.

Cook County received a major Department of Justice grant of $1M to integrate services across all the agencies that work with returning citizens. The Partnership also funds the Safer Foundation for adults who are returning citizens for job preparation and other services.

McHenry County partners with the Stateline Society of HR Managers (SHRM) and Leadership Greater McHenry County on an initiative to work with states attorneys and parole offices to provide soft-skills trainings, pre-apprenticeship, and other services for ex-offenders. McHenry County also offers re-entry workshops and counseling and acts as a referral for the drug and mental health courts.

Out of School Youth
All areas report that this population is by definition difficult to reach because they are often not engaged with public entities and traditional community and other recruiting partners. Also, in a low unemployment economy, many young adults successfully secure some employment and do not always see the value of participation in a workforce program or education or have

the ability to balance their employment with training or education. However, the Region knows that this population's employment is too often at a low wage, often even at the minimum wage, and without further training and support, is too often precarious and lacking in career pathways.

The Chicago Cook Workforce Partnership is part of the local Opportunity Works initiative which has the goal of creating the largest employer-led private sector coalition committed to creating pathways to employment for opportunity youth (OY). Thrive serves as the backbone organization to lead local 100K efforts in Chicago, and The Partnership leads the implementation of the100K employer-facing work. The Partnership's Business Relations and Economic Development (BRED) team leverages its existing employer relationships to focus more specifically on the OY population. BRED staff will lead the OY efforts supported by 100K to cultivate employer relationships, identify open positions, and aggregate demand to be met through bi-monthly hiring events and other innovative engagement activities. BRED works closely with Thrive to lead the planning of hiring events as well as the development of other placement, retention, and career advancement strategies for OY. In 2019, 126 businesses hosted Opportunity Works interns, and over 80% of participants were connected to a career pathway. In the initiatives' first two years, 751 young adults have been impacted.

Other local areas provide specific initiatives for out-of-school youth as well. In Will County, the Connect to Your Future youth program provides occupational training and work based learning opportunities and, in both Will, and DuPage counties all youth funding is for programming for out-of-school youth. WorkNet DuPage offers the "My Way" program which was replicated from Northern Cook County. The program serves out-of-school youth and young adults. It includes pay for three weeks of career and employer exploration, placement in a paid internship of up to eight weeks and job search assistance and help with further funding for school or technical training. The program currently offers training and internships in office/admin, manufacturing, hospitality and logistics. McHenry County offers GED boot camp for opportunity youth as well as career pathway programs in healthcare and manufacturing which focus on classroom and work based learning opportunities. In Kane, Kendall and DeKalb Counties, WIOA services focus on pathways to employment and education through several components. In Lake County, two YouthBuild Lake County and Youth Conservation Corp are DOL YouthBuild grant recipients. The YouthBuild programs serve out-of-school youth with multiple barriers in a pre-apprenticeship model program leading to additional training, internships and/or employment in key industry sectors. These programs include work based learning initiatives, which are employment opportunities that allow youth to experience a specific occupation through relationships that youth services develop with community employers as well as programs that focus on vocational exploration, aiming to broaden a youth's awareness of available careers as they develop a plan for their future. Additionally the College of Lake County works with the Youth Conservation Corp in providing HVAC career programs and Adult Education programs to its youth clientele.

The Illinois Immigrant Funders Collaborative and the Chicagoland Workforce Funders Alliance are working together on an initiative to ensure Deferred Action for Childhood Arrivals (DACA)

eligible residents can access WIOA services. As part of this project, the Chicago Community Trust approved a grant to the National Council of La Raza (NCLR) to spearhead the project that will target DACA youth and enroll them into WIOA services. NCLR will be partnering with agencies that have both WIOA and immigration/legal services programs, including Erie Neighborhood House, Instituto del Progreso Latino, Chinese American Service League and the Polish American Association. These projects will create assessments and tracking mechanisms that can follow participants that enroll into DACA to make the WIOA referrals and follow-up with DACA recipients. NCLR will facilitate the cross-training between staff so the immigration staff learn about the WIOA system and vice-versa. The Chicago Jobs Council, Chicago Citywide Literacy Coalition, Illinois Coalition for Immigrant and Refugee Rights, and Illinois Business Immigration Coalition will help facilitate the cross-training.

Several areas have added Individual Training Accounts (ITAs) for Youth to their WIOA service strategy, enhancing the ability to deliver skills training for out-of-school Youth specifically and to more seamlessly weave together adult service strategies with the youth program.

Veterans

Veterans receive priority of service, as required by WIOA. IDES provides veteran representatives and WIOA managers in each workforce area who coordinate job fairs and host quarterly meetings with veterans representatives from community colleges and other veteran entities. In addition, the IDES staff host workshops and do presentations to veteran groups. IDES hosts workshops for veterans and performs intakes of all veterans with priority of service. Other targeted veterans programs in the Region include:

- The U.S. Chamber of Commerce and IDES sponsor the Hiring Our Hero's program which connects veterans, transitioning service members, and military spouses with meaningful employment opportunities. A large hiring and information event will be held in 2020 in Chicago and the Partnership will coordinate with WIOA agencies to increase attendance and discuss Title I services available to veterans in the Region.
- The Chicago Federation of Labor, with support from the Partnership, has a specialized training program with Peoples Gas to train veterans for jobs with opportunities for advancement and family-supporting wages. WIOA Individual Training ITA) account funds support these efforts.
- Will County has a Disabled Veteran representative located full-time in their One-Stop Center and the Will County Veteran's Assistance Commission is located across the hall from the One-Stop Center for ease of client referral.
- Waukegan Housing Authority participated in Housing and Urban Development's (HUD) VASH program providing housing vouchers to veterans.
- McHenry County has 45 veterans' vouchers.

English Language Learners

One-Stop centers provide referrals to the ESL programs at community colleges. In addition, the College of DuPage offers transition courses in ESL, including workforce prep and/or college prep at the workNet DuPage Career Center, ESL is offered onsite at the McHenry County One-Stop center and onsite at the Grundy and Kankakee County workforce services offices. In Lake

County, the Job Center of Lake County is co-located in the same building as the College of Lake County's Adult Education program providing easy referral for ELLS. ELLs at the Advanced level are provided opportunities for career exploration through career fairs and job fairs sponsored by CLC and the Job Center of Lake County. Bridge programs have proven successful in serving ESL learners. Many ELLs at the College of Lake County's Adult Education program take Bridge to Career courses that help them set career goals and prepare to transition to college career programs. These ELLs are provided wrap-around services, that includes retention and job places services, when they transition to college by the Adult Education Student Success Team DuPage County was awarded a youth contract to World Relief in 2020 to serve youth who are asylum seekers and refugees. The program includes career counseling, job readiness training as well as the opportunity to attend training to earn credentials in in-demand occupations.

The Chicago Cook Workforce Partnership awards WIOA Title I funds to delegate agencies that work with large populations of English Language Learners, including the Chinese American Service League, Polish American Institute, and Instituto del Progresso Latino. Staff are workNet job centers are trained in a Limited English Proficiency program.

Kane County has partnered with World Relief to boost earning potential for asylum seekers and refugees.

Homeless Individuals

In DuPage County there is a Community Partner Mutual Service Agreement with DuPage Pads serving individuals and families who are at risk or homeless in DuPage County. This includes a referral program, as well as career counseling, job search assistance and resume writing to individuals referred to the workNet Center. Lake County Workforce Development works with local community agencies such as Northpoint to provide specialized workforce services to individuals with disabilities as well as a disability case manager. In McHenry County, workforce staff partners with the Housing Authority to provide staff outreach at various locations around the County. In Kane, Kendall and DeKalb Counties, Title I staff coordinate with the local Continuum of Care system and have attended meetings to convey information regarding employment and training services and opportunities to homeless providers in the area. Staff will continue to incorporate homeless service strategies related to employment and training in collaborating with the Continuum of Care boards. The Chicago Cook Workforce Partnership provides Title I funding to Inspiration Corporation, which serves adult homeless customers exclusively. In addition, The Partnership is a member of the Employment Task Force of Chicago's Continuum of Care that is focused on improving connections between housing and homeless services and workforce services.

Older Workers

The Senior Community Service Employment Program (SCSEP) program sponsored by the Illinois Department on Aging and designed to assist the mature worker (at least 55 years old) in re-entering the job market is an active partner in the region's Illinois workNet Centers. SCSEP places eligible individuals, usually for 20 hours a week at minimum wages, in nonprofit agencies

or community service agencies community assignments. Mature workers will also be assisted in skill enhancement opportunities and assistance in the transition to unsubsidized employment.

National ABLE Network, on-site at the workNet DuPage Career Center and the Job Center of Lake County, provides recruitment and workshops for older workers and SERS is on-site to provide services at the One-stop in McHenry County. The workNet Center in DeKalb coordinates with Experience Works to serve the population 55 years of age and older.

The "Back to Work 50+ Cook County" grant from AARP serves Cook County jobseekers through workshops, career coaching, and vocational training services (including computer training) in order to help them obtain employment. Through this grant, The Chicago Cook Workforce Partnership will link older workers to the Region's high demand sectors: Business & Professional Services, Healthcare, Retail, Culinary and Hospitality, Information Technology, Manufacturing and Transportation Distribution & Logistics. Job Seekers will be connected to training that prepares them for one of 40 occupations that have strong projected growth, including health information technician, retail supervisor, and computer support specialist. Joliet Junior College received a Plus 50 Grant to assist older workers in returning to the workforce. They work collaboratively with the WIOA system to offer training and workshops to job seekers over 50 who are re-entering the workforce.

"5 Steps to Your Next Job" – This is a 5-day workshop series that is offered monthly at the Job Center of Lake County and is being considered for use in other areas within the Region and beyond. Completion of the program leads to a Job Center 5 Steps Certificate of Completion. The five steps include:
1. Research: aligning the jobseeker with current workforce demand with online research tools. They will take inventory of their skillsets, research local companies, and use an online tool to determine their next job move
2. Prepare: the jobseeker examines industry trends and educational requirements to get into their next job. They will learn about free resources and funding options to take their training to the next level.
3. Document: the jobseeker will fully document their knowledge, skills, and experience with written tools including applications, social media, email, letters, and resumes.
4. Find: the jobseeker will develop their elevator speech, identify target companies and practice targeted networking techniques in order to find their next job opportunity.
5. Land: lastly, the jobseeker will learn how to prepare for an interview and negotiate salary and benefits.

Capacity to Address the Needs of Employers
Employer services include occupational and labor market information to inform economic forecasting, no-cost human resource services for recruiting, retaining, and hiring qualified employees and accelerated and a range of customized employer-based training initiatives for increasing skills of existing and new employees.

Each local area's WIOA system includes a business services team made up of staff from all partners who are business-facing and focused on job development and business services. These teams:

- Engage the business community to identify industry-hiring trends and industry-recognized credentials.
- Support industry-specific sector strategies designed to facilitate in-depth focus on particular industries with business partnerships in these areas.
- Analyze and disseminate labor market information to project job growth, wages, and training requirements.
- Provide comprehensive analysis of our Regional labor market.
- Provide Area wage and benefits analysis for targeted positions.
- Create custom recruitment plans.
- Post jobs online.
- Conduct targeted recruitment through email and social marketing tools.
- Provide an application collection center.
- Conduct applicant screening using business' key criteria and assessment tools.
- Organize job fairs and special employer events.
- Provide interview scheduling service and facilities.
- Provide pre-hire training for eligible applicants.
- Provide On-the-job training program funds.
- Facilitate employed worker training for industry certifications and credentials.
- Respond to WARN notices, facilitating workshops on behalf of the State, City, and County by providing information on rights, responsibilities, and resources for the workforce.

As noted above in Chapter 1, Section B on sector initiatives, the NEEDR also convenes a Regional Integrated Business Service Team with the focus of bringing together these groups and coordinating and streamlining services to employers, and in particular those larger employers with sites in multiple areas or with a workforce drawn from across the Region. A goal is to reduce the employer's work in engaging with the public workforce system and ensure they can access workers, training and other services from any of the workforce areas in the Region once they engage with any one of the areas.

Illinois Department of Employment Security provide the following services to employers throughout the Region:

- Assists employers with creating an Illinois Job Link registration, posting job orders and searching for resumes in illinoisjoblink.com.
- Assists employer with their recruitment events, either at the One-Stop centers or at their assigned location.
- Facilitate quality job matches, conforming to State labor laws.
- Create customized Phone Notifications and e-mail blasts to job seekers to inform them to attend events in an effort to assist employers with their workforce needs.
- Conduct outreach efforts to assist the business community.

- Provide employer seminars to keep employers informed on new laws and regulations in Unemployment Insurance and employment services.
- Provide Labor Market Information to employers.
- Provide mass notification of local hiring events.
- Provide assistance with Work Opportunity Tax Credits (WOTC), Fidelity Bonding, Apprenticeship Information, On-Job-Training (OJT), Veteran Programs and Federal Contractor Regulations.

Commitments of each program partner to implement the selected strategies described in the "Action Plan for Improving Service Integration in the Region."

The NEEDR partners have completed in 2019 and early 2020 the State facilitated process of conducting local assessments and developing Action Plans for Service Integration in each of the one-stops and throughout the Region. All partners in each workforce area commit to implement the strategies in the local areas' Action Plans. Major priorities in the Region include communication across partners which includes improving and expanding technological capabilities that can facilitate referrals; joint case management; coordination of services across partners for individuals, cohorts and the entire system; coordinated employer services; and shared performance reporting and management. Because many of the challenges of integrating services across multiple areas and multiple programs cannot truly be solved at the local level, the Region continues to request from the State technological solution(s) that are system-wide, cross-program and customer-centered such as a single system-wide case management system.

The LWIAs identified goals for service integration in their action plans. The following is the compiled list of the goals in order of priority across the Region:

Goal	Focus Goal
Goal 4 Communication occurs across One-Stop partners	20
Goal 3 Cross training provided to staff	14
Goal 8A Services delivered by function: Business Services	12
Goal 1 Customer input used to design and deliver services	9
Goal 2 Job expectations communicated to staff	7
Goal 9 Processes are streamlined and aligned	7
Goal 11 Access to services is timely and coordinated	7
Goal 13 Customer information is shared	7
Goal 12 Partners share an understanding of Career Pathways	5
Goal 5 All staff valued and respected	4
Goal 8 Services delivered by function	4
Goal 15 Board expectations drive One-Stop expectations	4
Goal 7 Staff collaborate on customer assessment	3
Goal 6 Customers provide basic information once	1
Goal 10 Service plans are living documents	1
Goal 14 Current LMI informs services and programs	1

Goal 4 - Communication across partners

- Use technology to share information via social media and websites
- Develop/improve communication vehicles such as newsletters, meetings, calendars, partner meetings
- Improve the partner referral form; finalize the process and share information
- Create work group to review referral system and develop a feedback process
- Create detailed handbook of partners services
- Increase knowledge of Career Pathways using common language across partners

Goal 3: Cross-training provided to staff

- Create work group and set schedule meetings for cross-training
- Create onboarding/cross-training program, supported with training materials
- Establish shared vision for customer service
- Include agency tours with training
- Bus tour of all agencies/services
- Encourage staff contribution for continuous improvement

Goal 8a: Business services

- Expand the current Business Service Team (BST) with a focus on capacity and partner representation
- Develop a script for BST staff to follow up on employer visits/contact protocol
- Track outcomes via Illinois JobLink
- Integrate BST members into Perkins Tech Advisory Committee, Talent Pipeline Management efforts, other business led groups
- Asset mapping
- Identify sector champions to strengthen partnerships and increase engagement with small and medium employers requiring specialized attention
- Increase frequency of BST meetings
- Host coordinated hiring events with all system partners
- Use the LWIB and BST to guide strategic planning
- Obtain information from the community needs assessment
- Create employer list by sector

Goal 1: Use customer input to design and deliver services

- Continue to use/revise/update existing customer satisfaction tools
- Use a universal intake form
- Institute customer navigators
- Automated tracking system
- Form a Job Seeker Service Team of frontline staff
- Create FAQ on partner programs

- Create a One-Stop customer pledge
- Implement focus groups with all partners
- Third party follow-up calls
- Secret shopper visits

Goal 2: Job expectations communicated to staff

- Establish core staff competencies
- Continue/increase frequency of partner meetings for updates, share feedback
- Update staff procedures manual
- Require new staff to attend OSC orientations
- Establish a vision for customer service
- Update partner service quarterly

Goal 9: Processes are streamlined and aligned

- Administer common needs assessments to all customers
- Develop a cross-agency follow-up process
- Create, train on, and implement uniform policies/procedures on referral and follow up, evaluate effectiveness
- Obtain waiver to assessment testing for customers with associate degrees; work with community college to "hold spots" for students with ITA vouchers
- Create a committee to map services and identify opportunity for process streamlining

Goal 11: Access to services is timely and coordinated

- Identify/implement common electronic referral system for partners
- Review referral outcomes monthly
- Increase partner presence at OSC
- Inventory marketing/social media resources and communicate to customers
- Produce workNet Center orientation video
- Improve TANF referral outcomes
- Create master calendar of workshops/sessions throughout county

Goal 13: Customer information is shared

- Create OSC manual of all partner services
- Develop shared database/case management system
- Explore use of Career Connect for electronic referral system
- Select a workNet Center to pilot a shared database
- Hold quarterly BST/employer roundtables
- Review customer satisfaction survey to represent all programs/services
- Hire a career navigator to liaise between partners and customers
- Share Integrated Career Plan for customers during referral

Goal 12: Partners share an understanding of Career Pathways

- Use the CIS information; provide training for all staff
- Develop Career Pathways training for frontline staff
- Host industry representatives to inform staff of career pathways
- Provide info from WIOA regional plan survey and Perkins needs assessments to frontline staff

Goal 5: All staff valued and respected

- Solicit frontline staff input into policy at the State level
- Include frontline staff at center-level workNet Center meetings
- Ensure staff provided with time to discuss customer service, continuous improvement service integration, working relationships at regular staff meetings

Goal 8: Services delivered by function

- Map flow of all customers and services
- Review services by function for each title and identify opportunities for collaboration
- Create Business Services Team and client organizational charts and reevaluate the referral process

Goal 15: Board expectations drive One-Stop expectations

- Conduct anonymous survey of LWIB and partner staff
- Provide WIOA 101 for all staff
- Program Services Team invites LWIB to quarterly meeting
- Evaluate plan for all OSCs

Goal 7: Staff collaborate on customer assessment

- Share assessment information at Partners Meetings
- Develop collaboration tools for jobseekers
- Create matrix of assessments currently in use across partners
- Share workforce data more frequently to build bridges across partners agencies\

Systems Level Coordination

- The Illinois Department of Human Services is a partner in each one-stop center throughout the NEEDR. This includes formal MOU's and informal agreements. In addition, IDHS has agreements with some of the community colleges for TANF Job Placement Programs.
- At Elgin Community College, a new Workforce Development Council has been established (inclusive of an employee from the Kane County Office of Community Reinvestment) to improve collaboration and employer outreach efforts college-wide, co-led by adult education and career-technical education.
- In Will County, OJT service delivery is provided through a contractor who has staff located at the One-Stop center. Youth programming is provided through Joliet Junior College and Joliet Junior College Workforce Development is a partner in the One-Stop System,

provides staff to assist in resource room, provide workshops, and to advise customers on JJC. IDES and Workforce Services Division of Will County coordinate joint job fairs, employer recruitment events and workshops. In addition, the Local Workforce Board and Will County Center for Economic Development are co-located and have a formal cooperative arrangement to do joint marketing, outreach, and communications, sharing of staff/costs, business attraction/retention, coordination of workforce and training support, enhancement of training opportunities and skill enhancement funding, and coordination of talent pipeline development.

- Title I Business Services collaborate with the Workforce Development Department at Waubonsee Community College to identify and address workforce needs, develop services and curriculum to address those needs, as well as to exchange referrals. The DeKalb workNet center partners with Goodwill Industries to co-host a computer literacy class once a month at the center and also on site at Goodwill's facility. Experience Works has maintained an on-site SCSEP employee at the DeKalb workNet center for the past 4 years, providing valuable work experience for the participant and helping the center with its staffing needs. Title I staff also attend monthly workforce development meetings to discuss the needs of Elgin area businesses and residents.

- The Chicago Cook Workforce Partnership is collaborating with the Chicago Housing Authority on the CHA Employment Training and Placement Program, which takes place at all of the Chicago based WorkNet Centers and in the Washington Heights community. This program helps CHA family housing and housing choice voucher recipients join the workforce, increase earnings and advance in the workforce through career readiness training, technology skills training, vocational education, and job placement services.

- Lake County Workforce Development integrated its TABE testing services with the College of Lake County's Adult Education program. Both WIOA partners are co-located in the same building at the Job Center of Lake County and College of Lake County administers the TABE test to all participants.

Key Service Integration Solutions
- Adult education partners with numerous agencies in the cooperative delivery of services. The majority of adult education programs in the Region offer classes at outreach sites located throughout their communities in public schools, churches, municipalities, and other locations. Often, these agreements provide free or low-rent locations in order to expand the local delivery of basic skills education. Some adult education programs offer classes within Illinois workNet locations or unemployment offices, and some affiliate One-Stop locations are located within adult education programs.

- Elgin Community College and Harper College partner with The Chicago Cook Workforce Partnership at the Hanover Park Education and Work Center, offering adult education and workNet services within one location.

- College of DuPage employs a Workforce Development Liaison who is co-located at the One-Stop. She provides career counseling and information on the College's Career and Technical programs. Staff from ABE are also co-located in the Center; they asses and enroll students into the ELA and HSE programs offered at the College. Additionally, DuPage County partners with College of DuPage to administer TABE testing for WIOA clients.

- Oakton Community College serves as a satellite location for The Chicago Cook Workforce

Partnership and is operated by National ABLE network, offering on-site career services and WIOA orientation sessions as a satellite of the One-Stop. They coordinate TABE testing to avoid duplication of services, allowing one test to meet the needs of both agencies.

- Elgin Community College assists with coordinating TABE testing options for Title I participants residing in their district.
- Lake County Workforce Development provides career services to adult education students at multiple College of Lake County sites. In addition, two College of Lake County adult education staff are co-located at the Lake County Job Center to provide direct services to customers needing basic adult education services and workshops. Workforce Development and College of Lake County Adult Ed have partnered to deliver career and employment services directly to the students enrolled in classes – during and after classroom times.
- The Kane County Office of Community Reinvestment sends an employee to ECC one-half day per week to conduct on-site WIOA eligibility screening. South Suburban College partners with IDES and offers on-site adult education classes at this location, which will be expanded soon.
- College of DuPage currently provides adult education and career technical education staffing at their One-Stop and will offer classes on-site in the near future.
- McHenry County College offers ESL classes, which are now offered within the One-Stop center, where the college also supports a part-time employee. In addition, McHenry uses Community Service Block Grant (CSBG) funding to provide training funds for customers that are not WIOA eligible but who meet CSBG guidelines. Through the braiding of these two funding streams the McHenry LWIA can provide coordinated serves and training.
- Kankakee Community College and Joliet Junior College offers on-site adult education classes in both the Kankakee and Grundy Counties workforce services office.

Technological Solutions
- Kankakee is planning to install computers with Skype capability at the Bradley One-Stop extension center to offer face-to-face communication for students/clients rather than a referral.
- Many of the areas are considering methods such as shared spreadsheets for tracking referrals and other activities, though very often these are challenging due to confidentiality needs and data management considerations. As noted elsewhere, areas would welcome statewide solutions wherever possible.

B. Describe how transportation and other supportive services are coordinated within the Region (Sec. 679.510(a)(1)(vi)). Plans must respond to the following questions:

What Regional organizations currently provide or could provide supportive services? What policies and procedures will be established to promote coordination of supportive services delivery?

The NEEDR is fortunate to have an extensive transportation system, including public transit, although, as mentioned above, outside of the core, transit can be a challenge. The Regional

Transportation Authority (RTA) provides more than two million rides each weekday on bus and rail services in Cook, DuPage, Kane, Lake, McHenry, and Will Counties. The Region's transportation system includes the Chicago Transit Authority (CTA), Metra and Pace bus and (ADA) Paratransit Service. The RTA's system covers approximately 3,700 square miles and serves approximately 8.4 million residents. The RTA also provides rider services, including online and telephone travel planning assistance and travel training for seniors and people with disabilities. Public transportation is less available in the lower-density, outlying areas of the Region. The RTA does not cover Kendall, Kankakee, Grundy or DeKalb counties, which have smaller, local bus services and paratransit services. Some of the local areas provide gas cards to clients in training in areas with less public transportation options and some will work with suburban bus lines to provide easy to understand information for job seekers on transportation services. Although there is an extensive transportation system in the Region – there are areas underserved including rural, last miles, off-hours and weekend services, service off main routes and across county lines.

One-Stop clients are referred to entities or organizations that are not available at the One-Stop center for supportive services. Examples include housing, health, transportation, services for individuals with disabilities and financial counseling. Veterans have assistance available to them for transportation needs and expediting referral to housing and medical services. In addition, supportive services are available for IDHS customers receiving TANF and/or SNAP benefits that agree to participate in any approved program with the partners. In some local areas, youth receive incentive payments and gas cards for training and work experience transportation.

Some adult education providers are able to collaborate and deliver childcare services. Many adult education programs have a transitions coordinator to assist underprepared adults with the transition to college. Some colleges offer special services for all students on campus, such as a women's center providing support in the case of emergency. Many colleges provide credit waivers of differing amounts for high school equivalency (HSE) graduates and/or ESL completers, and many have a scholarship fund for high scoring HSE graduates. Foundations on campus are often able to provide various types of support to students, such as funding the cost of the GED test.

Resource guides from IDES are available in all areas to serve individuals with barriers to employment. These resource guides provide a list of supportive services available in the community and are updated regularly. Statewide IDES offices and staff have access to these resource guides. In several areas these are supplemented by content gathered by the other partners. In a number of counties in the region, the 2-1-1 non-emergency telephone line is available. 2-1-1 connects people with essential community information and services. Callers can receive live assistance with needs such as food and shelter, counseling and mental health services, income and employment support, help for the elderly and people with disabilities, and resources for children and families.

C. Describe the coordination of services with Regional economic development services and

> What economic development organizations, WIOA service providers, or businesses are actively engaged in Regional planning?
>
> What economic development organizations, WIOA service providers, or businesses were invited to participate but declined?

Due to the large population and geographic size of the Region, and the smaller scope of many economic development entities at the county level, much of the coordination with economic development services and providers happens at the local level rather than region wide. For example, in many of the local areas, the local economic development department or authority has a seat on the Local Workforce Board and is included in policy making decisions and a range of activities.

- Local Workforce Boards across the Region work with county and municipal economic development offices to address workforce issues associated with companies relocating to the Region. For example, The Partnership works closely with the City of Chicago Department of Planning Development and the Mayor's economic development team. In this capacity, the Partnership has assisted with supporting the expansion of local companies and participated in "pitch" meetings whereby the City, World Business Chicago, and The Partnership have met with companies considering locating to Chicago.

- In DuPage County, Choose DuPage Regional Economic Development Corporation works consistently with the DuPage Business Services Team to identify training needs for businesses. The Workforce Development Core Partner's Business Services Representatives meet quarterly along with a representative from Choose DuPage Regional Economic Development Alliance to coordinate team visits and share information on the businesses in DuPage.

- Lake County Workforce has partnered with the local economic development group, Lake County Partners (LCP), to provide Business Service Outreach. LCP partners with Lake County Workforce Development in meeting with employers as part of the business outreach visit related to expansion, retention and attraction. LCP provides referrals back to Lake County Workforce as appropriate from interactions/conversations. These services include additional partners and stakeholders including the local community college, College of Lake County.

- In Lake County, the Workforce Ecosystem was formed to ensure that local businesses have access to talent, training, and development resources for retention and expansion purposes. The Ecosystem consists of a partnership between Lake County Workforce Development, College of Lake County, Lake County Partners, and Lake County High Schools Technology Campus, local high schools, and the Lake County University Center. A major element of this collaboration is the use of a shared CRM system to manage the business outreach visits and relationships.

- In Will County, the Local Workforce Board conducts joint planning with the Will County Center for Economic Development (CED) and all Local Workforce Board staff are located at the CED. This partnership enhances coordination with economic development and provides

additional services to employers.

- In Cook County, The Chicago Cook Workforce Partnership's CEO is a member of the County's Economic Development Advisory Committee (EDAC). EDAC is the forum where certain tax credit and loan applications are reviewed and approved. Additionally, the Committee also provides advisement on the allocation of Community Development Block Grants, HOME Investment Partnership, Emergency Solutions Grants, and other eligible projects. As part of EDAC, The Partnership connects with the entities receiving these grants to promote the business services of the workforce system. The Partnership provides workforce development advisement on capital planning projects with diversity goals and manages the workforce recruitment activities associated with these projects. The Partnership also engages any of the more than 100 Cook County municipalities around their workforce development needs by supporting their economic development interests and presenting to companies that are expanding and/or considering location within the municipality. The Partnership supports strategy development in the City of Chicago's master planning initiative to accelerate growth in priority growth sectors (Tourism and Hospitality, Transportation, Distribution, and Logistics; Technology, and Healthcare and Life Sciences). These working groups are facilitated by World Business Chicago.
- The Chicago Cook Workforce Partnership participates in various forums created by the Mayor's Office to address underserved communities throughout Chicago at mini town hall meetings and provides support in the planning and implementation of the City of Chicago's resource fairs for residents and for business owners. Recently, the Mayor's Office created Invest South West, a community improvement initiative led by the Department of Planning and Development with collaboration from multiple City departments, community organizations and corporate partners to support development in 10 neighborhoods on Chicago's South and West sides.
- In McHenry County, representatives from the Department of Commerce Economic Development unit and local economic development agencies participate on the business services team. McHenry County partners with economic development groups in the Northern Stateline EDR for grant applications, business outreach activities, and the implementation of a comprehensive economic development strategy.
- Grundy Livingston Kankakee Workforce Board staff are co-located with the Economic Alliance of Kankakee County in order to continue to coordinate economic and workforce development.

At the Regional level, an example of coordination with economic development entities is the Chicago Metro Metal Consortium. The Chicago Metro Metal Consortium is one of 24 'Investing in Manufacturing Communities Partnership' (IMCP) designated by the U.S. Department of Commerce. With leadership from Cook County's Bureau of Economic Development, it is an unprecedented collaboration of more than 70 partners, including the 7 counties of northeastern Illinois and the City of Chicago. Representatives from The Chicago Cook Workforce Partnership and the McHenry County Workforce Board co-chair the workforce development committee.

Additionally, at least one Local Workforce Board Director is a member of the Chicagoland

Metropolitan Agency for Planning's (CMAP) Economic Development Committee and regularly provides input on the Regional planning efforts that CMAP is responsible for.

The NEEDR invited feedback from workforce system partners during this planning process. First, an online survey was distributed and open for 2 weeks to gauge input on the strengths and challenges of the region and how partners are working collectively to support job seeker and business customers. LWIA Directors attended a webinar to solicit feedback and provide detailed information of initiatives taking place in their local areas. Another webinar was hosted with stakeholders from across the workforce system including education, economic development, business service teams, and other partners to gather additional content for the Plan.

D. Describe the coordination of administrative cost arrangements, including the pooling of funds for administrative costs, as appropriate (Sec. 679.510(a)(1)(v))

Local Workforce Boards have engaged the WIOA partners in discussion around costs and are currently negotiating based on their fair share use of the workforce development system. Additionally, partners have identified cost contributions based on available funds and system use. The partners will work together towards continuous system improvements through shared costs, leveraging of resources and a foundation of cooperation.

The NEEDR pools a significant portion of WIOA funds toward collaboration. For more than 15 years, the Workforce Partners of Metropolitan Chicago (formerly Workforce Boards of Metropolitan Chicago) have agreed to pool funds to execute Regional projects identified through strategic planning. Activities include:

- A half day Workforce Board Strategic Planning event
- Customer Service/Cross-Training Series with Core Partners
- Common Customer Tracking System
- Common Customer Relationship Management (CRM) Systems
- Shared Labor Market Information data

The convener of these activities, the Regional Coordinator, is responsible for:
- Convening meeting of WPMC partner staff
- Assisting with the development and management of an annual Regional cost share agreement and budget
- Assisting with the development and execution of activities to support the strategic Regional plan
- Assisting in fostering Regional partnerships with stakeholder and employers to support Regional workforce development and economic development initiatives
- Planning and convening events designed to advance Regional initiatives, address capacity building needs of One-Stop system staff, and actively engage workforce development stakeholders and employers
- Facilitating ongoing communication among WPMC

- Performing tasks that support Regional communication strategies
- Maximizing the Region's benefit from each of the local workforce area's initiatives by fostering the sharing of information
- Managing procurement processes related to Regional initiatives, in accordance with applicable competitive and small purchase procurement requirements
- Preparing progress reports and materials on Regional initiatives
- Adapting Regional reports and project deliverables for use at the local level

The local Title I staff will negotiate with partners to include Regional Planning costs in the MOU. The MOU, which is to include administrative cost sharing arrangements among the partners, is still pending. The MOU under WIOA will be finalized July 1, 2020.

CHAPTER 3: VISION, GOALS, & IMPLEMENTATION STRATEGIES

A. Describe the local strategic vision to support state and Regional economic growth (Sec. 679.560(a)(5)). Describe how this aligns with the State of Illinois' vision and principles.

The Northeast Economic Development Region WIOA partners will work collaboratively to deliver a workforce development system that provides opportunities for career growth for the Region's jobseekers and workers as well as ensures a skilled workforce to meet the needs of businesses.

The Region's workforce development system will be responsive to changes in the economy, including changes in dominant industry sectors, as well as changes in the skills and education needed for jobs. The workforce development system will assist the Region's workers and job-seekers to advance along career pathways and will effectively collaborate with educators and economic development agencies to provide an aligned system for the Region's stakeholders. Specifically, the One-Stop delivery system shall provide a true "One-Stop" experience, at which any employer, worker or job seeker can access the programs and resources they need, whether in-person or electronically.

Finally, the workforce system will utilize ongoing evaluations to assess programmatic success, providing for continuous system improvement.

B. Describe the local goals for preparing an educated and skilled workforce (including youth and individuals with barriers to employment) and goals relating to the performance accountability measures based on performance indicators (Sec. 677.155(a)(1)).

Local goals include:
- Improved and expanded Regional sector partnerships, which increase the focus on critical in- demand occupations in key sectors
- Expanded career pathway opportunities, including work-based training models and integrated programs of study, that lead to industry-recognized credentials and improved employment and earnings
- Expanded workforce opportunities for populations facing multiple barriers to career advancement through improved career services, career pathway programs and expansion of bridge programs.

At this time there has been no direction from the Illinois Department of Commerce on Regional performance levels for all four core partners.

C. Provide a description of the Regional and local strategies that will achieve the vision and principles. This must include a description of the strategies and services that will be used in the local areas:

To facilitate engagement of employers in the workforce development programs, including small employers and employers in in-demand industry sectors and occupations

To support a local workforce development system that meets the needs of businesses in the local area

To better coordinate workforce development programs and economic development

To strengthen linkages between the One-Stop delivery system and unemployment insurance programs

To promote entrepreneurial skills training and microenterprise services

To implement initiatives such as incumbent workforce training programs, OJT programs, customized training programs, industry and sector strategies, career pathways initiatives, utilization of effective business intermediaries, and other business services and strategies to meet employers needs

NEEDR is committed to collaborate across partners and services to develop strategies to address the skills gaps across the Region, through the WorkNet Centers and led by the core partners. The partners will engage in a Regional planning process that explores career pathways, bridge programs, further development of ICAPPs, and WorkNet Centers tracking unemployed and underemployed individuals that lack a high school diploma, basic skills deficient, and post-secondary credentials. The NEEDR will develop additional strategies on how identified individuals will have access to the services and employment and training activities including providing access through the WorkNet Center, job readiness training integrated into classrooms, and working with training and service providers around stackable credentials.

The vision and principles of the NEEDR will be implemented through the following policy strategies that together are necessary to reach the NEEDR plan goals. The NEEDR has incorporated the following strategies, including several that align directly with strategies from the Illinois Unified State Plan and solutions addressing the bullets above within multiple strategies as well as specific strategies as appropriate.

Strategy 1: Strengthen relationships with local industry and enhance the ability to meet the needs of businesses

The NEEDR has been working to increase partnerships with businesses to better serve their needs through cooperative strategies with partners. For example, Will County developed a Business Service Team that identified the key employer services provided by the following entities: Joliet Junior College Career Services, Joliet Junior College Workforce Development, Joliet Junior College Corporate and Community Education, Illinois Department of Employment Security, Employer and Employment Services, Workforce Services Division of Will County, Will County Center for Economic Development, and the Workforce Board of Will County. Two immediate projects are underway: the first is the identification and implementation of a Customer Relationship Management system to share employer connections and activities. The second is the development of a web-based information system to provide employers with an avenue to connect with the appropriate entity for specific employer services.

Lake County Workforce Development is also expanding and enhancing business services. As part of the work developing their local plan, workforce development staff have had opportunities to engage employers in surveys and focus groups to solicit new input into programming. Lake County Workforce Development also will review training programs and classes with employers to verify the relevancy of training programs to the skills needed in the

workplace. Lake County Workforce Development is also developing solutions around the hiring needs of employers with a greater focus on the hard-to-fill jobs and positions that struggle with retention, as well as working with staffing firms and growing internship programs. In addition, Lake County Workforce Development is utilizing an on-the-job training strategy to assist small businesses that want to help employees move up the career ladder and create opening in entry-level positions.

In Kane, Kendall and DeKalb Counties, the Business Services Team has established contacts with small businesses that have participated or expressed interest in the on-the-job training and incumbent worker programs. Partnerships have also been established with the Aurora Regional Chamber of Commerce and the Elgin Development Group. Kane, Kendall and DeKalb counties are expanding the business services team to include two additional Business Service Representatives to strengthen the outreach to local businesses and to form mutually beneficial partnerships with employers. Existing relationships with the business centers at the Elgin, Kishwaukee, and Waubonsee Community Colleges will also be vital to maintaining open channels of communication with employers across all three counties in the local area. Kane County is currently developing web content to market and promote services to businesses on its website.

DuPage County continues to enhance and refine its business services offerings, with a renewed focus on work-based learning. New business services representatives were added in order to grow and strengthen relationships with employers, to learn of their workforce challenges and needs, and to provide them with a talent pipeline, especially for sectors experiencing a shortage of talent. A county-wide Business Services Team has been assembled to coordinate and synergize outreach to businesses. The team includes representatives from DuPage County Workforce Development Division, Illinois Department of Commerce, Choose DuPage (Economic Development), College of DuPage Business Solutions, and College of DuPage Center for Entrepreneurship. In addition to expanded outreach, the team conducts information sessions at which businesses can learn of the grants, tax credits, and other services available to help them become more competitive. The team is conducting a campaign to recruit additional business leaders to the DuPage Workforce Board in order to capitalize on the industry expertise that they would bring to the Board and that would inform and guide local workforce development initiatives.

In order to coordinate business services as a Region, LWIAs in the NEEDR will explore ways to market Regional on-the-job training and incumbent worker opportunities to employers with multiple locations throughout the metro Region through coordinated efforts across local areas. The NEEDR is working to coordinate with IDES to provide system-wide services to employers and leverage employer relationships across funding streams. Local Business service team members held a Regional meeting to discuss best practices and Regional collaboration.

The Region's local boards are working to increase coordination around layoff events. Rapid response teams from each area will share their layoff events with others and encourage local employers to attend layoff event that might be outside of their county or city to recruit valuable

workers from another location. The Region is working toward a Regional strategy that will include monthly communications that will approach layoffs from a Regional perspective.

The Workforce Partners of Metro Chicago have convened the Regional Integrated Business Services Team. The Regional BST meets regularly to discussion how each of the local areas have their business services structured and how different job functions are managed and delivered in each area. Incumbent worker training, on-the-job training projects, internships, adult work experience, files and monitoring, Rapid Response, and business services strategies are discussed, and promising practices are shared. The Regional BST provides an opportunity for building relationships among business service teams across the Region, exchanging ideas, and sharing job openings and company closures. For example, a large mail sorting company that recently moved into DuPage and contacted workNet DuPage's Business Services team for guidance on how to source candidates for roughly 30 openings. workNet DuPage shared the job information with counterparts within a reasonable commuting distance of those areas and connected the company to partners serving disabled and veteran job seekers. The Regional Integrated Business Services Team has made a commitment to meet six times a year and rotate meeting locations throughout the Region.

Engagement of Small Business and Promotion of entrepreneurial skills training and microenterprise services

The NEEDR and the local areas continue to target small business as well as larger employers, in recognition that small businesses employ nearly half of workers, including 48.3% working for firms with under 500 workers (the Federal threshold for "small business"), and 18% working for "very" small businesses employing fewer than 20 workers.[8]

Local WDB's coordinate with their Chambers of Commerce and Small Business Development Centers on entrepreneurship and a range of activities for small businesses and entrepreneurs, including hosting informational and networking events and workshops for small businesses. The region will explore offering workshops electronically and with coordination of other Regional partners. This work is often conducted in conjunction with the DCEO RED team. Local WDB's will engage SCORE (Service Corps of Retired Executives) to explore promoting entrepreneurial skills and microenterprises in the NEEDR.

Strategy 2: Support employer-driven Regional sector initiatives
The NEEDR will gather information on promising practices throughout the Region and leverage these practices to support high-quality, customized, Regional and local initiatives in all of the targeted industry sectors. The many sector initiatives listed above in Chapter 1, Section B, provide further detail about how this strategy is being implemented in the Region and provide a sample of the type of initiatives that will be pursued in the coming years.

Strategy 3: Provide economic advancement for all populations through career pathways and

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[8] JPMorganChase, Institute: Small Business Data Dashboard,
https://www.jpmorganchase.com/corporate/institute/small-business-economic.htm (retrieved January 26, 2020

a strong focus on work-based learning activities

The NEEDR pursues a number of strategies focused on supporting economic advancement for all populations, with a specific focus on supporting entry into the workforce and movement along career pathways for our targeted populations as outlined above. The Region will pursue customized programs and work to build career pathways as outlined in Chapter 2, Section A, for populations including:

- Low-skilled adults
- Individuals with disabilities
- Returning Citizens (formerly incarcerated individuals)
- Out of School Youth
- Veterans
- English Language Learners
- Homeless individuals
- Older individuals
- Long-term unemployed individuals

A number of projects are being pursued Region-wide. In all cases, the WPMC will work to disseminate information about the project and support peer-to-peer learning so when an initiative is successful in one Region it can be replicated or adapted to succeed in another Region.

As outlined in Chapter 1, Section A.3, the Region worked to develop and implement industry guides and manuals, industry and occupational focused PowerPoint templates, industry sector information sheets, and demand occupation information sheets. The guides and manuals incorporate career pathway materials and information to help individuals, workforce career counseling staff, other staff and business customers in developing pathway-focused training and worker preparation activities.

Work-based learning activities are outlined specifically in Chapter 3, Section D, immediately below. The Region is strongly focused on delivering a broad array of work-based training initiatives in conjunction with Regional and local businesses.

The Accelerating Opportunity initiative helped Illinois implement ICAPS, The Integrated Career and Academic Preparation System, which moves Adult Basic Education from a system focusing on attainment of the GED or equivalency to one that transitions students to post-secondary education credentialed programs. ICAPS is a partnership between Adult Education and Career & Technical Education. It integrates technical training and basic skills education in a team taught environment, leading to industry-recognized credentials and opportunities to continue on a career pathway. The NEEDR WIOA partners will work to support expansion of ICAPS. Additionally, the WIOA partners will work within the local areas to develop or expand work experience, internship, and employment opportunities for adults and youth, including those with barriers to employment. In general, many of the local areas have been moving away from individualized training accounts toward on-the-job training and work-based learning and/or blending on-the-job training and internships with ITAs and will continue this trend under WIOA.

In Lake County, the Lake County Workforce Development Board is working to expand the current on-the-job training program, which will be used to move employees up the career ladder. The idea is to create openings in entry-level positions and work with employers to fill those openings. The Region will also work to coordinate incumbent worker trainings across counties so that employers interested in particular trainings can take advantage of nearby trainings in another local area.

The Region is working with IMEC, the local Manufacturing Extension Partnership (MEP) on a significant project to move students onto career pathways in manufacturing including the region's Apprenticeship Expansion grant in which IMEC serves as the regional Navigator. And as outlined in more detail below in Chapter 3, Section D, the Region is implementing a wide range of Apprenticeship initiatives both region-wide and in individual areas that support moving a diverse population through career pathways using the apprenticeship model.

The Universal Technical Institute in Lisle (DuPage County) hosted a Ford Motor Service Tech Training, which 35 students from Ford dealerships across the 10-county Region participated in 15 weeks of training. This is duly noted because it was the first incumbent worker training project the WPMC worked together to develop and fund. And in Chicagoland, the Medical Assistant Pathway Program (MAPP) offers a unique opportunity for current full-time healthcare employees to complete a Medical Assistant (MA) certification program at Malcom X College on Chicago's West Side over the span of 18 months. Members of the cohort will participate in a 160-hour externship to provide additional training and experience.

Strategy 4: Expand service integration
This strategy integrates and enhances the career services now received through education and workforce funding streams and programs especially for populations facing multiple barriers to employment. The Region will implement state policies on how to integrate the delivery of enhanced career services resulting in individualized plans and coordination of case management services based on these plans. The Region will use career services and case management guides and training provided by the state and follow the direction of the state to implement integrated case management systems across applicable core programs that allow data sharing between multiple service providers and programs.

The NEEDR will work with partners throughout the Region to participate in the IWIB Integrated Service Delivery Team and begin to coordinate and implement strategies that have reported measurable outcomes.

The NEEDR has a history of successfully conducting referrals among counties, especially for customers who are located near the county border. Rapid response activities have required the LWIAs to work collectively as one Region to serve those affected. The LWIAs are committed to serving customers across the Region in a seamless manner and have developed the awareness of who to contact in neighboring counties for referrals. A common Customer Relationship Management (CRM) tool has been proposed across the NEEDR, however costs and security concerns have delayed those activities.

The NEEDR and the NIWC have partnered to provide career guidance and career skill classes to the Illinois Workforce Partnership (IWP). The NWIC has expanded its in-district tuition models for WIOA customers receiving tuition vouchers. This integrated model streamlines the class selection and enrollment process for WIOA customers and reduces the administrative burden for the local areas and community colleges within the Region.

As part of overall service integration across the Region, priority activities will include:

- Regional Business Service Team – Building on the work done already by the Regional Business Team and the Region's wider Service Integration goals, the Region will continue to develop the Regional BST through activities both in terms of breadth (inclusion of more partners) and depth (more integrated activities). The Region has piloted several innovative activities that will be continued and expanded in coming years. The Regional BST has worked together on numerous rapid response activities as well as demand-side projects where a Regional employer has a major hiring need that demands the efforts of the entire Region to identify, prepare and refer large numbers of workers to fill a critical need.
- Front-Line Staff: Career Planner/Career Coach development and training: The Region is working to build on the BST model to more formally bring together Career Planners to share best practices, identify innovative ways to encourage and support partner integration, and to conduct cross training and program information/resources across all programs provided in the One-Stop Centers. This will be conducted through regular round-tables and other information-sharing methods.
- One-Stop Operator Development and Training – Similarly, we have begun to bring together the One-Stop Operators from all seven LWIAs to give them a larger context for the work they do and provide them with an avenue to share information and receive exposure to Regional activities.
- Northeastern Illinois Workforce Coalition (NIWC) – Seven Local Workforce Development Areas and twelve community colleges in Northeast Illinois have long partnered to provide career guidance and career skills classes to its customers. They have collaborated on special grants, such as the Health Professions Opportunity Grant (HPOG), and the Accelerated Training for Illinois Manufacturing (ATIM). These training grants and the community colleges agreed to in-district tuition for the WIOA grant-supported students. NIWC has continued to expand this in-district tuition model for WIOA customers receiving tuition vouchers.

As noted elsewhere in the Plan and immediately below, the Region would benefit from a common customer relationship management (CRM) system to better support the work of service integration system-wide.

Coordination with Wagner-Peyser and Unemployment Insurance programs is described below in Strategy 7.

Strategy 5: Promote improved data driven decision making

The Northeast Economic Development Region seeks to more aggressively use data (workforce intelligence) from a range of sources and at the qualitative and quantitative levels to better drive decision-making and support the state and Regional commitment to workforce development and job creation.

The Region will work to better capture labor market information that will allow employers and job-seekers to promote and access job openings, review changing labor market trends and opportunities, identify funding opportunities and find education, training and support services.

This strategy supports employers by establishing and managing Regional sector partnerships using talent pipeline management tools and resources. The region will provide easier access to career guidance and planning information for the delivery of enhanced career services, including information on career pathways within critical sectors of in-demand industries. It also will provide better information to employers on how to promote career opportunities and job openings and access business services, education, training resources and services.

All LWIAs in the Region have access to and purchase a variety of privately developed labor market information systems. These include: EMSI, Chmura (JobsEQ), Help Wanted online, and Burning Glass among others. The utilization of a combination of secondary data and real-time data for both employers and job-seekers has ensured a much richer perspective on the labor market, labor force needs, and future skill requirements.

The Region regularly collects and publishes key workforce intelligence by sector and posts it on the Regional website. Data mirrors the types of data that were gathered in preparation for this Plan development and included in Chapter 1 and is updated quarterly. More extensive detailed data is gathered and shared among the Regional Business Services Team and used by the LWIAs in identifying new initiatives, re-focusing the targeting of industries and in-demand occupations, and making other data-informed decisions. Data is shared with economic development partners and those entities also share their data with the local areas and the WPMC.

By sharing and expanding access to workforce intelligence of various types and levels, the NEEDR was able several years ago to successfully identify the TDL sector as a critically in-demand sector and request grant funds that supported career pathways in the industry. These career pathways have placed an emphasis on incumbent worker training, upskilling the talent in TDL.

The NEEDR will look at promising practices from among the partners throughout the Region on how to use and expand access to workforce intelligence. The Workforce Partners of Metro Chicago received a grant to develop robust tools and user-friendly information about Regional key industry sectors and local high demand occupations. The tools bring together key, most up to date labor market data to assist job seekers in being better informed in making employment choices, career decisions, and researching training opportunities.

As noted elsewhere in the Plan, the Region would benefit from a common customer

relationship management (CRM) system as noted in the section immediately below. for both job-seeker and business customer case management, across all partners. Some local areas have their own systems using proprietary or off-the-shelf systems (Salesforce, others), but all seek a more comprehensive solution across partners and hope for such a solution at the state level.

Strategy 6: Increase coordination between workforce development and economic development

Each of the Region's local areas will work closely with their respective economic development organizations, as outlined above in Chapter 2, Section C, in a variety of activities. The region will in particular work with economic development to identify the value add of specific employer driven programs, such as on-the-job training and incumbent worker training. The local WDBs will work to create expanded relationships with Chambers of Commerce on a range of activities around partnering with businesses, supporting employment at firms moving into the Region or expanding, and growing small businesses as noted above.

Workforce development business service teams have sponsored round tables with economic development partners and the Region plans to expand this practice to include additional core partners and to span across local areas. For example, in Lake County the public/private economic development organization, Lake County Partners, and the Lake County Workforce Development Board engage in formal quarterly meetings and other communication with the economic development departments in each municipality and local chambers of commerce to share information about new and growing businesses, technology incubators, and small business start-ups.

The NEEDR will gather information on promising practices of collaboration with economic development entities throughout the Region, including many efforts referenced in Chapter 2, Section C, above, and leverage these practices.

Strategy 7: Strengthen linkages between the One-Stop delivery system and unemployment programs

Wagner-Peyser staff are co-located in the One-Stop centers providing employment services to all job seekers. Title I and Wagner-Peyser (Title III) staff work together on joint business service committees, coordinating outreach to businesses at the policy level as well as participating together on individual business service teams and the regional BST. Efforts to further coordinate business services will be expanded. The NEEDR will work with partners to implement strategies and practices noted by the IWIB Integrated Business Services Team.

The Illinois Department of Employment Security (IDES) has integrated the UI system's Reemployment Services and Eligibility Assessment (RESEA) initiative into the One-Stops in the region. The RESEA program provides access to reemployment services through formula-based funding and a series of requirements intended to increase the use and availability of evidence-based reemployment interventions and strategies. The permanent RESEA program has four purposes:

1. Reduce UI duration through improved employment outcomes;

2. Strengthen UI program integrity;
3. Promote alignment with the vision of WIOA; and
4. Establish RESEA as an entry point to other workforce system partners.

Through the RESEA profiling process, UI claimants most likely to exhaust benefits are targeted and required to receive assistance with their reemployment efforts. IDES RESEA Workshops which are delivered at the start of services to each RESEA participant include Workforce Services-Title 1B staff presenting the WIOA Application and program eligibility information and orientations to other partner programs and services. Completing a WIOA Application is part of the RESEA Workshops in the region.

> **D. Describe Regional strategies that will increase apprenticeship and other work-based learning opportunities.**

Apprenticeship

As noted above, WPMC received a grant from the Illinois Department of Commerce and Economic Opportunity (DCEO) to hire and support Regional Apprenticeship Navigators. Working primarily in the Healthcare, Manufacturing, and Transportation, Distribution and Logistics sectors (and the technology occupations within all these sectors), the Navigators are working with local business service teams or resource teams to identify employers interested in establishing or expanding apprenticeship programs, including pre-apprenticeship and youth apprenticeship programs.

The Illinois Community College board (ICCB) received a USDOL grant to expand apprenticeship programs in IT, a project active in the region. A number of other competitive Apprenticeship grants have been secured by Regional partners that continue to expand access to apprenticeship and expand the scope and diversity of industries in which apprenticeship is delivered. Apprenticeship projects in the area include multiple DCEO Apprenticeship Intermediary grants and the Chicago Cook Workforce Partnership's ConstructionWorks project in conjunction with the Illinois Tollway.

Other Work-Based Learning

The Region's broad array of work-based learning activities are referenced above. All are built in close conjunction with employers and industry organizations and as partnerships between WIOA Title I and local community colleges and in particular their CTE programs. Some examples include:

- The Nicor Gas Career Academy is a six-week job-readiness program designed to prepare participants for entry-level work in the utility industry with a focus on natural gas.
- The WEL (Work, Earn, and Learn) Program delivered by Lake County Workforce Development provides an opportunity to complete a curriculum-based work experience with a local employer. The participants learn new skills from industry professionals. The work experience provides the opportunity for participants to earn industry-based credentials during or after the work experience. The purpose of the WEL Program is to improve an employer's strategy for hiring a skilled workforce and create a talent

pipeline into hard-to-fill positions. Some of the most recent WEL programs include Transportation (Flagger, CDL, Forklift Operator, OSHA, CPR, and First Aid), Diesel Mechanics, Warehouse Management, and Graphic Design.

- Edward-Elmhurst Health and Northwestern Medicine, who sit on the DuPage WIB, have discussed critical hiring needs and identified Medical Assistant (MA) and Patient Care Technicians (PCT) as most in-demand positions. Together with the Board, a Healthcare Talent Pipeline was developed to steer clients from the local workforce system towards these occupations. Edward-Elmhurst Health utilized Incumbent Worker Training funds to further upskill current employees.

- DuPage County partnered with the College of DuPage to provide CNA training to existing Edward Elmhurst employees to address the shortage of patient care technicians (PCT) across the region. The County utilized IWT dollars to fund the training.

E. Describe initiatives to shorten the time from credential to employment and address how the area will work with the education system to begin putting training opportunities in place to meet this strategy.

Education Partners realize the value and significance of shortening the time from credential to employment. A range of activities are in place region-wide. All work-based learning activities (OJT, pre-apprenticeship, apprenticeship, and incumbent worker training) are geared toward moving workers into employment more quickly and effectively.

The Regional and Local Business Service teams, which include the community colleges, listen to employer needs and work to better understand employer training needs. Insights from these dialogues is shared to the local high schools in order to identify CTE and other programs focusing on short-term credentials that be built into dual-credit programs.

Community colleges across the Region have partnered with high schools to offer dual credit programs, which help students quickly complete their degree and enter the workforce, while saving money along the way. The community colleges in the Region are also working with four-year universities to ensure credits are recognized and accepted.

Community colleges are exploring a range of non-credit programs in conjunction with businesses, which often facilitate industry-recognized credentials more quickly than traditional course timelines, especially when these are interim credentials that would normally be part of a longer college course or program. Workers retain the value from these interim steps in themselves and should more easily be able to later take additional credentials that can be stacked toward college degrees.

McHenry County College, for instance, offers Fast Track, a program for students to earn professional certificate and degrees in 8-week sessions or shorter. MCC incorporates apprenticeships, internships, or other work experience into the student experience to support the learning and demonstration of employability skills.

F. Describe the steps that will be taken to support the state's efforts to align and integrate education, workforce, and economic development, including:

> Fostering the improvement and expansion of employer-driven Regional sector partnerships to increase the focus on critical in-demand occupations in key sectors Expanding career pathway opportunities through more accelerated and work-based training and align and integrate programs of study leading to industry-recognized credentials and improved employment and earnings.
>
> Expanding information for employers and jobseekers to access services by improving the Illinois public-private data infrastructure to support the alignment and integration of economic development, workforce development, and education initiatives for supporting sector partnerships and career pathways.

Sector Partnerships

As detailed in Chapter 1, LWIAs in the NEEDR have worked in recent years to expand its sector initiatives, including several sector centers in Chicago as well as sector partnerships throughout the Region and sector-based career pathway programs at the community colleges.

Regional initiatives will be guided by the development of a statewide policy framework that defines the goals and guiding principles of employer-driven partnerships and how state and Regional resources can be used to launch, expand and support them. The state has developed a statewide guide for business and industry associations to work with education, workforce and economic development in establishing and managing these partnerships to achieve and promote economic growth and economic advancement. This Region will work to align and integrate business services among the core programs along with Regional economic development partners. The Region will explore how to integrate funding and resources from core programs and economic development to support employer-driven sector initiatives, including leveraging rapid response and layoff aversion for business retention. Additionally, the NEEDR will work to share demand occupation information and develop common marketing and outreach materials around key industry sectors and demand occupations.

The Region will continue to promote opportunities that lead to career and economic advancement in critical and in-demand industries.

- As described above, the Region will support expansion of ICAPS programs.
- The Region is also interested in replicating the ATIM program in other parts of the NEEDR and in other sectors.
- Local partners are working to offer new career pathway programs. For example, the College of Lake County (CLC) is developing a career pathway that will be initially focusing on attainment of the CNA credential. The Adult Education Division of CLC has been working to gain approval of this program. CLC is also exploring accelerated training in IT which would include short-term, certificate based training based on employer needs and address the dislocated worker skill gap.

Another new work-based career pathway program is underway at Harper College. Harper College received a $2.5 million grant to support Apprenticeships on Demand, a new initiative that aims to integrate technical instruction and on-the-job learning to train workers in high-growth and high- demand fields including insurance, IT and manufacturing. The U.S. Department of Labor awarded a total of $175 million to 46 applicants through its American Apprenticeship grant competition, the single largest investment to date to expand U.S. apprenticeships.

- Especially innovative is the partnership between Harper and Zurich, which recently teamed to launch a first-of-its-kind apprenticeship program for the insurance industry. The program, which will foster the next generation of underwriters and claims professionals, will emulate the longtime successful dual education model in Switzerland. The first cohort began in January 2016. All apprentices are hired by Zurich into entry-level positions. They attend classes at Harper two days a week pursuing an Applied Associate of Science degree in Business Administration, with a concentration in Insurance. The course pathway includes several industry-recognized credentials. Tuition and fees are paid by Zurich. Zurich also provides incremental increases in pay to the apprentices as they progress through the program. Harper College and Zurich worked collaboratively to design the curriculum pathway for this program.
- Additionally, the College will offer apprenticeships in manufacturing, including Industrial Maintenance Technician, Computer Numeric Control Operator and Supply Chain Assistant. Apprentices are paid employees who pursue formal coursework at Harper College focused on the Applied Associate of Science degree in Manufacturing. Apprentices follow the traditional earn and learn model where they apply the concepts learned in the classroom to on-the-job experiences. The course pathway includes several industry recognized credentials. Tuition and fees are paid by the employer and apprentices receive pay increases regularly, as they progress through the program. Employers provide input into curriculum design.

Career Pathways

As described above, the Region has been expanding career pathway offerings throughout the workforce development system through the ICAPS program. ICAPS includes comprehensive academic and social student supports (e.g., tutoring, childcare, transportation, access to public benefits, subsidized jobs), making the program ideal for many populations with barriers to employment. In the NEEDR, ICAPS is offered at City Colleges of Chicago, Prairie State College, McHenry County College, Elgin Community College, College of DuPage, College of Lake County, Joliet Junior College, Waubonsee Community College, Kishwaukee College, South Suburban Community College and Harper College. Efforts are underway to develop and expand other career pathway initiatives in the Region to serve populations with barriers. For example, McHenry County is coordinating with Vocational Rehab for an on-the-job training and evaluation program for people with disabilities and is also working on plans to coordinate career pathways and career service delivery with McHenry Community College.

The Region's providers will advocate that the ICAPS model be expanded to include non-credit

programs, which are currently not allowable under the model. Improved coordination between core partners through the MOU negotiation process, co-location of services within One-Stops, and adult education's involvement on the Local Workforce Boards should make referral into these programs a reality. Additionally, local programs will explore ways to better leverage TANF, SNAP, CSBG and CGBG for support services for participants facing multiple barriers.

Bridge Programs

Bridge programs prepare adults with limited academic or limited English skills to enter and succeed in post-secondary education and training that leads to career path employment in skilled jobs. While there is not a dedicated federal or state level source for bridge funding, the Illinois Community College Board and Commerce have expanded and continue to expand these programs within their existing workforce and education programs. The Illinois Community College Board recently released their RFP for adult education. The RFP puts focus on coordination under WIOA, bridge programs, and accelerated learning strategies for lower-skilled adults and ESL learners.

The Career Foundations curriculum is a tool to educate low-skilled adults on career pathways and support transitions to sector-focused bridge programs and post-secondary education and training at community colleges or community-based providers. The curriculum exposes students and job seekers to local career pathways programming options, assists with creating a plan to transition to advance to post-secondary education or training, and encourages job seekers to not only focus on the immediate job, but plan for how they could advance along a career pathway. Currently, Career Foundations is being implemented across the seven City Colleges of Chicago within the Adult Education department. Additionally, there are a number of community-based adult education and workforce providers (including WIOA Affiliate sites) in LWIA 7 are implementing the curriculum within their workforce or adult education programs.

Expanding information for employers and jobseekers to access services by improving public-private data infrastructure.

Local areas and the Region will work to implement any state-led initiatives to improve the public- private data infrastructure. Given the diversity of data systems between partners in the system, it will be necessary to have leadership from the state to allow for comprehensive integration.

The State of Illinois currently provides multiple platforms for clients to access services through technology.

- Illinois workNet, managed by the Department of Commerce and Economic Opportunity (DCEO), is a client-facing website that includes listings of all WIOA Title I providers including approved ITA training providers and programs. The site also includes links to the websites of all the other state agencies that provide services under the other WIOA titles.
- Illinois JobLink, managed by the Department of Employment Security (DES), serves as the state's labor exchange site. Employers post job openings search candidates.

Jobseekers post resumes and search for and apply to the posted jobs. Unemployment Insurance recipients are required to post a resume on JobLink to maintain their benefits. JobLink also includes links to the websites of the other WIOA titles and partners.

- The Department of Human Services' (DHS) website includes an on-line web referral for Title IV Rehabilitation Services. The simple form feeds directly into the Rehabilitation Service's case management data system and is assigned to an RS case manager based on zip code.

A variety of agencies provide workforce services to regional residents, using a variety of public and private funding sources, including those listed above but also others led by other state and local partners. Agencies use multiple data systems and spreadsheets to track participants and outcomes for each program. As a result, neither service providers nor funders have a holistic view of the workforce system's impact. To address this issue, The Partnership created Career Connect, an integrated workforce information system for the Chicago/Cook area. Career Connect has served as the front-end data system for the area's workforce service providers to track job seeker clients across programs and funding streams.

Career Connect includes both business service and case management functions. Career Connect allows The Partnership and its network of workforce service providers to conduct WIOA Title I eligibility, case management, and performance management; track participation and outcomes in non-WIOA grants, including tracking co-enrollment in WIOA; create an individualized employment plan for each job seeker customer; post job orders on behalf of employer clients; rack services provided to employers; easily pull reports to track job seeker and employer status and outcomes

All WIOA data entered in Career Connect transfers to the State's Illinois Workforce Development System (IWDS) where it is compiled for WIOA Title I federal reporting and performance management.

In March 2018, the Chicago Citywide Literacy Coalition (CCLC) launched a Career Pathway Navigator initiative. The navigator is housed at the Near West Side WorkNet Center and connects clients with WIOA Title I and Title II services offered by 13 agencies in Chicago's Pilsen neighborhood. In summer 2019, CCLC began using Career Connect to track client referrals across the 13 partners. With minimal data entry partners can refer clients to services at any one of the 13 agencies and track the status and outcomes of those referrals. CCLC plans to expand the Navigator model to two other WorkNet Centers in the next year, and the other sites will also use Career Connect to track referrals.

In 2020, The Partnership plans to pilot a similar referral process at one or two of its WorkNet Centers to track referrals across the WIOA mandated and required partners. Due to the lack of a unified state data system, WorkNet Centers primarily use paper forms to refer clients to partner services, making it difficult to track referral outcomes. Career Connect will provide a tracking and follow-up tool for both the agency making the referral and the agency accepting

the referred customer. All participating agencies will be able to run real-time reports on the status of referrals.

The Partnership is working with the City of Chicago to create an online resource to connect people with disabilities to workforce services and other resources. The site will also help employers understand and meet accommodation requirements.

MANUFACTURING
INDUSTRIES FOR PRINCIPAL OCCUPATIONS IN THE NORTHEAST REGION

NAICS	Description	Pathway	SOC Code	SOC Title	Average Annual Job Openings	Annual Occupation Openings in Industry	2022 Percent of Occupation that is in this Industry	2022 Percent of Employment in this Industry that is in this Occupation
311	Food Manufacturing	Manufacturing Production Process Development	11Y3051	Industrial Production Managers**	93	6	6 6	0 8
312	Beverage and Tobacco Product Manufacturing					1	1	0 9
313	Textile Mills					1	0 6	1 2
321	Wood Product Manufacturing					2	1 9	0 8
322	Paper Manufacturing					2	2 6	1 3
323	Printing and Related Support Activities					2	2 5	1
324	Petroleum and Coal Products Manufacturing					1	0 8	1 2
325	Chemical Manufacturing					7	7 1	1 6
326	Plastics and Rubber Products Manufacturing					4	4 5	1 3
327	Nonmetallic Mineral Product Manufacturing					3	2 9	1 2
331	Primary Metal Manufacturing					3	2 8	1 3
332	Fabricated Metal Product Manufacturing					10	1 1	1 2
333	Machinery Manufacturing					6	6 8	1 1
334	Computer and Electronic Product Manufacturing					5	5 7	1
335	Electrical Equipment, Appliance, and Component Manufacturing					2	2 1	1 1
336	Transportation Equipment Manufacturing					8	8 9	1
337	Furniture and Related Product Manufacturing					2	1 9	0 9
339	Miscellaneous Manufacturing					3	3 1	1
311	Food Manufacturing	Logistics & Inventory Control	11Y3071	Transportation, Storage & Distribution Managers**	120	3	2 3	0 2
312	Beverage and Tobacco Product Manufacturing					1	0 6	0 3
322	Paper Manufacturing					1	0 6	0 2
325	Chemical Manufacturing					2	1 4	0 2
326	Plastics and Rubber Products Manufacturing					1	0 9	0 2
333	Machinery Manufacturing					1	0 5	0 1
334	Computer and Electronic Product Manufacturing					1	0 6	0 1
336	Transportation Equipment Manufacturing					1	0 9	0 1
324	Petroleum and Coal Products Manufacturing	Manufacturing Production Process Development	11Y9041	Engineering Managers**	151	1	0 4	0 8
325	Chemical Manufacturing					3	1 8	0 5
326	Plastics and Rubber Products Manufacturing					1	0 8	0 3
327	Nonmetallic Mineral Product Manufacturing					1	0 4	0 2
331	Primary Metal Manufacturing					1	0 4	0 2
332	Fabricated Metal Product Manufacturing					3	2 1	0 3
333	Machinery Manufacturing					6	4 1	0 8
334	Computer and Electronic Product Manufacturing					17	11 5	2 5
335	Electrical Equipment, Appliance, and Component Manufacturing					2	1 2	0 8
336	Transportation Equipment Manufacturing					10	6 5	0 9
339	Miscellaneous Manufacturing					2	1 4	0 5
311	Food Manufacturing	Logistics & Inventory Control	11Y9199	Managers, All Other (incl Logistics Analysts)**	1,489	1	0 1	0 1
324	Petroleum and Coal Products Manufacturing					1	0 1	0 9
325	Chemical Manufacturing					6	0 4	0 5
326	Plastics and Rubber Products Manufacturing					1	0 1	0 1
332	Fabricated Metal Product Manufacturing					3	0 2	0 1
333	Machinery Manufacturing					3	0 2	0 2
334	Computer and Electronic Product Manufacturing					4	0 3	0 3
336	Transportation Equipment Manufacturing					6	0 4	0 2
339	Miscellaneous Manufacturing					3	0 2	0 3
311	Food Manufacturing	Logistics & Inventory Control	13Y1081	Logisticians**	101	1	1 3	0 1
322	Paper Manufacturing					1	0 5	0 2
325	Chemical Manufacturing					2	2 3	0 5
332	Fabricated Metal Product Manufacturing					1	0 9	0 1
333	Machinery Manufacturing					1	1 4	0 2
334	Computer and Electronic Product Manufacturing					4	3 6	0 6
335	Electrical Equipment, Appliance, and Component Manufacturing					1	0 5	0 3
336	Transportation Equipment Manufacturing					11	10 6	1 1
339	Miscellaneous Manufacturing					1	0 6	0 2
325	Chemical Manufacturing	Logistics & Inventory Control	13Y1111	Management Analysts (incl Logistics Analysts)**	956	2	0 2	0 3
332	Fabricated Metal Product Manufacturing					1	0 1	0
333	Machinery Manufacturing					2	0 2	0 1
334	Computer and Electronic Product Manufacturing					6	0 6	0 5
335	Electrical Equipment, Appliance, and Component Manufacturing					1	0 1	0 3
336	Transportation Equipment Manufacturing					9	0 9	0 5
339	Miscellaneous Manufacturing					1	0 1	0 2
323	Printing and Related Support Activities	Manufacturing Production Process Development	15Y1132	Software Developers, Applications**	812	1	0 1	0 1
325	Chemical Manufacturing					2	0 2	0 2
332	Fabricated Metal Product Manufacturing					1	0 1	0
333	Machinery Manufacturing					6	0 7	0 5
334	Computer and Electronic Product Manufacturing					28	3 5	2 8
335	Electrical Equipment, Appliance, and Component Manufacturing					1	0 1	0 3
336	Transportation Equipment Manufacturing					9	1 1	0 6
339	Miscellaneous Manufacturing					2	0 3	0 4
333	Machinery Manufacturing	Manufacturing Production Process Development	15Y1133	Software Developers, Systems Software**	467	2	0 5	0 2
334	Computer and Electronic Product Manufacturing					50	10 8	5 6
336	Transportation Equipment Manufacturing					14	3	1
339	Miscellaneous Manufacturing					1	0 2	0 1

NAICS	Industry	Program	SOC	Occupation	Total			
323	Printing and Related Support Activities	Manufacturing Production Process Development	15Y1199	Computer Occupations, All Other**	312	1	02	01
325	Chemical Manufacturing					1	04	01
333	Machinery Manufacturing					1	04	01
334	Computer and Electronic Product Manufacturing					3	09	02
336	Transportation Equipment Manufacturing					2	05	01
339	Miscellaneous Manufacturing					1	03	01
332	Fabricated Metal Product Manufacturing	Manufacturing Production Process Development	17Y2071	Electrical Engineers**	94	1	06	01
333	Machinery Manufacturing					4	43	07
334	Computer and Electronic Product Manufacturing					17	18	33
335	Electrical Equipment, Appliance, and Component Manufacturing					3	35	19
336	Transportation Equipment Manufacturing					5	5	06
333	Machinery Manufacturing	Manufacturing Production Process Development	17Y2072	Electronics Engineers, exc Computer**	94	1	14	02
334	Computer and Electronic Product Manufacturing					17	185	28
335	Electrical Equipment, Appliance, and Component Manufacturing					1	14	06
336	Transportation Equipment Manufacturing					2	2	02
311	Food Manufacturing	Manufacturing Production Process Development	17Y2112	Industrial Engineers**	184	3	15	02
313	Textile Mills					1	03	07
321	Wood Product Manufacturing					1	07	04
322	Paper Manufacturing					2	13	09
324	Petroleum and Coal Products Manufacturing					1	06	13
325	Chemical Manufacturing					8	42	13
326	Plastics and Rubber Products Manufacturing					6	33	13
327	Nonmetallic Mineral Product Manufacturing					3	14	08
331	Primary Metal Manufacturing					3	16	11
332	Fabricated Metal Product Manufacturing					10	56	09
333	Machinery Manufacturing					13	69	16
334	Computer and Electronic Product Manufacturing					22	122	3
335	Electrical Equipment, Appliance, and Component Manufacturing					5	25	18
336	Transportation Equipment Manufacturing					32	176	28
337	Furniture and Related Product Manufacturing					2	12	08
339	Miscellaneous Manufacturing					6	35	16
322	Paper Manufacturing	Manufacturing Production Process Development	17Y2141	Mechanical Engineers**	257	1	04	03
324	Petroleum and Coal Products Manufacturing					1	03	07
325	Chemical Manufacturing					4	17	06
326	Plastics and Rubber Products Manufacturing					4	16	07
327	Nonmetallic Mineral Product Manufacturing					1	02	01
331	Primary Metal Manufacturing					2	07	05
332	Fabricated Metal Product Manufacturing					16	62	11
333	Machinery Manufacturing					32	123	33
334	Computer and Electronic Product Manufacturing					16	63	18
335	Electrical Equipment, Appliance, and Component Manufacturing					5	2	17
336	Transportation Equipment Manufacturing					31	119	22
337	Furniture and Related Product Manufacturing					1	02	01
339	Miscellaneous Manufacturing					4	16	08
322	Paper Manufacturing	Manufacturing Production Process Development	17Y2199	Engineers, All Other (including Robotics Engineers)**	173	1	04	01
324	Petroleum and Coal Products Manufacturing					1	03	04
325	Chemical Manufacturing					4	22	04
326	Plastics and Rubber Products Manufacturing					1	03	01
332	Fabricated Metal Product Manufacturing					3	18	02
333	Machinery Manufacturing					6	32	04
334	Computer and Electronic Product Manufacturing					8	45	07
335	Electrical Equipment, Appliance, and Component Manufacturing					2	09	04
336	Transportation Equipment Manufacturing					11	61	06
337	Furniture and Related Product Manufacturing					1	03	01
339	Miscellaneous Manufacturing					2	11	03
325	Chemical Manufacturing	Manufacturing Production Process Development	17Y3023	Electrical & Electronic Engineering Technicians**	89	1	09	02
333	Machinery Manufacturing					3	33	05
334	Computer and Electronic Product Manufacturing					20	222	34
335	Electrical Equipment, Appliance, and Component Manufacturing					2	28	13
336	Transportation Equipment Manufacturing					2	2	02
324	Petroleum and Coal Products Manufacturing	Manufacturing Production Process Development	17Y3029	Engineering Techs, exc Drafters, All Other**	56	1	19	12
325	Chemical Manufacturing					1	2	02
326	Plastics and Rubber Products Manufacturing					1	1	01
332	Fabricated Metal Product Manufacturing					1	16	01
333	Machinery Manufacturing					2	33	02
334	Computer and Electronic Product Manufacturing					2	37	03
335	Electrical Equipment, Appliance, and Component Manufacturing					1	1	02
336	Transportation Equipment Manufacturing					3	46	02
339	Miscellaneous Manufacturing					1	12	02
324	Petroleum and Coal Products Manufacturing	Manufacturing Production Process Development	19Y2031	Chemists**	83	1	1	09
325	Chemical Manufacturing					22	27	34
334	Computer and Electronic Product Manufacturing					1	09	01
311	Food Manufacturing	Manufacturing Production Process Development	19Y4031	Chemical Technicians**	69	1	12	01
324	Petroleum and Coal Products Manufacturing					1	21	14
325	Chemical Manufacturing					16	231	22
331	Primary Metal Manufacturing					1	08	01
325	Chemical Manufacturing	Manufacturing Production Process Development	41Y4011	Sales Reps, Whls/Mfg, Tech/SciProds**	489	7	14	08
332	Fabricated Metal Product Manufacturing					2	04	01
333	Machinery Manufacturing					8	17	07
334	Computer and Electronic Product Manufacturing					19	39	17
335	Electrical Equipment, Appliance, and Component Manufacturing					2	05	07

Code	Industry	Program	Code	Occupation	Total			
336	Transportation Equipment Manufacturing					2	04	01
339	Miscellaneous Manufacturing					6	12	1
311	Food Manufacturing	Manufacturing Production Process Development	41Y4012	Sales Reps/Whlesale/Mfg,Ex Tech/Scntifc**	1,625	16	1	11
312	Beverage and Tobacco Product Manufacturing					10	06	52
313	Textile Mills					2	01	15
314	Textile Product Mills					3	02	3
315	Apparel Manufacturing					2	01	21
321	Wood Product Manufacturing					10	06	24
322	Paper Manufacturing					8	05	23
323	Printing and Related Support Activities					20	12	44
324	Petroleum and Coal Products Manufacturing					2	01	12
325	Chemical Manufacturing					11	07	14
326	Plastics and Rubber Products Manufacturing					11	07	2
327	Nonmetallic Mineral Product Manufacturing					11	07	29
331	Primary Metal Manufacturing					5	03	14
332	Fabricated Metal Product Manufacturing					33	2	21
333	Machinery Manufacturing					23	14	23
334	Computer and Electronic Product Manufacturing					10	06	09
335	Electrical Equipment, Appliance, and Component Manufacturing					5	03	16
336	Transportation Equipment Manufacturing					11	07	08
337	Furniture and Related Product Manufacturing					8	05	23
339	Miscellaneous Manufacturing					11	07	22
327	Nonmetallic Mineral Product Manufacturing	Logistics & Inventory Control	43Y5032	Dispatchers**	207	5	22	12
311	Food Manufacturing	Logistics & Inventory Control	43Y5061	Production, Planning & Expediting Clerks**	201	4	19	04
312	Beverage and Tobacco Product Manufacturing					1	03	05
313	Textile Mills					1	03	1
315	Apparel Manufacturing					1	03	13
321	Wood Product Manufacturing					1	06	05
322	Paper Manufacturing					2	09	08
323	Printing and Related Support Activities					3	15	1
325	Chemical Manufacturing					5	26	11
326	Plastics and Rubber Products Manufacturing					3	15	07
327	Nonmetallic Mineral Product Manufacturing					1	06	04
331	Primary Metal Manufacturing					2	11	09
332	Fabricated Metal Product Manufacturing					8	4	08
333	Machinery Manufacturing					7	34	1
334	Computer and Electronic Product Manufacturing					7	35	11
335	Electrical Equipment, Appliance, and Component Manufacturing					2	11	1
336	Transportation Equipment Manufacturing					12	58	12
337	Furniture and Related Product Manufacturing					2	08	07
339	Miscellaneous Manufacturing					3	15	09
311	Food Manufacturing	Logistics & Inventory Control	43Y5071	Shipping Receiving & Traffic Clerks**	682	18	26	13
312	Beverage and Tobacco Product Manufacturing					1	02	08
313	Textile Mills					2	03	19
314	Textile Product Mills					1	02	17
315	Apparel Manufacturing					2	03	28
316	Leather and Allied Product Manufacturing					1	01	25
321	Wood Product Manufacturing					3	05	09
322	Paper Manufacturing					6	09	19
323	Printing and Related Support Activities					9	13	21
324	Petroleum and Coal Products Manufacturing					1	01	08
325	Chemical Manufacturing					13	19	18
326	Plastics and Rubber Products Manufacturing					12	17	2
327	Nonmetallic Mineral Product Manufacturing					3	04	08
331	Primary Metal Manufacturing					5	07	14
332	Fabricated Metal Product Manufacturing					27	39	18
333	Machinery Manufacturing					17	25	17
334	Computer and Electronic Product Manufacturing					10	15	11
335	Electrical Equipment, Appliance, and Component Manufacturing					5	08	18
336	Transportation Equipment Manufacturing					17	25	12
337	Furniture and Related Product Manufacturing					5	08	16
339	Miscellaneous Manufacturing					10	15	21
311	Food Manufacturing	Maintenance, Installation & Repair	49Y1011	1stYLine Spvrs/Mgrs, Mechanics/Installers**	330	5	16	05
312	Beverage and Tobacco Product Manufacturing					1	03	07
321	Wood Product Manufacturing					1	03	03
322	Paper Manufacturing					2	05	07
324	Petroleum and Coal Products Manufacturing					1	02	11
325	Chemical Manufacturing					3	1	06
326	Plastics and Rubber Products Manufacturing					2	06	05
327	Nonmetallic Mineral Product Manufacturing					1	04	05
331	Primary Metal Manufacturing					2	07	1
332	Fabricated Metal Product Manufacturing					3	09	03
333	Machinery Manufacturing					3	08	04
334	Computer and Electronic Product Manufacturing					1	03	02
335	Electrical Equipment, Appliance, and Component Manufacturing					1	02	03
336	Transportation Equipment Manufacturing					4	11	04
339	Miscellaneous Manufacturing					1	03	02
311	Food Manufacturing					37	91	24
312	Beverage and Tobacco Product Manufacturing					7	17	35
313	Textile Mills					4	09	38
314	Textile Product Mills					1	03	13

Code	Industry	Group	SOC	Occupation	Total			
321	Wood Product Manufacturing	Maintenance, Installation & Repair	49Y9041	Industrial Machinery Mechanics**	406	6	15	14
322	Paper Manufacturing					14	34	37
323	Printing and Related Support Activities					2	05	05
324	Petroleum and Coal Products Manufacturing					5	12	42
325	Chemical Manufacturing					22	53	27
326	Plastics and Rubber Products Manufacturing					14	34	21
327	Nonmetallic Mineral Product Manufacturing					7	17	16
331	Primary Metal Manufacturing					15	38	4
332	Fabricated Metal Product Manufacturing					18	45	11
333	Machinery Manufacturing					20	5	19
334	Computer and Electronic Product Manufacturing					4	11	05
335	Electrical Equipment, Appliance, and Component Manufacturing					2	06	08
336	Transportation Equipment Manufacturing					20	49	13
337	Furniture and Related Product Manufacturing					2	06	06
339	Miscellaneous Manufacturing					2	04	03
311	Food Manufacturing	Maintenance, Installation & Repair	49Y9043	Maintenance Workers, Machinery**	91	10	111	08
312	Beverage and Tobacco Product Manufacturing					1	13	07
313	Textile Mills					1	16	17
321	Wood Product Manufacturing					2	22	06
322	Paper Manufacturing					3	3	09
324	Petroleum and Coal Products Manufacturing					1	08	07
325	Chemical Manufacturing					4	42	06
326	Plastics and Rubber Products Manufacturing					5	6	1
327	Nonmetallic Mineral Product Manufacturing					2	23	06
331	Primary Metal Manufacturing					4	4	11
332	Fabricated Metal Product Manufacturing					7	77	05
333	Machinery Manufacturing					2	2	02
334	Computer and Electronic Product Manufacturing					1	15	02
335	Electrical Equipment, Appliance, and Component Manufacturing					2	23	07
336	Transportation Equipment Manufacturing					4	47	03
339	Miscellaneous Manufacturing					1	1	02
334	Computer and Electronic Product Manufacturing	Maintenance, Installation & Repair	49Y9062	Medical Equipment Repairers	55	1	13	01
339	Miscellaneous Manufacturing					1	21	02
311	Food Manufacturing	Maintenance, Installation & Repair	49Y9071	General Maintenance & Repair Workers**	909	21	23	23
312	Beverage and Tobacco Product Manufacturing					2	02	18
313	Textile Mills					1	01	24
314	Textile Product Mills					1	01	13
321	Wood Product Manufacturing					5	05	17
322	Paper Manufacturing					5	05	22
323	Printing and Related Support Activities					2	02	07
324	Petroleum and Coal Products Manufacturing					1	01	15
325	Chemical Manufacturing					11	12	24
326	Plastics and Rubber Products Manufacturing					8	09	23
327	Nonmetallic Mineral Product Manufacturing					5	05	19
331	Primary Metal Manufacturing					10	11	44
332	Fabricated Metal Product Manufacturing					13	14	14
333	Machinery Manufacturing					8	09	13
334	Computer and Electronic Product Manufacturing					4	04	07
335	Electrical Equipment, Appliance, and Component Manufacturing					3	03	16
336	Transportation Equipment Manufacturing					11	12	12
337	Furniture and Related Product Manufacturing					3	03	11
339	Miscellaneous Manufacturing					4	04	12
311	Food Manufacturing	Production	51Y1011	1stYLine Spvrs/Mgrs, Prod & Operating Workers**	292	23	78	32
312	Beverage and Tobacco Product Manufacturing					3	09	28
313	Textile Mills					2	07	44
314	Textile Product Mills					2	07	43
315	Apparel Manufacturing					1	03	3
321	Wood Product Manufacturing					7	25	37
322	Paper Manufacturing					6	22	38
323	Printing and Related Support Activities					8	29	39
324	Petroleum and Coal Products Manufacturing					3	09	51
325	Chemical Manufacturing					14	49	39
326	Plastics and Rubber Products Manufacturing					13	45	44
327	Nonmetallic Mineral Product Manufacturing					7	23	33
331	Primary Metal Manufacturing					8	28	45
332	Fabricated Metal Product Manufacturing					32	111	43
333	Machinery Manufacturing					17	57	33
334	Computer and Electronic Product Manufacturing					9	31	19
335	Electrical Equipment, Appliance, and Component Manufacturing					5	17	32
336	Transportation Equipment Manufacturing					21	72	29
337	Furniture and Related Product Manufacturing					7	25	41
339	Miscellaneous Manufacturing					9	32	35
332	Fabricated Metal Product Manufacturing	Production	51Y2022	Electric/Electronic Equipment Assemblers**	88	1	06	01
333	Machinery Manufacturing					5	61	11
334	Computer and Electronic Product Manufacturing					40	458	89
335	Electrical Equipment, Appliance, and Component Manufacturing					15	175	101
336	Transportation Equipment Manufacturing					7	8	1
339	Miscellaneous Manufacturing					2	22	08
332	Fabricated Metal Product Manufacturing	Production	51Y2041	Structural Metal Fabrcators & Fitters	87	43	491	28
333	Machinery Manufacturing					11	127	11
335	Electrical Equipment, Appliance, and Component Manufacturing					2	26	07

Code	Industry	Group	SOC	Occupation	Total			
336	Transportation Equipment Manufacturing	Production	51Y2041	Structural Metal Fabricators & Fitters	87	10	11 8	0 7
337	Furniture and Related Product Manufacturing					1	0 6	0 1
339	Miscellaneous Manufacturing					5	5 7	0 9
311	Food Manufacturing					33	2 5	1 9
312	Beverage and Tobacco Product Manufacturing					4	0 3	1 6
314	Textile Product Mills					3	0 2	2 9
316	Leather and Allied Product Manufacturing					1	0 1	3 8
321	Wood Product Manufacturing					44	3 3	9 1
322	Paper Manufacturing					8	0 6	1 9
323	Printing and Related Support Activities					5	0 4	1
324	Petroleum and Coal Products Manufacturing					3	0 2	1 9
325	Chemical Manufacturing					16	1 2	1 8
326	Plastics and Rubber Products Manufacturing	Production	51Y2092	Team Assemblers	1,322	48	3 6	6 5
327	Nonmetallic Mineral Product Manufacturing					16	1 2	3 2
331	Primary Metal Manufacturing					9	0 7	2 2
332	Fabricated Metal Product Manufacturing					97	7 3	5 3
333	Machinery Manufacturing					132	10	10 7
334	Computer and Electronic Product Manufacturing					48	3 6	4 1
335	Electrical Equipment, Appliance, and Component Manufacturing					50	3 8	12 8
336	Transportation Equipment Manufacturing					268	20 3	15 1
337	Furniture and Related Product Manufacturing					44	3 3	9 9
339	Miscellaneous Manufacturing					74	5 6	11 6
311	Food Manufacturing					2	1 3	0 3
321	Wood Product Manufacturing					6	3 3	2 6
325	Chemical Manufacturing					1	0 7	0 3
326	Plastics and Rubber Products Manufacturing					3	1 6	0 8
327	Nonmetallic Mineral Product Manufacturing					2	1 1	0 8
332	Fabricated Metal Product Manufacturing	Production	51Y2099	Assemblers & Fabricators, All Other**	192	9	4 5	0 9
333	Machinery Manufacturing					7	3 9	1 2
334	Computer and Electronic Product Manufacturing					3	1 8	0 6
335	Electrical Equipment, Appliance, and Component Manufacturing					3	1 4	1 3
336	Transportation Equipment Manufacturing					32	16 8	3 5
337	Furniture and Related Product Manufacturing					5	2 5	2 1
339	Miscellaneous Manufacturing					10	5 1	3
311	Food Manufacturing	Production	51Y3092	Food Batchmakers	150	119	79 3	5 6
312	Beverage and Tobacco Product Manufacturing					2	1 4	0 8
311	Food Manufacturing	Production	51Y3093	Food Cooking Machine Operators & Tenders	53	39	74 3	1 7
326	Plastics and Rubber Products Manufacturing					12	4 5	1 2
331	Primary Metal Manufacturing					11	4	1 8
332	Fabricated Metal Product Manufacturing					104	39 3	4 2
333	Machinery Manufacturing					49	18 4	2 9
334	Computer and Electronic Product Manufacturing	Production	51Y4011	ComputerYControlled Machine Tool Operators**	264	13	5	0 9
335	Electrical Equipment, Appliance, and Component Manufacturing					10	3 7	1 8
336	Transportation Equipment Manufacturing					48	18 2	2
337	Furniture and Related Product Manufacturing					1	0 2	0 1
339	Miscellaneous Manufacturing					10	3 9	1 2
321	Wood Product Manufacturing					1	1	0 4
322	Paper Manufacturing					1	1 2	0 6
326	Plastics and Rubber Products Manufacturing					6	7 6	2 2
331	Primary Metal Manufacturing					5	5 9	2 8
332	Fabricated Metal Product Manufacturing					25	31 5	3 6
333	Machinery Manufacturing	Production	51Y4031	Cutting, Punching & Press Machine Operators	80	8	9 6	1 6
334	Computer and Electronic Product Manufacturing					2	2 5	0 4
335	Electrical Equipment, Appliance, and Component Manufacturing					2	3 1	1 6
336	Transportation Equipment Manufacturing					10	12 9	1 5
337	Furniture and Related Product Manufacturing					2	2 8	1 3
339	Miscellaneous Manufacturing					2	2 9	0 9
326	Plastics and Rubber Products Manufacturing					2	3 8	0 4
327	Nonmetallic Mineral Product Manufacturing					1	1 5	0 2
331	Primary Metal Manufacturing					7	12	2 1
332	Fabricated Metal Product Manufacturing	Production	51Y4033	Grind/Polish Machine Tool Setters & Operators	57	22	38 8	1 6
333	Machinery Manufacturing					10	17 6	1 1
335	Electrical Equipment, Appliance, and Component Manufacturing					1	1 8	0 4
336	Transportation Equipment Manufacturing					7	11 8	0 5
339	Miscellaneous Manufacturing					3	6	0 7
311	Food Manufacturing					1	0 1	0
313	Textile Mills					1	0 1	0 3
321	Wood Product Manufacturing					1	0 1	0 1
322	Paper Manufacturing					3	0 4	0 5
323	Printing and Related Support Activities					1	0 1	0 1
324	Petroleum and Coal Products Manufacturing					1	0 2	1
325	Chemical Manufacturing					5	0 7	0 4
326	Plastics and Rubber Products Manufacturing					10	1 5	1 1
327	Nonmetallic Mineral Product Manufacturing	Production	51Y4041	Machinists**	649	5	0 7	0 8
331	Primary Metal Manufacturing					12	1 9	2 2
332	Fabricated Metal Product Manufacturing					228	35 1	10 2
333	Machinery Manufacturing					108	16 6	7
334	Computer and Electronic Product Manufacturing					19	3	1 4
335	Electrical Equipment, Appliance, and Component Manufacturing					10	1 6	2 2
336	Transportation Equipment Manufacturing					78	12	3 6
337	Furniture and Related Product Manufacturing					3	0 5	0 6

Code	Industry	Career Area	SOC	Occupation	Total			
339	Miscellaneous Manufacturing					18	27	23
326	Plastics and Rubber Products Manufacturing					6	101	13
331	Primary Metal Manufacturing					3	55	11
332	Fabricated Metal Product Manufacturing					16	27	13
333	Machinery Manufacturing					9	163	12
334	Computer and Electronic Product Manufacturing	Production	51Y4081	Multiple Machine Tool Setters & Operators**	58	1	18	01
335	Electrical Equipment, Appliance, and Component Manufacturing					3	56	13
336	Transportation Equipment Manufacturing					12	206	11
337	Furniture and Related Product Manufacturing					2	26	05
339	Miscellaneous Manufacturing					3	55	08
321	Wood Product Manufacturing					1	03	03
326	Plastics and Rubber Products Manufacturing					1	02	01
327	Nonmetallic Mineral Product Manufacturing					3	1	09
331	Primary Metal Manufacturing					5	19	2
332	Fabricated Metal Product Manufacturing					64	243	62
333	Machinery Manufacturing	Production	51Y4121	Welders, Cutters, Solderers & Brazers**	262	35	132	49
334	Computer and Electronic Product Manufacturing					4	16	06
335	Electrical Equipment, Appliance, and Component Manufacturing					3	11	13
336	Transportation Equipment Manufacturing					33	125	33
337	Furniture and Related Product Manufacturing					2	09	1
339	Miscellaneous Manufacturing					2	08	06
331	Primary Metal Manufacturing					1	11	02
332	Fabricated Metal Product Manufacturing					27	291	12
333	Machinery Manufacturing					18	20	13
334	Computer and Electronic Product Manufacturing	Production	51Y4122	Welding/Soldering/Brazing Machine Setters & Operators**	92	1	12	01
335	Electrical Equipment, Appliance, and Component Manufacturing					3	32	06
336	Transportation Equipment Manufacturing					25	27	12
337	Furniture and Related Product Manufacturing					2	18	03
339	Miscellaneous Manufacturing					2	24	03
313	Textile Mills					1	06	11
314	Textile Product Mills					1	05	1
322	Paper Manufacturing	Production	51Y5112	Printing Press Operators & Job Printers**	141	12	85	42
323	Printing and Related Support Activities					78	555	219
326	Plastics and Rubber Products Manufacturing					4	3	09
339	Miscellaneous Manufacturing					1	09	03
322	Paper Manufacturing					1	17	02
324	Petroleum and Coal Products Manufacturing	Manufacturing Production Process Development	51Y8091	Chemical Plant & System Operators**	52	2	34	11
325	Chemical Manufacturing					48	915	42
311	Food Manufacturing					1	1	0
322	Paper Manufacturing					2	2	03
324	Petroleum and Coal Products Manufacturing					3	25	13
325	Chemical Manufacturing	Production	51Y9011	Chemical Equipment Operators/Tenders	118	94	793	56
326	Plastics and Rubber Products Manufacturing					5	44	04
331	Primary Metal Manufacturing					1	11	02
332	Fabricated Metal Product Manufacturing					1	09	0
336	Transportation Equipment Manufacturing					1	05	0
311	Food Manufacturing					18	15	12
312	Beverage and Tobacco Product Manufacturing					2	18	11
313	Textile Mills					1	05	07
322	Paper Manufacturing					2	2	07
324	Petroleum and Coal Products Manufacturing					4	3	34
325	Chemical Manufacturing	Production	51Y9023	Mix/Blend Machine Setters, Operators & Tenders	121	51	425	67
326	Plastics and Rubber Products Manufacturing					7	6	12
327	Nonmetallic Mineral Product Manufacturing					13	105	3
332	Fabricated Metal Product Manufacturing					1	07	01
336	Transportation Equipment Manufacturing					1	06	0
339	Miscellaneous Manufacturing					1	07	02
311	Food Manufacturing					6	88	04
312	Beverage and Tobacco Product Manufacturing					1	15	06
321	Wood Product Manufacturing					1	19	03
322	Paper Manufacturing					3	41	08
325	Chemical Manufacturing					7	106	1
326	Plastics and Rubber Products Manufacturing	Production	51Y9041	Extrudng/Formng/Compctng Machine Operators	64	19	299	34
327	Nonmetallic Mineral Product Manufacturing					15	232	39
331	Primary Metal Manufacturing					1	17	03
332	Fabricated Metal Product Manufacturing					1	16	01
335	Electrical Equipment, Appliance, and Component Manufacturing					1	09	02
336	Transportation Equipment Manufacturing					1	08	0
339	Miscellaneous Manufacturing					3	45	06
311	Food Manufacturing					30	66	22
312	Beverage and Tobacco Product Manufacturing					3	07	19
313	Textile Mills					4	09	46
314	Textile Product Mills					2	04	24
315	Apparel Manufacturing					2	04	29
321	Wood Product Manufacturing					6	13	17
322	Paper Manufacturing					5	11	16
323	Printing and Related Support Activities					4	09	11
324	Petroleum and Coal Products Manufacturing					1	03	12
325	Chemical Manufacturing	Manufacturing Production Process Development	51Y9061	Inspectors, Testers, Sorters & Weighers	454	22	48	32
326	Plastics and Rubber Products Manufacturing					25	56	47
327	Nonmetallic Mineral Product Manufacturing					8	18	21

331	Primary Metal Manufacturing						10	2 3	3 2
332	Fabricated Metal Product Manufacturing						40	8 9	2 9
333	Machinery Manufacturing						21	4 7	2 3
334	Computer and Electronic Product Manufacturing						25	5 4	2 8
335	Electrical Equipment, Appliance, and Component Manufacturing						9	2	3
336	Transportation Equipment Manufacturing						45	10	3 4
337	Furniture and Related Product Manufacturing						5	1	1 3
339	Miscellaneous Manufacturing						13	2 9	2 7
311	Food Manufacturing						127	30 3	7 8
312	Beverage and Tobacco Product Manufacturing						22	5 2	10 3
313	Textile Mills						1	0 3	1 3
314	Textile Product Mills						1	0 2	0 8
321	Wood Product Manufacturing						3	0 6	0 6
322	Paper Manufacturing						8	1 9	2 1
323	Printing and Related Support Activities						4	0 9	0 8
324	Petroleum and Coal Products Manufacturing						2	0 4	1 5
325	Chemical Manufacturing	Production	51Y9111	Packaging & Filling Machine Operators & Tenders	420	50	11 8	6
326	Plastics and Rubber Products Manufacturing						15	3 6	2 2
327	Nonmetallic Mineral Product Manufacturing						5	1 3	1 2
331	Primary Metal Manufacturing						3	0 6	0 6
332	Fabricated Metal Product Manufacturing						7	1 6	0 4
335	Electrical Equipment, Appliance, and Component Manufacturing						2	0 4	0 5
336	Transportation Equipment Manufacturing						2	0 4	0 1
337	Furniture and Related Product Manufacturing						1	0 3	0 4
339	Miscellaneous Manufacturing						7	1 6	1 1
311	Food Manufacturing						62	10 9	2
312	Beverage and Tobacco Product Manufacturing						2	0 3	0 5
313	Textile Mills						1	0 1	0 4
314	Textile Product Mills						1	0 1	0 4
315	Apparel Manufacturing						1	0 1	0 2
316	Leather and Allied Product Manufacturing						1	0 2	2 1
321	Wood Product Manufacturing						10	1 7	1 1
322	Paper Manufacturing						14	2 4	1 8
323	Printing and Related Support Activities						5	0 9	0 5
324	Petroleum and Coal Products Manufacturing						1	0 2	0 5
325	Chemical Manufacturing	Production	51Y9199	Production Workers, All Other	570	20	3 5	1 2
326	Plastics and Rubber Products Manufacturing						14	2 4	1
327	Nonmetallic Mineral Product Manufacturing						12	2 1	1 3
331	Primary Metal Manufacturing						10	1 7	1 2
332	Fabricated Metal Product Manufacturing						22	3 8	0 7
333	Machinery Manufacturing						17	2 9	0 7
334	Computer and Electronic Product Manufacturing						7	1 3	0 4
335	Electrical Equipment, Appliance, and Component Manufacturing						8	1 4	1 1
336	Transportation Equipment Manufacturing						27	4 8	0 9
337	Furniture and Related Product Manufacturing						4	0 7	0 5
339	Miscellaneous Manufacturing						16	2 8	1 4

Pathway	SOC Code	SOC Title	Average Annual Job Openings	Annual Occupation Openings in Industry	2022 Percent of Occupation that is in this Industry	2022 Percent of Employment in this Industry that is this Occupation	Median Annual	Education Entry Level	Experience Entry Level	Training Entry Level
Manufacturing Production Process Development	11E3051	Industrial Production Managers**	93	6	66	08	$90,892	Bachelor's degree	1 to 5 years	None
				1	1	09				
				1	06	12				
				2	19	08				
				2	26	13				
				2	25	1				
				1	08	12				
				7	71	16				
				4	45	13				
				3	29	12				
				3	28	13				
				10	11	12				
				6	68	11				
				5	57	1				
				2	21	11				
				8	89	1				
				2	19	09				
				3	31	1				
Logistics & Inventory Control	11E3071	Transportation, Storage & Distribution Managers**	120	3	23	02	$81,823	High school diploma or equivalent	More than 5 years	None
				1	06	03				
				1	06	02				
				2	14	02				
				1	09	0.2				
				1	05	01				
				1	06	01				
				1	09	01				
Manufacturing Production Process Development	11E9041	Engineering Managers**	151	1	04	08	$123,223	Bachelor's degree	More than 5 years	None
				3	18	05				
				1	08	03				
				1	04	0.2				
				1	04	02				
				3	21	03				
				6	41	08				
				17	115	25				
				2	12	0.8				
				10	65	09				
				2	14	05				
Logistics & Inventory Control	11E9199	Managers, All Other (incl Logistics Analysts)**	1,489	1	01	01	$99,701	High school diploma or equivalent	1 to 5 years	None
				1	01	09				
				6	04	05				
				1	01	01				
				3	02	01				
				3	02	02				
				4	03	03				
				6	04	02				
				3	02	03				
Logistics & Inventory Control	13E1081	Logisticians**	101	1	13	01	$65,953	Bachelor's degree	1 to 5 years	None
				1	05	0.2				
				2	23	0.5				
				1	09	01				
				1	14	02				
				4	36	06				
				1	05	03				
				11	106	11				
				1	06	02				
Logistics & Inventory Control	13E1111	Management Analysts (incl Logistics Analysts)**	956	2	02	03	$86,330	Bachelor's degree	1 to 5 years	None
				1	01	0				
				2	0.2	01				
				6	06	05				
				1	01	03				
				9	09	05				
				1	01	02				
Manufacturing Production Process Development	15E1132	Software Developers, Applications**	812	1	01	0.1	$87,544	Bachelor's degree	None	None
				2	02	02				
				1	0.1	0				
				6	07	05				
				28	35	28				
				1	01	03				
				9	11	06				
				2	03	04				
Manufacturing Production Process Development	15E1133	Software Developers, Systems Software**	467	2	05	02	$97,363	Bachelor's degree	None	None
				50	108	56				
				14	3	1				
				1	02	01				
Manufacturing Production Process Development	15E1199	Computer Occupations, All Other**	312	1	02	01	$88,096	Bachelor's degree	None	None
				1	04	01				
				1	04	01				
				3	09	02				
				2	05	01				
				1	03	01				
Manufacturing Production Process Development	17E2071	Electrical Engineers**	94	1	06	0.1	$91,445	Bachelor's degree	None	None
				4	43	07				
				17	18	33				
				3	35	19				
				5	5	06				
				1	14	02				

Career Field	Code	Occupation	Total				Median Wage	Education	Work Experience	Training
Manufacturing Production Process Development	17E2072	Electronics Engineers, exc Computer**	94	17	185	28	$88,723	Bachelor's degree	None	None
				1	14	06				
				2	2	02				
Manufacturing Production Process Development	17E2112	Industrial Engineers**	184	3	15	02	$77,526	Bachelor's degree	None	None
				1	03	07				
				1	07	04				
				2	13	09				
				1	06	13				
				8	42	13				
				6	33	13				
				3	14	08				
				3	16	11				
				10	56	09				
				13	69	16				
				22	122	3				
				5	25	18				
				32	176	28				
				2	12	08				
				6	35	16				
Manufacturing Production Process Development	17E2141	Mechanical Engineers**	257	1	04	03	$78,333	Bachelor's degree	None	None
				1	03	07				
				4	17	06				
				4	16	07				
				1	02	01				
				2	07	05				
				16	62	11				
				32	123	33				
				16	63	18				
				5	2	17				
				31	119	22				
				1	02	01				
				4	16	08				
Manufacturing Production Process Development	17E2199	Engineers, All Other (Including Robotics Engineers)**	173	1	04	01	$89,765	Bachelor's degree	None	None
				1	03	04				
				4	22	04				
				1	03	01				
				3	18	02				
				6	32	04				
				8	45	07				
				2	09	04				
				11	61	06				
				1	03	01				
				2	11	03				
Manufacturing Production Process Development	17E3023	Electrical & Electronic Engineering Technicians**	89	1	09	02	$60,196	Associate's degree	None	None
				3	33	05				
				20	222	34				
				2	28	13				
				2	2	02				
Manufacturing Production Process Development	17E3029	Engineering Techs, exc Drafters, All Other**	56	1	19	12	$60,259	Associate s degree	None	None
				1	2	02				
				1	1	01				
				1	16	01				
				2	33	02				
				2	37	03				
				1	1	02				
				3	46	02				
				1	12	02				
Manufacturing Production Process Development	19E2031	Chemists**	83	1	1	09	$80,340	Bachelor's degree	None	None
				22	27	34				
				1	09	01				
Manufacturing Production Process Development	19E4031	Chemical Technicians**	69	1	12	01	$46,897	Associate's degree	None	Moderate-term on-the-job training
				1	21	14				
				16	231	22				
				1	08	01				
Manufacturing Production Process Development	41E4011	Sales Reps, Whls/Mfg, Tech/SciProds**	489	7	14	0.8	$66,304	Bachelor's degree	None	Moderate-term on-the-job training
				2	04	01				
				8	17	07				
				19	39	17				
				2	05	07				
				2	04	03				
				6	12	1				
Manufacturing Production Process Development	41E4012	Sales Reps/Wholesale/Mfg Ex Tech/Scntifc**	1 625	16	1	11	$59,725	High school diploma or equivalent	None	Moderate-term on-the-job training
				10	06	52				
				2	01	15				
				3	02	3				
				2	01	21				
				10	06	24				
				8	05	23				
				20	12	44				
				2	01	12				
				11	07	14				
				11	07	2				
				11	07	29				
				5	03	14				
				33	2	21				
				23	14	23				
				10	06	09				
				5	03	16				
				11	07	08				
				8	05	23				
				11	07	22				
Logistics & Inventory Control	43E5032	Dispatchers**	207	5	22	12	$42,520	High school diploma or equivalent	None	Moderate-term on-the-job training
				4	19	04				

Category	Code	Occupation	Number				Wage	Education	Experience	Training
				1	03	05				
				1	03	1				
				1	03	13				
				1	06	05				
				2	03	08				
				3	15	1				
				5	26	11				
Logistics & Inventory Control	43E5061	Production, Planning & Expediting Clerks**	201	3	15	07	$46 716	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				1	06	04				
				2	11	09				
				8	4	08				
				7	34	1				
				7	35	11				
				2	11	1				
				12	58	12				
				2	08	07				
				3	15	09				
				18	26	13				
				1	02	08				
				2	03	19				
				1	02	17				
				2	03	28				
				1	01	25				
				3	05	09				
				6	09	19				
				9	13	21				
Logistics & Inventory Control	43E5071	Shipping Receiving & Traffic Clerks**	682	1	01	08	$30,693	High school diploma or equivalent	None	ShortEterm onEtheEjob training
				13	19	18				
				12	17	2				
				3	04	08				
				5	07	14				
				27	39	18				
				1?	25	1?				
				10	15	11				
				5	08	18				
				17	25	12				
				5	08	16				
				10	15	21				
				5	16	05				
				1	03	07				
				1	03	03				
				2	05	07				
				1	02	11				
				3	1	06				
				2	06	05				
Maintenance, Installation & Repair	49E1011	1stPLineSpvrs/Mgrs, Mechanics/Installers**	330	1	04	05	$70 566	High school diploma or equivalent	1 to 5 years	None
				2	07	1				
				3	09	0.3				
				3	08	04				
				1	03	02				
				1	02	03				
				4	11	04				
				1	0.3	02				
				37	91	24				
				7	17	35				
				4	09	38				
				1	03	13				
				6	15	14				
				14	34	37				
				2	05	05				
				5	12	42				
				22	53	27				
Maintenance, Installation & Repair	49E9041	Industrial Machinery Mechanics**	406	14	34	21	$56 135	High school diploma or equivalent	None	LongEterm onEtheEjob training
				7	17	16				
				15	38	4				
				18	45	11				
				20	5	19				
				4	11	05				
				2	06	08				
				20	49	13				
				2	06	06				
				2	04	03				
				10	111	08				
				1	13	07				
				1	16	17				
				2	22	06				
				3	3	09				
				1	08	0.7				
				4	42	06				
Maintenance, Installation & Repair	49E9043	Maintenance Workers, Machinery**	91	5	6	1	$47 703	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				2	23	06				
				4	4	11				
				7	77	05				
				2	2	02				
				1	15	02				
				2	23	07				
				4	47	03				
				1	1	02				
Maintenance, Installation & Repair	49E9062	Medical Equipment Repairers	55	1	13	01	$47,388	Associate's degree	None	ModerateEterm onEtheEjob training
				1	21	02				
				21	23	23				
				2	02	18				
				1	01	24				

Category	Code	Occupation	Emp				Median Wage	Education	Experience	Training
Maintenance, Installation & Repair	49E9071	General Maintenance & Repair Workers**	909	1	0 1	1 3	$41,111	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				5	0 5	1 7				
				5	0 5	2 2				
				2	0 2	0 7				
				1	0 1	1 5				
				11	1 2	2 4				
				8	0 9	2 3				
				5	0 5	1 9				
				10	1 1	4 4				
				13	1 4	1 4				
				8	0 9	1 3				
				4	0 4	0 7				
				3	0 3	1 6				
				11	1 2	1 2				
				3	0 3	1 1				
				4	0 4	1 2				
Production	51E1011	1stPLine Spvrs/Mgrs, Prod & Operating Workers**	292	23	7 8	3 2	$56 877	Postsecondary nonEdegree award	1 to 5 years	None
				3	0 9	2 8				
				2	0 7	4 4				
				2	0 7	4 3				
				1	0 3	3				
				7	2 5	3 7				
				6	2 2	3 8				
				8	2 9	3 9				
				3	0 9	5 1				
				14	4 9	3 9				
				13	4 5	4 4				
				7	2 3	3 3				
				8	2 8	4 5				
				32	11 1	4 3				
				17	5 7	3 3				
				9	3 1	1 9				
				5	1 7	3 2				
				21	7 2	2 9				
				7	2 5	4 1				
				9	3 2	3 5				
Production	51E2022	Electric/Electronic Equipment Assemblers**	88	1	0 6	0 1	$27,642	High school diploma or equivalent	None	ShortEterm onEtheEjob training
				5	6 1	1 1				
				40	4 5 8	8 9				
				15	17 5	10 1				
				7	8	1				
				2	2 2	0 8				
Production	51E2041	Structural Metal Fabrcators & Fitters	87	43	49 1	2 8	$37 088	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				11	12 7	1 1				
				2	2 6	0 7				
				10	11 8	0 7				
				1	0 6	0 1				
				5	5 7	0 9				
Production	51E2092	Team Assemblers	1 322	33	2 5	1 9	$24 913	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				4	0 3	1 6				
				3	0 2	2 9				
				1	0 1	3 8				
				44	3 3	9 1				
				8	0 6	1 9				
				5	0 4	1				
				3	0 2	1 9				
				16	1 2	1 8				
				48	3 6	6 5				
				16	1 2	3 2				
				9	0 7	2 2				
				97	7 3	5 3				
				132	10	10 7				
				48	3 6	4 1				
				50	3 8	12 8				
				268	20 3	15 1				
				44	3 3	9 9				
				74	5 6	11 6				
Production	51E2099	Assemblers & Fabricators, All Other**	192	2	1 3	0 3	$22 106	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				6	3 3	2 6				
				1	0 7	0 3				
				3	1 6	0 8				
				2	1 1	0 8				
				9	4 5	0 9				
				7	3 9	1 2				
				3	1 8	0 6				
				3	1 4	1 3				
				32	16 8	3 5				
				5	2 5	2 1				
				10	5 1	3				
Production	51E3092	Food Batchmakers	150	119	79 3	5 6	$27,699	High school diploma or equivalent	Less than 1 year	ShortEterm onEtheEjob training
				2	1 4	0 8				
Production	51E3093	Food Cooking Machine Operators & Tenders	53	39	74 3	1 7	$25 038	High school diploma or equivalent	Less than 1 year	ShortEterm onEtheEjob training
Production	51E4011	ComputerPControlled Machine Tool Operators**	264	12	4 5	1 2	$37 203	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				11	4	1 8				
				104	39 3	4 2				
				49	18 4	2 9				
				13	5	0 9				
				10	3 7	1 8				
				48	18 2	2				
				1	0 2	0 1				
				10	3 9	1 2				
					1	1	0 4			
					1	1 2	0 6			

				6	7 6	2 2				
				5	5 9	2 8				
				25	31 5	3 6				
Production	51E4031	Cutting, Punching & Press Machine Operators	80	8	9 6	1 6	$27,777	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				2	2 5	0 4				
				2	3 1	1 6				
				10	12 9	1 5				
				2	2 8	1 3				
				2	2 9	0 9				
				2	3 8	0 4				
				1	1 5	0 2				
				7	1 2	2 1				
Production	51E4033	Grind/Polish Machine Tool Setters & Operators	57	22	38 8	1 6	$32 119	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				10	17 6	1 1				
				1	1 8	0 4				
				7	11 8	0 5				
				3	6	0 7				
				1	0.1	0				
				1	0 1	0 3				
				1	0 1	0 1				
				3	0 4	0 5				
				1	0 1	0 1				
				1	0 2	1				
				5	0 7	0 4				
				10	1 5	1 1				
Production	51E4041	Machinists**	649	5	0 7	0 8	$37,522	High school diploma or equivalent	None	LongEterm onEtheEjob training
				12	1 9	2 2				
				228	35 1	10 2				
				108	16 6	7				
				19	3	1 4				
				10	1 6	2 2				
				78	1 2	3 6				
				3	0 5	0.6				
				18	2 7	2 3				
				6	10 1	1 3				
				3	5 5	1 1				
				16	2 7	1 3				
				9	16 3	1 2				
Production	51E4081	Multiple Machine Tool Setters & Operators**	58	1	1 8	0 1	$39,952	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				3	5 6	1 3				
				12	20 6	1 1				
				2	1 6	0 5				
				3	5 5	0 8				
				1	0 3	0 3				
				1	0 2	0 1				
				3	1	0 9				
				5	1 9	2				
				64	24 3	6 2				
Production	51E4121	Welders, Cutters, Solderers & Brazers**	262	35	13 2	4 9	$35 479	High school diploma or equivalent	Less than 1 year	ModerateEterm onEtheEjob training
				4	1 6	0 6				
				3	1 1	1 3				
				33	12 5	3 3				
				2	0 9	1				
				2	0 8	0 6				
				1	1 1	0 2				
				27	29 1	1 2				
				18	20	1 3				
Production	51E4122	Welding/Soldering/Brazing Machine Setters & Operators**	92	1	1 2	0 1	$29,783	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				3	3 2	0.6				
				25	2 7	1 2				
				2	1 8	0 3				
				2	2 4	0 3				
				1	0 6	1 1				
				1	0 5	1				
Production	51E5112	Printing Press Operators & Job Printers**	141	12	8 5	4 2	$40,042	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				78	55 5	21 9				
				4	3	0 9				
				1	0 9	0 3				
				1	1 7	0 2				
Manufacturing Production Process Development	51E8031	Chemical Plant & System Operators**	52	2	3 4	1 1	$55 723	High school diploma or equivalent	None	LongEterm onEtheEjob training
				48	91 5	4 2				
				1	1	0				
				2	2	0 3				
				3	2 5	1 3				
Production	51E9011	Chemical Equipment Operators/Tenders	118	94	79 3	5 6	$45,901			
				5	4 4	0 4				
				1	1 1	0 2				
				1	0 9	0				
				1	0 5	0				
				18	1 5	1 2				
				2	1 8	1 1				
				1	0 5	0 7				
				2	2	0 7				
				4	3	3 4				
Production	51E9023	Mix/Blend Machine Setters, Operators & Tenders	121	53	42 5	5 7	$34 186	High school diploma or equivalent	None	ModerateEterm onEtheEjob training
				7	6	1 2				
				13	10 5	3				
				1	0 7	0 1				
				1	0 6	0				
				1	0 3	0 2				
				6	8 8	0 4				
				1	1 5	0 6				
				1	1 9	0 3				

	SOC Code	Occupation	Total				Median Wage	Education	Experience	Training
Production	51E9031	Extruding/Forming/Competing Machine Operators	64	3 / 41 / 08	7 / 106 / 1	19 / 299 / 34	15 / 232 / 39	5 / 17 / 03	1 / 16 / 01	1 / 09 / 02	1 / 08 / 0	3 / 45 / 06	$35,023	High school diploma or equivalent	None	ModerateTerm on the job training
Manufacturing Production Process Development	51E9061	Inspectors, Testers, Sorters & Weighers	454	30 / 66 / 22	3 / 07 / 19	4 / 09 / 46	2 / 04 / 24	2 / 04 / 29	6 / 13 / 17	5 / 11 / 16	4 / 09 / 11	1 / 03 / 12	22 / 48 / 32	25 / 56 / 47	8 / 18 / 21	10 / 23 / 32	40 / 89 / 29	21 / 47 / 23	25 / 54 / 28	9 / 2 / 3	45 / 10 / 34	5 / 1 / 13	13 / 29 / 27	$34,512	High school diploma or equivalent	None	ModerateTerm on the job training
Production	51E9111	Packaging & Filling Machine Operators & Tenders	420	127 / 303 / 78	22 / 52 / 103	1 / 03 / 13	1 / 02 / 08	3 / 06 / 05	8 / 19 / 21	4 / 09 / 08	2 / 04 / 15	50 / 118 / 6	15 / 36 / 22	5 / 13 / 12	3 / 06 / 06	7 / 16 / 04	2 / 04 / 05	2 / 04 / 01	1 / 03 / 04	7 / 16 / 11	$23,403	High school diploma or equivalent	None	ModerateTerm on the job training
Production	51E9199	Production Workers, All Other	570	62 / 109 / 2	2 / 03 / 05	1 / 01 / 04	1 / 01 / 02	1 / 02 / 21	10 / 17 / 11	14 / 24 / 18	5 / 09 / 05	1 / 02 / 05	20 / 35 / 12	14 / 24 / 1	12 / 21 / 13	10 / 17 / 12	22 / 38 / 07	17 / 29 / 07	7 / 13 / 04	8 / 14 / 11	27 / 48 / 09	4 / 07 / 05	16 / 28 / 14	$31,298	High school diploma or equivalent	None	ModerateTerm on the job training

NAICS	DESCRIPTION	Pathway	SOC Code	SOC Title	Average Annual Job Openings	Annual Occupational Openings in Industry	2022 Percent of occupation	2022 Percent of Industry
423	Merchant Wholesalers, Durable Goods		1103061	Purchasing Managers**	78	5	5.9	0.1
424	Merchant Wholesalers, Nondurable Goods	Logistics Planning and Management Services				4	4.6	0.2
425	Wholesale Electronic Markets and Agents and Brokers					1	1.3	0.1
423	Merchant Wholesalers, Durable Goods		1103071	Transportation, Storage & Distribution Managers**	120	7	6.2	0.2
424	Merchant Wholesalers, Nondurable Goods					10	8.6	0.5
425	Wholesale Electronic Markets and Agents and Brokers					2	1.4	0.1
481	Air Transportation					3	2.2	0.6
482	Rail Transportation					5	3.8	1.9
483	Water Transportation	Warehousing and Distribution Center Operations				1	0.5	0.7
484	Truck Transportation					12	10	0.7
485	Transit and Ground Passenger Transportation					1	1.2	0.3
488	Support Activities for Transportation					6	5.2	0.8
492	Couriers and Messengers					4	3.1	0.7
493	Warehousing and Storage					11	9.1	1.3
424	Merchant Wholesalers, Nondurable Goods	Health, Safety and Environmental Management	1301041	Compliance Officers**	94	1	1	0.1
424	Merchant Wholesalers, Nondurable Goods					1	1	0.1
423	Merchant Wholesalers, Durable Goods		1301081	Logisticians**	101	4	3.6	0.2
424	Merchant Wholesalers, Nondurable Goods					2	2.3	0.2
425	Wholesale Electronic Markets and Agents and Brokers					1	1.2	0.2
481	Air Transportation	Logistics Planning and Management Services				1	0.6	0.2
484	Truck Transportation					1	1.2	0.1
488	Support Activities for Transportation					2	1.6	0.3
492	Couriers and Messengers					1	0.5	0.1
493	Warehousing and Storage					2	2.1	0.4
423	Merchant Wholesalers, Durable Goods		1702112	Industrial Engineers (Supply Chain Engineer)	184	3	1.8	0.1
424	Merchant Wholesalers, Nondurable Goods					1	0.5	0.1
425	Wholesale Electronic Markets and Agents and Brokers	Warehousing and Distribution Center Operations				1	0.3	0.1
492	Couriers and Messengers					1	0.3	0.2
493	Warehousing and Storage					1	0.7	0.2
423	Merchant Wholesalers, Durable Goods	Transportation Systems/Infrastructure Planning, Mgt. an	1703023	Electrical & Electronic Engineering Technicians**	89	5	5.2	0.3
425	Wholesale Electronic Markets and Agents and Brokers					1	0.7	0.1
423	Merchant Wholesalers Durable Goods		4301011	1stN Line Supvrs/Mgrs, Office & Adm Support Wkrs**	1,086	27	2.5	1.3
424	Merchant Wholesalers, Nondurable Goods					17	1.6	1.2
425	Wholesale Electronic Markets and Agents and Brokers					9	0.8	1.2
481	Air Transportation					7	0.6	2.3
482	Rail Transportation	Logistics Planning and Management Services				1	0.1	0.5
484	Truck Transportation					7	0.6	0.6
485	Transit and Ground Passenger Transportation					2	0.2	0.6
488	Support Activities for Transportation					11	1	2.3
492	Couriers and Messengers					7	0.6	2.1
493	Warehousing and Storage					8	0.7	1.3
481	Air Transportation		4304181	Reservation/Trans Ticket Agents & Travel Clerks	65	38	58.2	17.2
483	Water Transportation					1	0.9	1.5
485	Transit and Ground Passenger Transportation	Sales and Service				3	3.9	0.9
487	Scenic and Sightseeing Transportation					1	1	3.9
488	Support Activities for Transportation					3	4.9	0.9
424	Merchant Wholesalers, Nondurable Goods		4305011	Cargo & Freight Agents (Route Planners)	226	1	0.4	0
425	Wholesale Electronic Markets and Agents and Brokers					1	0.3	0
481	Air Transportation					21	9.5	2.1
482	Rail Transportation					1	0.3	0.1
483	Water Transportation	Sales and Service				3	1.2	1.5
484	Truck Transportation					19	8.3	0.5
488	Support Activities for Transportation					144	63.6	8.4
492	Couriers and Messengers					17	7.6	1.4
493	Warehousing and Storage					5	2.1	0.2
423	Merchant Wholesalers, Durable Goods		4305032	Dispatchers**	207	6	2.9	0.2
424	Merchant Wholesalers, Nondurable Goods					4	1.9	0.2
425	Wholesale Electronic Markets and Agents and Brokers					1	0.4	0.1
481	Air Transportation					2	0.8	0.4
482	Rail Transportation	Transportation Operations				3	1.4	1.4
484	Truck Transportation					37	17.9	2.6
485	Transit and Ground Passenger Transportation					16	7.8	3.2
488	Support Activities for Transportation					16	7.9	2.4
492	Couriers and Messengers					6	3.1	1.3
493	Warehousing and Storage					2	1.2	0.3
42	Wholesale Trade		4305061	Production, Planning, & Expediting Clerks**	201	17	8.3	0.4
423	Merchant Wholesalers, Durable Goods					8	4	0.4
424	Merchant Wholesalers, Nondurable Goods					6	3.1	0.4
425	Wholesale Electronic Markets and Agents and Brokers					2	1.2	0.3
481	Air Transportation	Warehousing and Distribution Center Operations				1	0.6	0.4
484	Truck Transportation					1	0.7	0.1
488	Support Activities for Transportation					3	1.4	0.6
492	Couriers and Messengers					1	0.5	0.3
493	Warehousing and Storage					4	2.1	0.8
423	Merchant Wholesalers, Durable Goods		4305071	Shipping, Receiving, & Traffic Clerks**	682	92	13.5	3.2
424	Merchant Wholesalers Nondurable Goods					53	7.8	2.7
425	Wholesale Electronic Markets and Agents and Brokers					18	2.7	1.7
481	Air Transportation					1	0.1	0.2
483	Water Transportation	Warehousing and Distribution Center Operations				1	0.1	0.5
484	Truck Transportation					6	0.9	0.4
488	Support Activities for Transportation					12	1.8	1.8

Code	Industry	Career Area	SOC Code	Occupation	Total			
492	Couriers and Messengers					34	5	7 2
493	Warehousing and Storage					32	4 7	4 1
423	Merchant Wholesalers, Durable Goods					1	0 7	0
481	Air Transportation	Facility and Mobile Equipment Maintenance	4903011	Aircraft Mechanics & Service Technicians	91	22	23 7	7 3
488	Support Activities for Transportation					32	34 7	6 3
492	Couriers and Messengers					3	3 6	0 9
423	Merchant Wholesalers, Durable Goods					2	1 5	0 1
425	Wholesale Electronic Markets and Agents and Brokers	Facility and Mobile Equipment Maintenance	4903021	Automotive Body & Related Repairers	165	1	0 6	0 1
484	Truck Transportation					1	0 5	0 1
423	Merchant Wholesalers Durable Goods					11	1 7	0 4
424	Merchant Wholesalers, Nondurable Goods					1	0.1	0
425	Wholesale Electronic Markets and Agents and Brokers					2	0 3	0 2
484	Truck Transportation	Facility and Mobile Equipment Maintenance	4903023	Automotive Service Technicians & Mechanics**	667	3	0 5	0 2
485	Transit and Ground Passenger Transportation					3	0 4	0 6
488	Support Activities for Transportation					5	0 8	0 9
492	Couriers and Messengers					1	0 2	0 3
493	Warehousing and Storage					1	0 1	0 1
423	Merchant Wholesalers, Durable Goods					21	10 6	1
424	Merchant Wholesalers, Nondurable Goods					5	2 4	0 3
425	Wholesale Electronic Markets and Agents and Brokers					1	0 7	0 2
481	Air Transportation					1	0 3	0 2
482	Rail Transportation	Facility and Mobile Equipment Maintenance	4903031	Bus & Truck Mechanics & Diesel Eng Specialists**	197	2	0 9	1 2
484	Truck Transportation					37	18 6	3 5
485	Transit and Ground Passenger Transportation					10	5	2 6
488	Support Activities for Transportation					3	1 6	0 6
492	Couriers and Messengers					4	1 8	1
493	Warehousing and Storage					2	0.8	0 3
482	Rail Transportation	Facility and Mobile Equipment Maintenance	4903043	Rail Car Repairers	52	28	53 5	5 2
488	Support Activities for Transportation					15	28 3	0 9
423	Merchant Wholesalers, Durable Goods	Facility and Mobile Equipment Maintenance	4903093	Tire Repairers & Changers	99	2	2 5	0 1
484	Truck Transportation					1	1 3	0 1
423	Merchant Wholesalers Durable Goods					8	2 7	0 5
424	Merchant Wholesalers, Nondurable Goods					4	1 5	0 4
425	Wholesale Electronic Markets and Agents and Brokers	Warehousing and Distribution Center Operations	5101011	1stNLine Supvrs/Mgrs,Prod/Operating Workers**	292	1	0 4	0 2
486	Pipeline Transportation					1	0 2	3 9
488	Support Activities for Transportation					1	0 3	0 3
493	Warehousing and Storage					1	0 5	0 4
423	Merchant Wholesalers, Durable Goods					20	8 6	0 5
424	Merchant Wholesalers, Nondurable Goods					23	9 9	0 9
425	Wholesale Electronic Markets and Agents and Brokers					4	1 6	0 3
481	Air Transportation	Warehousing and Distribution Center Operations	5301021	1stNLine Supvrs/Mgrs,Helpers & Laborers	232	1	0 4	0 2
484	Truck Transportation					11	4 9	0 6
488	Support Activities for Transportation					8	3 5	0 9
492	Couriers and Messengers					22	9 6	3 6
493	Warehousing and Storage					32	13 7	3 2
42	Wholesale Trade					18	14 5	0 5
423	Merchant Wholesalers Durable Goods					6	4 7	0 3
424	Merchant Wholesalers, Nondurable Goods					11	8 9	0 9
425	Wholesale Electronic Markets and Agents and Brokers					1	1	0 2
481	Air Transportation					1	0 9	0 5
482	Rail Transportation	Warehousing and Distribution Center Operations	5301031	1stNLine Supvrs/Mgrs,Trans Machine Operators**	122	2	1 4	1 4
484	Truck Transportation					18	14 8	2 2
485	Transit and Ground Passenger Transportation					6	4 6	1 9
488	Support Activities for Transportation					5	4 1	1 3
492	Couriers and Messengers					6	4 6	2
493	Warehousing and Storage					6	4 7	1 3
481	Air Transportation	Transportation Operations	5302011	Airline Pilots, Copilots, Flight Engineers	267	231	86.5	13 2
488	Support Activities for Transportation					3	1 2	0 1
481	Air Transportation	Transportation Operations	5302031	Flight Attendants	290	285	98.2	19 1
488	Support Activities for Transportation					1	0 5	0 1
485	Transit and Ground Passenger Transportation	Transportation Operations	5303021	Bus Drivers, Transit & Intercity	196	83	42 3	15 1
487	Scenic and Sightseeing Transportation					5	2 8	16 4
485	Transit and Ground Passenger Transportation	Transportation Operations	5303022	School Bus Drivers	459	189	41 2	41 1
423	Merchant Wholesalers Durable Goods					41	3 2	2
424	Merchant Wholesalers Nondurable Goods					100	7 9	7 3
425	Wholesale Electronic Markets and Agents and Brokers					6	0 5	0 8
484	Truck Transportation	Transportation Operations	5303032	Truck Drivers, Heavy & Tractor Trailer**	1,270	588	46.3	59 7
486	Pipeline Transportation					1	0 1	2 8
488	Support Activities for Transportation					39	3 1	8 5
492	Couriers and Messengers					19	1 5	5 6
493	Warehousing and Storage					28	2 2	5 3
423	Merchant Wholesalers, Durable Goods					58	8 4	2 5
424	Merchant Wholesalers, Nondurable Goods					53	7 6	3 2
425	Wholesale Electronic Markets and Agents and Brokers					12	1 8	1 4
482	Rail Transportation	Transportation Operations	5303033	Truck Drivers, Light & Delivery Services	692	1	0.1	0 5
484	Truck Transportation					42	6 1	3 6
488	Support Activities for Transportation					8	1 2	1 5
492	Couriers and Messengers					118	17 1	30 5
493	Warehousing and Storage					13	1 9	2 1
482	Rail Transportation	Transportation Operations	5304031	Railroad Conductors & Yardmasters	63	57	90 1	17 3
488	Support Activities for Transportation					1	1 3	0 1

Pathway	SOC Code	SOC Title	Average Annual Job Openings	Annual Occupational Openings in Industry	2022 Percent of occupation	2022 Percent of Industry	Median Annual	Education Entry Level	Experience Entry Level	Training Entry Level
Logistics Planning and Management Services	11-3061	Purchasing Managers *	78	5	9.5	0.1	$95,907	Bachelor's degree	More than 5 years	None
				4	4.6	0.2				
				1	1.3	0.1				
Warehousing and Distribution Center Operations	11-3071	Transportation, Storage & Distribution Managers**	120	7	6.2	0.2	$81,823	High school diploma or equivalent	More than 5 years	None
				10	8.6	0.5				
				2	1.4	0.1				
				3	1.2	0.6				
				5	3.8	1.9				
				1	0.5	0.7				
				12	10	0.7				
				1	1.2	0.3				
				6	5.2	0.8				
				4	3.1	0.7				
				11	9.1	1.3				
Health, Safety and Environmental Management	13-1041	Compliance Officers *	94	1	1	0.1	$77,236	Bachelor's degree	None	Moderate-term on-the-job training
				1	1	0.1				
				4	3.6	0.2				
				2	2.3	0.2				
				1	1.2	0.2				
Logistics Planning and Management Services	13-1081	Logisticians**	101	1	0.6	0.2	$65,953	Bachelor's degree	3 to 5 years	None
				1	1.2	0.1				
				1	1.6	0.3				
				1	0.5	0.1				
				2	2.1	0.4				
				3	1.8	0.1				
				1	0.5	0.1				
Warehousing and Distribution Center Operations	17-2112	Industrial Engineers (Supply Chain Engineer)	184	1	0.3	0.1	$77,526	Bachelor's degree	None	None
				1	0.3	0.2				
				1	0.3	0.1				
Transportation Systems/Infrastructure Planning, Mgt, and	17-3023	Electrical & Electronic Engineering Technicians**	89	5	5.2	0.3	$60,196	Associate's degree	None	None
				1	0.7	0.1				
				27	25	1.3				
				17	16	1.2				
				9	0.8	1.2				
				7	0.6	2.3				
Logistics Planning and Management Services	43-1011	1stGline Supvrs/Mgrs, Office & Adm Support Wkrs**	1,086	1	0.1	0.5	$53,109	High school diploma or equivalent	1 to 5 years	None
				7	0.6	0.6				
				2	0.2	0.8				
				11	1	2.3				
				7	0.6	2.1				
				8	0.7	1.3				
				38	58.2	17.2				
				1	0.9	1.5				
Sales and Service	43-4181	Reservation/Trans Ticket Agents & Travel Clerks	65	3	3.9	0.9	$40,914	High school diploma or equivalent	None	Short-term on-the-job training
				1	1	3.9				
				3	4.9	0.9				
				1	0.4	0				
				1	0.3	0				
				21	9.5	2.1				
Sales and Service	43-5011	Cargo & Freight Agents (Route Planners)	226	1	0.3	0.1	$44,745	High school diploma or equivalent	None	Short-term on-the-job training
				3	1.2	1.5				
				19	8.3	0.5				
				144	63.6	8.4				
				17	7.6	1.4				
				5	2.1	0.7				
				6	2.9	0.2				
				4	1.9	0.2				
				1	0.4	0.1				
				2	0.8	0.4				
Transportation Operations	43-5032	Dispatchers**	207	3	1.4	1.4	$42,520	High school diploma or equivalent	None	Moderate-term on-the-job training
				37	17.9	2.6				
				16	7.6	1.2				
				16	7.9	2.4				
				6	3.2	1.3				
				3	1.2	0.3				
				17	8.3	0.4				
				8	4	0.4				
				6	3.1	0.4				
				2	1.2	0.3				
Warehousing and Distribution Center Operations	43-5061	Production, Planning, & Expediting Clerks**	201	1	0.6	0.4	$46,716	High school diploma or equivalent	None	Moderate-term on-the-job training
				1	0.7	0.1				
				3	1.4	0.6				
				1	0.5	0.3				
				4	2.1	0.8				
				92	13.5	3.2				
				53	7.8	2.7				
				18	2.7	1.7				
				1	0.1	0.2				
Warehousing and Distribution Center Operations	43-5071	Shipping, Receiving, & Traffic Clerks *	682	1	0.1	0.5	$40,693	High school diploma or equivalent	None	Short-term on-the-job training
				6	0.9	0.4				
				12	1.8	1.8				
				34	5	7.2				
				32	4.7	8.1				
				1	0.7	0				
Facility and Mobile Equipment Maintenance	49-3011	Aircraft Mechanics & Service Technicians	91	33	23.7	7.3	$67,122	Postsecondary nondegree award	None	None
				32	34.7	6.3				
				3	3.6	0.9				
				2	1.5	0.1				
Facility and Mobile Equipment Maintenance	49-3021	Automotive Body & Related Repairers	165	1	0.6	0.1	$51,224	High school diploma or equivalent	None	Moderate-term on-the-job training
				1	0.5	0.1				
				11	1.7	0.4				
				1	0.1	0				
				2	0.3	0.2				
Facility and Mobile Equipment Maintenance	49-3023	Automotive Service Technicians & Mechanics**	667	3	0.5	0.2	$41,509	High school diploma or equivalent	None	Long-term on-the-job training
				3	0.4	0.6				
				5	0.8	0.9				
				1	0.2	0.3				
				1	0.3	0.1				
				21	10.6	1				
				5	2.4	0.3				
				1	0.7	0.2				
				1	0.3	0.2				
Facility and Mobile Equipment Maintenance	49-3031	Bus & Truck Mechanics & Diesel Eng. Specialists**	197	2	0.9	1.2	$50,482	High school diploma or equivalent	None	Long-term on-the-job training
				37	18.6	3.5				
				10	5	2.6				
				3	1.6	0.6				

							Education	Experience	Training
				4	1.8	1			
				2	0.8	0.3			
Facility and Mobile Equipment Maintenance	49F3043	Rail Car Repairers	57	38	53.5	5.3	High school diploma or equivalent	None	LongTerm onTheJob training
				15	28.3	0.9			
Facility and Mobile Equipment Maintenance	49F3093	Tire Repairers & Changers	99	2	2.5	0.1	$25 224	High school diploma or equivalent	None	ModerateTterm onTheJob training
				1	1.3	0.1			
				8	2.7	0.5			
				4	1.5	0.4			
Warehousing and Distribution Center Operations	53F1011	1stQLine Supvrs/Mgrs Prod/Operating Workers**	292	1	0.4	0.2	$56 877	Postsecondary nondegree award	1 to 5 years	None
				1	0.2	1.9			
				1	0.3	0.3			
				1	0.5	0.4			
				20	1.6	0.5			
				21	9.9	0.9			
				4	1.6	0.3			
Warehousing and Distribution Center Operations	53F1021	1stQLine Supvrs/Mgrs Helpers & Laborers	231	1	0.4	0.2	$51,041	High school diploma or equivalent	1 to 5 years	None
				11	4.9	0.6			
				8	3.5	0.9			
				32	9.6	3.6			
				32	13.7	3.3			
				18	14.5	0.5			
				6	4.7	0.3			
				11	8.8	0.9			
				1	1	0.7			
Warehousing and Distribution Center Operations	53F1031	1stQLine Supvrs/Mgrs Trans Machine Operators**	122	1	0.9	0.5	$60 964	High school diploma or equivalent	1 to 5 years	None
				2	1.4	1.4			
				18	14.6	2.2			
				6	4.6	1.9			
				5	4.1	1.3			
				6	4.6	2			
				6	4.7	1.3			
Transportation Operations	53F2011	Airline Pilots Copilots, Flight Engineers	267	231	86.5	13.2	$110 629	High school diploma or equivalent	1 to 5 years	LongTerm onTheJob training
				3	1.2	0.1			
Transportation Operations	53F2031	Flight Attendants	190	265	98.2	19.1	$37 732	High school diploma or equivalent	None	ModerateTterm onTheJob training
				1	0.5	0.1			
Transportation Operations	53F3021	Bus Drivers Transit & Intercity	196	83	42.3	15.1	$64,043	High school diploma or equivalent	None	ModerateTterm onTheJob training
				5	2.8	16.4			
Transportation Operations	53F3022	School Bus Drivers	459	189	41.2	41.1	$30 403	High school diploma or equivalent	None	ModerateTterm onTheJob training
				41	3.2	2			
				100	7.9	7.3			
				6	0.5	0.8			
Transportation Operations	53F3032	Truck Drivers, Heavy & Tractor Trailer**	1 270	588	46.3	59.2	$45,349	High school diploma or equivalent	1 to 5 years	ShortTerm onTheJob training
				1	0.5	2.8			
				39	3.1	8.5			
				19	1.5	5.6			
				28	2.2	5.3			
				58	8.4	2.5			
				53	7.6	3.2			
				12	1.8	1.4			
Transportation Operations	53F3033	Truck Drivers, Light & Delivery Services	692	1	0.1	0.5	$34 141	High school diploma or equivalent	None	ShortTerm onTheJob training
				42	6.1	3.6			
				8	1.2	1.5			
				118	17.1	30.5			
				13	1.9	2.1			
Transportation Operations	53F4031	Railroad Conductors & Yardmasters	63	57	90.1	17.3		High school diploma or equivalent	None	ModerateTterm onTheJob training
				1	1.3	0.1			

NAICS	Description	Pathway	SOC Code	SOC Title	Average Annual Job Openings	Annual Occupation Openings in Industry	2022 Percent of Occupation that is in this Industry	2022 Percent of Employment in this Industry that is this Occupation
621	Ambulatory Health Care Services	Health Informatics	11J3011	Administrative Services Managers **	281	17	59	02
622	Hospitals					17	6	03
623	Nursing and Residential Care Facilities					7	25	02
624	Social Assistance					5	17	02
622	Hospitals	Support Services	11J9051	Food Service Managers**	176	1	06	0
623	Nursing and Residential Care Facilities					4	22	02
624	Social Assistance					1	03	0
621	Ambulatory Health Care Services	Health Informatics	11J9111	Medical & Health Services Managers	299	90	30	13
622	Hospitals					109	364	21
623	Nursing and Residential Care Facilities					32	108	11
624	Social Assistance					6	19	02
621	Ambulatory Health Care Services	Support Services	21J1011	Substnce Abuse/Bhvrl Dsrdr Counsirs**	58	17	291	04
622	Hospitals					5	84	01
623	Nursing and Residential Care Facilities					13	22	07
624	Social Assistance					9	151	05
621	Ambulatory Health Care Services	Support Services	21J1014	Mental Health Counselors**	135	41	304	06
622	Hospitals					14	10	03
623	Nursing and Residential Care Facilities					24	176	07
624	Social Assistance					27	201	09
622	Hospitals	Support Services	21J1015	Rehabilitation Counselors	84	2	28	01
624	Social Assistance					38	457	18
621	Ambulatory Health Care Services	Support Services	21J1022	Medical Health Social Workers	106	27	251	05
622	Hospitals					30	284	08
623	Nursing and Residential Care Facilities					16	151	07
624	Social Assistance					15	146	07
621	Ambulatory Health Care Services	Support Services	21J1093	Social & Human Services Assistants**	263	21	8	04
622	Hospitals					8	31	02
623	Nursing and Residential Care Facilities					45	171	2
624	Social Assistance					107	407	51
621	Ambulatory Health Care Services	Support Services	21J1094	Community Health Workers	55	10	183	01
622	Hospitals					4	77	01
623	Nursing and Residential Care Facilities					3	57	01
624	Social Assistance					16	287	04
621	Ambulatory Health Care Services	Support Services	21J1099	Community/Social Services Specialists, All Other	115	5	44	01
622	Hospitals					4	32	01
623	Nursing and Residential Care Facilities					4	38	01
624	Social Assistance					30	259	09
621	Ambulatory Health Care Services	Therapeutic Services	29J1011	Chiropractors	66	46	694	04
622	Hospitals					1	08	0
621	Ambulatory Health Care Services	Therapeutic Services	29J1041	Optometrists	69	53	763	04
622	Hospitals					1	09	0
621	Ambulatory Health Care Services	Therapeutic Services	29J1051	Pharmacists	250	11	42	02
622	Hospitals					63	253	13
623	Nursing and Residential Care Facilities					1	02	0
621	Ambulatory Health Care Services	Therapeutic Services	29J1071	Physician Assistants	73	52	714	1
622	Hospitals					14	196	04
621	Ambulatory Health Care Services	Therapeutic Services	29J1122	Occupational Therapists	109	43	399	07
622	Hospitals					29	262	06
623	Nursing and Residential Care Facilities					10	9	03
624	Social Assistance					4	39	02
621	Ambulatory Health Care Services	Therapeutic Services	29J1123	Physical Therapists	399	225	563	18
622	Hospitals					100	25	1
623	Nursing and Residential Care Facilities					27	67	05
624	Social Assistance					5	12	01
621	Ambulatory Health Care Services	Therapeutic Services	29J1126	Respiratory Therapists	61	5	76	01
622	Hospitals					49	798	17
623	Nursing and Residential Care Facilities					3	41	01
621	Ambulatory Health Care Services	Therapeutic Services	29J1127	SpeechOLanguage Pathologists	163	46	284	05
622	Hospitals					22	136	03
623	Nursing and Residential Care Facilities					8	49	02
624	Social Assistance					7	42	02
621	Ambulatory Health Care Services	Therapeutic Services	29J1141	Registered Nurses	2400	482	201	74
622	Hospitals					1,421	592	289
623	Nursing and Residential Care Facilities					168	7	58
624	Social Assistance					22	09	08
621	Ambulatory Health Care Services	Therapeutic Services	29J1171	Nurse Practitioners	109	68	62	1
622	Hospitals					28	254	06
623	Nursing and Residential Care Facilities					3	24	01
624	Social Assistance					1	08	0

NAICS	Industry	Service	SOC	Occupation	Total			
621	Ambulatory Health Care Services	Diagnostic Services	29J2011	Med & Clinical Lab Technologists	101	33	32 3	0 7
622	Hospitals					58	57	1 6
621	Ambulatory Health Care Services	Diagnostic Services	29J2012	Medical & Clinical Lab Technicians	178	79	44 3	1 1
622	Hospitals					74	41 4	1 3
623	Nursing and Residential Care Facilities					1	0 5	0
621	Ambulatory Health Care Services	Therapeutic Services	29J2021	Dental Hygienists	209	204	97 4	2 8
622	Hospitals					1	0 3	0
621	Ambulatory Health Care Services	Diagnostic Services	29J2032	Diagnostic Medical Sonographers	65	26	39 9	0 4
622	Hospitals					36	55 8	0 7
621	Ambulatory Health Care Services	Diagnostic Services	29J2034	Radiologic Technologsts/Technicians	113	41	36 7	1
622	Hospitals					64	56 9	2 1
621	Ambulatory Health Care Services	Therapeutic Services	29J2041	Emergency Medical Techs & Paramedics	326	179	55	1 8
622	Hospitals					50	15 2	0 7
621	Ambulatory Health Care Services	Therapeutic Services	29J2052	Pharmacy Technicians	301	11	3 5	0 2
622	Hospitals					49	16 2	1
623	Nursing and Residential Care Facilities					1	0 2	0
621	Ambulatory Health Care Services	Therapeutic Services	29J2061	Licensed Practical Nurses	710	205	28 9	3
622	Hospitals					116	16 3	2 3
623	Nursing and Residential Care Facilities					278	39 1	9 1
624	Social Assistance					10	1 4	0 4
621	Ambulatory Health Care Services	Health Informatics	29J2071	Med Records & Health Info Technicians	206	73	35 4	0 9
622	Hospitals					77	37 6	1 3
623	Nursing and Residential Care Facilities					18	8 9	0 5
624	Social Assistance					1	0 4	0
621	Ambulatory Health Care Services	Health Informatics	29J2081	Opticians, Dispensing	129	69	53 4	0 5
621	Ambulatory Health Care Services					69	53 4	0 5
622	Hospitals					1	0 4	0
622	Hospitals					1	0 4	0
621	Ambulatory Health Care Services	Health Informatics	29J9091	Athletic Trainers**	67	20	30 3	0 1
621	Ambulatory Health Care Services					20	30 3	0 1
622	Hospitals					8	12 6	0 1
622	Hospitals					8	12 6	0 1
621	Ambulatory Health Care Services	Therapeutic Services	31J1014	Nursing Assistants	1491	134	9	1 8
622	Hospitals					364	24 4	6 6
623	Nursing and Residential Care Facilities					804	53 9	24 4
624	Social Assistance					28	1 9	1
621	Ambulatory Health Care Services	Therapeutic Services	31J2011	Occupational Therapist Assistants	61	31	50 8	0 2
622	Hospitals					11	17 8	0 1
623	Nursing and Residential Care Facilities					13	20 5	0 2
624	Social Assistance					2	3 1	0
621	Ambulatory Health Care Services	Therapeutic Services	31J2021	Physical Therapist Assistants	119	73	61 2	0 7
622	Hospitals					27	22 9	0 3
623	Nursing and Residential Care Facilities					14	12 1	0 3
624	Social Assistance					1	0 7	0
621	Ambulatory Health Care Services	Therapeutic Services	31J2022	Physical Therapist Aides	106	72	67 9	0 5
622	Hospitals					22	21	0 2
623	Nursing and Residential Care Facilities					8	7 3	0 1
621	Ambulatory Health Care Services	Health Informatics	31J9011	Massage Therapists	152	37	24 6	0 5
621	Ambulatory Health Care Services					37	24 6	0 5
622	Hospitals					1	0 6	0
622	Hospitals					1	0 6	0
621	Ambulatory Health Care Services	Therapeutic Services	31J9091	Dental Assistants	247	236	95 4	4 1
622	Hospitals					2	0 7	0
621	Ambulatory Health Care Services	Health Informatics	31J9092	Medical Assistants	481	383	79 7	6 6
622	Hospitals					60	12 4	1 4
623	Nursing and Residential Care Facilities					10	2	0 4
621	Ambulatory Health Care Services	Health Informatics	31J9097	Phlebotomists	66	39	58 9	0 9
621	Ambulatory Health Care Services					39	58 9	0 9
622	Hospitals					24	36 9	0 7
622	Hospitals					24	36 9	0 7
621	Ambulatory Health Care Services	Health Informatics	31J9099	Healthcare Support Workers, All Other	217	49	22 5	0 3
622	Hospitals					74	33 9	0 6
623	Nursing and Residential Care Facilities					18	8 5	0 3
624	Social Assistance					3	1 6	0 1
622	Hospitals	Support Services	35J1012	1stOLine Svrs/Mgrs, Food Prep/Serv ** USE EMP	877	11	1 2	0 2
623	Nursing and Residential Care Facilities					24	2 7	0 7
624	Social Assistance					4	0 5	0 1
621	Ambulatory Health Care Services	Health Informatics	43J3011	Bill and Account Collectors**	468	55	11 8	0 6
622	Hospitals					22	4 6	0 3
623	Nursing and Residential Care Facilities					4	0 8	0 1
624	Social Assistance					1	0 2	0
621	Ambulatory Health Care Services	Health Informatics	43J4171	Receptionists & Information Clerks **	907	368	40 6	5 3
622	Hospitals					34	3 7	0 6
623	Nursing and Residential Care Facilities					26	2 9	0 8
624	Social Assistance					18	2	0 6

Pathway	SOC Code	SOC Title	Average Annual Job Openings	Annual Occupation Openings in Industry	2022 Percent of Occupation that is in this Industry	2022 Percent of Employment in this Industry that is this Occupation	Median Annual	Education Entry Level	Experience Entry Level	Training Entry Level
Health Informatics	1193011	Administrative Services Managers **	281	17	5 9	0 2	$70,845	High school diploma or equivalen	1 to 5 years	None
				17	6	0 3				
				7	2 5	0 2				
				5	1 7	0 2				
Support Services	1199051	Food Service Managers**	176	1	0 6	0	$48,164	High school diploma or equivalen	1 to 5 years	None
				4	2 2	0 2				
				1	0 3	0				
Health Informatics	1199111	Medical & Health Services Managers	299	90	30	1 3	$100,758	Bachelor s degree	None	None
				109	36 4	2 1				
				32	10 8	1 1				
				6	1 9	0 2				
Support Services	2191011	Substnce Abuse/Bhvrl Dsrdr Counslrs**	58	17	29 1	0 4	$33,954	High school diploma or equivalen	None	Moderate9term on9the9job trainin
				5	8 4	0 1				
				13	22	0 7				
				9	15 1	0 5				
Support Services	2191014	Mental Health Counselors**	135	41	30 4	0 6	$39,378	Master's degree	None	Internship/residency
				14	10	0 3				
				24	17 6	0 7				
				27	20 1	0 9				
Support Services	2191015	Rehabilitation Counselors	84	2	2 8	0 1	$34,975	Master's degree	None	None
				38	45 7	1 8				
Support Services	2191022	Medical Health Social Workers	106	27	25 1	0 5	$53,590	Master's degree	None	None
				30	28 4	0 8				
				16	15 1	0 7				
				15	14 6	0 7				
Support Services	2191093	Social & Human Services Assistants**	263	21	8	0 4	$30,257	High school diploma or equivalen	None	Short9term on9the9job training
				8	3 1	0 2				
				45	17 1	2				
				107	40 7	5 1				
Support Services	2191094	Community Health Workers	55	10	18 3	0 1	$35,788	High school diploma or equivalen	None	Short9term on9the9job training
				4	7 7	0 1				
				3	5 7	0 1				
				16	28 7	0 4				
Support Services	2191099	Community/Social Services Specialists, All Other	115	5	4 4	0 1	$37,798	Master's degree	None	None
				4	3 2	0 1				
				4	3 8	0 1				
				30	25 9	0 9				
Therapeutic Services	2991011	Chiropractors	66	46	69 4	0 4	$50,005	Doctoral or professional degree	None	None
				1	0 8	0				
Therapeutic Services	2991041	Optometrists	69	53	76 3	0 4	$90,843	Doctoral or professional degree	None	None
				1	0 9	0				
Therapeutic Services	2991051	Pharmacists	250	11	4 2	0 2	$121,701	Doctoral or professional degree	None	None
				63	25 3	1 3				
				1	0 2	0				
Therapeutic Services	2991071	Physician Assistants	73	52	71 4	1	$86,551	Master's degree	None	None
				14	19 6	0 4				
Therapeutic Services	2991122	Occupational Therapists	109	43	39 9	0 7	$80,670	Master's degree	None	None
				29	26 2	0 6				
				10	9	0 3				
				4	3 9	0 2				
Therapeutic Services	2991123	Physical Therapists	399	225	56 3	1 8	$80,679	Doctoral or professional degree	None	None
				100	25	1				
				27	6 7	0 5				
				5	1 2	0 1				
Therapeutic Services	2991126	Respiratory Therapists	61	5	7 6	0 1	$56,178	Associate s degree	None	None
				49	79 8	1 7				
				3	4 1	0 1				
Therapeutic Services	2991127	SpeechPlanguage Pathologists	163	46	28 4	0 5	$72,907	Master s degree	None	None
				22	13 6	0 3				
				8	4 9	0 2				
				7	4 2	0 2				
Therapeutic Services	2991141	Registered Nurses	2400	482	20 1	7 4	$71,914	Associate's or Bachelor's degree	None	None
				1,421	59 2	28 9				
				168	7	5 8				
				22	0 9	0 8				
Therapeutic Services	2991171	Nurse Practitioners	109	68	62	1	$92,698	Master's degree	None	None
				28	25 4	0 6				
				3	2 4	0 1				
				1	0 8	0				
Diagnostic Services	2992011	Med & Clinical Lab Technologists	101	33	32 3	0 7	$59,681	Bachelor s degree	None	None
				58	57	1 6				
Diagnostic Services	2992012	Medical & Clinical Lab Technicians	178	79	44 3	1 1	$42,546	Associate's degree	None	None
				74	41 4	1 3				
				1	0 5	0				
Therapeutic Services	2992021	Dental Hygienists	209	204	97 4	2 8	$73,703	Associate s degree	None	None
				1	0 3	0				

Pathway	Code	Occupation	Value	Col1	Col2	Col3	Wage	Education	Experience	Training
Diagnostic Services	2992032	Diagnostic Medical Sonographers	65	26 / 36	39 9 / 55 8	0 4 / 0 7	$76,570	Associate s degree	None	None
Diagnostic Services	2992034	Radiologic Technologists/Technicians	113	41 / 64	36 7 / 56 9	1 / 2 1	$62,511	Associate's degree	None	None
Therapeutic Services	2992041	Emergency Medical Techs & Paramedics	326	179 / 50	55 / 15 2	1 8 / 0 7	$52,893	Postsecondary non9degree award	None	None
Therapeutic Services	2992052	Pharmacy Technicians	301	11 / 49 / 1	3 5 / 16 2 / 0 2	0 2 / 1 / 0	$28,119	High school diploma or equivalen	None	Moderate9term on9the9job trainin
Therapeutic Services	2992061	Licensed Practical Nurses	710	205 / 116 / 278 / 10	28 9 / 16 3 / 39 1 / 1 4	3 / 2 3 / 9 1 / 0 4	$48,251	Postsecondary non9degree award	None	None
Health Informatics	2992071	Med Records & Health Info Technicians	206	73 / 77 / 18 / 1	35 4 / 37 6 / 8 9 / 0 4	0 9 / 1 3 / 0 5 / 0	$37,419	Postsecondary non9degree award	None	None
Health Informatics	2992081	Opticians, Dispensing	129	69 / 69 / 1 / 1	53 4 / 53 4 / 0 4 / 0 4	0 5 / 0 5 / 0 / 0	$33,556	High school diploma or equivalen	None	Long9term on9the9job training
Health Informatics	2999091	Athletic Trainers**	67	20 / 20 / 8 / 8	30 3 / 30 3 / 12 6 / 12 6	0 1 / 0 1 / 0 1 / 0 1	$42,663	Bachelor s degree	None	None
Therapeutic Services	3191014	Nursing Assistants	1491	134 / 364 / 804 / 28	9 / 24 4 / 53 9 / 1 9	1 8 / 6 6 / 24 4 / 1	$24,449	Postsecondary non9degree award	None	None
Therapeutic Services	3192011	Occupational Therapist Assistants	61	31 / 11 / 13 / 2	50 8 / 17 8 / 20 5 / 3 1	0 2 / 0 1 / 0 2 / 0	$61,757	Associate's degree	None	None
Therapeutic Services	3192021	Physical Therapist Assistants	119	73 / 27 / 14 / 1	61 2 / 22 9 / 12 1 / 0 7	0 7 / 0 3 / 0 3 / 0	$35,267	Associate's degree	None	None
Therapeutic Services	3192022	Physical Therapist Aides	106	72 / 22 / 8	67 9 / 21 / 7 3	0 5 / 0 2 / 0 1	$26,292	High school diploma or equivalen	None	Moderate9term on9the9job trainin
Health Informatics	3199011	Massage Therapists	152	37 / 37 / 1 / 1	24 6 / 24 6 / 0 6 / 0 6	0 5 / 0 5 / 0 / 0	$26,951	Postsecondary non9degree award	None	None
Therapeutic Services	3199091	Dental Assistants	247	236 / 2	95 4 / 0 7	4 1 / 0	$37,044	Postsecondary non9degree award	None	None
Health Informatics	3199092	Medical Assistants	481	383 / 60 / 10	79 7 / 12 4 / 2	6 6 / 1 4 / 0 4	$31,227	High school diploma or equivalen	None	Moderate9term on9the9job trainin
Health Informatics	3199097	Phlebotomists	66	39 / 39 / 24 / 24	58 9 / 58 9 / 36 9 / 36 9	0 9 / 0 9 / 0 7 / 0 7	$34,874	Postsecondary non9degree award	None	None
Health Informatics	3199099	Healthcare Support Workers, All Other	217	49 / 74 / 18 / 3	22 5 / 33 9 / 8 5 / 1 6	0 3 / D 6 / 0 3 / 0 1	$35,762	High school diploma or equivalen	None	Short9term on9the9job training
Support Services	3591012	1stPLine Svrs/Mgrs, Food Prep/Serv ** USE EMP	877	11 / 24 / 4	12 / 27 / 0 5	0 2 / 0 7 / 0 1	$27,939	High school diploma or equivalen	1 to 5 years	None
Health Informatics	4393011	Bill and Account Collectors**	468	55 / 22 / 4 / 1	11 8 / 4 6 / 0 8 / 0 2	0 6 / 0 3 / 0 1 / 0	$36,378	High school diploma or equivalen	None	Moderate9term on9the9job trainin
Health Informatics	4394171	Receptionists & Information Clerks **	907	368 / 34 / 26 / 18	40 6 / 3 7 / 2 9 / 2	5 3 / 0 6 / 0 8 / 0 6	$27,591	High school diploma or equivalen	None	Short9term on9the9job training

INDUSTRIES FOR PRINCIPAL OCCUPATIONS IN THE NORTHEAST REGION

SOC Code	SOC Title	Average Annual Job Openings	NAICS	DESCRIPTION	Annual Occupational Openings in Industry	2022 Percent of occupation
15S1121	Computer Systems Analysts	574	522	Credit intermediation and related activities	24	4 1
			524	Insurance carriers and related activities	47	8 2
			551	Management of companies and enterprises	42	7 3
			611	Educational services state, local, and private	26	4 5
			5241	Insurance carriers	42	7 4
			5415	Computer systems design and related services	166	28 9
			5416	Management scientific and technical consulting services	22	3 9
			9992	State government, excluding education and hospitals	21	3 6
15S1122	Information Security Analysts	64	522	Credit intermediation and related activities	5	8 3
			523	Securities, commodity contracts, and other financial investments and	3	4 4
			524	Insurance carriers and related activities	2	3 9
			551	Management of companies and enterprises	4	6 7
			5221	Depository credit intermediation	4	5 9
			5231	Securities and commodity contracts intermediation and brokerage	2	3 8
			5415	Computer systems design and related services	21	32 1
			5416	Management, scientific and technical consulting services	4	6 3
15S1131	Computer Programmers	718	524	Insurance carriers and related activities	26	3 6
			551	Management of companies and enterprises	25	3 5
			5112	Software publishers	39	5 4
			5415	Computer systems design and related services	292	40 6
			5613	Employment services	28	3 9
15S1132	Software Developers Applications	812	334	Computer and electronic product manufacturing	28	3 5
			524	Insurance carriers and related activities	42	5 2
			551	Management of companies and enterprises	35	4 3
			5112	Software publishers	65	8 0
			5241	Insurance carriers	36	4 4
			5415	Computer systems design and related services	316	38 9
			5416	Management, scientific, and technical consulting services	33	4 1
15S1133	Software Developers, Systems Software	467	334	Computer and electronic product manufacturing	50	10 8
			423	Merchant wholesalers durable goods	17	3 7
			5112	Software publishers	32	6 9
			5413	Architectural, engineering, and related services	21	4 5
			5415	Computer systems design and related services	177	37 8
			5416	Management, scientific and technical consulting services	23	4 9
			5417	Scientific research and development services	16	3 5
15S1134	Web Developers	110	519	Other information services	6	5 7
			611	Educational services state local, and private	6	5 2
			813	Religious, grantmaking, civic, professional and similar organizations	5	4 8
			5415	Computer systems design and related services	21	19 1
			5416	Management, scientific, and technical consulting services	5	4 1
15S1141	Database Administrators	120	522	Credit intermediation and related activities	5	3 9
			524	Insurance carriers and related activities	8	6 7
			551	Management of companies and enterprises	8	6 6
			611	Educational services state local, and private	11	8 8
			5241	Insurance carriers	6	5 4
			5415	Computer systems design and related services	24	20 4
			5416	Management, scientific, and technical consulting services	5	4 4
15S1142	Network & Computer Sys Administrators	284	517	Telecommunications	11	3 9
			524	Insurance carriers and related activities	12	4 4
			551	Management of companies and enterprises	15	5 2
			611	Educational services, state local and private	30	10 4
			5415	Computer systems design and related services	53	18 8
			5416	Management, scientific and technical consulting services	10	3 5
15S1143	Computer Network Architects	129	517	Telecommunications	12	9 4
			518	Data processing, hosting and related services	5	3 9
			524	Insurance carriers and related activities	7	5 1
			551	Management of companies and enterprises	6	4 9
			611	Educational services state local, and private	5	3 9
			5171	Wired telecommunications carriers	9	6 6
			5241	Insurance carriers	6	4 6
			5413	Architectural engineering, and related services	5	3 5
			5415	Computer systems design and related services	41	31 8
			5416	Management, scientific, and technical consulting services	6	5 0
15S1151	Computer User Support Specialists	502	423	Merchant wholesalers, durable goods	26	5 2
			551	Management of companies and enterprises	22	4 4
			611	Educational services, state, local, and private	64	12 7
			5112	Software publishers	22	4 3
			5415	Computer systems design and related services	123	24 6
			5613	Employment services	18	3 6
15S1152	Computer Network Support Specialists	103	423	Merchant wholesalers, durable goods	4	4 3
			517	Telecommunications	8	7 3
			551	Management of companies and enterprises	5	4 8
			611	Educational services state local, and private	7	7 0
			622	Hospitals state, local, and private	4	3 7
			5171	Wired telecommunications carriers	5	5 1
			5415	Computer systems design and related services	26	25 2

Occupation	Program Code (CIP)	Program Title	FY 2014 Completers	Degree Type
Team Assemblers	No Related Program of Study for This Occupation			
Machinists **ComputerSControlled Machine Tool Operators**	48.0501	Machine Tool Technology		
	Community Colleges	College of Lake County	6	< 1Yr Cert
			1	Associate
		Elgin CC	2	112 Yr Cert
			1	Associate
		Kankakee CC	2	112 Yr Cert
		Prairie State College	2	112 Yr Cert
	48.0503	Mach Shop Technology	No Programs in this EDR*	
Packaging & Filling Machine Operators & Tenders	No Related Program of Study for This Occupation			
Food Batchmakers	No Related Program of Study for This Occupation			
Software Developers, Systems Software	11.0102	Artificial Intelligence	No Programs in this EDR*	
	11.0103	Information Technology		
	Community Colleges	CCC1Harold Washington College	4	Associate
		CCC1Truman College	6	Associate
		CCC1Kennedy1King College	4	Associate
		CCC1Olive Harvey College	7	Associate
		CCC1Daley College	3	Associate
		CCC_Wright College	6	Associate
		College of Lake County	3	Associate
		Kankakee CC	1	Associate
		McHenry County College	6	Associate
		Morton College	1	Associate
		Oakton CC	2	Associate
		Prairie State College	7	Associate
	Public Universities	Northern IL University	36	Masters

Independent Not For Profit Universities	DePaul University	24	Bachelor
	Elmhurst College	8	Bachelor
	IL Institute of Technology	24	Bachelor
	"	95	Masters
	Loyola University of Chicago	22	Masters
	Robert Morris of IL	32	Bachelor
	University of St Francis	5	Bachelor
Independent For Profit Universities	American Intercontinental University Online	220	Bachelor
		102	Masters
	Sanford Brown1Chicago	3	Associate
		5	Bachelor
11.0102	**Artificial Intelligence**	No Programs in this EDR*	
11.0201	**Computer Programming, General**		
Community Colleges	Harper College	25	< 1 Yr Cert
	Joliet Junior College	10	Associate
	Kishwaukee College	1	< 1 Yr Cert
	McHenry County College	1	112 Yr Cert
	Moraine Valley CC	7	< 1 Yr Cert
	Oakton CC	1	Associate
	Prairie State College	3	< 1 Yr Cert
	Waubonsee CC	4	< 1 Yr Cert
		3	< 1 Yr Cert
Independent Not For Profit Universities	DePaul University	42	Bachelor
		10	Masters
Out of State Universities	University of Phoenix (AZ)	3	Bachelor
11.0202	**Computer Programming, Specific Applications**		
Community	College of DuPage	22	< 1 Yr Cert
		5	Associate
	College of Lake County	5	< 1 Yr Cert

Colleges	College of Lake County	2	Associate
	McHenry County College	2	< 1 Yr Cert
	Moraine Valley CC	11	< 1 Yr Cert
Independent Not For Profit Universities	DePaul University	1	Bachelor
		12	Masters

11.0401	Information Science/Studies		
Community Colleges	CCC1Washington College	27	< 1 Yr Cert
	CCC1Truman College	32	< 1 Yr Cert
		6	112 Yr Cert
	CCC1Kennedy1King College	17	< 1 Yr Cert
	CCC1Malcolm X College	3	< 1 Yr Cert
	CCC1Olive1Harvey College	17	< 1 Yr Cert
		6	112 Yr Cert
	CCC1Daley College	25	< 1 Yr Cert
	CCC1Wright College	39	< 1 Yr Cert
		6	112 Yr Cert
	Harper College	11	Associate
	Oakton CC	9	< 1 Yr Cert
	So. Suburban Coll of Cook County	27	< 1 Yr Cert
		4	Associate
	Triton College	2	< 1 Yr Cert
		2	Associate
Independent Not For Profit Universities	Benedictine University	4	Bachelor
	DePaul University	18	Bachelor
		154	Masters
	Elmhurst College	4	Bachelor
	National1Louis University	1	Bachelor
	Northwestern University	5	Bachelor
		57	Masters

	Oliver Nazarene University	5	Bachelor
	University of Illinois Chicago	33	Bachelor
11.0701	**Computer Science**		
Public Universities	Chicago State University	6	Bachelor
		18	Masters
	Governors State University	27	Bachelor
		10	Masters
	Northeastern IL University	49	Bachelor
		15	Masters
	Northern IL University	64	Bachelor
		62	Masters
	University of IL Chicago	73	Bachelor
		110	Masters
		11	Dr Research
Independent Not For Profit	Aurora University	10	Bachelor
	Benedictine University	3	Bachelor
	DePaul University	56	Bachelor
		66	Masters
		4	Dr Research
	Dominican University	9	Bachelor
	Elmhurst College	9	Bachelor
	IL Institute of Technology	26	Bachelor
		177	Masters
		3	Dr Research
	Lake Forest College	5	Bachelor
	Lewis University	24	Bachelor
	Loyola University of Chicago	11	Masters
	North Central College	13	Bachelor
		29	Bachelor

		Northwestern University	45	Masters
			9	Dr Research
		Olivet Nazarene University	4	Bachelor
		Roosevelt University	24	*Bachelor*
			2	Masters
		St Xavier University	12	Bachelor
		Trinity Christian College	2	Bachelor
		University of Chicago	18	Bachelor
			76	Masters
			5	Dr Research
		University of St Francis	2	Bachelor
		Wheaton College	1	Bachelor
	14.0901	**Computer Engineering, General**		
	Public *Universities*	University of IL Chicago	22	Bachelor
	Independent Not For Profit Universities	IL Institute of Technology	31	Bachelor
			16	Masters
			2	Dr Research
		Northwestern University	15	Bachelor
			16	Masters
			2	Dr Research
Software Developers, Systems Software**	**14.0903**	*Computer Software Engineering*	*No Programs in this EDR**	
	15.1204	**Computer Software Technology**		
	Community Colleges	Oakton Community College	3	< 1 Yr Cert
		Prairie State College	2	< 1 Yr Cert
Chemical Plant & System Operators**	**41.0301**	**Chemical Technology**		
	Community Colleges	CCC1Truman College	1	Associate
Inspectors, Testers, Sorters & Weighers	**15.0702**	**Quality Control Technology**		
	Community Colleges	CCC1Daley College	2	< 1 Yr Cert
	47.0303	**Industrial Mechanics & Maint Technology**		

Industrial Machinery Mechanics**	Community Colleges	CCC1Daley College	1	< 1 Yr Cert
			3	Associate
		College of Lake County	1	< 1 Yr Cert
		Elgin Community College	39	< 1 Yr Cert
			2	Associate
		Joliet Junior College	6	< 1 Yr Cert
			6	112 Yr Cert
			7	Associate
		Kankakee CC	2	< 1 Yr Cert
			1	112 Yr Cert
		Moraine Valley CC	1	112 Yr Cert
		Prairie State College	5	112 Yr Cert
		Waubonsee Community College	36	< 1 Yr Cert
			1	112 Yr Cert
			1	Associate

Notes: Kankakee Community College overlaps with the East Central EDR
* Potential supply. College of Lake County, Elgin Community College, Kankakee Community College, Moraine Valley Community College, Oakton Community College, Prairie State College, So Suburban College of Cook County, Triton College, and Waubonsee College reported enrollment in 48 9999 (< 1 Yr Cert) of 130 students
** denotes occupations which occur in multiple clusters/pathways

TRANSPORTATION, DISTRIBUTION & LOGISTICS
NORTHEAST REGION EDUCATIONAL SUPPLY DATA — TOP OCCUPATIONS WITH OPENINGS IN COMBINED INDUSTRIES

Occupation	Program Code (CIP)	Program Title	FY 2014 Completers	Degree Type	WIOA Eligible Training Providers
Truck Drivers, Heavy & Tractor Trailer**	49 0205	Truck/Bus Driver/Comm'l Vehicle Oper			
Truck Drivers, Light & Delivery Services	Community Colleges	CCC"Olive Harvey College	2,973*	< 1 Yr Cert	
School Bus Drivers		Elgin Community College	38	< 1 Yr Cert	
Flight Attendants	49 0106	Airline Flight Attendant	No Programs in this EDR		
Shipping, Receiving, & Traffic Clerks**	No Related Program of Study for This Occupation				
Cargo & Freight Agents (Route Planners)	52 0408	Gen'l Office Occs/Clerical Services			
	Community Colleges	Kishwaukee	11	1"2 Yr Cert	
		Morton	4	< 1 Yr Cert	
		Elgin CC	2	< 1 Yr Cert	
	52.0410	Traffic/Customs/Transp Clerk/Tech	No programs in the EDR		

Occupation	Program Code (CIP)	Program Title	FY2014 Completers	Degree Type	Program Code (CIP)	Program Title	FY2014 Completers	Degree Type
	51.3801	Registered Nursing				Related Programs		
		CCC Truman Coll	143	Associate		DePaul Univ		
		CCC Malcolm X	62	Associate	51.3804	Nurse Anesthetist	94	Masters
		CCC Daley Coll	74	Associate	51.3805	Family Practice Nursing	10	Post Mstr Cert
		CCC Wright Coll	46	Associate	51.3818	Nursing Practice	1	Dr Profl Prac
		Coll of DuPage	115	Associate		Elmhurst College		
		Coll of Lake County	85	Associate	51.3813	Clinical Nurse Specialist	62	Bachelor
		Elgin CC	96	Associate	51.3820	Clinical Nurse Leader	24	Masters
		Harper College	101	Associate		Loyola Univ Chicago		
		Joliet Jr College	125	Associate	51.3802	Nurse Administration	12	Masters
	Community Colleges	Kankakee CC	49	Associate	51.3803	Adult Health Nursing	15	Masters
		Kishwaukee College	66	Associate	51.3805	Family Practice Nursing	37	Masters
		McHenry County College	35	Associate			6	Post Mstr Cert
		Moraine Valley CC	82	Associate	51.3808	Nursing Science	5	Dr Research
		Morton College	22	Associate	51.3818	Nursing Practice	9	Dr Research
		Oakton CC	80	Associate	51.3813	Clinical Nurse Specialist	9	Masters
		Prairie State College	60	Associate	51.3814	Critical Care Nursing	11	Masters
		So. Suburban Coll of Cook Co.	29	Associate	51.3818	Women's Health Nursing	2	Masters
		Triton College	72	Associate	51.3822	Women's Health Nursing	2	Masters
		Waubonsee CC	87	Associate	51.3899	Reg Nursing, Nursing Admin, Nursing	3	Post Mstr Cert
	Public Universities	Chicago State Univ	28	Bachelor	51.9999	Health Profs & Related Clinical Sciences Other	1	Masters
			1	Masters		Univ of St. Francis		
		Governors State Univ	66	Bachelor	51.3802	Nurse Administration	26	Masters
		Northern IL Univ	227	Bachelor		Chamberlain Coll of Nursing		
RegisteredNurses		Univ of IL Chicago	212	Bachelor	51.3818	Nursing Practice	2	Doctoral Other
		Aurora Univ	114	Bachelor		Governors State Univ		
			6	Masters	51.3805	Family Practice Nursing	10	Post Mstr Cert
		Benedictine Univ	123	Bachelor	51.3808	Nursing Science	73	Masters
		Concordia Univ Chicago	0	Bachelor	51.3818	Nursing Practice	12	Dr Prof Practice
		DePaul Univ	94	Masters		Northern IL Univ		
		Elmhurst Coll	0	Bachelor	51.3808	Nursing Science	62	Masters
		Lewis Univ	208	Bachelor		Univ of IL Chicago		
		Loyola Univ Chicago	279	Bachelor			4	Post BA Cert
			9	Masters	51.3808	Nursing Science	193	Masters
	Independent Not For Profit Universities	North Park Univ	107	Bachelor			12	Dr Research
		Olivet Nazarene	191	Bachelor	51.3818	Nursing Practice	17	Dr Profl Prac
			154	Masters	51.9999	Health Profs & Related Clinical Sciences, Other	32	Masters
		Resurrection Univ	158	Bachelor		Lewis Univ		
			51	Masters	51.3803	Adult Health Nursing	1	Post Mstr Cert
		Robert Morris	8	Associate		North Park Univ		
		St. Xavier	126	Bachelor	51.3805	Family Practice Nursing	1	Post Mstr Cert
		Trinity Christian Coll	40	Bachelor	51.3808	Nursing Science	18	Masters
		Univ of St. Francis	111	Bachelor	51.3821	Geriatric Nursing	1	Post Mstr Cert
			1	Post BA Cert	51.3808	Nursing Science	152	Masters
			62	Masters		Rosalind Franklin		
	Independent For Profit Universities	Ambria Coll of Nursing	38	Associate	51.3804	Nurse Anesthetist	22	Masters
		Northwestern Coll * Southwest	17	Associate	51.3805	Family Practice Nursing	16	Post Mstr Cert
		Chamberlain Coll of Nursing*	4 288	Bachelor	51.3808	Nursing Science	64	Masters
			656	Masters		No Shores Hlth Sys Sch of Nurse Anesth		
	Out of State	ITT Tech Institute Orland Park	79	Associate	51.3804	Nurse Anesthetist	19	Post BA Cert

* Chamberlain College of Nursing offers Illinois sites for a BSN 3 year program,
online offerings include RN to BSN MSN, and DNP programs

HEALTH CARE

Occupation	Program Code (CIP)	Program Title	FY 2014 Completers	Degree Type
	51.2601	Health Aide		
	Community Colleges	Coll of DuPage	47	< 1Yr Cert
		Moraine Valley CC	14	< 1Yr Cert
		Oakton CC	1	< 1Yr Cert
	51.3902	Nurse Aide		
	Community Colleges	Coll of DuPage	334	< 1Yr Cert
		Coll of Lake County	670	< 1Yr Cert
		Elgin CC	57	< 1Yr Cert
		Harper College	696	< 1Yr Cert
		Joliet	4	< 1Yr Cert
Nursing Assistants			10	< 1Yr Cert
		Kankakee CC	37	1D2 Yr Cert
		Kishwaukee College	181	1D2 Yr Cert
		McHenry Co Coll	287	1D2 Yr Cert
		Morton College	39	1D2 Yr Cert
		Oakton CC	147	1D2 Yr Cert
		Prairie State College	104	1D2 Yr Cert
		Triton College	123	1D2 Yr Cert
		Waubonsee CC	279	1D2 Yr Cert
	Indep For Profit	Midwestern Career Coll	10	1D2 Yr Cert
		Solex College	16	1D2 Yr Cert
	51.0710	Med Office Asst/Specialist	No Programs in this EDR	
	51.0712	Medical Reception/Receptionist.		
	Community Colleges	Coll of Lake County	48	<1 Yr Cert
		Morton College	9	<1 Yr Cert
	51 0713	Medical Insurance Coding Specialist/Coder		

Medical Assistants				
	Community Colleges	CCCDTruman College	40	<1 Yr Cert
		CCCDDaley College	16	<1 Yr Cert
		College of DuPage	18	<1 Yr Cert
		Harper College	27	1D2YrCert
		Joliet Jr College	29	1D2YrCert
		Kankakee CC	16	1D2YrCert
		Kishwaukee College	4	<1 Yr Cert
		McHenry Co College	23	<1 Yr Cert
		Moraine Valley CC	25	1D2YrCert
		Oakton CC	19	<1 Yr Cert
		So. Suburban Coll of Cook Co	20	1D2YrCert
		Waubonsee CC	9	1D2YrCert
	51.0716	Med Admin/Exec Assistant & Med Secretary.		
	Community Colleges	CCCDTruman College	3	<1 Yr Cert
		Harper College	12	<1 Yr Cert
			20	Associate
		Waubonsee CC	17	<1 Yr Cert
	51.0801	Med/Clinical Assistant		
	Community Colleges	CCCDOlive Harvey	23	<1 Yr Cert
		CCCDWright	12	1D2YrCert
		Coll of DuPage	13	1D2YrCert
		Coll of Lake County	18	1D2YrCert
			10	Associate
		Harper College	38	1D2YrCert
		Moraine Valley CC	25	1D2YrCert
		So Suburban Coll of Cook Co.	17	1D2YrCert
		Waubonsee CC	6	1D2YrCert
	Indep Not For	Robert Morris Univ	66	Associate
		Coyne College	28	1D2YrCert

		Coyne College	33	Associate
	Indep For Profit	Fox College	1	1D2YrCert
			29	Associate
		Lincoln Coll of Technology	91	1D2YrCert
		Midwestern Career Coll	21	Associate
		NorthwesternCollDChicago	21	Associate
		Northwestern CollDSouthwest	24	Associate
		Westwood CollDChicago Loop	49	1D2YrCert
		WestwoodCollDDuPage	37	1D2YrCert
		WestwoodCollDO'Hare	49	1D2YrCert
		Westwood CollDRiver Oaks	89	1D2YrCert
	Out of State	Chicago ORT Tech Institute	16	<1 Yr Cert
	51.0809	Anesthesiologist Asst	No Programs in this EDR	
	51.0813	Chiropractic Asst/Technician	No Programs in this EDR	
Licensed Practical Nurses	51.3901	**Licensed Practical Nursing**		
	Community Colleges	CCCDWright Coll	81	1D2YrCert
		Coll of DuPage	37	1D2YrCert
		Elgin CC	107	1D2YrCert
		Harper College	17	1D2YrCert
		Joliet Jr College	98	1D2YrCert
		Kankakee CC	18	1D2YrCert
		Moraine Valley CC	18	1D2YrCert
		Morton College	39	1D2YrCert
	Indep For Profit	Ambria Coll of Nursing	95	1D2YrCert
Receptionists & Information Clerks **	52.0406	**Receptionist**	No Programs in this EDR	