INCLUSIVE GROWTH ANALYSIS



Chicago Metropolitan Agency for Planning

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TNP STRATEGIES

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CONTENTS

Introduction 1
- Project Overview 2
- Planning Framework 3

Analysis 5
- COVID-19 Impacts: National Trends 6
- Regional Economic Context 9
- Occupational Quality and Accessibility 14
- SWOT Analysis 22

Action Plan 23
- About This Plan 24
- Goal 1. Transportation, Distribution, & Logistics 25
- Goal 2. Electric Vehicles & Clean Energy 29
- Goal 3. Advanced Manufacturing 32
- Goal 4. Agriculture, Agriculture Technology, & Food Processing 36

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INTRODUCTION



PROJECT OVERVIEW

The Chicago Metropolitan Agency for Planning (CMAP) region, consisting of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will Counties, has a history of regional collaboration that has found renewed importance after the economic effects of the COVID-19 pandemic. *ON TO 2050*, CMAP's current comprehensive plan adopted in 2018, identifies three guiding principles to inform the region's policy and planning that influenced the direction of the *Inclusive Growth Analysis*.

1 Inclusive Growth
Growing our economy through opportunity for all.

2 Resilience
Preparing for rapid changes, both known and unknown.

3 Prioritized Investment
Carefully target resources to maximize benefit.

To strengthen the area's approach to economic development, CMAP also analyzed the performance of traded clusters, defined as "groups of interlinked businesses that sell goods and services in markets outside the region."[1] The analysis, which was released in 2020, examined traded cluster performance from 2001 to 2017, resulting in the identification of 35 priority clusters for the region.[2]

This *Inclusive Growth Analysis* is an extension of the priorities identified in these prior planning efforts, but with an emphasis on the intersection of traded sectors and equitable growth. By concentrating on both economic competitiveness *and* economic mobility, the analysis highlights opportunities to facilitate the coordination of economic development and COVID-19 recovery efforts. In so doing, CMAP and its partners can better support economically disadvantaged areas and populations most impacted by the pandemic and associated upheaval.

1 "Industry Clusters." CMAP.
2 *Metropolitan Chicago's Traded Industry Clusters: Strengthening the Industries that Sustain Regional Growth*. CMAP.

As the Chicagoland region continues to move forward in the wake of the pandemic, recovery must reach people at all income levels and in all geographies to create more sustainable, equitable, long-term economic growth. This report is the result of a three-phase planning process that included a review of existing conditions, outreach to selected stakeholders, and an extensive analysis of job quality and accessibility. It is organized under a set of guiding principles, industry-based goals, and specific strategies and actions that will guide the region's progress on inclusive growth. These elements are designed to create alignment concerning a direction for the region, but with the flexibility to be adapted to the needs, challenges, and aspirations of individual counties and communities.



PLANNING FRAMEWORK

GUIDING PRINCIPLES

Three guiding principles emerged during the stakeholder engagement process and form a foundation for the goals and strategies outlined in this plan. Each guiding principle embodies an overarching vision for the region. Within this adaptable vision, each CMAP county can pursue activities individually while also engaging as part of the region in pursuit of a more economically inclusive, sustainable, and resilient Chicagoland.

Regional coordination
Create strategies that are applied regionally and can be tailored to the local context.

Economic equity and opportunity
Prioritize economic growth that benefits disadvantaged areas and the people most adversely impacted by the COVID-19 pandemic.

Economic growth through traded clusters
Focus on traded clusters, which can accelerate industry innovation, offer higher wages, and bring in dollars from outside the region.

INDUSTRY-FOCUSED GOALS

Through analyzing data, reviewing information in existing plans and research, and listening to stakeholder feedback, four traded clusters emerged as priority industries for the Chicagoland region. Each of these clusters has a presence in the region and was chosen for its growth potential, applicability to the region and to individual counties, connection to quality jobs, and accessibility to economically disconnected populations. The Action Plan section of this report outlines specific strategies and actions under each of the four industry-focused goals.



Transportation, Distribution, & Logistics
Grow the transportation, distribution, and logistics (TDL) sector with a renewed focus on regionalism and equity.



Electric Vehicles & Clean Energy
Become a national leader in electric vehicle development and the clean energy economy.



Advanced Manufacturing
Strengthen Chicagoland's position as a hub for manufacturing excellence.



Agriculture, Agriculture Technology, & Food Processing
Grow Chicagoland's agriculture, agriculture technology, and food processing sector into a national model for equitable growth and innovation.

These industries, and the workers who support them, have been greatly impacted by the pandemic. Employers have faced significant hiring and retention challenges as there are more job openings than people to fill them. Since the start of the pandemic, more workers have retired than might have been expected, fewer women have rejoined the workforce due to child/family care challenges, and immigration rates have slowed—all factors decreasing the size of the available labor pool. To compete for workers, employers are rethinking hiring practices, offering flexible work schedules, and evaluating company culture to appeal to potential employees. After several years of working from home, many workers have different expectations for where work happens, and may have used the pandemic to reskill and access new career opportunities. Workers are also facing challenges that include difficulties in accessing affordable childcare and having their health (or that of a loved one) impacted by COVID-19.

The goals and actions in this report position the region to address these and other challenges, led by CMAP and the region's economic development organizations. Realizing the regional economic potential of these industries requires that Chicagoland's economic development organizations, businesses, nonprofits, education/training providers, and leaders cooperate to ensure residents and businesses have access to quality career pathways and qualified employees, training opportunities, entrepreneurship support, and technical assistance for entrepreneurs and small businesses.



ANALYSIS

COVID-19 IMPACTS: NATIONAL TRENDS

As the pandemic recovery progresses, disparities in impact have become increasingly clear. Workers with a bachelor's degree or higher have seen an increase in the number of jobs available, while workers with an associate's degree, some college, a high school diploma, or less education have not seen their employment levels recover (Figure 1). The industry clusters in this report include jobs at all educational levels. Connecting people with some college or less education to job opportunities is a critical part of creating equitable economic growth in the region. *Industries in Context: Occupational Quality and Accessibility*, an interactive data tool discussed later in this section, can be used by economic developers to identify priority occupations where additional accessibility or efforts to increase quality might be needed.

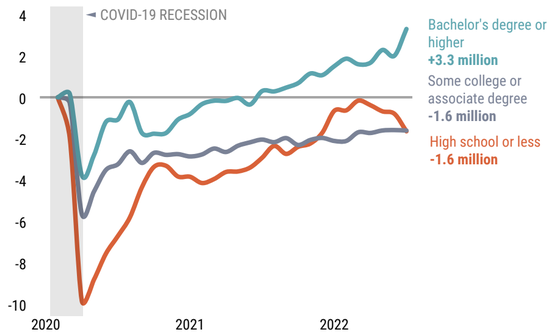
A similar pattern holds true for job growth by wage. The top one-third of high-wage jobs are thriving, while middle-wage and low-wage jobs are experiencing much slower growth (Figure 2, page 7). Connecting workers to higher-paid jobs through education, training, and transportation connections is a strategy for increasing economic opportunity.

Despite the disparities in job growth by education and wage, the number of job openings and the number of unemployed are mismatched (Figure 3). There are nearly two unfilled jobs for every unemployed American, creating opportunities to connect additional people with the workforce and to train people for the jobs available.

Connecting more people to jobs, whether by bringing additional people into the workforce or connecting workers with available jobs will require working with partners in the region to address the reasons why people are not working. The percentage of women in the workforce is lower than pre-pandemic levels, and their reasons for not working are different from those reported by men. Family obligations and childcare are the two areas with the biggest difference between men and women. Addressing these needs may give more women the ability to rejoin the workforce.

As companies begin requiring a complete or partial return to work in the office, many employees are resistant. A desire to spend less time commuting (most workers in Chicagoland spend approximately 30 minutes traveling for work, see Figure 13, page 13), establish a greater work-life balance, and build on a more productive working environment are frequently cited reasons for wanting to work from home at least some of the time, as seen in Figure 5, page 8. The ability to work from home is unequally accessible to workers, however. Slightly more than 72 percent of jobs that offer a work-from-home option are held by White workers, while only 12 percent of those jobs are held by Latinx or Hispanic workers, and 8 percent of jobs are held by workers who are Black or of African descent (Figure 6, page 8).

FIGURE 1. CUMULATIVE CHANGE IN EMPLOYMENT
MILLIONS OF JOBS FROM FEBRUARY 2020



Sources: US Bureau of Labor Statistics, Household Survey (Current Population Survey); National Bureau of Economic Research (NBER); TIP Strategies, Inc.
Notes: Employment is seasonally adjusted and includes all workers age 25 and older. The current recession began in February 2020 and ended (officially) in April 2020. Both monthly series are seasonally adjusted and shown in millions.

FIGURE 2. JOB GROWTH BY WAGE TIER
2007 EMPLOYMENT INDEXED TO 100

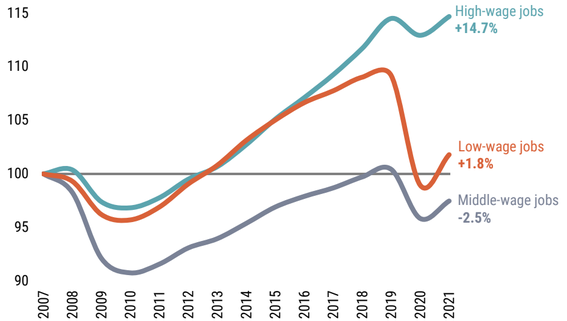


FIGURE 3. US JOB OPENINGS VS. THE NUMBER OF UNEMPLOYED
MONTHLY SEASONALLY ADJUSTED TOTALS (IN MILLIONS)

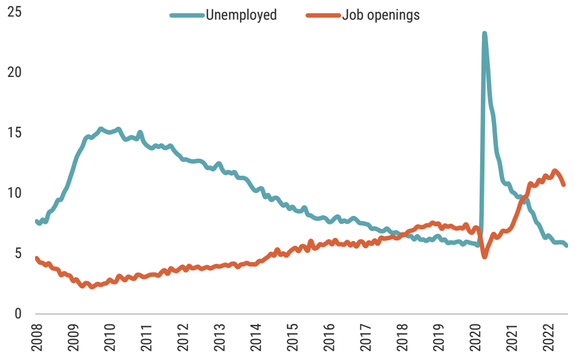
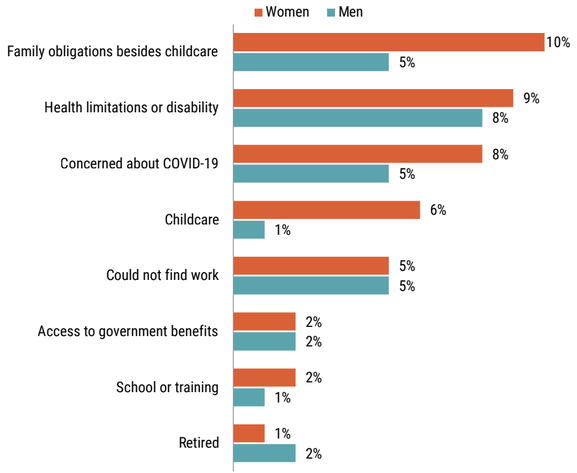


FIGURE 4. REASONS FOR NOT WORKING
PRIME-AGE ADULTS (25 TO 54 YEARS OLD)



Sources: [Figure 2] Emsi 2021.2—Quarterly Census of Employment and Wages (QCEW) Employees, Non-QCEW Employees, and Self-Employed. [Figure 3] US Bureau of Labor Statistics, Current Population Survey; US Bureau of Labor Statistics, Job Openings and Labor Turnover Survey; TIP Strategies, Inc. [Figure 4] US Federal Reserve Bank, 2021 Survey of Household Economics and Decisionmaking; TIP Strategies, Inc.
Notes: [Figure 2] Wage tiers are defined by tertiles of total US employment in 2007. US occupations at the 5-digit Standard Occupational Classification (SOC) level were sorted by median wage rates and divided into three equal groups (tertiles) based on 2007 employment levels. The resulting three tiers of employment by wage level were then tracked consistently across the subsequent years. [Figure 3] Both monthly series are seasonally adjusted and shown in millions. [Figure 4] The 2021 Survey of Household Economics and Decisionmaking (SHED) was the ninth annual edition of a Federal Reserve survey conducted annually in the fourth quarter of each year since 2013. The 2021 edition was fielded from October 29 through November 22, 2021. The responses are from among employees who worked from home or could work from home if their employer allowed, who also said they preferred working from home at least some of the time. Survey respondents were permitted to check multiple reasons.

FIGURE 5. REASONS FOR WORKING FROM HOME AT LEAST SOME OF THE TIME
PERCENT OF SURVEY RESPONDENTS

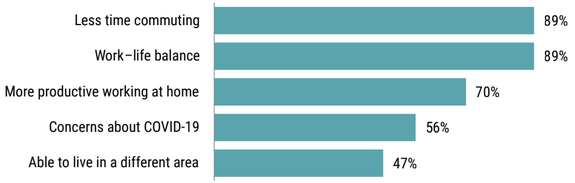
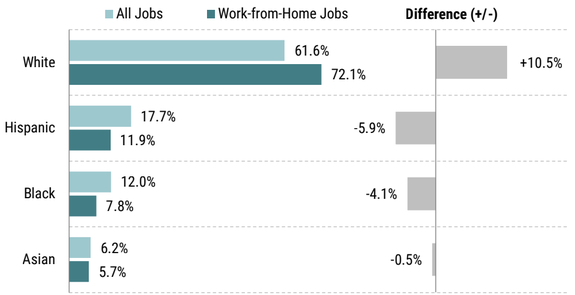


FIGURE 6. DISPARITIES IN JOB FLEXIBILITY
RACE AND ETHNICITY MIX IN WORK-FROM-HOME OCCUPATIONS IN THE US RELATIVE TO ALL JOBS



Sources: [Figure 5] US Federal Reserve Bank, 2021 Survey of Household Economics and Decisionmaking; TIP Strategies, Inc. [Figure 6] US Census Bureau, American Community Survey, 2019, 1-Year Data, Tables B08301, B08105B, B08105D, B08105H, B08105I.
Notes: [Figure 5] The 2021 Survey of Household Economics and Decisionmaking (SHED) was the ninth annual edition of a Federal Reserve survey conducted annually in the fourth quarter of each year since 2013. The 2021 edition was fielded from October 29 through November 22, 2021. The responses are from among employees who worked from home or could work from home if their employer allowed, who also said they preferred working from home at least some of the time. Survey respondents were permitted to check multiple reasons. [Figure 6] Race/Ethnicity categories were abbreviated in this figure for readability. White as defined here excludes those of Latinx or Hispanic descent.



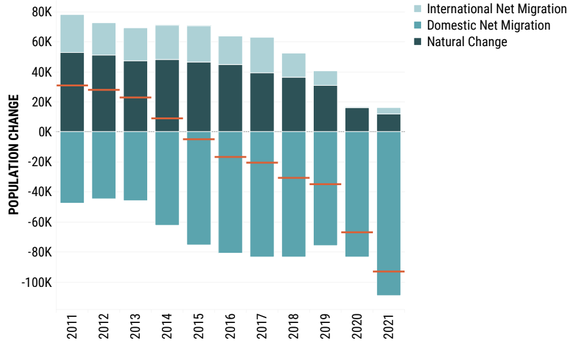
REGIONAL ECONOMIC CONTEXT

As part of the strategic planning process, TIP Strategies, Inc. (TIP) conducted an analysis of factors that define Chicagoland's overall competitiveness, including how trends are impacting businesses and industry clusters in the region. This analysis was completed as part of the project's initial discovery phase. Data collection began in November 2021 and continued through June 2022. An in-depth analysis was delivered to CMAP in late June 2022 in an interactive data visualization tool using Tableau Reader. The findings of this analysis, which are summarized in this section, informed and guided the direction of the *Inclusive Growth Analysis*.

TIP also facilitated several roundtable discussions to gain a better understanding of opportunities, assets, challenges, and trends in specific topic areas. These roundtables were supplemented by one-on-one interviews. Stakeholder engagement participants included representatives from economic development; manufacturing; transportation, distribution, and logistics; workforce development; and agriculture, agriculture technology, and food processing. During the roundtables and interviews, TIP gained a greater understanding of the narrative surrounding data and of on-the-ground experiences from the perspective of participants.

Population growth is uneven. Between July 2010 and 2020, the CMAP region grew by approximately 121,000 people, a 1.4 percent change. However, during this period, annual net population change declined each year, with the region experiencing progressively larger net population losses starting in 2015. Population trends were also not consistent across the region's counties. While some counties experienced strong growth, others saw stagnation or a decline. For example, while Cook County has nearly 62 percent of the region's population, it experienced minimal population growth from 2010 to 2020. In contrast, Kendall County experienced the largest percentage increase in population during this period among the CMAP counties, gaining almost 17,000 people (a 14.7 percent increase).

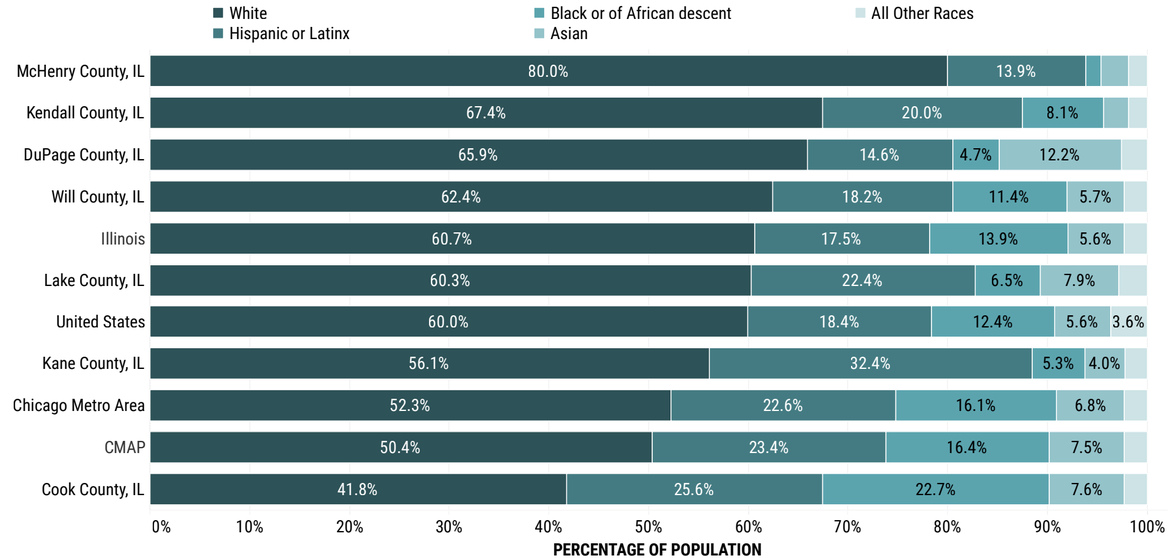
FIGURE 7. DRIVERS OF POPULATION CHANGE: CMAP REGION



Source: US Census Bureau, Population Estimates Program; Moody's Analytics; TIP Strategies, Inc.
Notes: Natural Change is the difference between annual births and deaths. Total population change includes a residual (a change in population that cannot be attributed to any specific demographic component). Residual change is not shown in the chart but is included in the net population change shown by the **red** bars. 2010 and 2020 components are estimated based on a 12-month projection of the 2nd quarter (the period between the Census and the mid-year estimate) that is not seasonally adjusted.

The region's population is diverse and highly educated. When compared with the state of Illinois and the US, the CMAP region has a lower percentage of White residents and a larger percentage of Black or African descent, Latinx or Hispanic, and Asian or Pacific Islander residents. As with population trends, racial and ethnic diversity within each county varies significantly. McHenry County's population is 80 percent White, with the smallest proportion of Latinx or Hispanic people (14 percent) and people who identify as Black or of African descent (just over 1 percent) among the seven counties. By contrast, Whites comprise 42 percent of Cook County's population, while 26 percent identify as Latinx or Hispanic, 23 percent are Black or of African descent, and 8 percent are Asian or Pacific Islander.

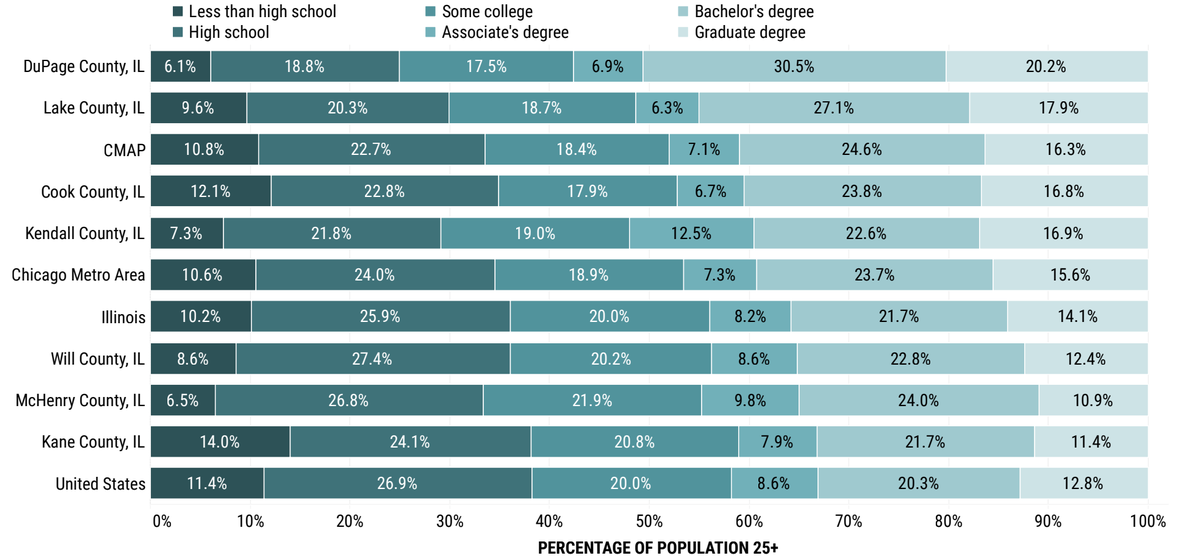
FIGURE 8. RACE AND ETHNICITY, 2019
POPULATION BY SHARE OF RACE AND ETHNIC GROUPS



Sources: American Community Survey, 2019, 1-year sample; TIP Strategies, Inc.
Notes: The US Census Bureau categorizes Latinx or Hispanic as an ethnic group rather than a race. The Latinx or Hispanic group includes all races; the remaining racial groups exclude Latinx or Hispanic. The "all other races" group includes American Indians, Alaskan natives, native Hawaiians, other Pacific Islanders, multiracial persons, and other races. These data are based on self-identification and reflect a social definition of race/ethnicity.

The region is also well-educated, with nearly one-half of the region's adult population (48 percent) obtaining at least an associate's degree. Approximately 40 percent of adult residents hold a bachelor's or more advanced degree, higher than the rate for Illinois (36 percent) or the US (33 percent). DuPage County has the greatest percentage of people over 25 with a bachelor's or graduate degree at 50.7 percent, with similarly high numbers in Lake, Cook, and Kendall Counties. Cook County also has among the highest share of people over 25 with less than a high school diploma (12 percent), indicating an over-representation of both higher and lower educational attainment levels.

FIGURE 9. EDUCATIONAL ATTAINMENT, 2019
POPULATION (AGE 25+) BY SHARE OF EDUCATIONAL ATTAINMENT

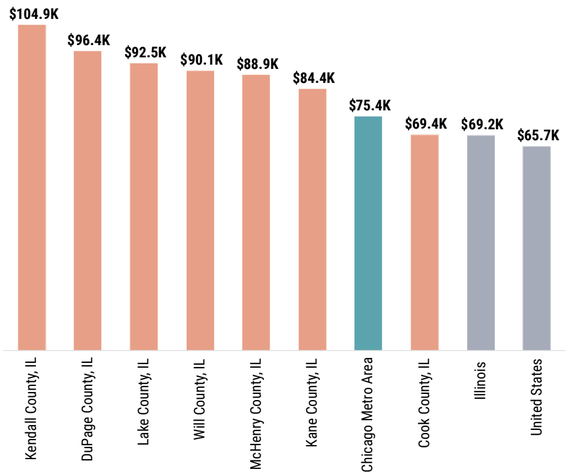


Sources: American Community Survey, 2019, 1-year sample; TIP Strategies, Inc.
Note: Educational attainment only measured for population age 25 and older. High school includes equivalency. Some college indicates no degree was received. Graduate degree includes professional and doctoral degrees.

Higher median incomes do not guarantee housing affordability. The median household income of $75,400 is higher in the Chicago metro area than the median income in Illinois or the US, as seen in Figure 10. There is a large median income disparity across the CMAP region, however, with Kendall County's median income at $140,900 and Cook County at $69,400.

While the Chicago metro area has a high median household income, that does not necessarily equate to housing affordability (Figure 12, page 13). With 2022 changes in mortgage rates, the Chicago metro area is now considered unaffordable for the median income earner to purchase a median-priced home. A closer look at each of the counties shows that this is the case for Cook County, but the remaining CMAP-area counties are either affordable or very affordable.

FIGURE 10. MEDIAN HOUSEHOLD INCOME, 2019

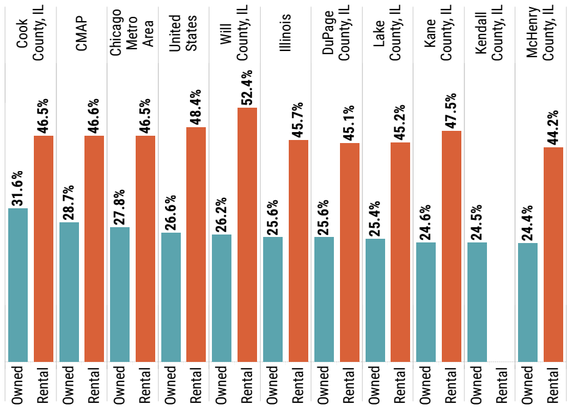


Sources: American Community Survey, 2019, 1-year sample; TIP Strategies, Inc.

Homeownership may be out of reach for many people in the Chicago metro area. Many homeowners in the CMAP region spend 30 percent or more of their household income on housing expenses. This percentage is dramatically higher for renters, with nearly one-half of people in the seven-county region who live in rental units reporting spending more than 30 percent of their household income on housing expenses (Figure 11). This is higher than the statewide rate of 46 percent, but slightly lower than the 48 percent of households spending this much of their income on housing in the US. The high cost of housing appears to offset relatively higher wages, emphasizing the importance of connecting people to quality job opportunities that may increase their income.

FIGURE 11. HOUSING AFFORDABILITY, 2019

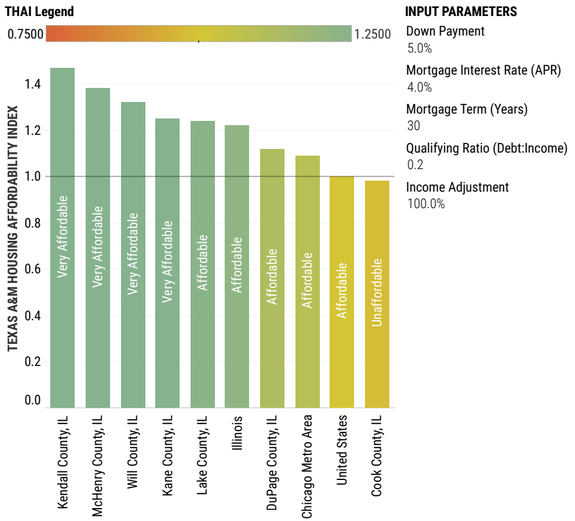
SHARE OF HOUSING UNITS WHOSE OCCUPANTS SPEND MORE THAN 30 PERCENT OF HOUSEHOLD INCOME ON HOUSING EXPENSES (I.E., RENT OR MORTGAGE PAYMENTS), BY TYPE OF UNIT



Sources: American Community Survey, 2019, 1-year sample; TIP Strategies, Inc.
Note: Insufficient data to determine renter affordability in Kendall County.

FIGURE 12. TEXAS A&M HOUSING AFFORDABILITY INDEX, 2019

The Texas A&M Housing Affordability Index (THAI) compares household median income to a typical mortgage payment on a median-priced home. A value of 1 indicates the median income is exactly enough to purchase a median home. Values <1 indicate unaffordability, and values >1 indicate sufficient affordability.

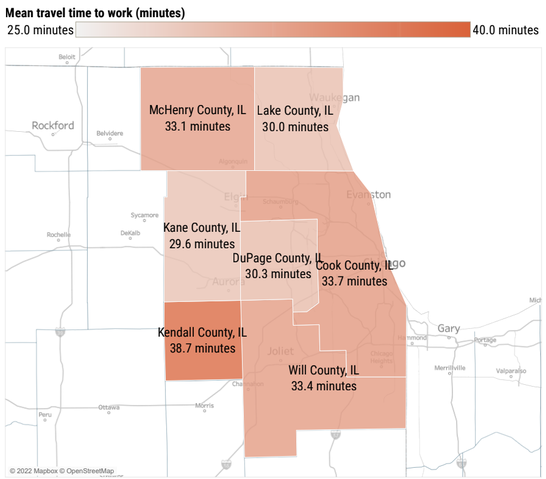


Sources: American Community Survey, 2019, 1-year sample; TIP Strategies, Inc.
Notes: The THAI was adapted from Texas A&M University Texas Real Estate Research Center by TIP Strategies, Inc. Mortgage payments only include the monthly payments on the loan (does *not* include insurance or tax payments). *Down payment is the percentage of the home value paid before the mortgage; mortgage interest rate is the annual percentage rate (APR); mortgage term is the length of the loan in years; qualifying ratio is the maximum debt-to-income ratio that still qualifies for a mortgage; income adjustment shifts the income used in the calculations here—100 percent is the median household income.*

Workers spend approximately one hour each day commuting. The metro area has an average commuting time of 32.4 minutes, higher than average commuting times statewide (29.6 minutes) or nationally (27.6 minutes). Kendall County has the longest average commute time of 38.7 minutes, while Lake County workers have the lowest average commute time at 30 minutes, as shown in Figure 13. These long commute times might be reduced by adding new jobs throughout the region that are accessible to workers, providing more opportunities for people to find employment closer to where they live. Recommendations under each of the industry cluster goals in this report have regionwide applicability and may be able to offer residents work options closer to home.

FIGURE 13. CHICAGOLAND COMMUTE TIME, 2019

AVERAGE COMMUTING TIME IN MINUTES FOR WORKERS (AGE 16+)



Sources: American Community Survey, 2019, one-year sample; TIP Strategies, Inc.

OCCUPATIONAL QUALITY AND ACCESSIBILITY

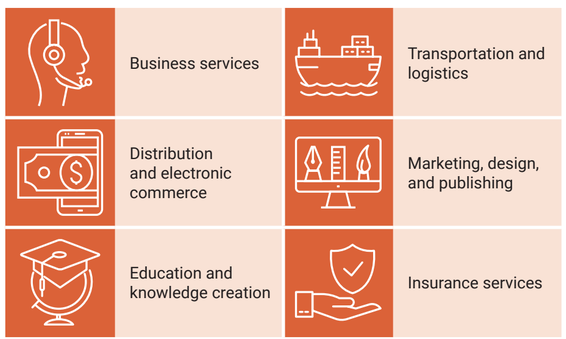
Communities that understand the pain points of their local labor force are better equipped to respond effectively to the evolving needs of workers. TIP's occupational quality and accessibility analysis, which was delivered as an interactive data visualization tool, can help stakeholders better understand those pain points by highlighting existing advantages of the local labor market and identifying where support is needed to expand opportunities for greater prosperity.

Approach. The occupational accessibility tool analysis begins with an overview of industry employment trends using the industry cluster framework developed by the US Economic Development Administration (EDA) in conjunction with the Institute for Strategy and Competitiveness at Harvard Business School.[3] With this context, key industry clusters are identified based on employment growth trends, industrial specialization, and impact relative to the regional labor pool.[4] While traded clusters are the priority in this report, local clusters are also an important component of the regional economy and were included as part of this analysis. The occupational structure of these industries is then used to describe which jobs within a cluster are of higher (or lower) than average quality and accessibility.

Job quality is measured using a set of factors that compare the stability, earnings, and stressful requirements of an occupation to baseline levels. Stability is measured by comparing the unemployment levels of an occupation to overall regional unemployment. Lower unemployment levels are presumed to indicate greater job stability and higher job quality. Similarly, a higher quality occupation will tend to earn more than the average job. Rather than rely on a single point of data in comparisons, such as median or average earnings, this analysis incorporates earning levels across the distribution to better describe earnings quality and the potential for upward mobility. All jobs require some amount of stress in their routine tasks. This analysis measures occupational stress by comparing the frequency of stressful physical, interpersonal, and structural events to baseline (average) levels.

Job accessibility is measured by comparing the educational and experiential requirements of an occupation to the average requirements of all jobs. Occupations with higher education or experience requirements act as barriers to entry and are less accessible than jobs with lower or fewer requirements, though these barriers are often compensated by higher wages. Additionally, some jobs are less accessible to some community members because of historical disenfranchisement. To incorporate this important factor into a metric of job accessibility, this analysis also includes a comparison of the existing racial and ethnic composition of an occupation to the composition of the regional labor pool overall.

Findings. More than one-third of jobs in the CMAP region (38 percent) are in key industry clusters. Of these roughly 1.6 million jobs, nearly 58 percent are in traded clusters. The region's largest traded clusters by employment are the following.



3 See US Cluster Mapping, www.clustermapping.us.

4 Only EDA industry clusters that met the following criteria were included in the *Occupational Accessibility Tool* analysis: (1) a 10-year growth rate greater than or equal to that of the CMAP region (4 percent); (2) a location quotient of at least 1.0; and (3) a 2020 share of total regional employment that was at least 1 percent. Location quotients compare an industry's share of regional employment to national employment patterns; higher concentrations suggest areas of specialization.

Transportation and logistics and business services were the fastest growing traded clusters in terms of employment, with each increasing by 22 percent or more between 2010 and 2020. However, the business services cluster is far larger, employing roughly 312,000 workers in 2020, compared with just under 99,000 for transportation and logistics.

Traded cluster jobs tend to be of higher quality but are also often less accessible than average. The tool provides detailed information about key industry clusters, including the percentage of related occupations that are of higher quality or more accessible (Figure 15, page 17). Of the largest traded clusters, transportation and logistics offers the highest proportion of jobs that tend to be both higher quality and more accessible, with two-thirds or more of the occupations in the cluster scoring in these quadrants. It is followed by distribution and electronic commerce, with most occupations (56.1 percent) offering higher quality jobs, and nearly one-half (48.7 percent) of jobs falling into the more accessible category.

Local key clusters comprise 42 percent of key cluster employment in the CMAP region. The largest of these clusters are as follows.



Local commercial services, the largest key cluster by number of people employed, grew by nearly 10 percent between 2015 and 2020, more than double the regional growth rate. Local logistical services grew the fastest of any key local cluster, increasing by 34 percent between 2010 and 2020.

A look at local key clusters indicates that approximately one-half of jobs are either higher quality or more accessible than average. In contrast to traded cluster occupations, which tend to have higher wages and be of higher quality and lower accessibility, local cluster occupations tend to be characterized by lower wages and quality, but with higher accessibility. For example, about one-half of jobs in the large local commercial services key cluster are either higher quality or more accessible than average. Within the second largest key sector by employment, local food and beverage processing and distribution, only one in five jobs (20.2 percent) are higher-than-average quality, but nearly 80 percent of people are employed in positions considered to be more accessible (Figure 17, page 18).

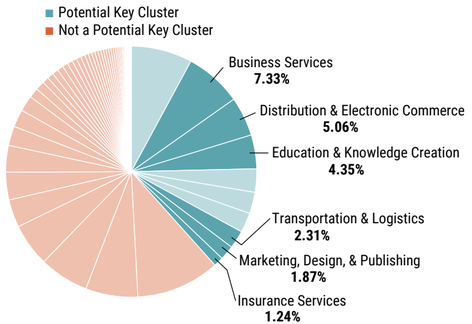
Analyzing jobs in both traded and local key clusters indicates that more than one-half (65 percent) of jobs in the region are higher-than-average quality, and less than one-half (42 percent) are more accessible (Figure 18, page 19). In Figure 18, each occupation is assigned a measure of job quality (horizontal axis) and a measure of job accessibility (vertical axis). Larger bubbles mean more employed residents in that occupation in the CMAP region. In the interactive version of this tool, users can hover over any element of the image for additional information and are able to sort by factors such as geography, occupation group, entry level education, work experience, and median hourly earnings.

A more in-depth look at jobs in these key clusters reveals that among jobs paying at least a $20 per hour median wage, 94 percent are higher quality, but only about one in five are more accessible than average, suggesting that these jobs are not accessible to many workers. Further, of the more than 800,000 key cluster jobs in the higher quality, less accessible quadrant, slightly more than one-third (37.5 percent) are of considerably higher quality. Only an estimated 7,500 jobs in key clusters are of more than marginally higher quality and accessibility than average, comprising less than one-half of one percent of key cluster workers living in the region. This creates room for improvement in job accessibility and in creating occupations that are of higher quality.

Job quality and accessibility information can also be viewed through a detailed plot analysis, as illustrated in Figure 19, page 20. In this example, data is viewed through the lens of the CMAP region. The transportation and logistics cluster—a strategic growth area in this report—and the heavy and tractor trailer truck driver occupation have been selected, as has entry level less than a bachelor's degree. As a result, detailed information is available about jobs fitting these criteria, comparing results for the region. Data comparing the unemployment rate, hourly earnings by quintile, work context, typical required education and experience, and racial-ethnic distribution help the user to better understand the underlying aspects of a given occupation. This information can be used to tailor policies, programs, and outreach to better serve people by their educational attainment, work experience, industry cluster, occupation, or geographic location.



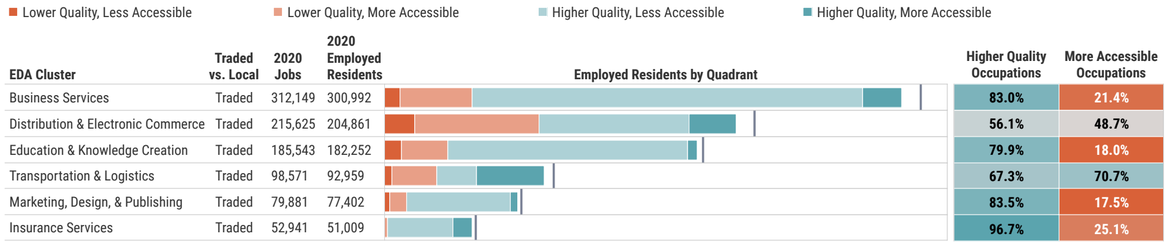
FIGURE 14. TOTAL EMPLOYMENT BY EDA CLUSTER
TRADED CLUSTERS



EDA CLUSTER	2010 JOBS	2020 JOBS	EMPLOYMENT GROWTH RATE	2020 LOCATION QUOTIENT
Business Services	259,864	312,149	20.1%	1.16
Distribution & Electronic Commerce	191,198	215,625	12.8%	1.28
Education & Knowledge Creation	177,818	185,543	4.3%	1.05
Transportation & Logistics	80,406	98,571	22.6%	1.76
Marketing, Design, & Publishing	68,720	79,881	16.2%	1.70
Insurance Services	47,619	52,941	11.2%	1.28
Traded Key Clusters Total	**825,625**	**944,710**	**14.4%**	
CMAP Region Total	**4,098,594**	**4,260,627**	**4.0%**	

Sources: Emsi Burning Glass 2022.1—QCEW employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

FIGURE 15. KEY TRADED INDUSTRY CLUSTERS BY OCCUPATION QUALITY AND ACCESSIBILITY

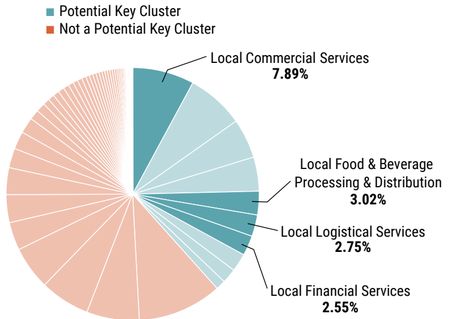


EDA Cluster	Traded vs. Local	2020 Jobs	2020 Employed Residents	Employed Residents by Quadrant	Higher Quality Occupations	More Accessible Occupations
Business Services	Traded	312,149	300,992		83.0%	21.4%
Distribution & Electronic Commerce	Traded	215,625	204,861		56.1%	48.7%
Education & Knowledge Creation	Traded	185,543	182,252		79.9%	18.0%
Transportation & Logistics	Traded	98,571	92,959		67.3%	70.7%
Marketing, Design, & Publishing	Traded	79,881	77,402		83.5%	17.5%
Insurance Services	Traded	52,941	51,009		96.7%	25.1%

Sources: US Department of Labor, Occupational Information Network (O*NET 26.1); Emsi Burning Glass 2022.1—QCEW employees, Non-QCEW Employees, and Self-Employed; US Census Bureau 2020 Redistricting Data (P4); TIP Strategies, Inc.
Notes: Gray lines indicate total cluster jobs, based on place of employment, compared to estimated employed residents, based on place of residence. Percentage of higher quality occupations includes all occupations regardless of accessibility (blue sections of the bar), while percentage of more accessible occupations includes all occupations regardless of quality (darker blue and lighter red sections of the bar). Only detailed occupations with at least 25 residents workers in the CMAP region are included.

FIGURE 16. TOTAL EMPLOYMENT BY EDA CLUSTER

LOCAL CLUSTERS



EDA CLUSTER	2010 JOBS	2020 JOBS	EMPLOYMENT GROWTH RATE	2020 LOCATION QUOTIENT
Local Commercial Services	306,197	336,089	9.8%	1.34
Local Food & Beverage Processing & Distribution	121,938	128,612	5.5%	1.08
Local Logistical Services	87,498	117,282	34.0%	1.24
Local Financial Services	95,546	108,721	13.8%	1.20
Local Key Clusters Total	**611,179**	**690,704**	**13.0%**	
CMAP Region Total	**4,098,594**	**4,260,627**	**4.0%**	

Sources: Emsi Burning Glass 2022.1—QCEW employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.

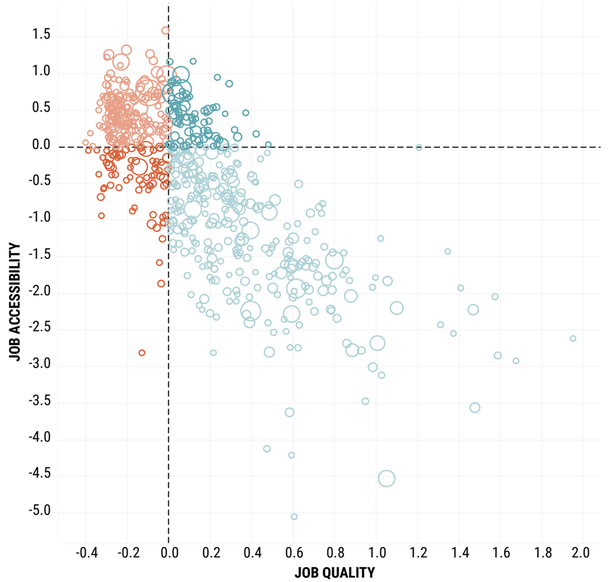
FIGURE 17. KEY LOCAL INDUSTRY CLUSTERS BY OCCUPATION QUALITY AND ACCESSIBILITY

Lower Quality, Less Accessible | Lower Quality, More Accessible | Higher Quality, Less Accessible | Higher Quality, More Accessible

EDA Cluster	Traded vs. Local	2020 Jobs	2020 Employed Residents	Employed Residents by Quadrant	Higher Quality Occupations	More Accessible Occupations
Local Commercial Services	Local	336,089	322,251		46.3%	50.4%
Local Food & Beverage Processing & Distribution	Local	128,612	122,561		20.2%	79.8%
Local Logistical Services	Local	117,282	112,318		64.0%	75.4%
Local Financial Services	Local	108,721	104,817		87.5%	29.5%

Sources: US Department of Labor (O*NET 26.1); Emsi Burning Glass 2022.1—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Census Bureau 2020 Redistricting Data (P4); TIP Strategies, Inc.
Note: Only detailed occupations with at least 25 resident workers in the selected region are included.

FIGURE 18. EMPLOYMENT BY QUADRANT

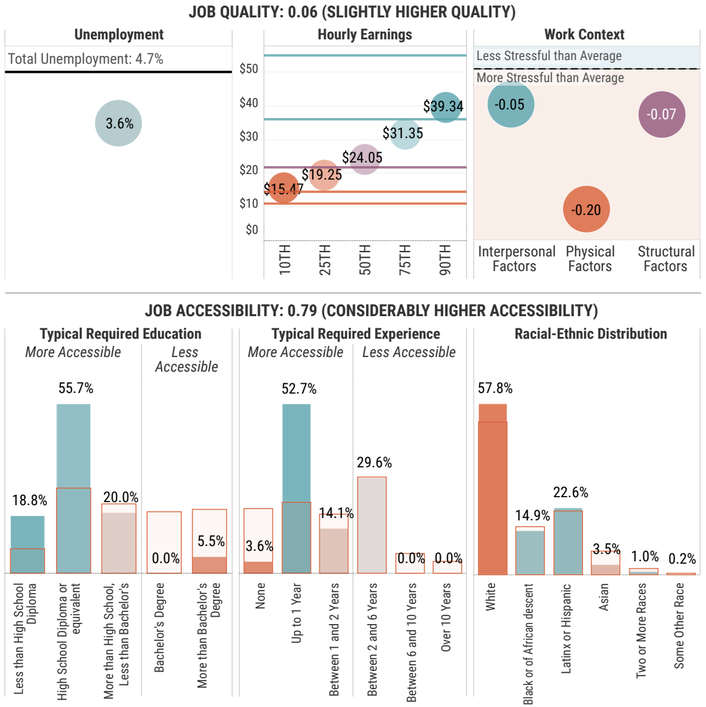


QUADRANT	RESIDENTS IN QUADRANT	QUADRANT SHARE
Higher Quality, More Accessible	219,476	14.0%
Higher Quality, Less Accessible	805,230	51.2%
Lower Quality, More Accessible	445,283	28.3%
Lower Quality, Less Accessible	101,433	6.5%

Sources: US Department of Labor (O*NET 26.1); Emsi Burning Glass 2022.1—QCEW employees, Non-QCEW Employees, and Self-Employed; US Census Bureau 2020 Redistricting Data (P4); TIP Strategies, Inc.
Notes: (Quadrant, left): Each occupation is assigned measures: a measure of job quality (horizontal axis) and a measure of job accessibility (vertical axis). Larger bubbles mean more employed residents in that occupation in the CMAP region. Only detailed occupations with at least 25 residents workers in the CMAP region are included. (Tree map, right): Only detailed occupations with at least 25 resident workers in the CMAP region are included. Because these small occupations are excluded due to insufficient data, totals presented here may differ from those shown elsewhere, and shares may not add to 100.

FIGURE 19. JOB QUALITY AND ACCESSIBILITY: HEAVY AND TRACTOR TRAILER TRUCK DRIVER OCCUPATION

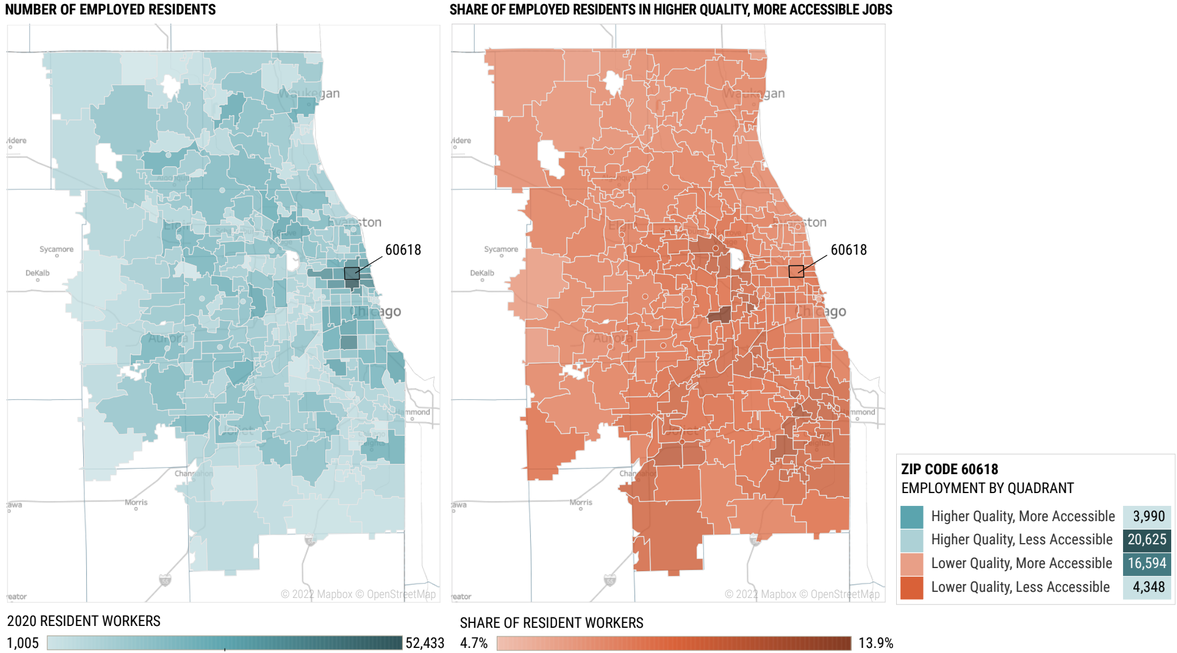
DATA FOR CMAP REGION RESIDENTS EMPLOYED IN THE OCCUPATION IN THE TRANSPORTATION AND LOGISTICS CLUSTER WHERE ENTRY-LEVEL EDUCATION IS LESS THAN A BACHELOR'S DEGREE



Sources: US Department of Labor (O*NET 26.1); Emsi Burning Glass 2022.1—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Census Bureau 2020 Redistricting Data (P4); TIP Strategies, Inc.
Note: Only detailed occupations with at least 25 resident workers in the selected region are included.

FIGURE 20. MAPPING JOB QUALITY AND ACCESSIBILITY IN THE CMAP REGION BY ZIP CODE, 2020

DISTRIBUTION OF EMPLOYED RESIDENTS (LEFT) AND RESIDENT WORKERS EMPLOYED IN HIGHER QUALITY, MORE ACCESSIBLE JOBS (RIGHT), WITH SAMPLE DETAIL SHOWN FOR ZIP CODE 60618 (TABLE)



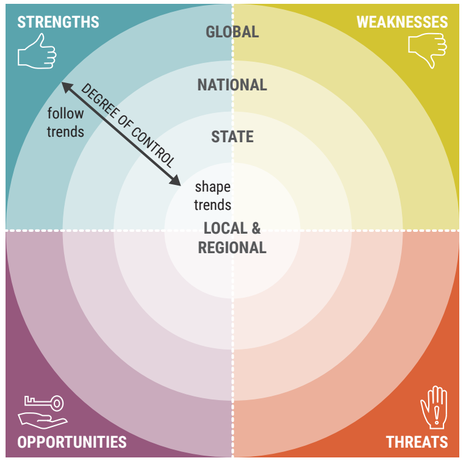
Sources: US Department of Labor (O*NET 26.1); Emsi Burning Glass 2022.1—QCEW employees, Non-QCEW Employees, and Self-Employed; US Census Bureau 2020 Redistricting Data (P4); American Community Survey, 2020, 5-year aggregate sample; TIP Strategies, Inc.
Notes: Only detailed occupations with at least 25 residents workers in the selected region and at least 10 resident workers in a ZIP Code are included. Only ZIP Codes with at least 1,000 total resident workers in 2020 are included. Data on employment and resident workers at the ZIP Code level are estimated.

SWOT ANALYSIS

The four components of a SWOT analysis can be defined as follows.

- **Strengths:** Assets and resources that can be built on to grow, strengthen, and diversify the local/regional economy.
- **Weaknesses:** Liabilities and barriers to economic development that could limit economic growth potential.
- **Opportunities:** Competitive advantages and positive trends that hold significant potential for the attraction of new businesses, investments, and skilled workers.
- **Threats:** Unfavorable factors and trends (often external) that could negatively affect the local/regional economy.

FIGURE 21. SWOT OVERVIEW



TIP Strategies, Inc.

During the discovery phase of the project, the consulting team gathered qualitative input from stakeholders in Chicagoland concerning local economic development issues. In addition, TIP conducted quantitative data analyses to understand the region's competitive position. The results of these efforts informed the following strengths, weaknesses, opportunities, and threats (SWOT) analysis.

FIGURE 22. SWOT DETAIL

Strengths

- International name recognition
- Tourist destination
- Quality of place: cities, natural environment
- Connectivity: airports, highways, rail, transit
- Diverse regional economy with multiple industry clusters
- Educational institutions
- National labs

Weaknesses

- Connectivity between housing and job centers, especially for people with lower incomes
- Areas of misalignment between businesses, economic development organizations, and the talent pipeline
- Housing availability and affordability
- Uneven access to broadband

Opportunities

- Continue regional interagency cooperation (build on current momentum)
- Capitalize on the rise of remote work
- Leverage state-level clean energy incentives
- Retain students and connect them to local job options
- Grow the labor pool
- Identify opportunities for upskilling and reskilling

Threats

- Barriers to work and full economic participation such as access to affordable childcare and housing options
- Lack of interest in the trades and manufacturing among younger people
- Labor and talent shortage
- Supply chain disruptions
- Highway and rail capacity
- COVID-19 pandemic economic impacts
- Negative external perceptions: high-cost state for business, crime rates in Chicago

ACTION PLAN



ABOUT THIS PLAN

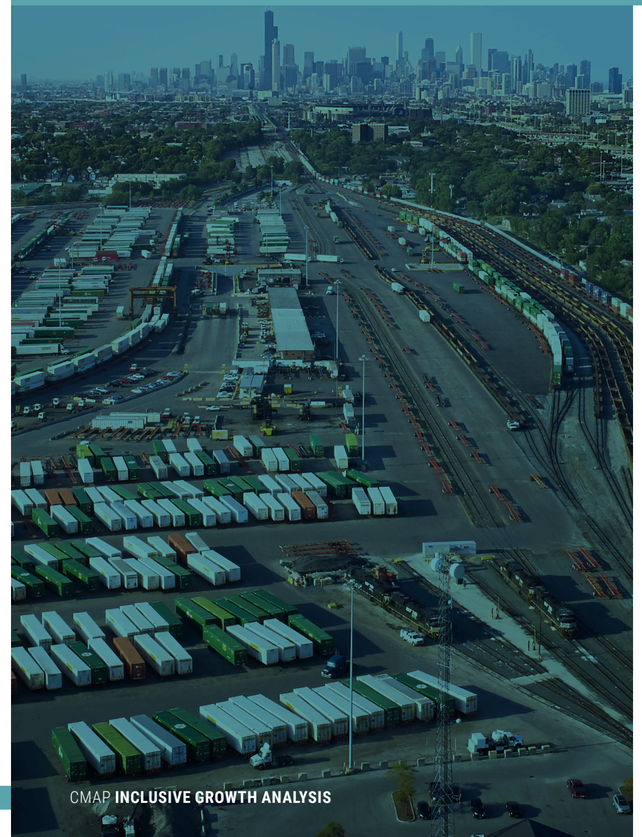
Chicagoland's economic prosperity is directly linked to its ability to create a sustainable, resilient economy that works for everyone. The goals in the *Inclusive Growth Analysis* were developed to address this critical need in Chicagoland and include new programs and approaches to create a more inclusive economy. The traded industry clusters that form the basis of these goals emerged as a result of TIP's analysis and review of existing reports and programs in combination with stakeholder roundtables and interviews. These clusters are an important part of the economy today, but this report proposes looking at them in a new way.

INSPIRING EXAMPLES

Each of the four goals sets out a rationale for the industry cluster's selection and provides detailed strategies and actions for supporting resilient and equitable growth in the sector. A collection of relevant initiatives and programs that may be a fit for CMAP is provided at the end of each goal. Each of these inspiring examples includes a brief description, a link to more information, and a numbered symbol (1) Throughout the action plan, these numbers are shown next to the most closely associated strategy. Examples of work in the CMAP region are flagged as LOCAL.



GOAL 1. TRANSPORTATION, DISTRIBUTION, & LOGISTICS



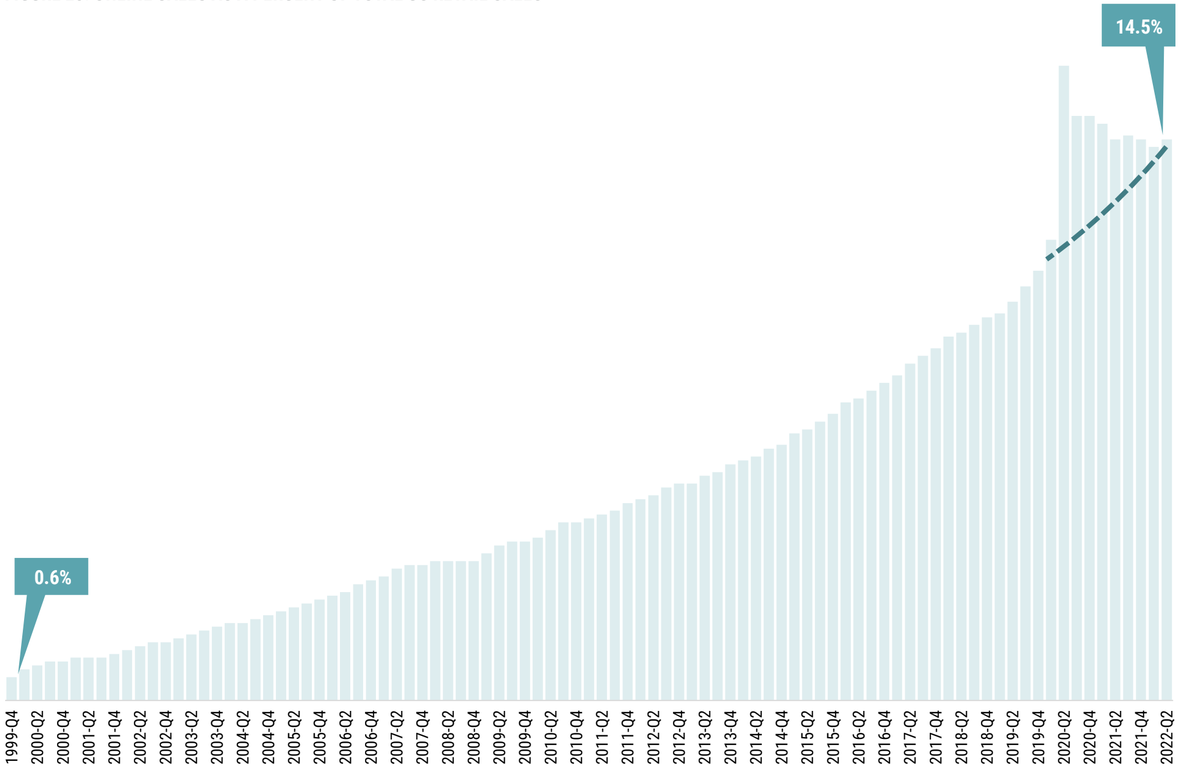
Grow the transportation, distribution, and logistics (TDL) sector with a renewed focus on regionalism and equity.

The Chicago region is one of the nation's most important hubs for transportation, distribution, and logistics (TDL). This sector tends to offer relatively high wages with employment opportunities throughout the Chicagoland region, making it a priority for equitable growth.[5] The pandemic created new challenges for this sector. For example, online sales dramatically increased during the pandemic (Figure 23), a trend that appears to be continuing that puts additional stress on TDL companies.

Increasing consumer demand for faster, cheaper delivery from consumers no longer as able or as willing to visit stores in-person put additional pressure on online retailers, on-demand and last-mile delivery services, and just-in-time warehousing processes that were not designed for rapidly changing demand during the COVID-19 pandemic. Employee absences due to sickness or quarantine rules and border closures contributed to supply chain disruptions at ports, railyards, and other points of transfer, especially for companies with locations overseas. In response to these challenges, the Chicago Recovery Task Force identified TDL as a sector of significance to the region, prioritizing its expansion through responsive actions that address trends resulting from the COVID-19 pandemic. The intent of the *Inclusive Growth Analysis* is to support these, and other, ongoing initiatives and to provide additional actions at the intersection of industry growth and equity.

5 In the Analysis section of this report, TDL employment is grouped according to the EDA cluster framework, which separates transportation and logistics activities from distribution and electronic commerce. For the Action Plan, they are referenced as a single sector.

FIGURE 23. ONLINE SALES AS A PERCENT OF TOTAL US RETAIL SALES



Sources: US Census Bureau; TIP Strategies, Inc.

STRATEGIES AND ACTIONS

1.1. Increase interorganizational coordination in TDL.

- **1.1.1.** Convene industry leaders to share regional information, monitor trends, problem-solve challenges, and identify solutions to common issues.
- **1.1.2.** Continue CMAP's efforts to identify major congestion points in the TDL chain and establish strategies for relief.
- **1.1.3.** Develop regionally coordinated plans and policies to preserve industrial land with access to freight facilities and highways, diverting trucking and other traffic from local streets. Will County's Community Friendly Freight Mobility Plan, formed through a partnership between Will County and the Will County Center for Economic Development, is a potential model for the region.
- **1.1.4.** Create a regional database highlighting underutilized, vacant, and brownfield sites that might be appropriate for future TDL redevelopment, taking into consideration factors such as site size, transportation assets, economic development tools, environmental data, and social vulnerability information to aid in decision-making, as seen in the Calumet Reinvestment Mapping Tool. 1

1.2. Develop the regional talent pipeline to better incorporate diversity, equity, and inclusion (DEI) goals by aligning efforts among educators, training providers, and employers.

- **1.2.1.** Support the educational efforts of existing organizations—such as Olive-Harvey College's Transportation, Distribution, and Logistics Training Center; the Illinois Trucking Association; and the Mid-West Truckers Association—and work with companies to ensure that their educational and training outcomes are aligned with employer needs.
- **1.2.2.** Utilize early-outreach programs to introduce students to TDL careers by visiting schools, offering internships or fellowships, and hosting open houses that target students and entry-level workers.
- **1.2.3.** Connect Apprenticeship Illinois, Chicago Apprentice Network, and similar programs to regional employers.
- **1.2.4.** Expand access to TDL careers in traditionally excluded populations by mitigating barriers to access through initiatives such as earn-to-learn, hiring instructors reflective of the target population, providing training where potential employees are located, and offering childcare. 2
- **1.2.5.** Increase job quality by participating in programs such as the Illinois Manufacturing Excellence Center (IMEC) Genesis Movement initiative, which analyzes both product and people improvement opportunities.
- **1.2.6.** Convene employers in the logistics sector to identify strategies for increasing DEI, to include examining recruitment methods for job openings, partnerships with educational institutions, skills and development opportunities, and strengthening career pathways for workers.
- **1.2.7.** Cultivate a culture of innovation responsive to industry changes.
- **1.2.8.** Connect businesses, students, and supply chain employees to innovation hubs such as the Supply Chain Innovation Center and Business Incubator at Governors State University.
- **1.2.9.** Work with local logistics companies to identify opportunities to supplier diversification.
- **1.2.10.** Work with businesses to adopt electric and alternative fuel trucking fleets and connect those companies with local manufacturers.
- **1.2.11.** Coordinate with partner organizations to establish living laboratories concentrated on emerging technology, such as warehouse and delivery automation, 3D printing, blockchain, and drones to test their applicability in real-world scenarios.

INSPIRING EXAMPLES

1 Allstate Northbrook Campus

In late 2021, Allstate announced the sale of its headquarters campus in Northbrook to a warehouse developer. The sale was opposed by community groups concerned about congestion, noise, and pollution, but supported by the warehouse developer due to the size and location of the site. As headquarters and other large corporate campuses turn over, these sites will present new opportunities for reuse and redevelopment that should be guided by regional plans. LOCAL

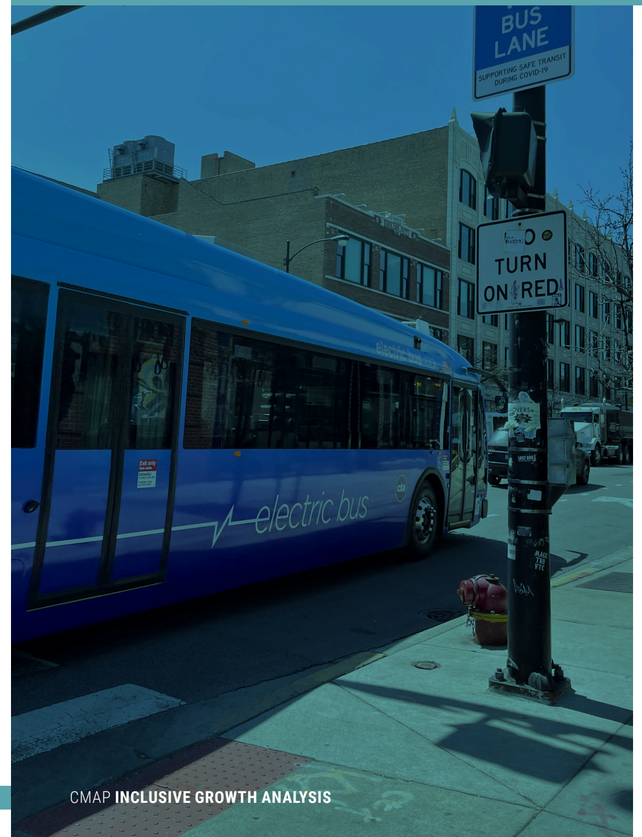
2 Carter Truck Driving Academy

The Carter Truck Driving Academy is one of the nation's only Black-owned truck driving school and is based in Colorado, where 9 of 10 commercial driver's license holders are male, and more than 90 percent are White. Founders Shenika and Matthew Carter are working to diversify the industry by offering financial assistance and scholarships to students, hiring a diverse staff, and accepting students who are not native English speakers with the goal of getting more people into well-paying industry jobs.





GOAL 2. ELECTRIC VEHICLES & CLEAN ENERGY



Become a national leader in electric vehicle development and the clean energy economy.

Manufacturers of electric vehicles (EV), and operators of the energy infrastructure that support them, have been making major investments in the development of this sector. Distribution and logistics companies such as FedEx, UPS, and the USPS have all made commitments to electrify their fleets, as have other vehicle-centric companies such as Lyft, Volvo, General Motors, and Ford. Public transit agencies, including the Chicago Transit Authority (CTA) and Pace, have begun to electrify their fleets, and individual consumers are purchasing increasing numbers of hybrid and electric vehicles. Personal electric vehicles are becoming increasingly attainable and price competitive with their gas-powered counterparts, with starting prices under $30,000, expediting their adoption by consumers. Despite a growth trajectory, this cluster has experienced negative impacts because of the COVID-19 pandemic. Supply chain disruptions in China and South Korea made it difficult to access lithium-ion batteries, which power EVs, and social-distancing requirements meant the closure of vehicle showrooms.

Supporting additional electric vehicles at a large scale in Chicagoland requires investments in the electric grid and a network of charging stations, something the region is well-equipped to pursue. The state of Illinois provides a supportive environment with the Climate and Equitable Jobs Act (CEJA), which established a policy to move toward clean energy by investing in renewable energy, energy efficiency programs, and elective vehicle programs, and closing the state's remaining coal plants. The strategies and actions identified for this goal are intended to help the cluster continue to grow, address challenges created by the pandemic, and position the cluster to be more resilient in the future.

STRATEGIES AND ACTIONS

2.1. Create a regional strategy for sector growth.

- **2.1.1.** Create a detailed asset map for this sector to include existing businesses, funders/investors, education and training programs, and innovation/research and development organizations.
- **2.1.2.** Encourage information sharing between major players in EV and clean technology to increase innovation within the sector. Locally, the annual Grid Modernization Forum is an example of bringing industry leaders together to share perspectives and best practices.
- **2.1.3.** Work with industry leaders to determine the feasibility of creating an electric vehicle sector partnership.
- **2.1.4.** Support the 2025 Clean Tech Economy Coalition (led by mHUB), an alliance of organizations committed to supporting a clean energy economy whose goals include growing the electric vehicle sector and grid modernization.

2.2. Cultivate a strong talent pipeline that incorporates DEI targets into workforce plans.

- **2.2.1.** Encourage relationships between educational providers (middle and high school through college) and employers to expose young people to career pathways. 3
- **2.2.2.** Increase participation in workforce development and training by offering additional wraparound support services, such as financial support, access to healthcare or health insurance, and childcare.
- **2.2.3.** Partner with organizations such as the National Clean Energy Workforce Alliance to connect employers and workers with education, training, and job opportunities.
- **2.2.4.** Work with companies to develop DEI strategies for their workforce and encourage their leadership to join the CEO Coalition for Change, its DEI Accelerator Program, or start a similar regional initiative in Chicagoland. 4

2.3. Grow the EV research, manufacturing, and production ecosystem.

- **2.3.1.** Invest in the EV supply chain by supporting efforts by Argonne National Laboratory and others to develop solid-state batteries with applications in the defense, aerospace, and electric vehicle sectors.
- **2.3.2.** Pursue creative solutions to bolster energy production, such as microgrid technology. 5
- **2.3.3.** Pursue state and federal funding opportunities, such as the US Department of Transportation, National Electric Vehicle Infrastructure Formula Program (to buildout the region's state-designated electric vehicle designated corridors) and CEJA funding (to facilitate capital access for clean energy contractor incubators). 6
- **2.3.4.** Identify opportunities to connect regional manufacturers, such as Rivian, Stellantis, Ford, and Lion, with regional anchor organization procurement and fleet conversion opportunities.
- **2.3.5.** Invest in research and development for related industries, such as charging stations and hydrogen fuel cell electric vehicles.
- **2.3.6.** Connect entrepreneurs with sector-specific funding opportunities, such as S2G Ventures, Clean Energy Trust, Energize Ventures, Evergreen Climate Innovations, and Buoyant Ventures, to scale up companies.

INSPIRING EXAMPLES

3 Green Career Exploratory Program (GSEP)

The city of Minneapolis established the GSEP to help meet the growing need for workers in the green energy sector by creating partnerships with middle and high school instructors, workforce agencies, training organizations, and local Black-owned solar companies to foster workforce development. GSEP also partnered with Xcel Energy to create a training program.

4 Incorporating DEI Policies into Business Strategies

MICHauto and the Center for Automotive Diversity, Inclusion, and Advancement created the CEO Coalition for Change, a group of automotive CEOs committed to increasing DEI in the auto industry. The coalition is open to automotive industry companies with more than 100 employees and extends beyond manufacturers to include sales/services, specialty equipment, and mobility industries.

The *Action to Catalyze Tech Report*, a nationwide effort led by the Aspen Institute, the National Center for Women and Information Technology, PwC, and Snap Inc., investigated ways to integrate DEI policies into business strategies in the tech industry at all stages, from startups to mature organizations. The report contains commitments from over 30 CEOs and executives, along with strategies for operationalizing DEI through supplier diversity, product design, and talent. Following publication of the report, a DEI Innovation Summit was convened in November 2021 with company leaders, DEI experts, and advocates to discuss cross-industry alignment and implementation.

5 Chicagoland Microgrids

Microgrids are currently utilized in Chicagoland. ComEd, the local electric utility, installed a utility-scale battery storage facility to provide local residents and critical services, such as nursing homes, with a stable source of power via the microgrid. The facility was strategically located behind a neighborhood mural and debuted along with other community-related projects, such as off-grid and solar-powered streetlights and free Wi-Fi.

Maryland's Montgomery County Ride On transit system will utilize microgrid technology via solar panels at a bus depot to charge electric buses. CTA is currently examining the possibility of deploying this technology as a source of backup power for buses. LOCAL

6 Michigan Mobility

The Michigan Office of Future Mobility and Electrification and the Michigan Department of Transportation are launching the Michigan Mobility Funding Platform to accelerate investment in mobility and electrification solutions with an emphasis on sustainability, equity, and multimodal transportation.

GOAL 3. ADVANCED MANUFACTURING



Strengthen Chicagoland's position as a hub for manufacturing excellence.

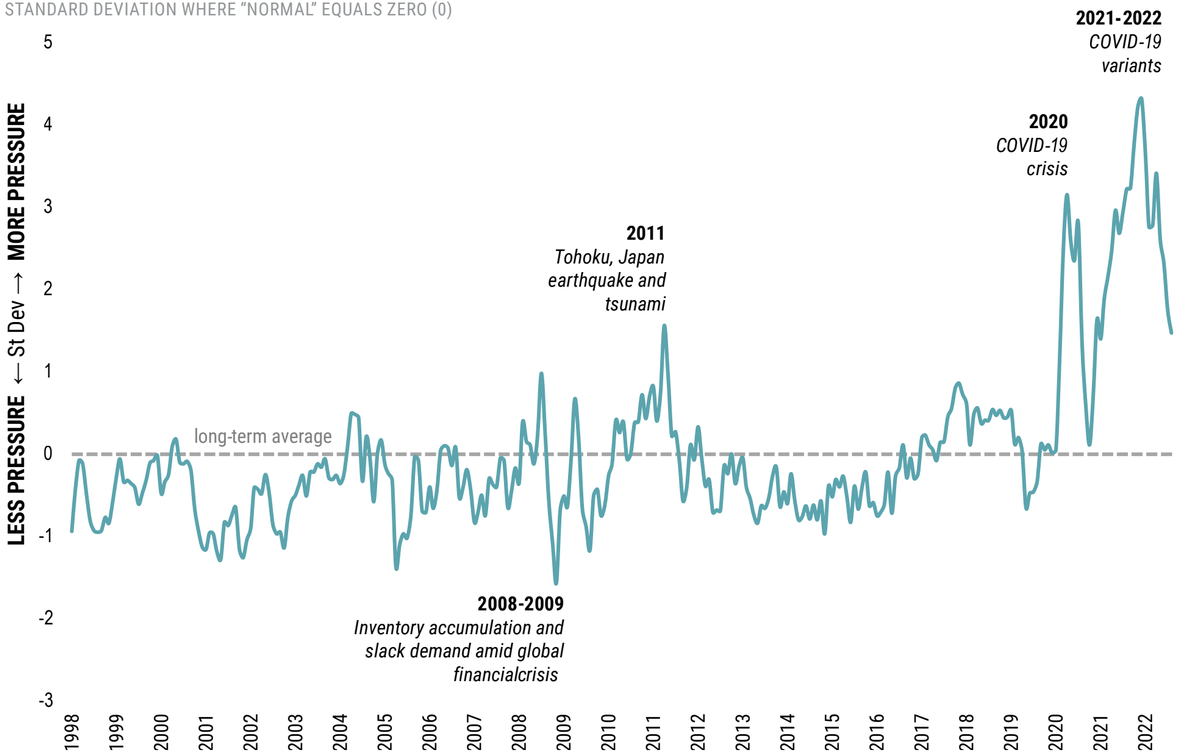
Advanced manufacturing is an important driver in Chicagoland, comprising several of the region's traded clusters where there is significant competitive advantage: aerospace, chemical, metal, electrical equipment, medical devices, metalworking technology, plastics, and production and heavy machinery. Manufacturers are surrounded by a strong ecosystem of educational institutions, research and development organizations, training programs, and local sector partnerships. A 2021 report *The Future of Manufacturing in Illinois* by the Illinois Manufacturing Excellence Center (IMEC) identifies Illinois as a leader in the next industrial revolution due to its proximity to resources, global connectivity, and concentration of existing manufacturing efforts. Chicagoland is the nexus of this opportunity.

Efforts to continue the region's dominance in manufacturing are changing in the wake of the COVID-19 pandemic. A major economic impact of the pandemic has been disruption in global supply chains (Figure 24).

An absence of workers who were quarantined because of COVID-19 infection or exposure, sudden increases in the demand for specific products, and congestion at ports have all affected the delivery of goods to customers and manufacturers in Chicagoland and elsewhere. As a result, construction rates for new manufacturing facilities in the US have greatly increased, presenting an opportunity for the region. According to a survey of C-suite executives by financial services company UBS Group AG, "More than 90% of those surveyed said they either were in the process of moving production out of China or had plans to do so." Approximately 80 percent were considering bringing some manufacturing back to the US,[6] a potential area of opportunity for Chicagoland. The 2022 Russia-Ukraine war has further compounded supply chain issues, increasing the appeal of bringing suppliers and manufacturers closer to the customer when feasible.

6 Ryan Beene. "US Factory Boom Heats Up as CEOs Yank Production Out of China." *Bloomberg*. July 5, 2022.

FIGURE 24. GLOBAL SUPPLY CHAIN PRESSURE INDEX
STANDARD DEVIATION WHERE "NORMAL" EQUALS ZERO (0)



Sources: US Federal Reserve Bank of New York; TIP Strategies, Inc.
Notes: Index scaled by the current standard deviation from the long-term average

STRATEGIES AND ACTIONS

3.1. Ensure an awareness of and responsiveness to trends in manufacturing.

- 3.1.1. Reinforce current research efforts to monitor and report on trends impacting economic drivers related to manufacturing.
- 3.1.2. Establish communication channels between the region's manufacturing sector partnerships and other organizations in the manufacturing cluster to better understand trends, opportunities, and challenges through biannual or quarterly roundtables.
- 3.1.3. Support centers of innovation and excellence, such as MxD and mHUB, that work to increase innovative practices in manufacturing.

3.2. Identify reshoring and nearshoring opportunities for Chicagoland companies.

- 3.2.1. Identify opportunities to nearshore or localize suppliers to shorten supply chains.
- 3.2.2. Coordinate local supply chain networking events to connect manufacturers across the region. Ensure minority and women-owned businesses have the support and resources needed to attend these events.
- 3.2.3. Strengthen connections with organizations outside of CMAP's boundaries but within the region's workforce area, which includes much of the aerospace sector.
- 3.2.4. Work with the Illinois Defense Network to connect local manufacturers to defense manufacturing sector supply chains.

3.3. Develop the regional talent pipeline by aligning efforts among educators, training providers, and employers.

- 3.3.1. Support the work of existing organizations, such as the Manufacturing Renaissance, the Greater Chicago Advanced Manufacturing Partnership, and the Chicagoland Workforce Funder Alliance Apprenticeship 2020 to increase the region's manufacturing workforce.
- 3.3.2. Connect workers with clear career pathways that offer earn-and-learn initiatives, such as stipends, paid work experience, on-the-job training, and dual credit programs for students enrolled in school and an apprenticeship. [7]
- 3.3.3. Encourage relationships between educational providers (middle and high school through community college or trade school) and employers to expose young people to career options in manufacturing and create an understanding of pathways to those jobs.
- 3.3.4. Promote participation in the annual national Manufacturing Day or similar opportunities that allow students, teachers, educational leaders, parents, and others to access and learn more about local manufacturing facilities.
- 3.3.5. Recruit graduates from advanced manufacturing academies at Heartland Community College and Southwestern Illinois College to work for companies in Chicagoland.
- 3.3.6. Utilize the *Occupational Accessibility Tool* to identify jobs within manufacturing clusters that are characterized by high quality and accessibility. For jobs with higher quality and lower accessibility, identify and address barriers to access. When a job is characterized by lower quality and higher accessibility, consider programs such as the IMEC Genesis Movement people-process-product approach, which aims to increase job quality. [8]

3.4. Strengthen worker pipelines by incorporating diversity, equity, and inclusion (DEI) targets into workforce development plans.

- 3.4.1. Work with local businesses to inform workforce development goals and initiatives that are mutually beneficial to workers and companies.
- 3.4.2. Connect employers with service providers and programs that can help them increase their workforce diversity, such as IMEC's DEI in manufacturing and P33,[7] which is directed at increasing diversity in the tech sector. [9]
- 3.4.3. Increase participation in apprenticeships and internships in high-growth sectors by offering additional wraparound services, like financial support, healthcare or health insurance, and childcare.
- 3.4.4. Encourage communities to expand access to educational programs in science, technology, engineering, and mathematics (STEM) that are aligned with job opportunities such as the Illinois IT STEM Learning Exchange and the University of Illinois Discovery Partners Institute. Concentrate on increasing DEI participation by partnering with organizations that have relationships with historically excluded populations.
- 3.4.5. Work with manufacturers in search of new sites to connect them with opportunities in neighborhoods most in need of employment, such as the CMAP economically disconnected area clusters.

3.5. Coordinate with manufacturers during periods of transition to create stability for workers and communities.

- 3.5.1. Reach out to companies that have a significant office or headquarters presence, but do not have a manufacturing facility in the region to understand what would entice them to bring manufacturing to the region.
- 3.5.2. Maintain an inventory of vacant and underutilized manufacturing sites to encourage infill development. Repurpose existing manufacturing sites as companies relocate or expand. Update incentive policies to align with the prioritization of infill rather than greenfield sites.
- 3.5.3. Contact owners of small- and medium-size companies to create succession plans that benefit the owners, employees, and investors through succession planning workshops or one-on-one meetings. Potential tactics for succession planning include identifying a potential buyer who will maintain current staff, consolidating operations, or transferring to employee ownership.
- 3.5.4. Connect manufacturers to funding opportunities, such as the Illinois Manufacturing Innovation Voucher that can help mitigate the financial impacts of adapting new technology or implementing productivity improvements or P33 initiatives, such as Company Connect and TechRise.

7 P33 is an intentional and collaborative effort led by Chicago business and tech leaders across the private and public sector to build Chicago's recognition as a tier-one tech hub.

INSPIRING EXAMPLES

[7] Growth and Opportunity for Virginia (GO Virginia)

The goal of this statewide initiative led by regional councils, the Virginia Department of Housing and Community Development, and the GO Virginia Foundation is to create high-paying jobs by incentivizing cross-sector collaboration. GO Virginia offers targeted funding to achieve this goal, such as a $700,000 grant to train women who lost jobs during the pandemic for high-demand opportunities in cybersecurity. Other outcomes have included offering a grant to strengthen the capacity of personal protective equipment (PPE) manufacturers and establishing a funding reserve for projects related to extraordinary need or extraordinary positive economic impact.

[8] IMEC Genesis Movement

The IMEC Genesis Movement, which prioritizes investment in frontline workers, developed as a collaboration between the Funder Alliance and IMEC in 2013. During its first four years, the Genesis initiative was implemented by 22 firms, creating benefits for employees and businesses. Workers experienced improved job stability and security, safer operating procedures, clearer job descriptions and advancement pathways, and improved wages and benefits. The businesses experienced production efficiencies, cost savings from reduced injuries, improved adherence to customer quality standards, improved sales retention, and increased profitability and growth. The companies that logged the most project hours related to the initiative experienced the greatest gains in sales, cost savings, and job retention. LOCAL

[9] The Manufacturing Institute's Diversity and Inclusion Initiative

The goal of this initiative is to make the manufacturing workforce more reflective of the diversity in communities by identifying and addressing systemic barriers to job opportunities. The Manufacturing Institute (MI) advances research by gathering insights, experiences, and plans from Diversity and Inclusion (D&I) experts; studying upskilling strategies; and creating a baseline for current D&I policies, practices, and attitudes from manufacturers across the country. In addition, MI has established strategic partnerships with major employers, including Union Pacific (to increase women and youth participation in manufacturing), and the Caterpillar Foundation (to recruit veterans).

GOAL 4. AGRICULTURE, AGRICULTURE TECHNOLOGY, & FOOD PROCESSING



Grow Chicagoland's agriculture, agriculture technology, and food processing sector into a national model for equitable growth and innovation.

Chicagoland is a nationwide leader in food production, food-related patents, distribution, and processing. According to a report by the Chicago Recovery Task Force, the region is also a leader in food and ag startups, with Chicago ranking sixth in the world as an ag tech ecosystem.[8] Recent events such as the COVID-19 pandemic and the Russia-Ukraine war have disrupted food supply chains worldwide, emphasizing the need for strong local food systems. Such systems, like other parts of the economy, have been impacted by labor shortages, exacerbated by pandemic-related declines in immigration and workforce participation. Supply chain disruptions have made it challenging for food to get "from farm to fork," and changing consumer preferences have made forecasting demand difficult. These present issues, however, create an opportunity for a more resilient cluster in the future. Forging stronger links among the agriculture, ag tech, and food processing sectors will have benefits in rural, suburban, and urban environments, reaching residents throughout the region, regardless of geography.

The summer of 2022 was characterized by nationwide heatwaves and record-breaking high temperatures. Several states in the west and southwest experienced extreme drought conditions, which created water supply challenges. While Illinois has experienced some of these challenges, it is expected to experience fewer negative impacts from climate change overall.[9] The state has a potential competitive advantage in the agriculture and food processing sector, somewhat dependent on investments in climate change mitigation strategies, research, technology, and adaptations to production practices. While strategies specifically designed to mitigate climate change are outside the scope of this report, the following recommendations represent potential pathways for Chicagoland to position itself as a leader in agriculture, ag tech, and food processing in changing times.

8 *Forward Together, Building a Stronger Chicago*. Recovery Task Force Advisory Report. July 9, 2020.
9 *An Assessment of the Impacts of Climate Change in Illinois*. The Nature Conservancy. 2021.

STRATEGIES AND ACTIONS

4.1. Strengthen existing, and create new, methods of cross-sector information sharing.

- **4.1.1.** Create a detailed asset map for this sector to identify gaps in product, program, or service offerings as well as opportunities for connection. Include existing businesses, funders/investors, education and training programs, and innovation/research and development organizations.
- **4.1.2.** Develop a resource clearinghouse to connect farmers to market opportunities and to coordinate goals across education, manufacturing, investment, land use, and transportation networks.
- **4.1.3.** Host cross-sector networking and information-sharing events to break through silos and connect companies, educators, and innovators. These events can be part of, or in addition to, specialized forums hosted by the Chicagoland Food and Beverage Network, the Farm Foundation, the Good Food EXPO, the Chicago Food Policy Action Council annual Chicago Food Justice Summit, and the Chicago chapter of the Institute of Food Technologists.

4.2. Assist small and midsize food producers and processors as they grow and expand to new markets.

- **4.2.1.** Use procurement opportunities in government, universities, and other anchor institutions to support the local agriculture ecosystem. 10 11
- **4.2.2.** Work with funders, incubators, and technical assistance providers to help more entrepreneurs move from idea to business. 12 13
- **4.2.3.** Connect companies ready to scale up with incubators and accelerators, such as the Good Food Accelerator, and sector-focused funding networks, such as the Open Prairie Rural Opportunities Fund, S2G Ventures, and the Sustainable Local Food Investment Group.
- **4.2.4.** Identify the extent of the need for additional funding to support emerging companies and explore creating a regional agri-food investment fund.
- **4.2.5.** Foster strong regional connections with other Midwest states that depend on Chicagoland's transportation and distribution networks to get their products to market.
- **4.2.6.** Cultivate agritourism opportunities that are centered on local assets, such as the Northern Illinois Wine Trail.

4.3. Cultivate a strong talent pipeline that incorporates DEI targets into workforce plans.

- **4.3.1.** Encourage relationships between educational providers (middle and high school through community college or trade school) and employers to expose young people to career options in agriculture and create an understanding of pathways to those jobs. Local programs that could become models for other communities in the region include the Chicago High School for Agricultural Sciences and the Cook County Farm Bureau's in-school and farm field trips.
- **4.3.2.** Expand agricultural production and business curriculum opportunities in high school and secondary education.
- **4.3.3.** Expand student and young professional fellowships and scholarships, such as those offered by the Farm Foundation, the Chicago Farmers Scholarship Fund, and PepsiCo, to include a greater number and variety of students and young professionals by offering paid training, mentorship, and credentialing opportunities.
- **4.3.4.** Identify opportunities to create multiuse farming, workforce development, and fresh food distribution centers in areas without adequate access to healthy food, following the Growing Home model in Chicago's Englewood neighborhood. 14

4.4. Prioritize support structures for regional producers, processors, and consumers.

- **4.4.1.** Pursue local, state, and federal grant opportunities to grow local businesses and markets. 15 16

4.4.2. Support and expand the work of organizations, such as the Chicago Food Policy Action Council, the Chicago Botanic Garden, and the Greater Chicago Food Depository, that develop, facilitate, and support policies that increase access to healthy food.

4.4.3. Build a more equitable agricultural economy with farmers and producers who are more reflective of the racial and ethnic diversity of Chicagoland. ⑰

4.4.4. Engage with local growers and producers to establish succession-planning strategies that provide stability for companies and workers.

4.4.5. Educate residents and students about the importance of land for agriculture through hands-on experiences and marketing.

4.4.6. Establish a regional mitigation or land conservation fee fund whereby the development of agriculture land is tied to a fee that is used to fund permanent easements for land protection.

4.5. Prioritize research and innovation that prepares this sector for the future.

4.5.1. Promote information sharing, collaboration, and innovative approaches to agriculture by fostering connections between organizations such as Fulton Labs, Hazel Technologies, Argonne National Laboratory, and local higher education institutions.

4.5.2. Expand climate-responsive agriculture research and implementation opportunities, such as vertical farming utilized by Wilder Fields, the Green Era Campus, and the Green Lands Blue Waters initiative.

4.5.3. Support the establishment of the Farm Foundation's Innovation and Education Campus and ensure that there is broad community access to its resources.



INSPIRING EXAMPLES

⑩ City of Chicago and Cook County's Good Food Purchasing Initiative

The Initiative is a local program that leverages the buying power of large institutions to strengthen the local food supply chain and provide intentional support for Black, Indigenous, and people of color (BIPOC)-owned food producers and food businesses. LOCAL

⑪ Chicago Anchors for a Strong Economy (CASE)

CASE, an initiative of World Business Chicago, works to increase the capacity of small and medium-size businesses through contract opportunities with anchor institutions. LOCAL

⑫ The Hatchery Chicago

This nonprofit food and beverage incubator is located on the west side of Chicago. The Hatchery was created by the Industrial Council of Nearwest Chicago, an organization focused on economic and community development in Chicago's Kinzie Industrial Corridor, in partnership with Allies for Community Business. The Hatchery provides entrepreneurs with access to commercial kitchen facilities, coworking and meeting space, classes, technical assistance, and financing. As of 2019, the Hatchery had created 150 new jobs and expects to create 900 new jobs through 2023, 25 new companies per year, and 100 new food concepts. LOCAL

⑬ The Food Finance Institute (FFI)

FFI is one of five programs within the Institute for Business and Entrepreneurship at the University of Wisconsin system. The program offers financial assistance to food, beverage, and value-added agriculture businesses in addition to creating a digital resource hub called Edible-Alpha. The hub provides training on financial management and creating a profitable business model, shares relevant podcasts, and publishes a regular newsletter with insights on these topics. Additional FFI service offerings include a national training and certification program, immersion trainings, and digital programming for food and farm businesses. These efforts have created a nationwide network of food hub managers, professionals able to train other food hub managers, and more than 200 immersive training participants who are better equipped to grow their business.

⑭ World Farmers

Based in Lancaster, Massachusetts, the mission of World Farmers, Inc., is to support small farmers in sustainable agricultural production and successful marketing practices to connect culturally relevant produce to viable markets. The organization connects immigrant and refugee farmers to markets in the Northeast through direct, hands-on assistance. Programmatic offerings include facilitated farmer-to-farmer mentorship, access to land and farming infrastructure, support for market access and expansion to new market opportunities, and assistance with business development. World Farmers serves over 350 farmers each year and has recently expanded to include farm-to-school sales and helping farmers sell commercially.

⑮ US Department of Agriculture Local Agriculture Market Program

The program provides grants to help local and regional food producers sell to universities, hospitals, and entities operated by local, tribal, and state governments. In addition, these funding opportunities can be used to develop, coordinate, and expand producer-to-consumer marketing, local and regional food markets, and local food enterprises. Applications for 2022 are closed, but an additional allocation is expected in 2023.

⑯ The Chicago Region Food System Fund

The Fund is focused on building capacity in the way food is produced, processed, distributed, and consumed in the Chicago region. LOCAL

⑰ Black Farmer Equity Initiative

The Black Farmer Equity Initiative is a partnership between Cargill and several other organizations in Alabama, Arkansas, Georgia, Louisiana, North Carolina, and Texas with the goal of increasing the participation, profitability, and productivity of Black farmers, ranchers, and growers. The initiative partners with producers to operationalize equity across the food and agriculture system; increase access to capital, markets, information, and technology; and increase the number of Black producers in supply chains by starting with targeted, industry-specific strategies

CMAP **INCLUSIVE GROWTH ANALYSIS**



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