

ECONOMIC RESILIENCY IN NORTHWEST ILLINOIS DURING THE COVID-19 PANDEMIC

December 2022

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Introduction

The COVID-19 pandemic had far-reaching consequences for global, national, and local economies. Industry and government rethought supply chains, workers and employers changed the where and how of work, and society reconsidered fundamentals like childcare, housing, and education. Here, Blackhawk Hills Regional Council (BHRC) reviews how our communities weathered the period. Our report compares data from 2019, the year before the pandemic, to the most recent year available for Northwest Illinois (Carroll, Jo Daviess, Lee, Ogle, Stephenson, and Whiteside counties).

Population

Overview

From 2019-2022, the BHRC region's population rose by 1% (1,752 residents). Carroll County saw the largest increase, with nearly twice the population growth of any other county, perhaps attributable to operationalizing United States Penitentiary Thomson in 2019. As of December 15, 2022, the population of the prison was 864 inmates.¹

Table 1: Overall Population Change in BHRC Region, Illinois, and US: 2019-2022

Location	CC	JDC	LC	OC	SC	WC	BHRC	IL	US
Change	1,328	746	-242	721	-624	-178	1,752	-29,912	5,831,529
% Change	9%	4%	-1%	1%	-1%	0%	1%	0%	2%

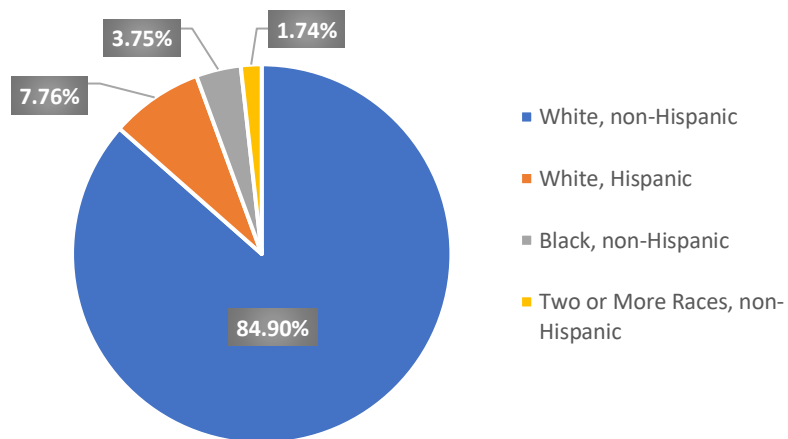
Source: Lightcast™. 2022. Population Demographics Report.

At this time, BHRC is uncertain whether these numbers represent a long-term upward swing, short-term blip, or pandemic-related noise, especially given that Lightcast calculated an increase in 2020, a decrease in 2021, and another increase in 2022. Further complicating this analysis is that [Illinois' population was undercounted](#) during the 2020 Decennial Census.

Race and Ethnicity

White, non-Hispanics account for a majority (84.9% in 2022) of Northwest Illinois' population. White, Hispanics represent the largest change by total population in the region – an increase of 1,417 from 2019-2022.

Figure 1: Population by Race/Ethnicity: 2022



Source: Lightcast™. 2022. Population Demographics Report

¹ Federal Bureau of Prisons. (December 8, 2022). Inmate Population Reports. Retrieved December 15, 2022, from https://www.bop.gov/about/statistics/population_statistics.jsp#pop_report_cont

Table 2: Population Change by Race/Ethnicity in the BHRC Region: 2019-2022

Race/Ethnicity	Change	% Change
White, non-Hispanic	-690	0.4%
White, Hispanic	1,417	9.0%
Black, non-Hispanic	291	3.6%
Two or More Races, non-Hispanic	237	7.8%
Asian, non-Hispanic	102	8.4%
Two or More Races, Hispanic	110	18.4%
Black, Hispanic	84	15.5%
American Indian or Alaskan Native, Hispanic	109	23.8%
American Indian or Alaskan Native, non-Hispanic	33	7.5%
Asian, Hispanic	33	23.7%
Native Hawaiian or Pacific Islander, Hispanic	14	23.7%
Native Hawaiian or Pacific Islander, non-Hispanic	13	28.3%

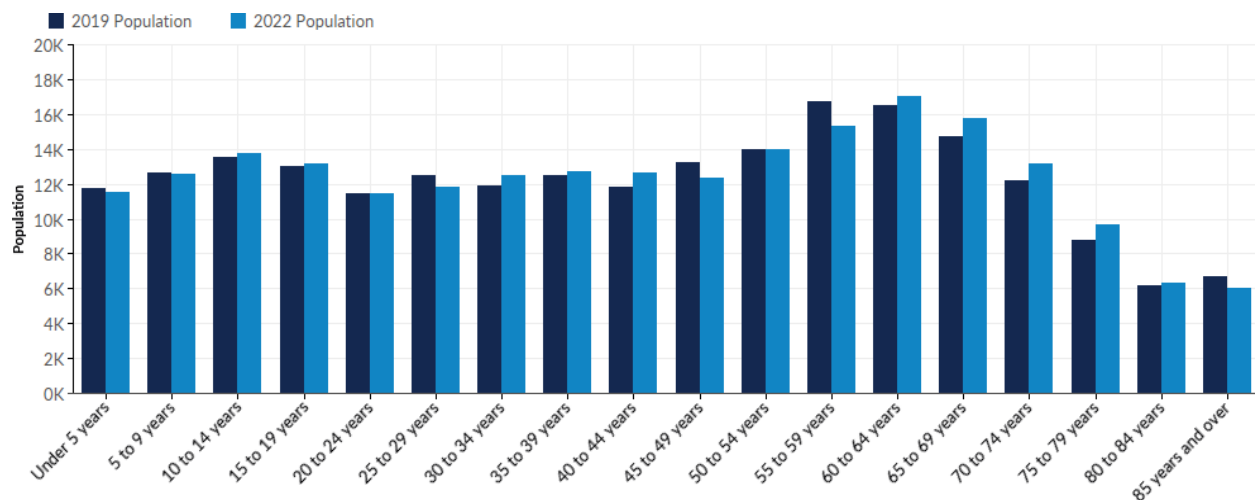
Source: Lightcast™. 2022. Population Demographics Report.

Age

Northwest Illinois age cohorts followed national trends. The 75-79 group saw the most growth, increasing 10% regionally and 12% nationally from 2019-2022. Nationally, those aged 85 years and over experienced the greatest decline (8%), but in the BHRC region, both the 55-59 and 85 years and over cohorts shrunk the most (9%).

There was also a national decline reflected regionally in the 20-29 group – when most people are starting careers. The 30-44 group grew both nationally and regionally during the same period.

Figure 2: Population by Age Cohort in BHRC Region: 2019 and 2022



Source: Lightcast™. 2022. Population Demographics Report.

Industrial Changes

Gross Regional Product

Gross Regional Product (GRP) is comparable to Gross Domestic Product (GDP) but for a smaller region than the United States. Table 3 shows the five industries that increased in GRP the most from 2019-2021 as well as the five industries that decreased in GRP the most in the same time period. From 2019-2021, Northwest Illinois' GRP increased by 13.17%. The largest growth came from the Agriculture, Forestry, Fishing and Hunting sector, which saw an approximately 210% & 79% increase in the subcategories of "Crop Production" and "Farm Labor Contractors and Crew Leaders," respectively. Mining, Quarrying, and Oil and Gas Extraction saw the largest decrease at 29.56%.

Table 3: Top and Bottom Five Industries by GRP Growth and Loss in BHRC Region: 2019-2021

NAICS	Industry	2019 GRP	2021 GRP	% Difference
11	Agriculture, Forestry, Fishing and Hunting	\$231,047,166	\$476,102,213	106.06%
44	Retail Trade	\$495,825,088	\$614,282,716	23.89%
23	Construction	\$399,906,898	\$481,391,747	20.38%
55	Management of Companies and Enterprises	\$20,259,305	\$23,427,589	15.64%
42	Wholesale Trade	\$480,212,458	\$554,673,741	15.51%
56	Administrative and Support and Waste Management and Remediation Services	\$224,246,299	\$223,799,486	-0.20%
81	Other Services (except Public Administration)	\$190,648,233	\$189,087,145	-0.82%
71	Arts, Entertainment, and Recreation	\$31,672,361	\$29,895,419	-5.61%
61	Educational Services	\$36,050,937	\$32,722,421	-9.23%
21	Mining, Quarrying, and Oil and Gas Extraction	\$33,398,647	\$23,526,565	-29.56%

Source: Lightcast™. 2022. Industry Table.

Shift Share

A shift-share analysis shows whether an industry grew within a region because of that region's strengths as opposed to national trends. The four components of shift-share analysis are industrial mix, national growth effect, expected change, and regional competitive effect:

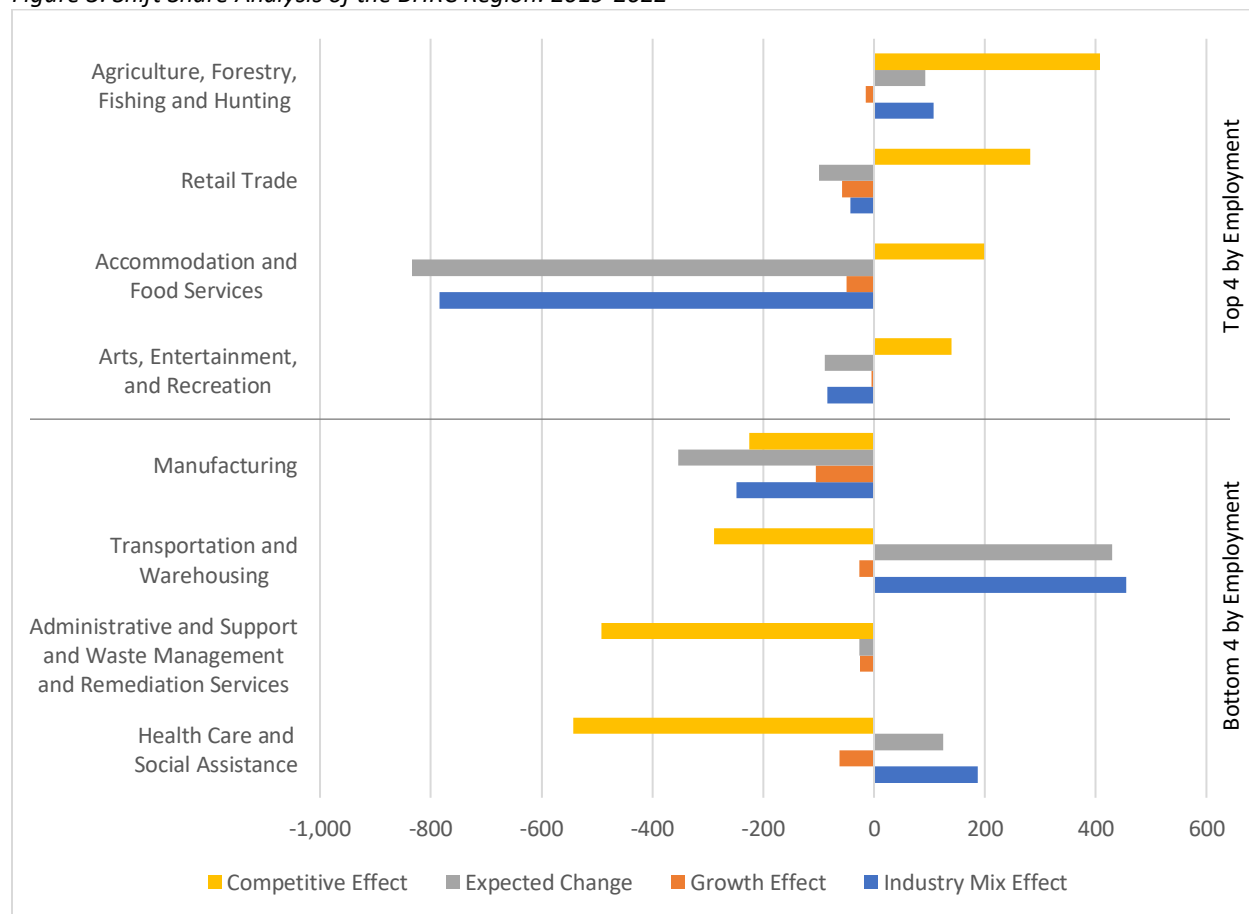
1. National growth effect – Number of jobs an industry is expected to gain/lose based on the industry's national growth/decline
2. Industrial mix effect – Number of jobs expected be added or lost within a regional industry based on the industry's national growth/decline
3. Expected change – Amount of job growth/decline for a regional industry based on combining the industrial mix and national growth effect
4. Competitive effect – How much the job change in a region is a result of the strengths/weaknesses of the region. It is the Actual Change (jobs gained or lost) minus Expected Change.

Figure 3 shows the top and bottom four industries by highest and lowest competitive effect. It is important to understand that even if jobs decline, competitive effect may still be positive. For example, even though Accommodation and Food Services lost 635 jobs (actual change), the expected change was a loss of 834 jobs. The region's competitive effect saved 199 jobs.

Conversely, jobs added to the economy may still result in a negative competitive effect. The Transportation and Warehousing sector grew by 140 jobs, but it was expected to grow by 430, meaning an expected 289 jobs were not added. The majority of this loss was in the subcategory of General Warehousing and Storage, which had an expected change of 530 jobs but only added 98 jobs.

The competitive effect of the region on the Health Care and Social Assistance sector is especially concerning, given both the pandemic and needs of Northwest Illinois' aging population. 125 net new jobs were expected; instead, 417 jobs were lost. The majority of these jobs were in the subcategories of Nursing Care Facilities (Skilled Nursing Facilities) and Continuing Care Retirement Communities, which were expected to only lose a combined 335 jobs but instead lost a combined 534 jobs.

Figure 3: Shift Share Analysis of the BHRC Region: 2019-2022



Source: Lightcast™. 2022. Industry Table.

Remember that

- Industrial Mix Effect (IME) is expected growth or decline locally,
- National Growth Effect (NGE) is expected growth or decline nationally,
- Expected Change (EC) = IMI + NGE, and
- Competitive Effect (CE) = actual change - EC.

Location Quotient

Table 4 shows the region's top five and bottom five industries by employment location quotient² (LQ) in 2022. LQs highlighted in **orange** are lower than they were in 2019, those in **blue** are higher. Those not highlighted remained the same. Regionally, industry LQs remained the same or declined during the pandemic with the exception of Agriculture, Forestry, Fishing and Hunting. This increase is also reflected in GRP in the region (see Table 3).

Table 4: Location Quotient Change in the BHRC Region: 2019-2022

NAICS	Industry	BHRC Region	CC	JDC	LC	OC	SC	WC
Top 5 by Employment								
22	Utilities	2.82	0.00	3.54	1.61	10.40	0.54	0.27
11	Agriculture, Forestry, Fishing and Hunting	2.63	2.44	2.17	1.15	3.45	4.36	1.67
31	Manufacturing	2.28	2.03	1.14	2.98	2.39	2.16	2.32
90	Government	1.29	1.84	1.20	1.46	1.23	0.90	1.47
48	Transportation and Warehousing	1.08	0.93	0.78	0.41	1.62	0.56	1.70
Bottom 5 by Employment								
21	Mining, Quarrying, and Oil and Gas Extraction	0.47	1.04	0.39	0.55	0.99	0.00	0.35
54	Professional, Scientific, and Technical Services	0.36	0.28	0.36	0.28	0.15	0.30	0.64
61	Educational Services	0.34	0.11	0.76	0.33	0.09	0.19	0.57
51	Information	0.22	0.31	0.14	0.12	0.27	0.30	0.19
55	Management of Companies and Enterprises	0.14	0.36	0.69	0.09	0.01	0.09	0.07

Source: Lightcast™. 2022. Industry Table.

² From the US Bureau of Labor Statistics: Location quotients are ratios that allow an area to be compared to a reference area's distribution. The US is used as the reference area for all LQs. If an LQ is equal to 1, then the industry has the same share of its area employment as it does in the nation. An LQ greater than 1 indicates an industry with a greater share of the local area employment than is the case nationwide.

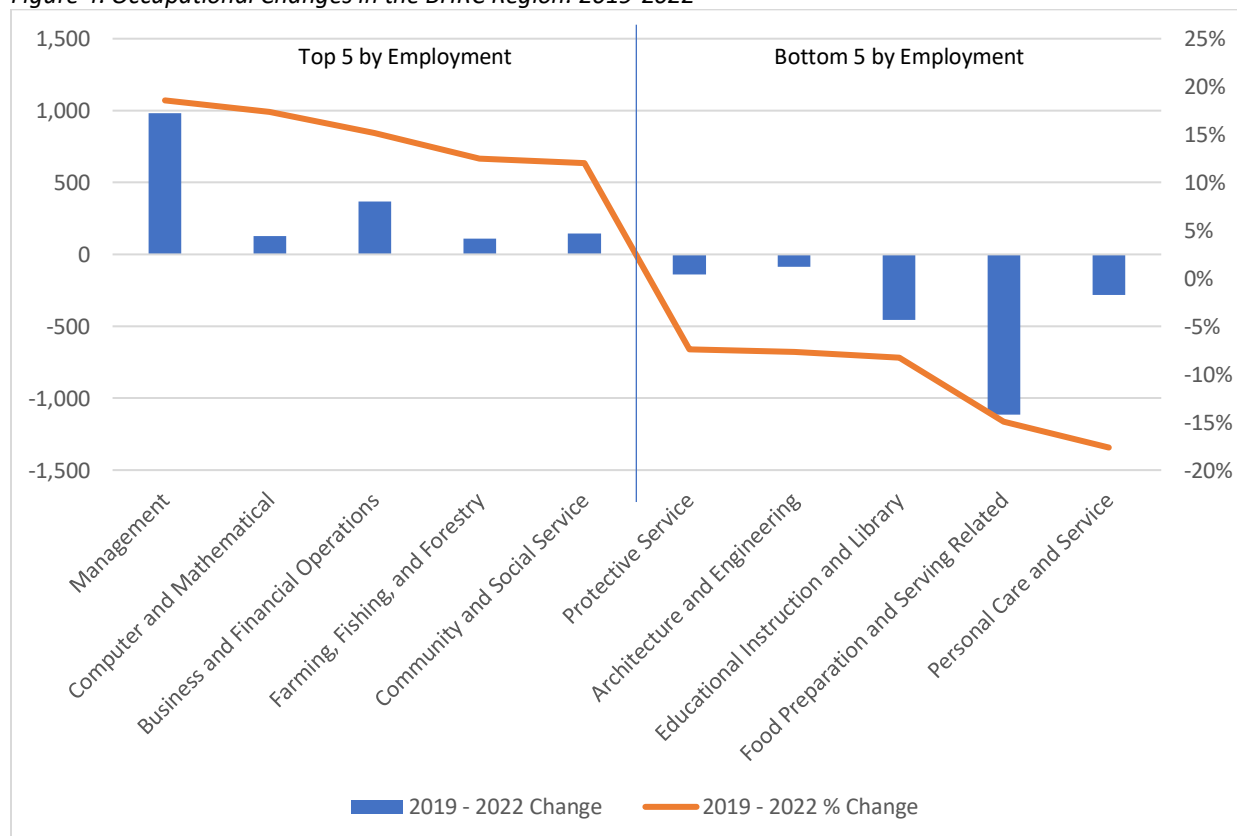
Occupational Changes

Employment

Personal Care and Service Occupations experienced the greatest percentage decrease in employed persons from 2019-2022. However, looking at total jobs lost, Food Preparation and Serving Related Occupations stands out; the subcategories of “Fast Food and Counter Workers” and “Waiters and Waitresses” each lost 34% of their workers in those three years for a combined 1,206 jobs.

Conversely, Management Occupations gained the most employees in both percentage and totals. Those increases came largely from “General and Operations Managers” and “Farmers, Ranchers, and Other Agricultural Managers” subcategories, reflecting at least in part how agriculture seemed to thrive in Northwest Illinois during the past three years.

Figure 4: Occupational Changes in the BHRC Region: 2019-2022

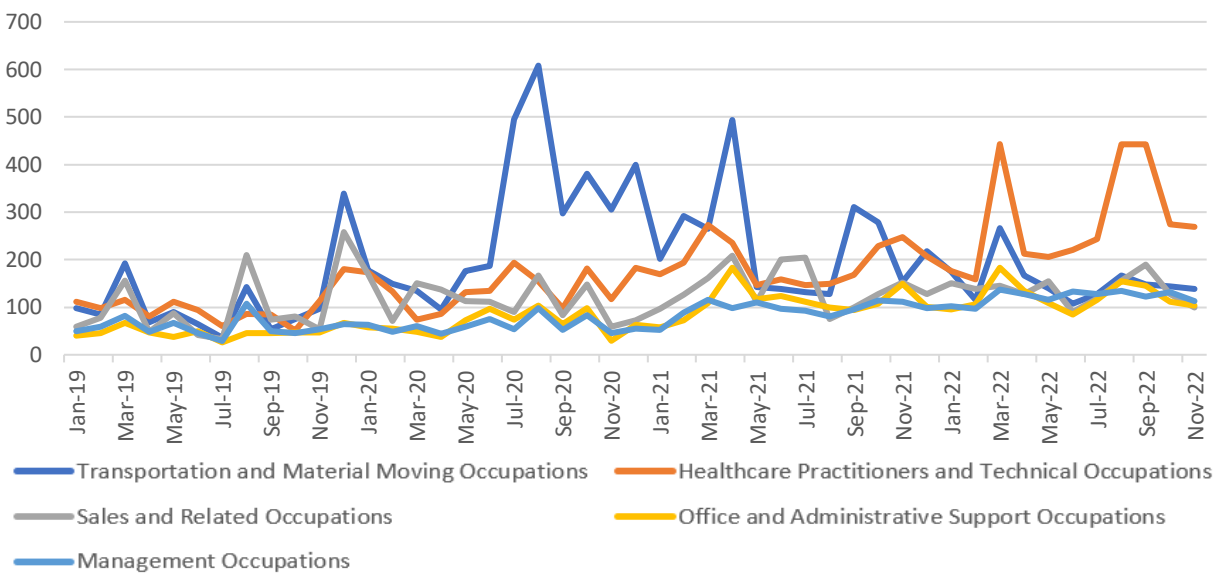


Source: Lightcast™. 2022. Occupational Table.

Job Postings

Figure 5 depicts the top five Occupations with unique job postings from 2019-2022. Transportation and Material Moving Occupations saw an increase in unique job postings in 2020 as consumption increased during stay-at-home orders. Unique job postings for Healthcare Practitioners and Technical Occupations rose throughout the pandemic and remained high.

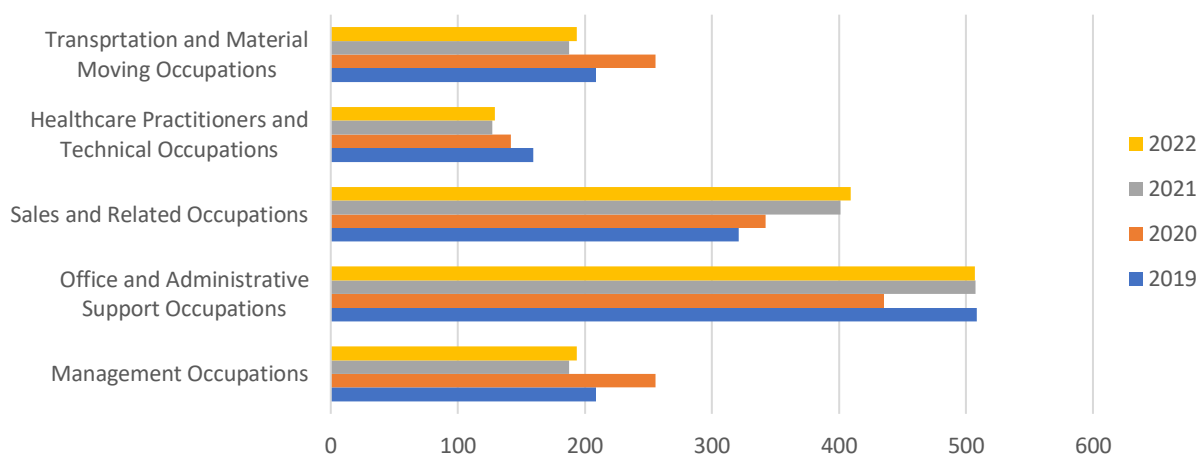
Figure 5: Unique Job Postings by Occupation in the BHRC Region: January 2019 – November 2022



Source: Lightcast™. 2022. Job Postings Table.

Unfilled positions could be a factor in the high number of unique job postings. Figure 6 shows average monthly hires for the above Occupations. Management as well as Transportation and Material Moving Occupations increased hiring in 2020. Both Sales and Related Occupations as well as Office and Administrative Support hired fewer employees in 2020 but returned to 2019 levels the next year. However, Healthcare Practitioners and Technical Occupation hirings have fallen since 2019.

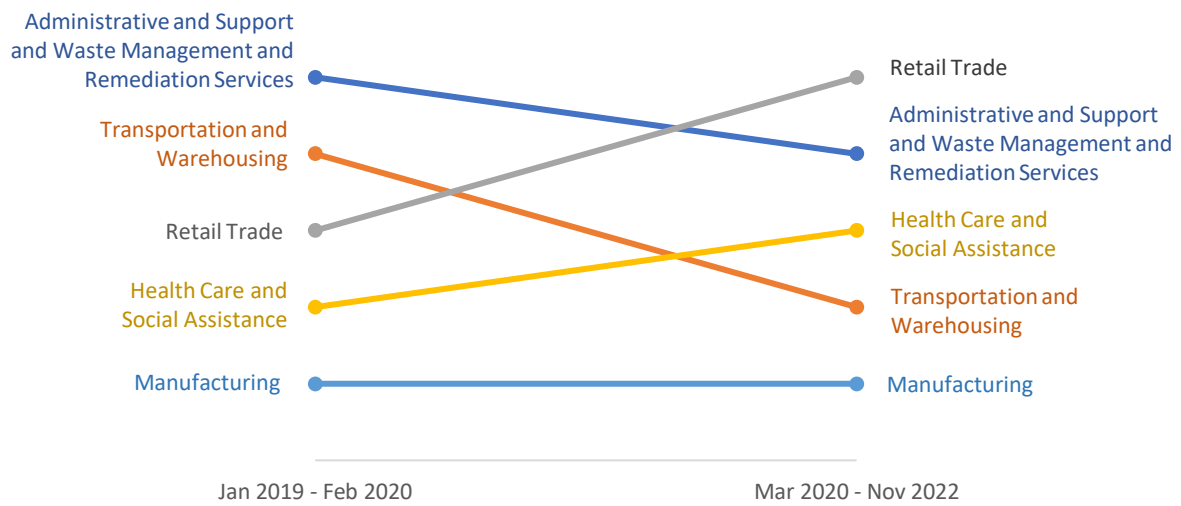
Figure 6: Average Monthly Hires by Occupation in the BHRC Region: 2019–2022



Source: Lightcast™. 2022. Job Postings Table.

The top five Industries with unique job posting remained the same from 2019-2022. However, job posting quantities shifted. Retail Trade moved from third most unique job postings to the first. Healthcare and Social Assistance Sector also rose in unique postings. Transportation and Warehousing fell by two spots.

Figure 7: Unique Job Posting Ranking by Industry in the BHRC Region: 2019–2022



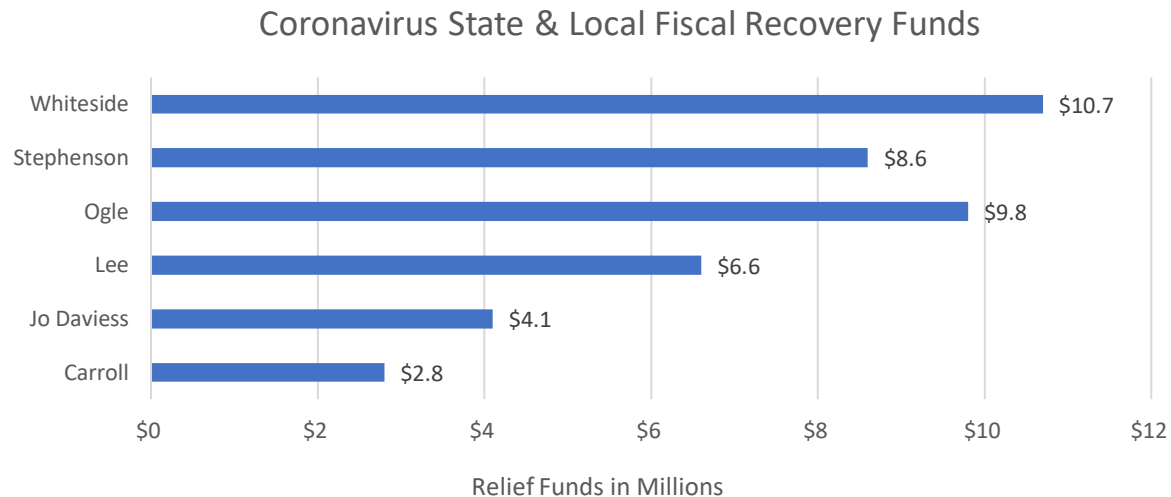
Source: Lightcast™. 2022. Job Posting Analytics.

COVID-19 Response and Recovery Statistics

Funding

In March 2021, the American Rescue Plan Act was signed into law. Among other funding, it appropriated \$350 billion to state, local, and tribal governments to assist their response to and recovery from the COVID-19 pandemic. Figure 8 shows the funding allocated to BHRC counties.

Figure 8: SLFRF Allotments in the BHRC Region



Source: National Association of Counties, County Explorer, 2022.

So far, counties have used the funding for a variety of projects to support local businesses and government functions, some of which are listed in Table 6.

Table 5: SLFRF Projects in the BHRC Region

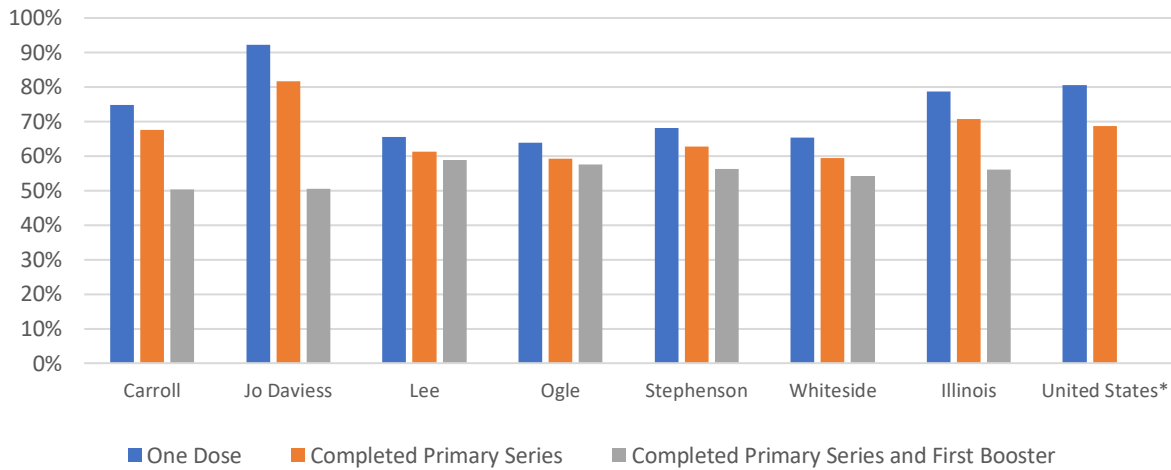
County	Project Type	Project Description
Carroll	n/a	n/a
Jo Daviess	Facilities	Courthouse and public safety building renovations
Lee	Business development	Health department fees covered for all Lee County businesses for 2022 and 2023
Lee	Workforce development	Sauk Valley Community College agriculture program development
Ogle	Equipment/software	Purchase of PAPR kits for health department
Ogle	Equipment/software	Election equipment upgrade
Stephenson	Infrastructure, facilities, equipment/software	Water and sewer infrastructure, public safety equipment, HVAC improvements, health department building upgrades
Whiteside	Facilities	Upgrade AV equipment in courtrooms to facilitate remote proceedings
Whiteside	Equipment	Software that will allow the public to enter information for various licenses/permits/inquiries remotely

Source: National Association of Counties, Local Government ARPA Investment Tracker, 2022.

Vaccinations

Excepting for Jo Daviess, counties in the BHRC region lag behind both state and national vaccination rates for one dose and completed primary series. Half of the Northwest Illinois counties track state numbers for a completed primary series with first booster.

Figure 9: COVID-19 Vaccine Rates in the BHRC Region, Illinois, and US



*National data uses the most recent booster while local and state data only includes the first booster, which is why Completed Primary Series and First Booster is not reported for the United States above.

Source: US CDC, COVID-19 Integrated County View, November 23, 2022.

Conclusion

While many of the pandemic's local effects mirrored national trends, regional strengths and weaknesses influenced how the six counties in Northwest Illinois responded. The agricultural sector, already a strong presence, continued to grow over the past three years, although the reasons for this growth are unclear from an initial review of the above data. The Retail Trade and Arts, Entertainment, and Recreation industries gained jobs in the BHRC region despite expected losses, perhaps boosted by the region's proximity to major metropolitan areas that serve short-staying guests avoiding national and international travel. Manufacturing's relative stability is also noteworthy. Further, while Management Occupations grew in number, BHRC does not know whether the increase is from new hires or a reclassification of existing employees and how such workers – if elevated to management – are compensated (i.e., is it increased responsibility with the same pay/benefits or increased pay and benefits).

There were areas where available data suggests that Northwest Illinois fell short. Five of the six counties have COVID-19 vaccination rates that are lower than the state and national averages. The region added nearly 300 fewer jobs in the Transportation and Warehousing sector than expected (although it is unknown if this reflects pandemic safety concerns, a shift in the warehousing industry to urban locations near larger markets, etc.). Despite national trends indicating increased employment in the Health Care and Social Assistance sector, the region lost jobs in that sector. With an aging population, the concentration of losses in the subcategories of Nursing Care Facilities (Skill Nursing Facilities) and Continuing Care Retirement Communities is troubling. Addressing these shortcomings will be critical to Northwest Illinois' resiliency both in the face of future disasters and when considering the quality of life of its residents.