



Nebraska Economist

Post-Secondary Education Helping Fill Job Openings in Nebraska with Room to Grow

by: John McCoy and Nate Kauffman

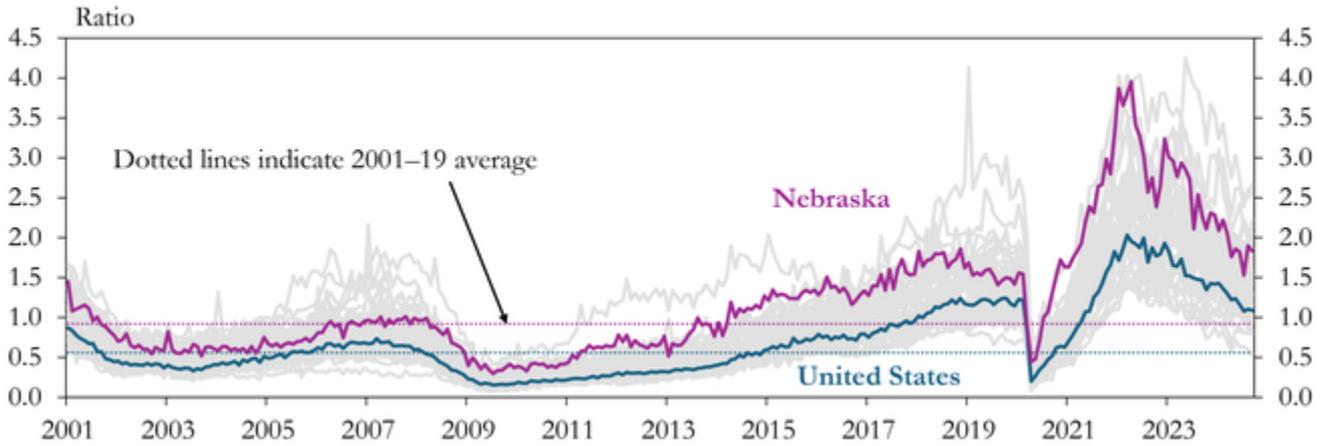
December 06, 2024

Educational institutions serve as an important source of in-demand labor and with a few innovations, may further improve the development of the state's labor force.

Workforce demands in Nebraska have persistently strained the availability of labor for some time, though the types of labor needed have remained relatively steady. Education has played an important role in filling the demand for labor. Educational institutions serve as an important source of in-demand labor and with a few innovations, may further improve the development of the state's labor force.

For most of the last decade in Nebraska, growth in the demand for labor has outpaced supply. The number of available jobs has exceeded total unemployment in the state since at least late 2014 (Chart 1). Pandemic disruptions exacerbated this dynamic and labor scarcity has only recently abated to pre-pandemic levels. In 2024, demand for workers remained robust and the supply of potential new workers remained limited.

Chart 1: Job Openings to Unemployed Ratio

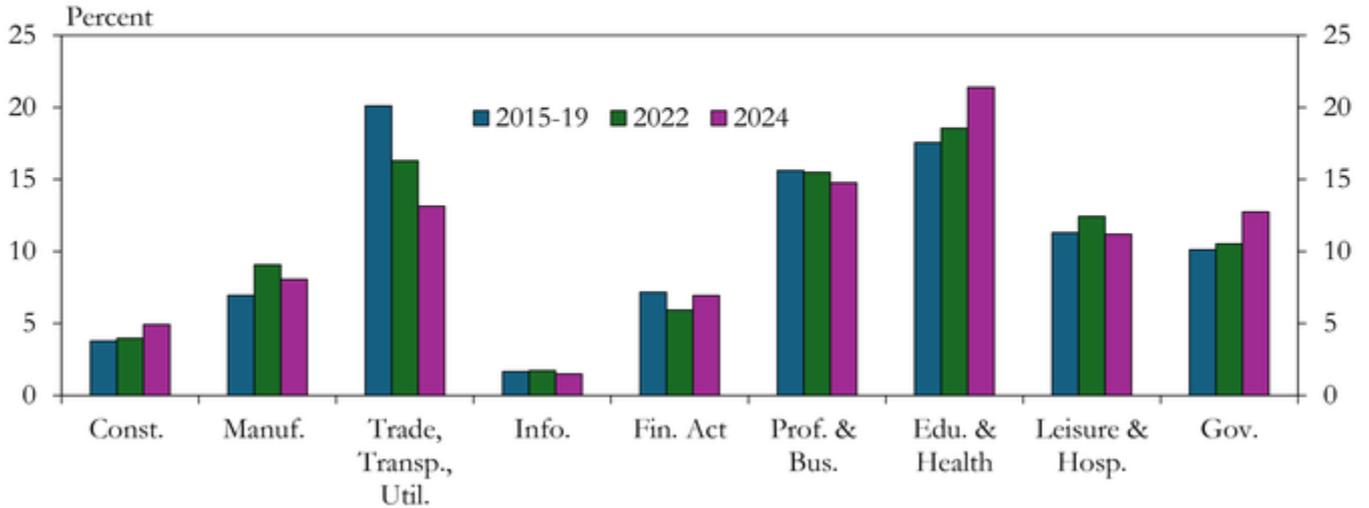


Sources: BLS, ONET, IPEDS, Haver Analytics, staff calculations.

Note: Assumes that graduates are hired into current roles according to the distribution of employment in fields employing graduates in specific fields. See Technical Note for more information.

In most cases, demand for labor has been steady across the state’s major industries. In 2024, the share of job openings was within 2 percentage points of its 2015-19 average in all but two major industries (Chart 2). Job openings at businesses in trade, transportation, and utilities have declined as a share of total openings relative to pre-pandemic years. Longer-term challenges facing retail trade and a more recent cyclical downturn in some transportation sectors might explain the decline. In contrast, the share of job openings at education and health care establishments has increased. Contacts in both education and health care reported higher levels of pandemic-related burnout from which the industry still may be attempting to recover.

Chart 2: Job Openings by Industry, Nebraska

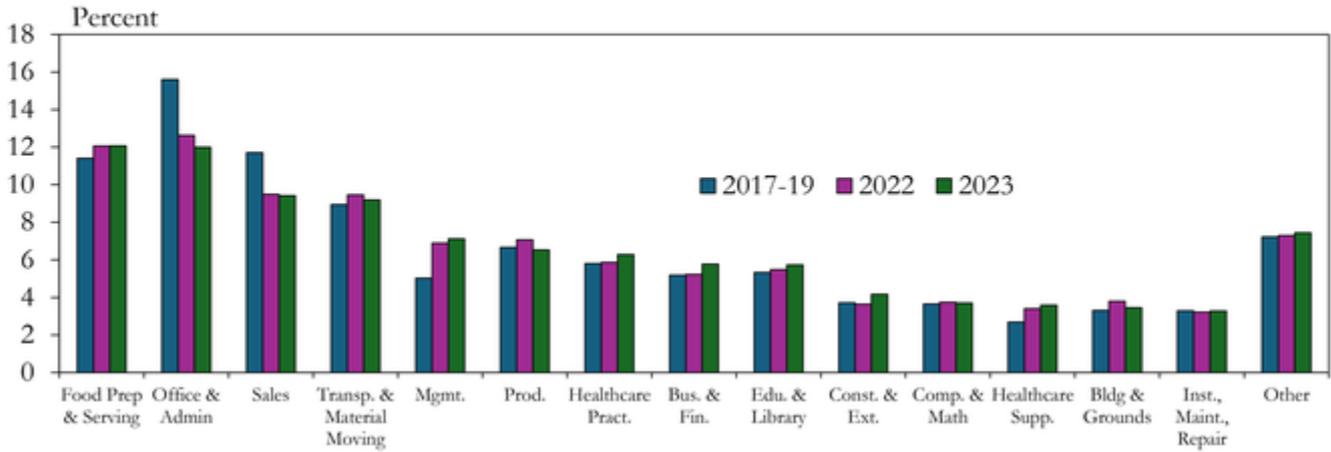


Sources: BLS, Haver Analytics, staff calculations.

Note: Nebraska job openings by industry are imputed by applying the share of job openings attributed to each industry at the national level to the state level data.

Similarly, demand for most occupations has not shifted much in recent years. The share of job openings has not differed substantially in eleven of fourteen major occupational families in Nebraska (Chart 3). In these eleven job families, the share of openings in 2024 differed by less than a percentage point relative to pre-pandemic averages. Only for office and administrative jobs, sales roles, and management positions were openings meaningfully different from pre-pandemic averages.

Chart 3: Job Openings by Occupation, Nebraska

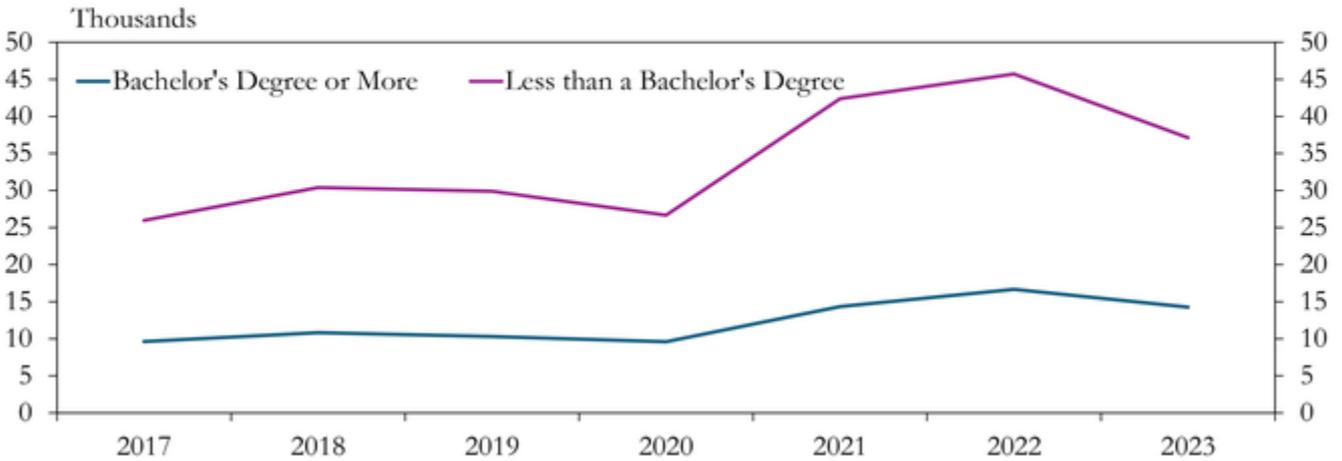


Sources: BLS, Haver Analytics, staff calculations.

Note: Nebraska job openings by occupation are imputed by applying the share of employment in each industry-occupation pair as provided by BLS estimates (only available through 2023) to the imputed number of job openings from Chart 2. For example. In 2023, 8% of construction jobs were management positions. 8% of construction job openings are then assumed to be management positions. The data displayed above is the aggregation of this exercise across all major industries.

Many job openings in Nebraska have been available to individuals without a completed bachelor’s degree. In fact, nearly three jobs requiring less than a bachelor’s degree have been available for each job requiring at least a bachelor’s degree over the last six years (Chart 4). As demand for labor increased through the pandemic, job openings of all educational requirements increased. By 2023, more than 37,000 jobs were open that required less than a college degree. Though the amount of labor in demand over the last decade has fluctuated somewhat, the types of businesses with job openings, the types of jobs in demand, and the requirements for those jobs have remained largely unchanged.

Chart 4: Job Openings by Degree Requirement, Nebraska

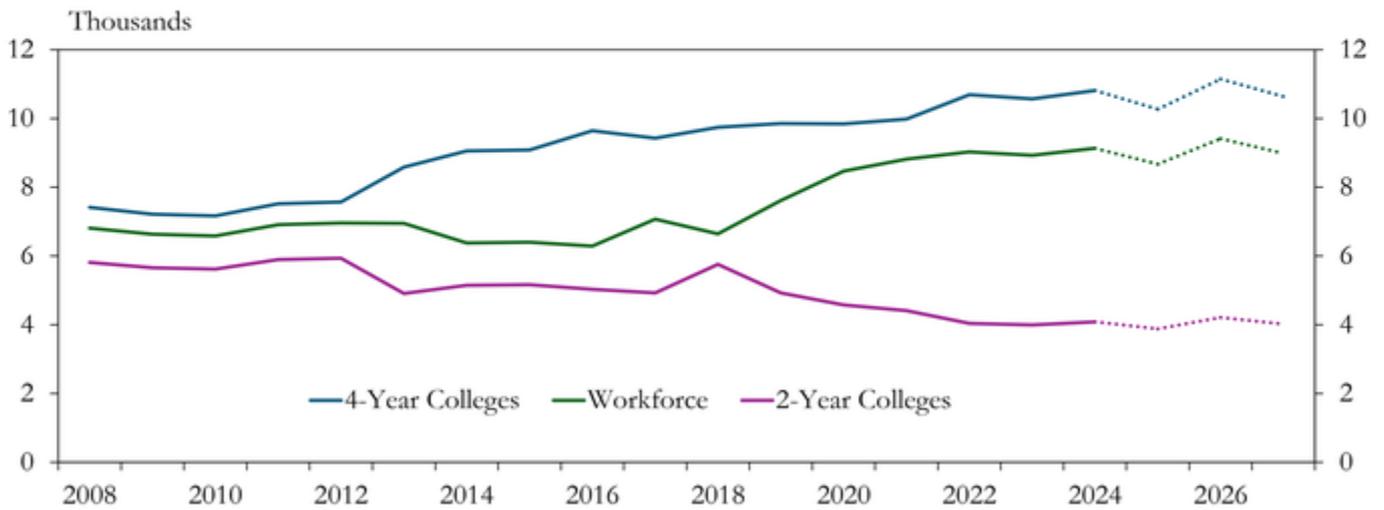


Sources: BLS, ONET, Haver Analytics, staff calculations.

Note: ONET surveys experts and reports the share of respondents who indicate a certain level of education is required to hold a specific job. For this analysis, the degree with the highest share of respondents is coded as the degree requirement for the occupation. The degree requirements are then mapped to the job openings by occupation data for Nebraska, as estimated in Chart 3.

Since 2019, the number of individuals entering the workforce directly after completing high school has increased. The number of high school graduates choosing to forego higher education to enter the workforce increased nearly 20% between 2019 and 2024 (Chart 5). Almost in parallel, high school graduates enrolling in two-year community colleges or trade schools fell by more than 17% between 2019 and 2024. In a labor market where demand has strained available supply, employers may have been increasingly willing to train new hires on-site for jobs not requiring a four-year degree.

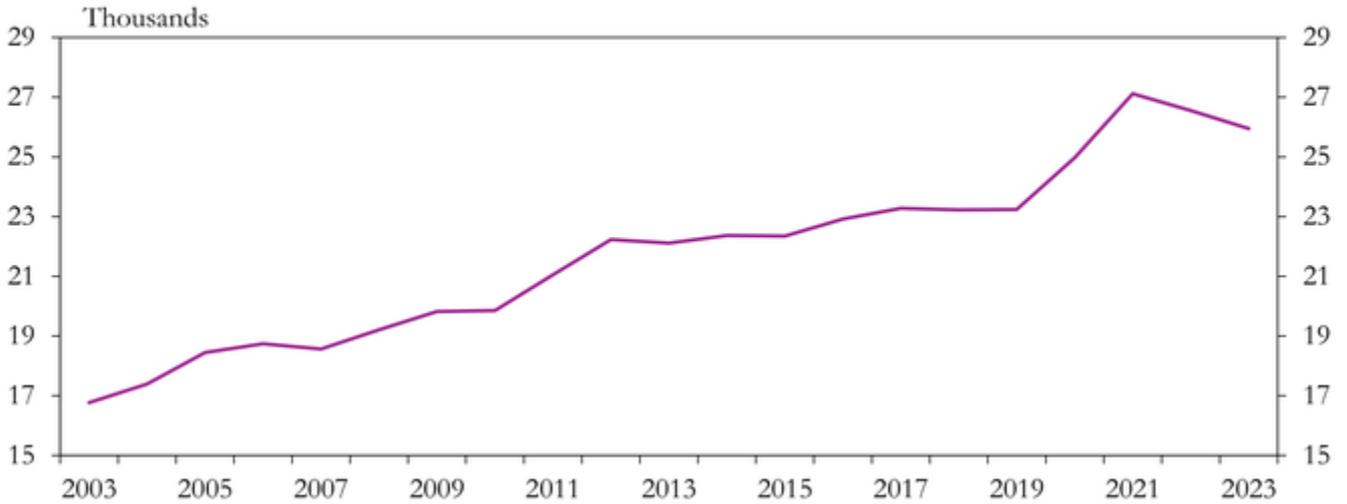
Chart 5: Immediate Destination of High School Graduates in Nebraska



Source: IPEDS.
 Note: 2025-2027 are projections.

Alongside more students entering the labor force directly after high school, the number of students attending four-year colleges and universities has also increased. The number of college graduates grew by more than 11.5% between 2019 and 2023 (Chart 6). The increase in the number of graduates from Nebraska’s colleges and universities – more than 25,000 in 2023 – was higher than the number of Nebraska residents immediately enrolling in college. As presented prior to the pandemic, Nebraska’s colleges and universities have been an important source of in-migration for the state, suggesting that more people from other states have also completed college, graduate school, or professional school in Nebraska.

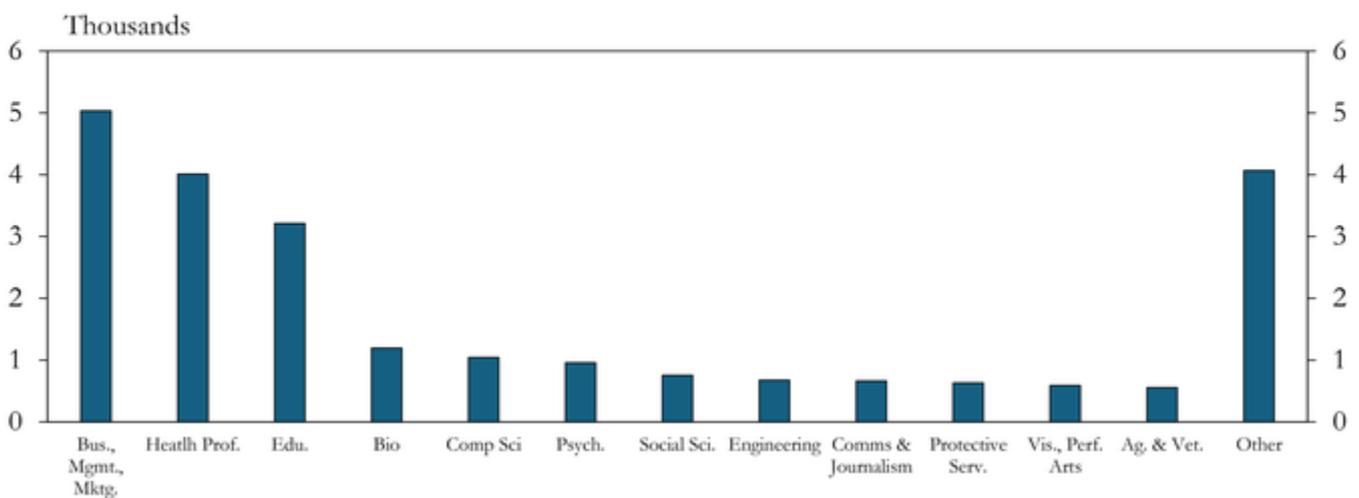
Chart 6: Degrees Completed, Bachelor's or Above, Nebraska



Source: IPEDS.

For those individuals who completed a post-secondary degree, many of the graduates have earned degrees in fields with a relatively large number of job openings. More than half of college and university graduates in Nebraska earned degrees in business, health professions, or education in 2023 (Chart 7). These are broad degree fields that include a wide range of specific programs. For example, health profession degrees include not only fields like pediatrics and nursing, but also public health and health care administration.

Chart 7: Post-Secondary Degrees by Field, Nebraska, 2023



Source: IPEDS.

According to a survey of experts, employers seeking to hire certain roles look to graduates holding particular degrees. Some types of jobs tend to be filled by individuals with very specific educational backgrounds. For example, firms seeking to hire a healthcare practitioner are typically looking for a graduate with a degree in a health profession, in biology or biomedical science, or from a veterinary program (Table 1). Other occupations consist of graduates from a wider range of degree programs than others. For example, firms looking to fill management or education openings often hire from all the major degree programs in Nebraska.

Table 1: Field of Degree and Potential Occupations

		Occupation																					
		Management	Business & Financial	Computer & Math	Architecture & Engineering	Life, Physical, Social Science	Community & Social Service	Legal	Education & Library	Arts, Des., Ent., Sports, Media	Healthcare Practitioners	Healthcare Support	Protective Service	Food Prep & Serving	Building and Grounds	Personal Care	Sales	Office & Admin	Farming, Fishing, Forestry	Construction and Extraction	Install, Maint., Rep.	Production	Transp. & Material Moving
Degree Field	Business, Management, Marketing	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Health Professions	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Education	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Biological and Biometical Sciences	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Computer Science	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Psychology	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Social Sciences	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Engineering	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Communications & Journalism	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Homeland Security, Protective Services	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Visual and Performing Arts	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Agriculture & Veterinary	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Source: ONET.

Note: The educational programs displayed (rows) represented 82% of post-secondary graduates in Nebraska in 2023. Blue cells indicate that graduates of a particular degree program are qualified to have the associated occupation.

Post-secondary education in Nebraska has provided labor to fill many of the job openings, but significant demand also remains in some fields. In 2023, estimates suggest that more than 12% of post-secondary graduates have been hired to fill office and administrative roles, which account for a similar share of job openings (Chart 8). The robust participation in programs that prepare students for these roles - such as business, management, and marketing programs - has allowed many qualified individuals to fill open jobs. Increasing participation in other programs could help address labor shortages in occupations where labor availability is still constrained. In particular, offering additional training or certificate programs at the high school level could help fill openings for occupations not requiring bachelor's degrees, especially as an increasing number of high school graduates have been entering the workforce upon graduation.

Though the amount of labor in demand in Nebraska has fluctuated in recent years, the types of labor have remained relatively constant. Nebraska's education system has appeared to be well positioned to help fill many of these job openings, but some enhancements could help fill remaining openings. Schools in Nebraska could aim to offer additional training programs prior to high school graduation to help prepare graduates who increasingly join the labor force without going to college. Employers could also partner with educators at both high school and collegiate levels to educate students on the types of job openings that are difficult to fill and the associated degrees that are required to hold those jobs. Small enhancements such as these could help an educational system that is already producing many well-qualified graduates in a state economy that simply needs more.

Technical NoteAn example to fully interpret Chart 8: consider graduates of "Program A." These graduates can be hired as 3 of 4 occupations. Of the subset of the three occupations, occupation 1 accounts for 20% of employment, occupation 2 accounts for 30% of employment, and occupation 3 accounts for 50% of employment. Thus, 20% of Program A graduates are hired as occupation 1, 30% of graduates are hired as occupation 2, and 50% hired as occupation 3. None are hired as occupation 4.

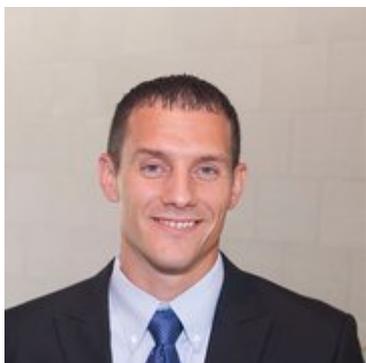
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John McCoy is an associate economist in the Regional Affairs Department at the Omaha Branch of the Federal Reserve Bank of Kansas City. In this role, he supports research and outreach efforts surrounding economic developments in the state of Nebraska. His responsibilities include serving as Board Secretary to the Omaha Branch Board of Directors and co-authoring *The Nebraska Economist*. John joined the Bank in 2017 as a research associate in the Regional Affairs Department at the Omaha Branch. Prior to 2017, he spent two years as an intern with the department. John holds a BA and MA from Creighton University.



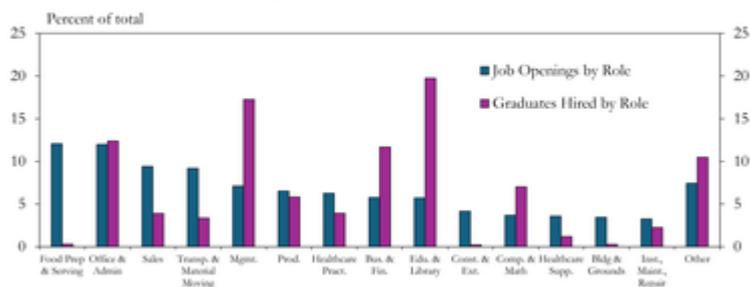
Nate Kauffman

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Nate Kauffman is Senior Vice President and Omaha Branch Executive at the Federal Reserve Bank of Kansas City. In his role as the Kansas City Fed's lead economist and representative in the state of Nebraska, Nate provides strategic direction and oversight for the Omaha Branch, regional research, and economic outreach throughout the state. He serves as a local connection to the nation's central bank and is responsible for briefing the Kansas City Fed's president – a member of the Federal Open Market Committee – on regional economic and business activity. In addition, Nate serves as Executive Director of the Bank's Center for Agriculture and the Economy. He is a leading voice on the agricultural economy throughout the seven states of the Tenth Federal Reserve District and the broader Federal Reserve System. Nate oversees several Bank and Federal Reserve efforts to track agricultural economic and financial conditions. He also speaks regularly on the agricultural economy to industry audiences and the news media, including providing testimonies at both U.S. Senate and U.S. House Agriculture Committee hearings. Nate joined the Federal Reserve in 2012. He received his Ph.D. in economics from Iowa State University. Prior to receiving his Ph.D., Nate spent three years in Bosnia and Herzegovina coordinating agricultural economic development projects. Nate lives in Omaha with his wife and four children.

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Chart 8: Labor Demand and Supply of New Post-Secondary Graduates, Nebraska, 2023



Sources: BLS, ONET, IPEDS, Haver Analytics, staff calculations.

Note: Assumes that graduates are hired into current roles according to the distribution of employment in fields employing graduates in specific fields. See Technical Note for more information.