

The LOCATION where individuals obtain EMPLOYMENT influences long-term state vitality.

Nebraska has consistently faced net brain drain since the 1970s. In 2017, 11.8% more individuals with a higher education left the state than chose to stay.

Employment location is the geographic location where individuals obtain employment. This is often understood through migration patterns of state residents and college graduates, wherein these individuals seek and find employment in other states. Out-of-state migration of educated individuals can be referred to as "brain drain." and is detrimental to a state's investment in its residents and the development of human capital (i.e., economic value of a worker's experience and skills). Consequences of brain drain include (a) diminishing professional expertise, which can impact employment quality, and (b) reduced consumer spending and loss of revenue, leading to economic stagnation.^{1,2} In-to-state migration of educated individuals can be referred to as "brain gain." and is beneficial to a state's human capital. Brain gain can lead to high returns such as skill acquisition and industry expansion.3

Nebraska invests in its residents, and tracking employment location can be used to understand the state's return on investment. While Americans are historically and uniquely mobile, more so than other countries.1 the Midwest is the highest outof-state migration region in the United States, with a 28.7 percent out-of-state migration rate.4 In particular, Nebraska has consistently faced net brain drain (i.e., share of leavers who are highly educated minus the share of entrants to a state who are highly educated) since the 1970s. In 2017, 11.8 percent more individuals with a higher education left the state than chose to stay, and a 7.8 percent gap remained between leavers and stayers even when accounting for those who entered the state with a higher education. This gap is noteworthy, as 81.3 percent of Nebraska residents pursue postsecondary education in their home state.5 Further, Nebraska postsecondary institutions fall within the national expectation, such that 75.6 percent of first-year students are state residents and 24.4 percent are non-residents.5,6



Nebraska heavily invests in these postsecondary students. As one example, in the 2018-2019 fiscal vear. Nebraska residents invested \$219.5 million into the Nebraska State College System.⁷ In turn, the Nebraska economy earned a total of \$563.8 million related to state college education, resulting in the support of 10,593 jobs.⁷ This sum comprises \$15.3 million contributed from Nebraska state college students, \$481.7 million from Nebraska state college alumni who are employed in state, and \$67.8 million in economic returns (e.g., rent, mortgage, groceries) from state college employees and operations.⁷ In the 2020-2021 fiscal year, the University of Nebraska System generated a \$5.2 billion economic impact for the state, yielding \$163.8 million in state and local tax revenues. In that same year, the University of Nebraska System supported 47,324 jobs in Nebraska, with one out of 27 Nebraskans employed directly or indirectly by the NU System.8 However, the return on investment in students'

higher education only benefits Nebraska for as long as the alumni remain employed in state.⁷ Thus, tracking employment location is essential to glean a better understanding of return on the state's investment.

Understanding influences on employment location can aid in attracting and retaining Nebraska residents. Migration patterns are a complex supplyand-demand function of economic opportunity and amenities.⁴ Economic factors such as high job growth, low unemployment, higher pay, and lower housing costs, must be balanced with non-economic factors such as amenities, outdoor recreation, access to cultural institutions, aesthetic community environment, and healthcare facilities in order to attract and retain educated, skilled employees.^{4,9} Because workers' employment location impacts the state economy, it is critical to understand what factors influence workers' employment location decisions.¹⁰

Employment Location and Brain Drain

Obtaining employment out of state, or brain drain, is driven by a multitude of factors, such as nationwide economic conditions, personal ties and community belonging, education and career opportunity, and demographic characteristics.



NATIONWIDE ECONOMIC CONDITIONS. There is a strong association between nationwide economic conditions and labor mobility.¹¹ Recessions, in particular, cause individuals to be less mobile.^{10, 12} Similarly, the COVID-19 pandemic caused a sudden drop in migration,¹⁰ partially due to the unprecedented job loss (9.4 million decline in nonfarm employment in 2020), government restrictions, and associated social and behavioral changes.¹³ However, epidemics have been found to be largely inconsequential to migration tendencies, due to their consistent effect across states.¹¹ Indeed, COVID-19's impact on the overall economic condition leveled out. Following the initial decline, there was an increase in jobs and labor mobility following COVID-19, with rates surpassing prior records.¹⁰



PERSONAL TIES AND COMMUNITY BELONGING. A discrepancy between desired sense of community and actual, experienced sense of community was found to have a direct influence on young professionals' intention to move out of state within the next five years.⁹ That is, individuals are more likely to move out of state when their high desire for community isn't met with an actual experience of community. In contrast, when an individual's desire for community matches what they actually experience, the intention to move out of state is lower.



EDUCATION AND CAREER OPPORTUNITY.

- Highly educated adults are more likely to leave their home state. College graduates migrate more than non-college graduates and are more likely to move farther away from their birth state.^{1, 14, 15} Migration tendencies of highly educated adults are influenced by their home state and attended institution. College students attending school outside of their home state are more likely than home-state students to leave the state of their institution after graduation.¹⁶ However, home-state location is conflated by institution level and selectivity, as higher-level institutions and those with higher selectivity tend to attract more out-of-state attendees. Indeed, geographic dispersion of alumni is generally greater for four-year institutions than two-year institutions, and institutions with higher admittance selectivity have greater geographic dispersion of alumni.¹⁶ Only 43 percent of graduates from the most selective four-year institutions live within the state of that institution after graduation (36 percent within the closest metro area), while less selective institutions have 78 percent of graduates living within the state of that institution after graduation (64 percent within the closest metro area).16
- The increase in migration among highly educated adults is, in part, a byproduct of having an education. Those with higher education have more agency and ability to migrate,¹⁷ as well as a higher earning potential, which is associated with out-of-state migration.¹⁵
- Education-related factors such as compensation and career opportunity also contribute to out-of-state migration. Average wage significantly contributes to where individuals opt to reside, with individuals who move out of state tending to go to places where they are better paid. Industries that attract more educated individuals are often based in urban areas, where job opportunities and higher average wages are concentrated (e.g., Los Angeles, New York, San Francisco, Chicago, and Boston); in turn, these areas boast disproportionately high capital investment such that more educated individuals reside in the area, contributing to the workforce and economy.



DEMOGRAPHIC CHARACTERISTICS.

Age and race/ethnicity are two key demographic influences on brain drain. When considering age, younger individuals migrate more. Seven of the last 10 Midwestern rural poll reports have indicated 19–29 year olds as being the most likely age group to have out-of-state migration intentions. With regard to race and ethnicity, Black individuals are more likely to migrate out of Nebraska. In a survey of young professionals living in Omaha, 87 percent of Black young professionals indicated they would choose to live elsewhere (compared with 80 percent of non-Black young professionals) and 23 percent intended to be living elsewhere (compared with 15 percent of non-Black young professionals) in the next five years.

• Racially influenced migration tendencies in Nebraska may be due to a concerning gap in satisfaction of economic-based factors. Black young professionals' satisfaction with job opportunities (59 percent), income (46 percent), and affordable housing (54 percent) are lower than young professionals of other races' satisfaction with job opportunities (80 percent), income (60 percent), and affordable housing (69 percent).²⁰ This discrepancy also exists for social factors, such as friendliness of neighbors (57 percent of Black young professionals satisfied compared with 80 percent of young professionals of other races satisfied) and recreational opportunities (46 percent of Black young professionals satisfied compared with 61 percent of young professionals of other races satisfied).²⁰ Furthermore, Black young professionals feel less connected than non-Black young professionals to the Omaha community (44 percent compared with 62 percent).²⁰

Employment Location and Immobility, Retention, and Brain Gain

Individuals remain in state for four primary reasons: regulatory (i.e., legal limitations such as visa regulations or travel bans), occupational/organizational (i.e., job-specific barriers such as occupational licensing, non-compete clauses, and non-transferable benefits), personal (e.g., race, gender, geographic area, community embeddedness), and economic/environmental (e.g., wages, moving costs, housing costs).¹⁷



COMMUNITY AND PERSONAL TIES. In-state job seeking and employee retention can be encouraged by emphasizing a sense of community and personal ties or reasons to stay in the area.

 Young professionals are looking for attachment to their employment location. Focus groups of young professionals living in Omaha indicated that networking opportunities and events linking young professionals to mentors and management training would aid in their attachment to the area.²⁰ Migration intentions are heavily career-based, but strongly influenced by non-economic factors such as family and community. In a study of former Millennial generation collegiate leadership mentors from Midwestern colleges, opportunity to make a difference was rated as one of the top five factors that would influence their migration decisions.⁴ Of the top five factors, three were career-related, one was family-related, and the other was community-related.⁴ Individuals who ranked family and community over career-related factors were more likely to stay in state.⁴

What Influences Nebraskans' Employment Location the Most?

- Nebraskans leave for jobs, family, and retirement/lifestyle. When polling individuals moving out of Nebraska, the top three reasons were job (50.91 percent), family (23.64 percent), and retirement and lifestyle (20 percent each).²¹ Nebraskans leaving the state are largely educated (93 percent have a four-year degree or more); these individuals rated professional growth and development as a very important factor (78 percent).²² Over half of the individuals who left Nebraska note that job opportunities (61 percent) and pay (56 percent) are better in the place they now live.²² Among rural Nebraskans, specifically, 16 percent are actively seeking a better-paying job, especially younger individuals.²³ Of those who leave Nebraska, the top five write-in reasons for being against moving back are: lack of diversity, political climate, weather, taxes, limited career opportunity, and limited salary.²²
- People move to Nebraska for family, jobs, and retirement. When polling individuals moving into Nebraska, the top three reasons were family (50 percent), job (42.86 percent), and retirement (16.07 percent).²¹ Migration intentions are significantly impacted by dimensions of community and attachment for both rural and urban areas.^{4, 21} Particularly for individuals in rural communities, a sense of belonging and environmental factors such as quality schools, community, and amenities are prioritized over job-related considerations.²⁴⁻²⁶ Indeed, over half of rural Nebraskans (54 percent) indicate that leaving their communities of high trust, respect, and attachment would be difficult.²⁷ Even among individuals who chose to leave Nebraska, 60 percent reported that they would consider moving back to the area, with 133 individuals indicating that they would consider moving back to Nebraska if there were a job opportunity available.²²

- Social Capital Project. (2019). Losing our minds: Brain drain across the United States. United States Congress Joint Economic Committee SCP Report 2-19. https://www.jec.senate.gov/public/index.cfm/ republicans/2019/4/losing-our-minds-brain-drain-across-the-unitedstates#top
- Young, J. (2023). Brain drain: Definition, causes, effects, and examples. Investopedia. https://www.investopedia.com/terms/b/brain_drain.asp
- Abarcar, P., & Theoharides, C. (2021). Medical worker migration and origin-country human capital: Evidence from US Visa policy. Review of Economics and Statistics. https://doi.org/10.1162/rest_a_01131
- Ehrke, J., Hastings, L., Balschweid, M., Brodersen, A., & Burkhart-Kriesel, C. (2022). Examining migration factors among generative college graduates: Strategic implications for people attraction, retention, and leadership transfer efforts. *Community Development*, 53(4), 460–476. https://doi.org/10.1080/15575330.2021.1975790
- Hanson, M. (2022). College enrollment and student demographic statistics. Education Data Initiative. https://educationdata.org/collegeenrollment-statistics
- Duffin, E. (2020). Share of US students who enrolled in a college in their own state 2016. Statista. https://www.statista.com/ statistics/236069/share-of-us-students-who-enrolled-in-a-college-intheir-own-state/
- 7. Nebraska State College System. (2021). *The economic value of the Nebraska State College System.* Executive Summary. https://www.nscs.edu/_resources/e30d:r9iw0j-25q/files/76890501z84dc6bcf/_fn/01%20-%20Economic%20Impact%20Study%20-%20NSCS%20Executive%20Summary%20%20Factsheet.pdf
- 8. University of Nebraska System. (2021). *The economic impact of the University of Nebraska System.* fy2020-21-nu-system-economic-impact-report.pdf (nebraska.edu)
- 9. Wolfe, A. W., Black, L. W., & Welser, H. T. (2020). Sense of community and migration intentions among rural young professionals. *Rural Sociology*, 85(1), 235–257. https://doi.org/10.1111/ruso.12289
- 10. Banerjee, A. (2022). Job mobility during and after the pandemic: Are pandemic-era trends in job changing a cause for hope or concern? Econ Focus. https://www.richmondfed.org/publications/research/econ_focus/2022/q4_feature1
- Füleky, P., & Szapudi, I. (2022). Bird's eye view of COVID-19, mobility, and labor market outcomes across the US. *EconDisCliCha*, 6, 339–353. https://doi.org/10.1007/s41885-022-00110-0
- Levy, B. L., Mouw, T., & Perez, A. D. (2017). Why did people move during the Great Recession? The role of economics in migration decisions. RSF: The Russell Sage Foundation Journal of the Social Sciences, 3(3), 100–125. https://doi.org/10.7758/rsf.2017.3.3.05
- U.S. Bureau of Labor Statistics. (2021). COVID-19 ends longest employment recovery and expansion in CES history, causing unprecedented job losses in 2020. Monthly Labor Review. https://www. bls.gov/opub/mlr/2021/article/covid-19-ends-longest-employmentexpansion-in-ces-history.htm
- 14. Kaplan, G., & Schulhofer-Wohl, S. (2017). Understanding the long-run decline in interstate migration. *International Economic Review*, 58(1), 57–94. https://doi.org/10.1111/iere.12209
- Stange, K. M. (2022). Attrition from administrative data: Problems and solutions with an application to postsecondary education. NBER Working Paper 30232. DOI: 10.3386/w30232, https://www.nber.org/ papers/w30232

- Conzelmann, J., Hemelt, S., Hershbein, B., Martin, S., Simon, A., & Stange, K. (2022). Grads on the go: Measuring college-specific labor markets for graduates. NBER Working Paper 30088. DOI: 10.3386/ w30088, https://www.nber.org/papers/w30088
- 17. Choudhury, P. (2022). Geographic mobility, immobility, and geographic flexibility: A review and agenda for research on the changing geography of work. *Academy of Management Annals*, 16(1), 258–296. https://doi.org/10.5465/annals.2020.0242
- Kennan, J., & Walker, J. R. (2011). The effect of expected income on individual migration decisions. *Econometrica*, 79(1), 211–251. https://doi. org/10.3982/ECTA4657
- Purcell, P. J. (2020). Geographic mobility and annual earnings in the United States. Social Security Bulletin, 80(2). https://www.ssa.gov/ policy/docs/ssb/v80n2/v80n2p1.html
- Maher, C. S., King, K. M., Scarpa, N., & Harder, J. (2017). Diversity and talent inclusion study for the Greater Omaha Chamber and the Urban League of Nebraska. University of Nebraska at Omaha. https://doi. org/10.13140/RG.2.2.33566.02885
- United Van Lines. (2023). Annual 2020 United Van Lines National Movers Study. https://www.unitedvanlines.com/newsroom/moversstudy-2020
- Schafer, J. G., Drozd, D., & Grell, T. (2023). Nebraska's exit survey 2020. University of Nebraska at Omaha Center for Public Affairs Research. https://www.unomaha.edu/college-of-public-affairs-and-community-service/center-for-public-affairs-research/documents/ greateromahachambernebraskaexitsurveyreport.pdf
- Vogt, R., Akin, H., Burkhart-Krisel, C., Lubben, B., McElravy, L. J., Meyer, T., Schulz, S., & Tupper, A. (2022). Perceptions of the economy and employment in nonmetropolitan Nebraska. University of Nebraska-Lincoln Rural Poll. http://ruralpoll.unl.edu/pdf/22economy.pdf
- 24. Cromartie, J., von Reichert, C., & Arthun, R. (2015). Factors affecting former residents' returning to rural communities, ERR-185. United States Department of Agriculture, Economic Research Service. https:// www.ers.usda.gov/publications/pub-details/?pubid=45364
- Low, S. A., Rahe, M. L., & Van Leuven, A. J. (2022). Has COVID-19 made rural areas more attractive places to live? Survey evidence from Northwest Missouri. *Regional Science Policy & Practice*, 15(3), 520–540. https://doi.org/10.1111/rsp3.12543
- 26. Institute of Agriculture and Natural Resources. (2007). *Buffalo commons survey*. University of Nebraska-Lincoln. https://agecon.unl.edu/communitymarketing/buffalo-commons-survey
- Vogt, R., Akin, H., Burkhart-Krisel, C., Lubben, B., McElravy, L. J., Meyer, T., Schulz, S., & Tupper, A. (2023). Community well-being and leadership in nonmetropolitan Nebraska. University of Nebraska-Lincoln Rural Poll. http://ruralpoll.unl.edu/pdf/22community.pdf
- 28. Cantrell, R. L. (2014). Is this a rural brain gain? A cohort examination of migration in Nebraska. *Cornhusker Economics*. 622. http://agecon.unl.edu/cornhuskereconomics
- 29. Winchester, B. (2012). Continuing the trend: The brain gain of the newcomers. University of Minnesota Extension Center for Community Vitality Report. https://conservancy.umn.edu/bitstream/handle/11299/171648/continuing-the-trend.pdf?sequence=1
- 30. Mayr, K., & Peri, G. (2008). *The importance of brain return in the brain drain-brain gain debate*. The Center for Comparative Immigration Studies Working Paper 166. https://ccis.ucsd.edu/_files/wp166.pdf

