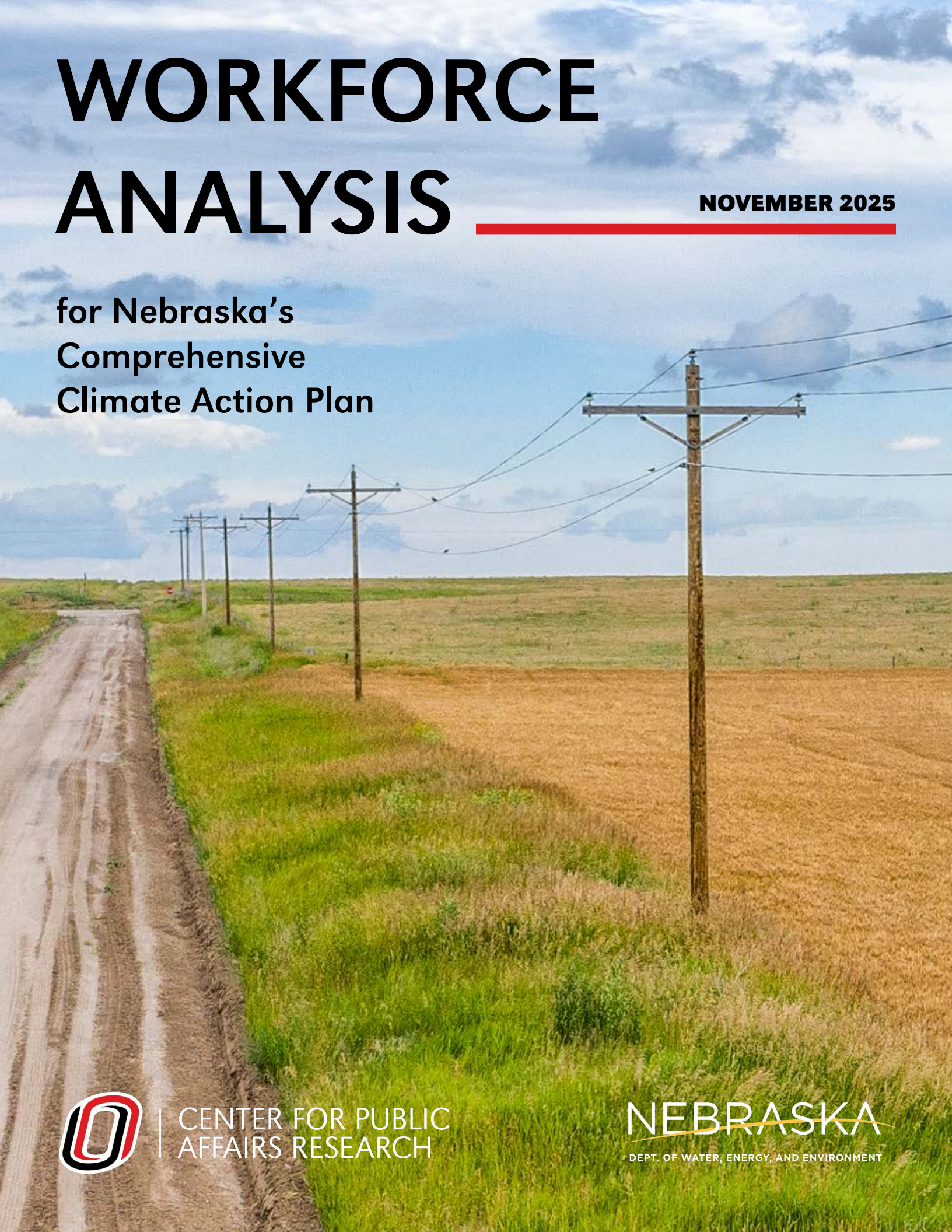
WORKFORCE ANALYSIS

NOVEMBER 2025

for Nebraska's Comprehensive Climate Action Plan



CENTER FOR PUBLIC AFFAIRS RESEARCH

NEBRASKA
DEPT. OF WATER, ENERGY, AND ENVIRONMENT

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Table of Contents

Executive Summary

Nebraska's environmental and energy solutions (EES) workforce drives the implementation of the state's Priority Climate Action Plan (PCAP), a state and federal initiative that sustains and strengthens Nebraska's natural and built environments. In 2023, this workforce employed 83,352 people, representing 8.1% of the state's total employment, and advances the projects, technologies, and infrastructure that build Nebraska's long-term resilience and prosperity. This report describes the current EES workforce, projects its future growth, and measures its economic impact across the state.

Three main findings from the research include:

1. Nebraska's environmental and energy workforce is concentrated in construction and maintenance trades. Workforce estimates for these occupations are slightly higher than the Midwest average, but several key roles — electricians, HVAC technicians, and construction managers — remain below regional levels, indicating a potential shortage.
2. Future demand for those in the EES workforce will grow dramatically. Projections show these occupations increasing from 83,352 workers in 2023 to 607,378 by 2050 under baseline assumptions.
3. The EES workforce is an economic growth driver. Today, these jobs contribute $22.4 billion to Nebraska's GDP, 15.5% of the state economy. By 2050, the contribution could reach $163 billion under baseline conditions. Every 10 EES jobs today support an additional 6 jobs across the state. The industry also contributes substantially to the state's tax revenues.

In examining the stakeholders that support the training and advancement of this workforce, we identified numerous efforts by community colleges, universities, and industry partners that provide critical workforce development opportunities. However, given the projected demand and growth of these occupations, current programs will need to expand as well. By investing in targeted trades programs, scaling renewable energy and electrification curricula, and strengthening employer partnerships across the state, Nebraska can close workforce gaps, accelerate PCAP implementation, and capture the economic benefits of a growing EES workforce.

Introduction

Nebraska's transition to a cleaner, more resilient economy depends on a skilled workforce ready to design, build, and maintain the systems that drive environmental and energy progress. Nebraska's environmental and energy solutions (EES) workforce is both essential and expanding. This report, prepared by the Nebraska Department of Water, Energy, and Environment (DWEE) and the University of Nebraska at Omaha's Center for Public Affairs Research (CPAR), provides the workforce analysis required under the U.S. Environmental Protection Agency's Climate Pollution Reduction Grant (CPRG) program. It represents an important step in aligning Nebraska's workforce strategies with the state's long-term environmental and economic goals — building the capacity needed to deliver real, measurable progress toward cleaner air, stronger communities, and a more resilient future.

Under CPRG, each grantee must submit a Comprehensive Climate Action Plan (CCAP) that includes a workforce analysis to:

- Identify potential shortages in implementing environmental and energy measures, and
- Recommend solutions and partnerships to address them.

This report evaluates Nebraska's capacity to deliver on the state's Priority Climate Action Plan (PCAP) by:

- Estimating the current EES workforce tied to the PCAP mitigation measures provided by DWEE.
- Projecting future demand and resulting growth in these occupations.
- Quantifying the economic contribution of these occupations to Nebraska's GDP and job multiplier today and in the future.

The Priority Climate Action Plan (PCAP) identifies 12 mitigation measures organized across five themes:

1. Energy Efficiency and Electrification
2. Solar Projects
3. Agriculture
4. Transportation
5. Waste Management.

These align with the six sectors identified by the U.S. Environmental Protection Agency (EPA) as critical for climate implementation: energy, construction and building trades, transportation, manufacturing, agriculture, and waste and wastewater management. Together, these sectors and themes form the framework for Nebraska's EES workforce analysis.

Establishing the Baseline Workforce 2010 to 2023

The first goal is to establish a clear baseline of Nebraska's current EES workforce employed in occupations relevant to PCAP implementation. This baseline provides the foundation for projecting future demand and identifying potential gaps and shortages.

Methodology for Establishing the Baseline Workforce

Researchers reviewed the 12 PCAP mitigation measures provided by DWEE to identify the supply-side occupations related to each measure. Each of the 12 PCAP measures includes both supply and demand side components. This report focuses on the supply-side occupations — those responsible for designing, building, operating, and maintaining the systems that deliver EES. In contrast, the demand side represents the economic sectors that utilize or benefit from these systems. For example, in the case of electrical upgrades to agricultural equipment, the supply side includes the technicians and installers completing the work, while the agriculture industry represents the demand side as the end user of those improvements.

After identifying the occupations related to each PCAP measure, we matched them with the U.S. Census Bureau's detailed list of occupations in Nebraska. This step linked each measure to the specific jobs that design and implement the systems delivering EES. For example, building-related measures depend heavily on construction managers, electricians, HVAC technicians, and plumbers, while EV infrastructure measures rely on electricians, line installers, and mechanics.

To systematize this review process, we established structured decision rules to determine which occupations to include or exclude:

- Included: occupations that install, repair, maintain, supervise, or operate the systems that carry out PCAP measures.
- Excluded: administrative managers, research engineers, and policy or planning roles without on-site implementation responsibilities and demand-side occupations (as discussed above).

Through this process, 47 occupations were identified that together constitute Nebraska's EES workforce. Table 1 presents these occupations in alphabetical order. To ensure rigor, multiple analysts independently reviewed and cross-checked each occupation across sectors, with a final quality review to confirm consistency. Detailed tables for each individual PCAP measure, including full descriptions and occupation-level data, are provided in Appendix A (Tables A1-A12). By mapping each PCAP measure to the occupations required to deliver it, this report establishes a roadmap for building the workforce needed to meet the environmental and energy needs of the future.

Table 1: Occupations in the EES Workforce in Nebraska

1. Agricultural and food science technicians	25. Environmental science and geoscience technicians, and nuclear technicians
2. Agricultural and food scientists	26. Environmental scientists and specialists, including health
3. Agricultural inspectors	27. First-line supervisors of construction trades and extraction workers
4. Avionics technicians	28. First-line supervisors of mechanics, installers, and repairers
5. Biomedical and agricultural engineers	29. First-line supervisors of production and operating workers
6. Boilermakers	30. Heating, air conditioning, and refrigeration mechanics and installers
7. Bus and truck mechanics and diesel engine specialists	31. Heavy vehicle and mobile equipment service technicians and mechanics
8. Carpenters	32. Helpers, construction trades
9. Civil engineers	33. Helpers–installation, maintenance, and repair workers
10. Construction and building inspectors	34. Insulation workers
11. Construction equipment operators	35. Maintenance and repair workers, general
12. Construction laborers	36. Millwrights
13. Construction managers	37. Natural sciences managers
14. Control and valve installers and repairers	38. Other electrical and electronic equipment mechanics, installers, and repairers
15. Conveyor, dredge, and hoist and winch operators	39. Pipelayers
16. Drywall installers, ceiling tile installers, and tapers	40. Plumbers, pipefitters, and steamfitters
17. Electrical and electronic engineering technologists and technicians	41. Roofers
18. Electrical and electronics engineers	42. Small engine mechanics
19. Electrical power-line installers and repairers	43. Solar photovoltaic installers
20. Electrical, electronics, and electromechanical assemblers	44. Stationary engineers and boiler operators
21. Electricians	45. Surface mining machine operators and earth drillers
22. Elevator installers and repairers	46. Urban and regional planners
23. Engine and other machine assemblers	47. Water and wastewater treatment plant and system operators
24. Environmental engineers	

Source: UNO Center for Public Affairs Research (CPAR) analysis using the U.S. Census Bureau's detailed list of occupations in Nebraska (2023) and the Nebraska Department of Water, Energy, and Environment (DWEE), *Priority Climate Action Plan* (2024).

Once relevant occupations were defined, we estimate the number of persons employed in these occupations using data from the U.S. Census Bureau's American Community Survey (ACS) accessed through IPUMS USA. These estimates of the number of persons employed were gathered for 2010 to 2023 for Nebraska and 13 Midwest States. Table 2 presents Nebraska's EES Workforce over this period, showing steady growth from 65,269 workers in 2010 to 83,352 in 2023 — an overall gain of 27.7%. In 2023, these workers represented 8.1% of Nebraska's total workforce, a share slightly above the Midwest average of 7.6% (see Table 3).

Table 2: Nebraska's 2010-2023 EES Workforce

Year	EES Workforce	Percent Change from Prior Period
2010	65,269	–
2011	67,275	+3.07 %
2012	68,851	+2.34 %
2013	70,364	+2.20 %
2014	72,983	+3.72 %
2015	75,978	+4.10 %
2016	75,577	–0.53 %
2017	76,402	+1.09 %
2018	77,682	+1.68 %
2019	78,178	+0.64 %
2020	77,071	–1.42 %
2021	77,297	+0.29 %
2022	80,714	+4.42 %
2023	83,352	+3.27 %

Note: CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), 2010 to 2023.

Our regional analysis demonstrates that Nebraska currently has a robust workforce, but many neighboring states already employ more workers in many of the occupations related to the EES workforce. The next figure provides a graphical representation of the table, with states shown in red having a much higher percentage of the workforce dedicated to EES, such as Wyoming, compared to states with much lower percentages, such as Illinois. The baseline scenario projects employment through 2050 using historical trends and existing industry patterns. It does not account for changing conditions — such as new policies, technologies, or market shifts — that could increase or decrease demand for this workforce over time.

Figure 1: Nebraska's 2023 EES Workforce, Estimate, and Percentage of Workforce Compared to Midwest Peers

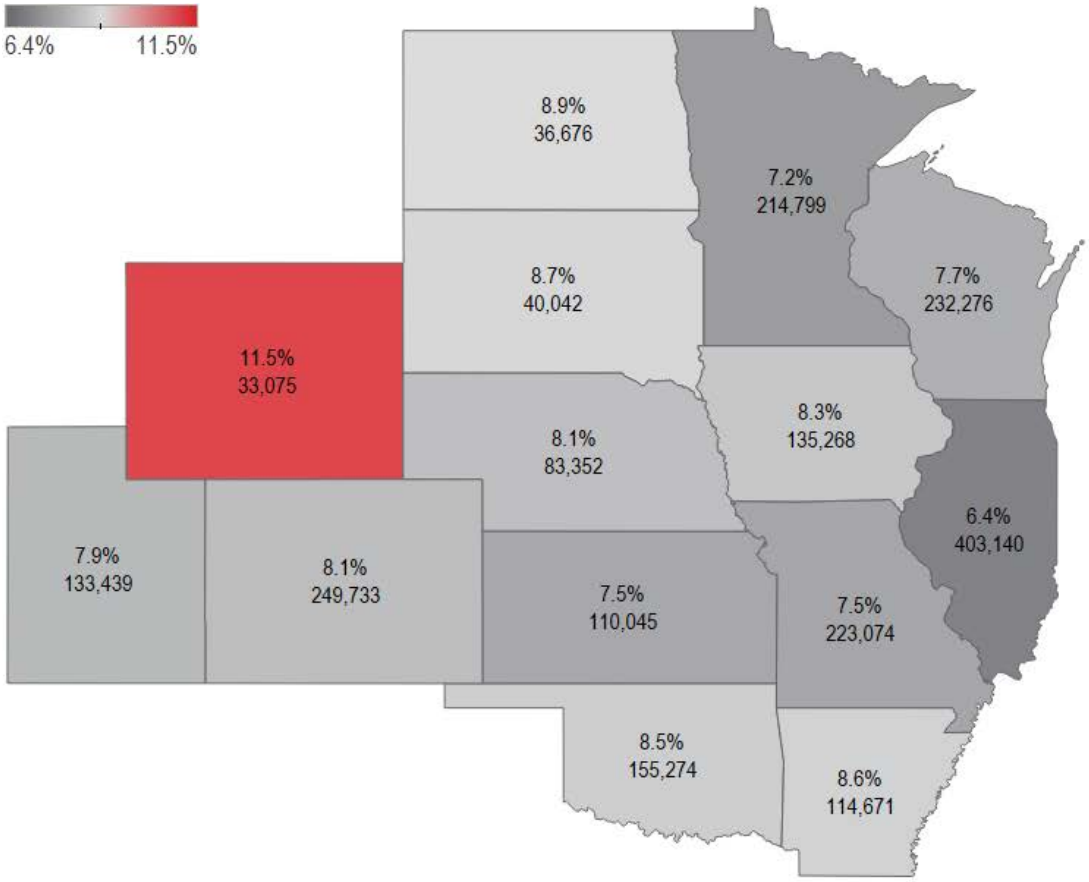


Table 3: Nebraska's 2023 EES Workforce Compared to Midwest Peers

State	2023 EES Workforce	2023 Total All Employed in Occupations	2023 Percent of Workforce in EES Occupations
Midwest Total	2,164,864	28,511,883	7.6%
Nebraska	83,352	1,027,574	8.1%
South Dakota	40,042	458,459	8.7%
North Dakota	36,676	413,779	8.9%
Minnesota	214,799	2,994,367	7.2%
Iowa	135,268	1,630,700	8.3%
Missouri	223,074	2,993,478	7.5%
Illinois	403,140	6,272,714	6.4%
Wisconsin	232,276	3,024,888	7.7%
Arkansas	114,671	1,333,728	8.6%
Kansas	110,045	1,469,779	7.5%
Oklahoma	155,274	1,829,753	8.5%
Colorado	249,733	3,096,412	8.1%
Utah	133,439	1,679,054	7.9%
Wyoming	33,075	287,198	11.5%

Note: CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), 2010 to 2023.

To ensure consistency across analyses, occupations are mapped to industry groupings where detailed occupational data are unavailable. Occupation refers to the work an individual does, while industry refers to the work of the business establishment and includes multiple occupations that work within a business. Mapping occupation to industry in Nebraska, we find:

- The natural resources, construction, and maintenance sector employs 61,353 workers, representing 73.6% of the total EES workforce. This group includes many trades that directly implement PCAP measures, such as electricians, plumbers, and HVAC technicians.
- The management, business, science, and arts industry accounts for 16% of the EES workforce or 13,345 workers. This category includes roles like construction managers and civil engineers, who provide oversight and technical expertise.
- The production, transportation, and material moving industry comprises 10.4% or 8,654 workers, covering roles such as equipment operators and assemblers.

Table 4: Nebraska EES Workforce Occupations Grouped by Industry, 2023

	2023 EES Workforce	2023 Percentage of Workforce that is EES
Management, Business, Science, and Arts Occupations	13,345	16.0%
Natural Resources, Construction, and Maintenance Occupations	61,353	73.6%
Production, Transportation, and Material Moving Occupations	8,654	10.4%
Total	**83,352**	**100%**

Note. CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Understanding these baseline conditions is essential for anticipating future needs, as we do in the next section. The next section projects how the numbers of Nebraska's EES workforce are expected to change through 2050.

Forecasting EES Workforce Demand 2023 to 2050

This portion of the analysis projects how Nebraska's EES workforce will evolve if current growth trends continue. The "business-as-usual" scenario establishes a baseline projection through 2050 based on historical employment patterns rather than new policies or mitigation measures.

Methodology for Forecasting the EES Workforce in Nebraska 2023 to 2050

We applied the Bureau of Labor Statistics (BLS) long-term employment projection methodology to project workforce demand.[1] This method is widely used for state and national labor market analysis. Detailed occupations often have smaller estimates, increasing uncertainty in the results and making forecasting difficult. Therefore, we focus on the larger industry groups, not detailed occupations for forecasting.

The forecasting process included four steps:

1. Smoothing historical employment data (2010 to 2023) for Nebraska EES occupations to identify long-term trends.
2. Transforming the data into logarithmic values to capture growth dynamics. In raw employment data, large industries can dominate trends simply because they start from a higher baseline. Taking the logarithm of employment values converts the data into relative rather than absolute terms, allowing analysts to focus on percentage changes instead of raw job counts.
3. Fitting a trend line to show whether each occupation has historically grown, declined, or remained stable.
4. Extending the trend line forward to 2050 to create projections.

This approach produces a gradual, nonlinear growth curve, reflecting how labor markets typically mature: fast early growth that slows over time.

To address the uncertainty that exists in all projections, we modeled two scenarios:

- Baseline scenario: assumes continuation of historical trends (2010 to 2023)
- Maximum scenario: assumes growth 50% higher than the baseline, reflecting potential increases in demand for the EES workforce driven by changes in markets, policies, or technology.

[1] BLS. (2024). Handbook of Methods. https://www.bls.gov/opub/hom/emp/calculation.htm

Forecast of EES Workforce

Under the baseline scenario, Nebraska's EES workforce grows from 83,352 workers in 2023 to 607,378 by 2050, a growth rate of 628.7%. Under the maximum scenario, employment could reach 911,068, a 993.0% growth, by 2050. This state-level growth mirrors national trends, where EES occupations rank among the fastest-growing in the United States. According to the BLS, solar photovoltaic installers and wind turbine technicians are among the fastest-growing occupations nationwide.[2]

Growth in Nebraska's environmental and energy workforce varies significantly across industry groups. The natural resources, construction, and maintenance sector — the largest segment of the EES workforce — drives most of the projected growth, increasing from 61,353 workers in 2023 to 552,704 by 2050 under the baseline scenario and 829,056 under the maximum scenario. Employment in the management, business, science, and arts sector expands from 13,345 workers in 2023 to 44,568 at baseline and 66,852 in the maximum scenario projection. In contrast, the production, transportation, and material moving sector shows modest gains, rising from 8,654 workers in 2023 to 10,106 in the baseline scenario and 15,159 in the maximum scenario.

It should be noted that these projections represent the subset of occupations identified as part of the EES workforce, grouped by their corresponding BLS industry categories. They do not reflect total employment growth for each industry, but rather the projected growth of EES occupations within those industries. Table 5 shows projected growth.

Table 5: Nebraska's EES Workforce Projections Grouped by Industry, 2023 to 2050

		Baseline Projection		Maximum Scenario	
	2023 EES Workforce	2050 Projected Workforce	Percentage Change from 2023 to 2050	2050 Projected Workforce	Percentage Change from 2023 to 2050
EES Occupations in Management, Business, Science, and Arts	13,345	44,568	234.0%	66,852	401.0%
EES Occupations in Natural Resources, Construction, and Maintenance	61,353	552,704	800.9%	829,056	1251.3%
EES Occupations in Production, Transportation, and Material Moving	8,654	10,106	16.8%	15,159	75.2%
Total	**83,352**	**607,378**	**628.7%**	**911,068**	**993.0%**

Note. CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Nebraska's EES workforce will grow rapidly, especially in the trades essential to PCAP implementation. Beyond the operational implications for PCAP delivery, the EES workforce, just by its current scale, is a powerful economic driver. To understand this broader value, we next examine the economic contribution of Nebraska's EES workforce today and its potential growth through 2050.

[2] U.S. Bureau of Labor Statistics, *Occupational Outlook Handbook: Fastest Growing Occupations*, accessed September 18, 2025, https://www.bls.gov/ooh/fastest-growing.htm

Economic Impact of EES Workforce in Nebraska

In addition to projecting workforce supply, CPAR, with support from Christopher Decker, Ph.D. of the University of Nebraska at Omaha, evaluated the economic contribution of Nebraska's EES workforce. These jobs not only enable PCAP implementation, but they also generate substantial value across the state's economy.

Median Earnings in the EES Workforce

When defining the economic impact of a specific segment of the workforce, such as the EES sector, it is important to identify the sector's direct inputs. One key input is the number of workers employed, and another is the wages they earn. In 2023, the median annual wage for EES occupations in Nebraska was $53,205 — more than $10,000 higher than the median earnings for all workers in the state. This indicates that EES occupations provide a strong earnings foundation that supports Nebraska's "Good Life." However, compared to neighboring states, Nebraska's EES workforce wages are slightly lower, as many peer states report median earnings above $55,000. Still, across the region, EES workers consistently earn above the overall median for all occupations, underscoring the sector's economic strength.

Table 6: Median Earnings in the Region

State	Median Wage EES Workforce 2023	Median Wage All Occupations 2023	Difference in EES Wages and All Occupations 2023
Nebraska	$53,205	$42,720	$10,485
South Dakota	$56,728	$41,400	$15,328
North Dakota	$55,782	$45,088	$10,694
Minnesota	$63,160	$49,217	$13,943
Iowa	$57,017	$42,607	$14,410
Missouri	$55,937	$41,514	$14,423
Illinois	$64,472	$46,839	$17,633
Wisconsin	$59,674	$45,127	$14,547
Arkansas	$53,698	$37,551	$16,147
Kansas	$56,953	$41,699	$15,254
Oklahoma	$52,606	$39,039	$13,567
Colorado	$60,718	$49,876	$10,842
Utah	$59,797	$41,786	$18,011
Wyoming	$61,825	$41,574	$20,251

Note. CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), 2023.

Next, we explore how these economic inputs generate further economic activity.

What an Economic Impact Analysis Measures

An economic impact analysis measures how spending moves through an economy and how that spending creates or supports jobs and income. The goal is to understand both the direct and ripple effects of an activity — how an initial investment or set of jobs leads to additional economic growth.

Two key outcomes are reported:

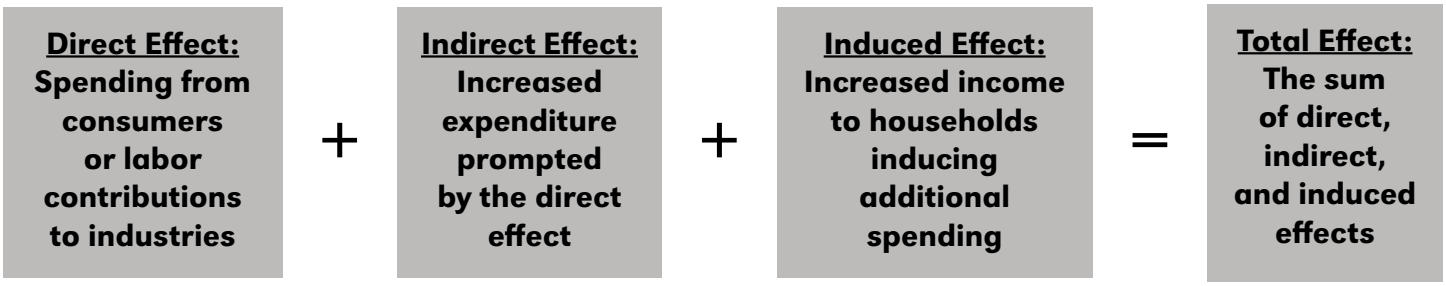
- Jobs supported: This represents the number of positions created or sustained by workforce activity.
- Value added: This measures the market value of goods and services produced for final use, after subtracting the cost of inputs.

This analysis uses an input–output (IO) model to show how industries are linked through supply chains. The model traces how spending in one industry affects others and identifies three layers of impact:

- Direct effects: The initial employment or spending activity under analysis.
- Indirect effects: The response of suppliers that provide goods or services to the directly affected industries.
- Induced effects: Additional spending in the local economy when workers use their wages to buy goods and services.

Together, these effects form a multiplier, which shows how each dollar of new spending generates additional economic activity (see Figure 2). For example, $1 spent on hotel services can generate roughly $0.55 cents in added transactions, producing a multiplier of 1.55. Understanding these relationships helps explain how workforce activity extends beyond the initial investment to influence the wider economy.

Figure 2: The Multiplier Effect



Note: Figure created by Chris Decker, Ph.D., University of Nebraska at Omaha, 2025.

Additionally, geography is an important factor because it determines how much spending stays within the local economy and, in turn, the size of the multiplier. When spending flows outside the study area, such as when goods or services are purchased from out of state, the impact declines. Economists refer to this loss of local spending as leakage.[3]

For the purposes of this analysis, we define the local economy as the State of Nebraska, excluding the Iowa counties that are part of the Omaha metropolitan area. Limiting the boundary ensures the results reflect economic activity within Nebraska. By defining this boundary, the analysis isolates how the state's own industries and workers benefit from EES activities.

[3] IMPLAN provides information on spending leakages used in this study. As for savings, it is assumed that wage earners save 5 percent (on average) of their after-tax income.

Model and Data Used to Determine the Economic Impact of Nebraska's EES Workforce

Researchers used the IMPLAN input–output (I–O) model, developed by the Minnesota IMPLAN Group, Inc., to estimate how Nebraska's EES workforce contributes to the state's economy. We selected IMPLAN because it offers detailed industry data, Nebraska-specific multipliers, and a transparent framework consistent with national economic datasets.

IMPLAN's Nebraska data draw from the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and Census Bureau. These sources ensure internal consistency and make the results comparable to other regional studies. Using IMPLAN allows us to link occupational data with industry-level impacts, providing a clear measure of how EES-related jobs translate into employment, income, and output across the state.

Occupational data was used to estimate the number of Nebraska jobs tied to EES activities in 2023. When grouped by 2-digit NAICS code, these jobs totaled 83,352, or roughly 8.1% of the state's non-farm workforce. Researchers then mapped these positions to IMPLAN industry classifications to calculate employment and value-added multipliers for each industry.

The 83,352 jobs were then treated as a direct injection into Nebraska's economy. Applying IMPLAN's employment multipliers allows us to estimate total economic impact, including both indirect and induced effects that occur as spending circulates through the economy. The next section presents the 2023 economic impact of Nebraska's EES workforce.

The Economic Impact of the EES Workforce in 2023

Table 7 summarizes the 2023 economic impact of employment and value added from the 83,352 jobs linked to Nebraska's EES workforce.

Findings:

- Nebraska's current EES workforce contributed $14.34 billion directly to the state's GDP.
- Including supply-chain and spending effects, the total contribution reached $22.40 billion, or 15.5% of the state's economy.
- In terms of employment, 83,352 direct jobs supported 136,614 total jobs, yielding a multiplier of 1.64—every 10 direct jobs support 6.4 additional positions statewide.

Table 7: Economic Impact: 2023

Effect	Employment	Value Added (GDP) ($ Bil.)
Direct Effect	83,352	$14.34
Indirect Effect	26,090	$3.78
Induced Effect	27,172	$4.28
Total Effect	**136,614**	**$22.40**
Multiplier	1.64	$1.56
% of State	13.02%	15.45%

Note: CPAR analysis using the IMPLAN input–output model (2023) with data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS).

Based on IMPLAN data, these jobs generated $14.34 billion in direct value added. When value-added multipliers were applied, the total impact rose to $22.40 billion, capturing the combined direct, indirect, and induced effects across the state's economy.

Moreover, Nebraska's EES workforce supports 136,614 total jobs, or 13.02% of all non-farm employment. Of this total, 26,090 jobs arise from indirect effects as related sectors purchase goods and services to support EES activities. An additional 27,172 jobs result from induced effects as workers spend their income in the local economy. In total, every 10 direct EES jobs generate 6.4 additional positions through indirect and induced impacts.

Beyond job creation, the EES workforce drives growth across Nebraska's economy, as measured by GDP. These jobs contribute $14.34 billion directly to the state's GDP and produce a total impact of $22.40 billion, or 15.45% of the state's economy. Of this total, related industries supply goods and services that add $3.78 billion through indirect effects, while workers generate $4.28 billion in induced effects by spending their income locally. The larger induced impact shows that EES jobs pay higher wages, which increases local spending and creates broader economic ripple effects. Overall, every $10 in spending associated with these jobs generates an additional $5.60 in economic activity through indirect and induced impacts. Building on these 2023 results, we project how Nebraska's EES workforce and its economic impacts will evolve through 2050.

The Economic Impact of the EES Workforce in 2050

Employment in Nebraska's EES workforce was projected through 2050 under two scenarios: a baseline case and a high-growth case. Using the same IMPLAN methodology, the future economic impact of Nebraska's environmental and energy workforce was also projected.

Baseline Scenario

By 2050, EES-related employment could reach 607,378 jobs. Table 8 presents the projected economic impact on employment and value added for 2050 based on this direct job injection.

Table 8: Economic Impact of EES Workforce in 2050 Baseline Scenario

Effect	Employment	Value Added (GDP) ($ Bil.)
Direct Effect	607,378	$104.52
Indirect Effect	190,113	$27.57
Induced Effect	197,998	$31.15
Total Effect	**995,489**	**$163.25**

Note: CPAR analysis using the IMPLAN input–output model (2023) based on ACS and BLS occupational and industry data.

Under the baseline scenario, the EES workforce is expected to support 995,489 total jobs across the state, including 607,378 direct jobs, 190,113 indirect jobs, and 197,998 induced jobs.

In GDP terms, the 607,378 direct jobs in 2050 are projected to generate $104.52 billion. Indirect effects add $27.57 billion, and induced effects contribute $31.15 billion, bringing Nebraska's total projected GDP contribution to $163.25 billion.

High-growth Scenario

Under a more optimistic high-growth scenario, EES-related employment is projected to reach 911,068 jobs by 2050. Table 9 summarizes the corresponding economic impact on employment and value added.

Table 9: Economic Impact of EES Workforce in 2050 High-Growth Scenario

Effect	Employment	Value Added (GDP) ($ Bil.)
Direct Effect	911,068	$156.79
Indirect Effect	285,170	$41.36
Induced Effect	296,997	$46.73
Total Effect	**1,493,235**	**$244.88**

Note: CPAR analysis using the IMPLAN input–output model (2023) based on ACS and BLS occupational and industry data.

From the initial 911,068 direct jobs, the high-growth scenario adds a total of 1,493,235 jobs to Nebraska's economy by 2050. Indirect effects generate 285,170 jobs, and induced effects create another 296,997 jobs.

The 911,068 EES jobs contribute $156.79 billion directly to Nebraska's GDP. Indirect activity adds $41.36 billion, and induced spending contributes $46.73 billion, bringing the total projected contribution to Nebraska's GDP to $244.88 billion.

This analysis confirms that Nebraska's EES workforce drives significant economic growth and will continue to expand in the coming decades.

State Revenue as a Measure of Economic Impact

Another way to understand the economic impact of the EES workforce is through the lens of state revenue, which reflects how industry activity translates into public resources. The State of Nebraska collects taxes on the sale of goods and services, and the Nebraska Department of Revenue tracks this activity through data on net taxable sales and the resulting sales tax revenue generated by each industry. While construction is not the only industry connected to the EES workforce, it represents a large share of the sector, as discussed earlier in this report.

From 2018 to 2024, both net taxable sales and sales tax revenue from the construction industry in Nebraska increased, showing that the industry has continued to expand and generate growing value for the state's economy and fiscal health. Moreover, the total revenue impact of the EES workforce is likely even greater, as related industries contribute additional taxable sales and EES workers and businesses may pay income, corporate, and property taxes. Taken together, these data demonstrate that state revenue provides another meaningful way to assess the economic impact of the EES workforce on Nebraska's economy.

Table 10: Nebraska Sales Tax Revenue Over Time Related to EES Workforce

Effect	2018	2019	2020	2021	2022	2023	2024
Net Taxable Sales Construction	$705,565,281	$722,280,669	$784,002,908	$869,643,606	$1,022,045,354	$1,144,904,356	$1,072,228,621
Sales Tax Revenue Construction	$38,938,198	$39,706,315	$43,413,830	$48,126,760	$56,310,142	$63,466,941	$58,917,885

Note: CPAR analysis of data of Sales Tax by Business Classification from the Nebraska Department of Revenue, 2018 to 2024

The next section examines Nebraska's key stakeholders, including community colleges, universities, and industry partners, and describes their roles in building the workforce needed to implement PCAP measures.

Stakeholder Analysis

This section examines Nebraska's education and training system and evaluates how it supplies the workforce needed for PCAP implementation. It focuses on community colleges, universities, and industry partners that develop key occupations such as electricians, HVAC technicians, construction managers, and agricultural engineers. These institutions operate within a broader statewide strategy to expand Nebraska's skilled workforce.

Statewide Workforce Development

Recent statewide initiatives have set the direction for workforce development efforts across Nebraska's education and training systems. In particular, Governor Jim Pillen has positioned the state as a center for biobased manufacturing and innovation, emphasizing that Nebraska's agricultural resources and technical capacity give it a competitive edge in the growing bioeconomy — an economy based on converting renewable biological resources into fuels and materials.[4] Building on this vision, the state launched the *Good Life, Great Careers Initiative* to expand apprenticeship opportunities and strengthen technical training across high-demand fields.

In October 2025, Governor Pillen issued an executive order establishing the initiative and directing the Department of Labor to create an Office of Registered Apprenticeship to coordinate and grow apprenticeship and pre-apprenticeship programs.[5] The initiative aims to register 6,000 new apprentices by 2030 and focuses on industries with the highest workforce demand — manufacturing, construction, healthcare, transportation, and the bioeconomy. It replaces a patchwork of local training programs with a coordinated statewide system that connects employers, schools, and training providers, building direct pathways into technical occupations that align with EES-related fields. This kind of forward-looking leadership exemplifies the innovative approaches needed to strengthen and expand the EES workforce, a need clearly demonstrated in this report. Its impact will extend beyond apprenticeships, influencing other components of Nebraska's EES workforce development ecosystem discussed in the following sections.

The following section outlines the methodology used to identify and analyze the stakeholders that deliver workforce training and education within this ecosystem.

[4] Office of the Governor. (2023, November 22). *Gov. Pillen makes case for growing biobased economy at national convention*. State of Nebraska. https://governor.nebraska.gov/press/gov-pillen-makes-case-growing-biobased-economy-national-convention
[5] Office of the Governor (Pillen, J.). (2025, October 14). *Governor Pillen signs executive order launching Good Life, Great Careers Initiative*. State of Nebraska. https://governor.nebraska.gov/governor-pillen-signs-executive-order-launching-good-life-great-careers-initiative

Methodology for Stakeholder Identification and Analysis

Researchers linked each EES occupation to education and training programs through a manual review of program offerings across Nebraska's higher education institutions. The lead researcher identified potential institutions based on prior experience working in the education sector. A second reviewer examined each institution's website to confirm program details, including curriculum descriptions, degree or certificate titles, and stated skill outcomes. This process ensured that all 47 occupations identified in the analysis aligned with at least one Nebraska-based training program or pathway.

Stakeholder Analysis Findings

The following section summarizes the primary education and industry stakeholders that prepare Nebraska's EES workforce, highlighting program strengths, enrollment trends, and capacity gaps. Table 11 compares the 12-month enrollment and graduation data for the 2022 to 2023 and 2023 to 2024 academic years, compiled from the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) and institutional reports.

Table 11: Community College and University Enrollment and Graduation Data

College/University	Academic Year	12-month Enrollment	Total Graduates
Metropolitan Community College (MCC)	2023 to 2024	24,188	2,167
	2022 to 2023	22,686	1,763
Southeast Community College (SCC)	2023 to 2024	13,995	1,671
	2022 to 2023	13,035	1,336
Central Community College (CCC)	2023 to 2024	9,995	1,608
	2022 to 2023	9,681	1,580
Nebraska College of Technical Agriculture (NCTA)	2023 to 2024	286	114
	2022 to 2023	340	78
Western Nebraska Community College (WNCC)	2023 to 2024	1,948	266
	2022 to 2023	2,012	235
Northeast Community College (NECC)	2023 to 2024	6,815	876
	2022 to 2023	6,610	902
Mid-Plains Community College	2023 to 2024	2,831	329
	2022 to 2023	2,867	336
Little Priest Tribal College	2023 to 2024	312	30
	2022 to 2023	307	32
Nebraska Indian Community College (NICC)	2023 to 2024	919	31
	2022 to 2023	851	33
Bellevue University	2023 to 2024	20,201	3,104
	2022 to 2023	20,358	2,807
Concordia University Nebraska	2023 to 2024	3,966	488
	2022 to 2023	3,447	374
Creighton University	2023 to 2024	9,884	2,328
	2022 to 2023	9,804	2,406
Doane University	2023 to 2024	2,427	509
	2022 to 2023	2,399	574

College/University	Academic Year	12-month Enrollment	Total Graduates
Hastings College	2023 to 2024	1,043	223
	2022 to 2023	995	206
Nebraska Wesleyan University	2023 to 2024	4,462	382
	2022 to 2023	3,983	422
University of Nebraska at Kearney	2023 to 2024	7,218	1,404
	2022 to 2023	7,212	1,362
University of Nebraska - Lincoln	2023 to 2024	25,883	5,315
	2022 to 2023	25,724	5,663
University of Nebraska at Omaha	2023 to 2024	17,737	3,337
	2022 to 2023	17,972	3,317
Wayne State College	2023 to 2024	5,949	972
	2022 to 2023	5,944	899
York University	2023 to 2024	759	194
	2022 to 2023	794	203

Note: Data compiled from the U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2024; and individual institutional websites accessed in 2025.

Nebraska's community colleges and universities maintained steady enrollment and graduation numbers between the 2022 to 2023 and 2023 to 2024 academic years. Metropolitan Community College awarded the most degrees among community colleges, increasing from 1,763 to 2,167 graduates. Southeast Community College grew from 1,336 to 1,671 graduates, and Central Community College increased slightly from 1,580 to 1,608. The University of Nebraska–Lincoln led all institutions, awarding 5,315 degrees, followed by the University of Nebraska at Omaha with 3,337 and the University of Nebraska at Kearney with 1,404. Bellevue University awarded 3,104 degrees, up from 2,807, while Creighton University awarded 2,328, down from 2,406. Smaller private colleges, including Doane, Hastings, Nebraska Wesleyan, Wayne State, and York, showed only minor changes in the number of degrees awarded. Overall, Nebraska's higher education institutions continued to graduate a consistent number of students, although current graduation rates may fall short of what is needed to meet projected workforce demands through 2050.

To supplement the enrollment and graduation data in Table 11, we analyzed IPEDS data on degree completions by program for the 2022 to 2023 and 2023 to 2024 academic years. We applied the U.S. Department of Education's Classification of Instructional Programs (CIP) taxonomy to identify credentials that align with the 47 critical EES occupations. The National Center for Education Statistics (NCES) developed the CIP system to categorize academic programs using a hierarchical code structure. The CIP system categorizes academic programs using 2- to 6-digit codes.[6] The system's first two digits represent a broad subject area (e.g., 01 – Agriculture), while four digits identify a more specific program within that category (e.g., 01.02 – Agricultural Mechanization). Six-digit codes give the most detailed description of a program's subject area (e.g., 01.0204 – Agricultural Power Machinery Operation).[7]

Although IPEDS provides standardized national reporting, its reliance on federal CIP codes can limit visibility for interdisciplinary or emerging EES fields, as programs in energy systems or renewable technologies may be recorded under broader engineering or applied science categories. Likewise, IPEDS reports programs with zero completions, indicating that institutions offered these programs but produced no graduates during the reporting year, or that the programs are emerging, temporarily paused, or reclassified for administrative reasons.

[6] U.S. Department of Education, National Center for Education Statistics. (2025). CIP: The Classification of Instructional Programs. https://nces.ed.gov/ipeds/cipcode/Default.aspx?y=56

[7] U.S. Department of Education, National Center for Education Statistics. (n.d.). Integrated Postsecondary Education Data System (IPEDS). https://nces.ed.gov/ipeds/

While detailed program-level results are not included here, the broader review indicates steady or modestly increasing completions in technical and applied science disciplines, a trend consistent with the overall graduate totals in Table 11.[8] Fields such as engineering, agriculture, architecture, and plant sciences exhibited notable growth between 2023 and 2024, reflecting institutional focus on aligning educational output with Nebraska's workforce needs in engineering, environmental, and skilled trade occupations. Community colleges — particularly Metropolitan, Southeast, and Central — continue to produce the majority of EES-aligned credentials in construction, electrical, and mechanical trades. Among four-year institutions, the University of Nebraska–Lincoln remains the largest contributor to Nebraska's EES talent pipeline, especially in engineering, agricultural, and environmental science disciplines. Mid-Plains, Western Nebraska, and Northeast Community Colleges, along with private institutions such as Doane and Hastings, also award degrees relevant to these sectors, though at lower volumes.

Taken together, these findings show how Nebraska's colleges and universities work together to sustain the state's technical workforce. Since community colleges play a critical role by providing most of the applied training that supports EES occupations, the next section examines these institutions in greater detail and highlights their key contributions, strengths, and ongoing challenges within the EES workforce pipeline.

Nebraska's Community Colleges

Nebraska's community colleges serve as the foundation of the state's EES workforce development system. Together, they enroll more than 30,000 students annually and provide certificates, associate degrees, and apprenticeships in occupations directly tied to PCAP measures.

Metropolitan Community College provides training in industrial automation, electrical technology, HVAC, and manufacturing. Southeast Community College offers instruction in precision agriculture, construction, electrical systems, and energy generation operations. Central Community College emphasizes energy technology, environmental health and safety, and mechatronics and has established a renewable energy and sustainability focus through its goal of achieving carbon neutrality by 2034. Northeast, Western Nebraska, and Mid-Plains Community Colleges provide programs in agriculture, construction, diesel technology, and electrical systems that serve regional workforce needs. The Nebraska College of Technical Agriculture and the state's tribal colleges, Little Priest Tribal College and Nebraska Indian Community College, strengthen access to agricultural and environmental training in rural communities. Nebraska's community colleges form the foundation of the state's technical education network and supply the skilled workforce needed to bolster EES and improve economic growth. The next section highlights the strengths and gaps within these programs.

Strengths:

- Significant investment in new facilities
    - Southeast Community College (SCC) is constructing a $33M Welding Technology Center (completion 2025) to increase capacity for automation and fabrication training.
    - Metropolitan Community College (MCC) opened a $9.5M Career & Technical Education Center for renewable energy, construction trades, logistics, and automotive technology.
- Expansion of biotechnology training:
    - SCC launched a biotechnology program to strengthen rural workforce pathways and support Nebraska's bioindustrial sector. Developed with Bluestem Biosciences and other partners, the program offers three stackable credentials and hands-on training in fermentation, purification, and process control. SCC also partners with middle and high schools to introduce biotechnology coursework earlier, building interest in technical careers tied to EES-related fields.

[8] U.S. Department of Education, National Center for Education Statistics. (n.d.). Integrated Postsecondary Education Data System (IPEDS). https://nces.ed.gov/ipeds/

- Broad coverage of PCAP-relevant programs, including HVAC, welding, electrical technology, precision agriculture, and construction trades.
- Employer partnerships support tuition scholarships, apprenticeships, and hands-on training.
- Community colleges also highlight sustainability and energy-efficiency content in curricula, most notably at Central Community College, which tracks sustainability integration across courses and aims for carbon-neutral operations by 2034.
- Collaboration between community colleges and universities:
    - In 2025, Nebraska College of Technical Agriculture deepened its partnership with UNL's College of Agricultural Sciences and Natural Resources, broadening student pathways and resources to meet future workforce needs.

Gaps:

- Enrollment in trades programs is below the scale needed to meet projected demand for electricians, HVAC installers, and construction laborers. The 2050 workforce projections (see Table 5) show that demand for technical trades will increase dramatically. Even if enrollment remains constant each year, the number of program graduates would meet only a small fraction of the workforce Nebraska will need to fill these positions (see Table 11).
- Renewable energy training (solar installation, energy efficiency, electrification) is present but limited compared to growing demand.
- Partnerships with employers are growing but fragmented, often operating locally rather than through a statewide strategy. This pattern creates regional disparities, as western Nebraska has fewer training providers despite strong demand from agricultural, transportation, and construction industries in the region.[9]
- Tribal and technical colleges, such as NCTA, Nebraska Indian Community College, and Little Priest, enroll hundreds of students who focus on agriculture and local infrastructure training (see Table 11). These institutions fill important geographic and sector-specific gaps but may have limited statewide impact because of their small scale.

Nebraska's community colleges have made strong progress in expanding technical training capacity and aligning programs with workforce priorities through investments in new facilities, sustainability initiatives, and employer partnerships. These efforts show a clear commitment to modernizing education in key EES sectors such as construction, energy, and advanced manufacturing. However, enrollment in the trades remains too low to meet projected labor demand, and access to renewable energy training is still limited in several parts of the state. Employer partnerships also operate mostly at the local level, which creates uneven training opportunities across regions, particularly in western Nebraska. Closing these gaps will require a coordinated statewide strategy that builds on the community colleges' proven programs, expands access to renewable energy and technical education, and strengthens collaboration to meet Nebraska's long-term economic and environmental goals. The next section discusses Nebraska's universities, highlighting the strengths and gaps of these institutions in building and sustaining the EES workforce.

[9] Nebraska Department of Labor. (2025, June). *Nebraska statewide labor availability and hiring needs report*. Nebraska Department of Labor, Labor Market Information Division. https://neworks.nebraska.gov/admin/gsipub/htmlarea/uploads/NebraskaLAS2025.pdf

Nebraska's Universities

Nebraska's public universities and private colleges provide the technical expertise and advanced training that prepare students for management, engineering, and scientific occupations supporting PCAP implementation. The University of Nebraska system offers the most comprehensive programming, granting degrees in agricultural, civil, environmental, electrical, and mechanical engineering, as well as environmental science, architecture, and agricultural systems technology. The University of Nebraska at Omaha expands these offerings through programs in construction management, applied computing, and drone technology to meet growing industry needs. Creighton, Doane, and Concordia universities integrate environmental science and sustainability into their programs, while Hastings College and Nebraska Wesleyan University prepare students for technical and engineering careers through pre-engineering and environmental studies pathways. Collectively, these institutions strengthen Nebraska's university-level pipeline for energy, agriculture, transportation, and environmental management. Their collective progress improves workforce readiness, although Nebraska must continue investing in higher education to meet future labor demand.

Strengths:

- Review of Nebraska's university programs demonstrates that they collectively maintain strong capacity in applied science, engineering, agriculture, and environmental studies.
- University of Nebraska - Lincoln (UNL) offers robust programs in civil, environmental, agricultural, and biological systems engineering. UNL hosts several key initiatives, including the Nebraska Center for Energy Sciences Research, the NIMBUS Lab, and new facilities such as Kiewit Hall and the HDR Pavilion, developed in partnership with private engineering and construction firms.
    - UNL's agriculture and natural resources programs ranked in the top 10% globally out of 475 institutions, placing 46th overall. The university also ranked third among Big Ten land-grant schools in employer reputation — how well grads are perceived by employers.[10]
- University of Nebraska at Omaha (UNO) and University of Nebraska at Kearney (UNK) provide construction management, environmental science, electrical engineering, and applied computing programs.
    - UNO continues to expand applied technology and workforce alignment through the Center for Competencies, Skills, and Workforce Development, and proposed Peter Kiewit Institute expansion.

Gaps:

- Engineering and construction management enrollment is not sufficient to meet the steep projected growth in these occupations. For example, in 2024, the construction management program at UNK enrolled just over 80 students.[11] Similarly, the College of Engineering enrolled 3,867 of UNL's 23,954 students in fall 2025, representing 16.1% of the total headcount.[12]
- Program descriptions rarely mirror DWEE's focus on renewable energy, retrofitting, and electrification. This difference in language suggests a gap between PCAP priorities and how institutions frame their training programs.
- University enrollments (e.g., UNL 25,724 for the 2022 to 2023 academic year; UNO 17,972 for the 2022 to 2023 academic year) are high overall, but most students, particularly at UNL, are in academic or research-based programs, rather than workforce-aligned technical degrees. For fall 2025, only 2,210 of the 23,954 students enrolled are in the College of Agricultural Sciences and Natural Resources while 589 of the total students enrolled are in the College of Architecture at UNL.[13]

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[10] Geitner Simmons, IANR Media. (2025, July 9). *Nebraska U ranks in top 10% worldwide for agriculture, natural resources*. Nebraska Today. https://news.unl.edu/article/nebraska-u-ranks-in-top-10-worldwide-for-agriculture-natural-resources

[11] Ellyson, T. (2024, November 18). *UNK construction management program is a pipeline for high-demand positions*. UNK News. https://unknews.unk.edu/2024/11/18/unk-construction-management-program-is-a-pipeline-for-high-demand-positions/

[12] University of Nebraska System. (n.d.). *FactBook: Enrollment*. insight.nebraska.edu. https://insight.nebraska.edu/t/Public/views/FactBook/Enrollment

[13] University of Nebraska System. (n.d.). *FactBook: Enrollment*. insight.nebraska.edu. https://insight.nebraska.edu/t/Public/views/FactBook/Enrollment

- In terms of geography, most university programs in engineering, construction management, and environmental science are concentrated in central and eastern Nebraska, leaving fewer opportunities for students and employers in western and rural regions of the state.

Nebraska's universities strengthen the state's EES workforce by advancing research, innovation, and professional training. They invest in new facilities and partnerships that expand opportunities in engineering, science, and management fields. However, many programs still focus on academic and research pathways instead of applied technical training, which limits the number of graduates ready to fill high-demand jobs in construction, renewable energy, and infrastructure. University curricula include little content on renewable energy and electrification, which reduces the alignment with PCAP workforce goals. Importantly, most campuses operate in central and eastern Nebraska, potentially leaving students and employers in rural areas with fewer opportunities for advanced training. Collaborations between universities and community colleges are beginning to close this gap. Expanding applied learning programs, adding renewable energy and electrification content, and increasing regional access will help Nebraska universities prepare the skilled workforce needed to meet the state's future economic and environmental goals. While Nebraska's colleges and universities supply the foundation of the EES workforce, partnerships with industry and utilities transform that academic preparation into practical skills and employment opportunities. The next section explores those opportunities and addresses present gaps in Nebraska's industry.

Industry and Trade Partners

Nebraska-based firms and utilities play a direct role in workforce development through apprenticeships, job placement, and on-the-job training.

Nebraska's higher-education institutions maintain active partnerships with industry and utilities to strengthen workforce training and job placement. Metropolitan Community College collaborates with local employers through tuition scholarships and apprenticeships linked to its Career and Technical Education Center. Southeast Community College partners with the American Job Center to expand access to high-demand programs and provides full-tuition scholarships through the Future-Ready Workforce Initiative. Central Community College works with regional industries on sustainability leadership programs and employer engagement through the Sustainability Leadership Presentation Series, while the University of Nebraska campuses partner with firms such as HDR and Kiewit on construction, engineering, and research initiatives. These collaborations demonstrate ongoing investment in Nebraska's workforce pipeline, though the scale and coordination of such efforts vary across institutions. The following sections illustrate the strengths and gaps of Nebraska's industry and trade partners.

Strengths:

- Large engineering and construction firms — including Kiewit and HDR — actively recruit from several Nebraska higher-education institutions beyond the University of Nebraska - Lincoln. They regularly recruit through university career fairs
- Utilities such as Omaha Public Power District (OPPD) and Nebraska Public Power District (NPPD) provide scholarships, direct training programs, and long-term support for trade occupations.

Gaps:

- Partnerships remain fragmented; most are bilateral between a college and an employer, with no statewide coordination.
- Industry investment in renewable-specific training programs (solar, EV charging, electrification) is still limited. Most partnerships between employers and colleges focus on traditional construction fields such as welding, general building, and electrical work. Community colleges report new facilities and

investments in these areas. For example, Metropolitan Community College's $9.5 million Career and Technical Education Center focuses on construction and logistics, and Southeast Community College's $33 million Welding Technology Center expands traditional fabrication programs. In contrast, few collaborations or programs currently focus on renewable energy skills such as solar installation, EV charging, or electrification.

Industry and trade partners remain essential to Nebraska's ability to connect education and employment in environmental and energy fields. Employers work closely with colleges and universities to provide internships, apprenticeships, and on-the-job training that prepare students for skilled careers. These relationships continue to strengthen local workforce pipelines, but participation varies across regions and sectors. Limited statewide coordination creates difficulties in scaling efforts or sharing resources among institutions. Strengthening collaboration in renewable energy, advanced technologies, and sustainability training will better align Nebraska's education and industry partners with future workforce needs and the state's long-term economic priorities.

Overall, to meet the PCAP workforce needs, Nebraska must strengthen statewide coordination across its training ecosystem, expand trades programs in electricians and HVAC, and accelerate renewable energy and precision agriculture curricula. A coordinated, data-driven workforce strategy that aligns colleges, universities, and industry will be essential to avoid bottlenecks and capture the economic benefits identified in the economic impact analysis.

Conclusion: Building Nebraska's EES Workforce for the Future

Nebraska's environmental and energy workforce anchors the state's PCAP and supports long-term economic growth and sustainability. In 2023, this workforce employed 83,352 workers, representing 8.1% of total employment, and contributed $22.40 billion. Through direct, indirect, and induced impacts, these occupations supported 136,614 total jobs. By 2050, projections show the workforce growing to 607,378 workers under baseline conditions and up to 911,068 under a high-growth scenario, with total economic contributions between $163.25 billion and $244.88 billion. These results confirm that Nebraska's workforce is a cornerstone of the state's economy and a key driver of future development.

Colleges, universities, and employers have built a solid foundation to generate and support the current workforce. Community colleges continue to expand programs that prepare workers for high-demand trades, while universities advance engineering and applied science programs that strengthen technical capacity. Industry partners provide apprenticeships and hands-on training that connect education to employment. Overall, these institutions form the backbone of Nebraska's training ecosystem.

Despite these strengths, the analysis shows that future demand for the workforce outpaces current pipelines. Capacity constraints in technical and construction-related fields will become more significant as investments in infrastructure, manufacturing, and agriculture expand. Education and training programs must continue to grow and adapt to meet Nebraska's future labor needs.

Nebraska's future depends on its ability to train, attract, and retain a highly skilled workforce. Strengthening collaboration, investing in training capacity, and aligning programs with industry needs will ensure that Nebraska remains competitive in producing a highly skilled EES workforce – critical for today and tomorrow in Nebraska.

Appendix A

PCAP Measures and Workforce Tables

This appendix provides detailed tables for each of the 12 Priority Climate Action Plan (PCAP) mitigation measures. Each table includes the official measure description, the key EES workforce occupations identified using the decision rules described in the "Establishing the Baseline Workforce 2010 to 2023" section, and historical workforce data from 2010 to 2023.

Measure A1: Promote Energy Efficiency and Electrification Upgrades for Non-Residential Facilities

Measure Description:
Provide incentives for energy efficiency, electrification, and weatherization upgrades for industrial, commercial, agricultural, public, and nonprofit buildings and facilities.

Table A1: Promote Energy Efficiency and Electrification Upgrades for Non-Residential Facilities

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Civil engineers	1,652	1,650	1,730	1,723	1,805	1,744	1,651	1,568	1,900	1,807	1,969	1,906	2,341	2,396
Electrical and electronics engineers	846	799	824	731	609	706	636	535	516	516	527	689	779	963
Environmental engineers	207	97	121	118	42	39	52	81	117	117	101	138	121	97
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
Urban and regional planners	25	26	38	61	58	50	76	104	78	102	152	135	164	286
First-line supervisors of construction trades and extraction workers	5,311	5,903	5,597	5,814	5,268	5,299	5,528	5,525	5,099	5,166	4,831	4,437	4,632	4,482
Boilermakers	91	35	36	16	6	0	0	4	57	89	82	77	85	52
Carpenters	7,103	6,934	6,742	6,610	6,390	7,012	6,810	7,206	7,505	7,218	6,507	6,727	6,956	6,686
Construction laborers	9,154	9,535	10,050	10,006	11,449	12,849	13,360	13,293	14,122	13,286	11,861	10,731	10,488	9,796
Construction equipment operators	2,834	3,098	2,825	2,890	2,689	2,734	2,795	2,936	2,832	3,071	2,891	2,680	3,243	3,489
Drywall installers, ceiling tile installers, and tapers	1,279	1,108	1,149	1,064	1,188	1,188	1,274	1,221	1,213	1,348	1,152	1,079	1,030	1,617
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
Insulation workers	224	241	239	150	236	202	242	271	255	140	155	381	348	406
Plumbers, pipefitters, and steamfitters	3,236	3,149	3,137	2,977	2,815	2,734	3,020	2,993	3,216	3,271	3,446	3,359	3,702	4,470
Roofers	286	509	1,129	1,620	2,256	2,204	2,127	1,564	1,236	1,168	1,451	1,545	1,681	1,851
Helpers, construction trades	301	245	203	233	273	199	185	177	137	127	144	123	148	128
Construction and building inspectors	395	351	349	367	418	525	585	595	600	616	540	623	570	521

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Elevator installers and repairers	123	107	128	90	81	98	70	73	72	74	48	48	93	102
Surface mining machine operators and earth drillers	196	202	288	355	362	409	424	364	423	269	292	255	252	265
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Small engine mechanics	370	308	300	262	194	215	263	259	282	371	379	387	417	418
Control and valve installers and repairers	247	187	63	99	91	79	128	128	79	76	336	322	337	417
Heating, air conditioning, and refrigeration mechanics and installers	350	914	1,266	1,768	2,219	2,317	2,251	2,495	2,501	2,536	2,671	2,613	2,265	2,593
Millwrights	223	310	260	210	183	256	237	181	184	211	142	146	152	280
Electrical power-line installers and repairers	1,325	1,343	1,361	1,397	1,413	1,456	1,567	1,426	1,455	1,264	1,288	1,219	1,504	1,565
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92
First-line supervisors of production and operating workers	6,657	6,266	6,239	6,059	6,332	6,396	6,440	7,081	7,048	7,148	6,880	6,735	6,355	6,148
Electrical, electronics, and electromechanical assemblers	718	734	675	697	759	863	713	734	594	649	562	625	613	676
Stationary engineers and boiler operators	650	740	809	699	674	630	610	424	541	762	719	814	890	965
Water and wastewater treatment plant and system operators	526	503	453	413	408	323	314	324	309	286	357	383	491	626
Conveyor, dredge, and hoist and winch operators	139	93	126	163	155	136	161	170	154	167	220	231	190	174

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A2: Incentives for Home Energy Efficiency Upgrades for Low- and Middle-Income Homeowners

Measure Description:
Provide incentives (rebates) to low- and middle-income residents for purchase and installation of high-efficiency home heat pumps and/or heat pump water heaters to replace equipment fueled by natural gas.

Table A2: Incentives for Home Energy Efficiency Upgrades for Low- and Middle-Income Homeowners

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Electrical and electronics engineers	846	799	824	731	609	706	636	535	516	516	527	689	779	963
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
First-line supervisors of construction trades and extraction workers	5,311	5,903	5,597	5,814	5,268	5,299	5,528	5,525	5,099	5,166	4,831	4,437	4,632	4,482
Boilermakers	91	35	36	16	6	0	0	4	57	89	82	77	85	52
Carpenters	7,103	6,934	6,742	6,610	6,390	7,012	6,810	7,206	7,505	7,218	6,507	6,727	6,956	6,686
Construction laborers	9,154	9,535	10,050	10,006	11,449	12,849	13,360	13,293	14,122	13,286	11,861	10,731	10,488	9,796
Construction equipment operators	2,834	3,098	2,825	2,890	2,689	2,734	2,795	2,936	2,832	3,071	2,891	2,680	3,243	3,489
Drywall installers, ceiling tile installers, and tapers	1,279	1,108	1,149	1,064	1,188	1,188	1,274	1,221	1,213	1,348	1,152	1,079	1,030	1,617
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
Insulation workers	224	241	239	150	236	202	242	271	255	140	155	381	348	406
Plumbers, pipefitters, and steamfitters	3,236	3,149	3,137	2,977	2,815	2,734	3,020	2,993	3,216	3,271	3,446	3,359	3,702	4,470
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Other electrical and electronic equipment mechanics, installers, and repairers	301	274	255	328	300	287	299	294	215	226	241	94	140	207
Heating, air conditioning, and refrigeration mechanics and installers	350	914	1,266	1,768	2,219	2,317	2,251	2,495	2,501	2,536	2,671	2,613	2,265	2,593
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92
First-line supervisors of production and operating workers	6,657	6,266	6,239	6,059	6,332	6,396	6,440	7,081	7,048	7,148	6,880	6,735	6,355	6,148

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A3: Residential Pre-Weatherization Program

Measure Description:
Provide financial incentives for a Pre-Weatherization Program for low-income residents. This program would be an expansion of Nebraska's Weatherization Assistance Program (NeWAP) to address critical home repairs in low-income homes that would cause a home to be deferred from the Weatherization Assistance Program (WAP). The program will result in enhanced energy efficiency, greenhouse gas reduction, lower utility bills, and improved health.

Table A3: Residential Pre-Weatherization Program

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Environmental engineers	207	97	121	118	42	39	52	81	117	117	101	138	121	97
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
First-line supervisors of construction trades and extraction workers	5,311	5,903	5,597	5,814	5,268	5,299	5,528	5,525	5,099	5,166	4,831	4,437	4,632	4,482
Carpenters	7,103	6,934	6,742	6,610	6,390	7,012	6,810	7,206	7,505	7,218	6,507	6,727	6,956	6,686
Construction laborers	9,154	9,535	10,050	10,006	11,449	12,849	13,360	13,293	14,122	13,286	11,861	10,731	10,488	9,796
Drywall installers, ceiling tile installers, and tapers	1,279	1,108	1,149	1,064	1,188	1,188	1,274	1,221	1,213	1,348	1,152	1,079	1,030	1,617
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
Insulation workers	224	241	239	150	236	202	242	271	255	140	155	381	348	406
Plumbers, pipefitters, and steamfitters	3,236	3,149	3,137	2,977	2,815	2,734	3,020	2,993	3,216	3,271	3,446	3,359	3,702	4,470
Roofers	286	509	1,129	1,620	2,256	2,204	2,127	1,564	1,236	1,168	1,451	1,545	1,681	1,851
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Heating, air conditioning, and refrigeration mechanics and installers	350	914	1,266	1,768	2,219	2,317	2,251	2,495	2,501	2,536	2,671	2,613	2,265	2,593
Maintenance and repair workers, general	3,668	3,596	3,835	3,850	3,618	3,684	3,358	3,429	3,315	3,936	3,962	4,820	5,625	6,211
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A4: Incentives for Irrigation Well Conversion from Diesel to Electric

Measure Description:
Provide financial incentives (rebates) to farmers to replace diesel engines powering irrigation well pumps with electric motors/pumps connected to the electric grid, with a goal of funding 50 engine replacements per year from 2025 through 2030. The incentives would cover a percentage of the costs of new electrical equipment, wiring and installation, and utility upgrade and connection charges.

Table A4: Incentives for Irrigation Well Conversion from Diesel to Electric

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Biomedical and agricultural engineers	77	98	160	163	153	124	144	112	96	137	387	360	387	401
Environmental engineers	207	97	121	118	42	39	52	81	117	117	101	138	121	97
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
Construction laborers	9,154	9,535	10,050	10,006	11,449	12,849	13,360	13,293	14,122	13,286	11,861	10,731	10,488	9,796
Construction equipment operators	2,834	3,098	2,825	2,890	2,689	2,734	2,795	2,936	2,832	3,071	2,891	2,680	3,243	3,489
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A5: Incentives for Micro-Solar Arrays for Critical Infrastructure in Low-Income Rural Communities

Measure Description:
Provide financial incentives (rebates) to rural low-income and disadvantaged communities to install solar arrays at water and wastewater treatment facilities. The solar arrays are expected to range in size from 50 to 500 kW, with a goal of adding total new capacity of 2 MW by 2030.

Table A5: Incentives for Micro-Solar Arrays for Critical Infrastructure in Low-Income Rural Communities

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Civil engineers	1,652	1,650	1,730	1,723	1,805	1,744	1,651	1,568	1,900	1,807	1,969	1,906	2,341	2,396
Environmental engineers	207	97	121	118	42	39	52	81	117	117	101	138	121	97
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
Construction laborers	9,154	9,535	10,050	10,006	11,449	12,849	13,360	13,293	14,122	13,286	11,861	10,731	10,488	9,796
Construction equipment operators	2,834	3,098	2,825	2,890	2,689	2,734	2,795	2,936	2,832	3,071	2,891	2,680	3,243	3,489
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
Insulation workers	224	241	239	150	236	202	242	271	255	140	155	381	348	406
Solar photovoltaic installers	0	0	0	0	0	0	0	0	44	43	44	44	0	0
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Electrical power-line installers and repairers	1,325	1,343	1,361	1,397	1,413	1,456	1,567	1,426	1,455	1,264	1,288	1,219	1,504	1,565
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A6: Funding for Solar Projects on Unused/ Contaminated Land, Ag & Industrial Facilities, and Parking Lot/Feedlot Solar Canopies

Measure Description:
Provide incentives for solar panels and solar canopies on unused/contaminated land and at agricultural and industrial facilities and for rooftop solar on both commercial and residential properties including parking lots and feedlots.

Table A6: Funding for Solar Projects on Unused/Contaminated Land, Ag & Industrial Facilities, and Parking Lot/Feedlot Solar Canopies

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Civil engineers	1,652	1,650	1,730	1,723	1,805	1,744	1,651	1,568	1,900	1,807	1,969	1,906	2,341	2,396
Environmental engineers	207	97	121	118	42	39	52	81	117	117	101	138	121	97
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
Environmental scientists and specialists, including health	163	122	144	147	130	206	229	187	144	156	196	175	197	202
Environmental science and geoscience technicians, and nuclear technicians	0	0	0	0	0	0	0	0	283	239	145	126	32	107
First-line supervisors of construction trades and extraction workers	5,311	5,903	5,597	5,814	5,268	5,299	5,528	5,525	5,099	5,166	4,831	4,437	4,632	4,482
Construction laborers	9,154	9,535	10,050	10,006	11,449	12,849	13,360	13,293	14,122	13,286	11,861	10,731	10,488	9,796
Construction equipment operators	2,834	3,098	2,825	2,890	2,689	2,734	2,795	2,936	2,832	3,071	2,891	2,680	3,243	3,489
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
Solar photovoltaic installers	0	0	0	0	0	0	0	0	44	43	44	44	0	0
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Electrical power-line installers and repairers	1,325	1,343	1,361	1,397	1,413	1,456	1,567	1,426	1,455	1,264	1,288	1,219	1,504	1,565
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A7: Measures to Reduce Emissions in Agriculture Production

Measure Description:
Provide incentives for a carbon intensity (CI) scores registry that fosters the wide-spread adoption of CI scores as a key performance metric for crops and land usage. In parallel, initiate community-based programs to encourage adoption of regenerative agriculture practices, and provide incentives to farmers to acquire precision agriculture technology. The increased availability of CI scores in agribusiness, coupled with these programs and incentives, will lead producers towards regenerative agriculture and precision agricultural technologies that minimize nitrous oxide and nitrate emissions, restore soil fertility and moisture levels, and increase carbon dioxide sequestration.

Table A7: Measures to Reduce Emissions in Agriculture Production

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Biomedical and agricultural engineers	77	98	160	163	153	124	144	112	96	137	387	360	387	401
Electrical and electronics engineers	846	799	824	731	609	706	636	535	516	516	527	689	779	963
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
Environmental scientists and specialists, including health	163	122	144	147	130	206	229	187	144	156	196	175	197	202
Agricultural inspectors	258	246	295	425	439	409	472	450	379	371	332	299	269	238
Construction equipment operators	2,834	3,098	2,825	2,890	2,689	2,734	2,795	2,936	2,832	3,071	2,891	2,680	3,243	3,489
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Avionics technicians	161	308	286	212	190	221	146	152	137	192	93	85	105	237

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A8: Incentives for Alternative-Fuel and Electric Replacement of Diesel Vehicles

Measure Description:
Provide incentives for replacement of medium- and heavy-duty diesel vehicles with electric or alternative fuel vehicles or conversion of such diesel vehicles to use 100% biodiesel. Eligibility would be restricted to vehicles that operate entirely within the state of Nebraska.

Table A8: Incentives for Alternative-Fuel and Electric Replacement of Diesel Vehicles

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Bus and truck mechanics and diesel engine specialists	2,931	3,075	3,044	3,124	3,243	3,314	2,952	3,211	2,984	2,789	2,824	3,059	3,002	2,770
Heavy vehicle and mobile equipment service technicians and mechanics	2,797	2,945	3,197	3,101	3,069	3,272	3,112	2,970	3,232	3,376	3,258	2,878	2,952	2,616
Engine and other machine assemblers	55	51	47	50	50	4	4	37	36	36	70	80	48	65

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A9: Incentives for New Public Electric Vehicle Charging Stations

Measure Description:
Provide financial incentives for the installation of new public electric vehicle charging stations, including fast charging stations and Level 2 charging stations.

Table A9: Incentives for New Public Electric Vehicle Charging Stations

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Civil engineers	1,652	1,650	1,730	1,723	1,805	1,744	1,651	1,568	1,900	1,807	1,969	1,906	2,341	2,396
Electrical and electronics engineers	846	799	824	731	609	706	636	535	516	516	527	689	779	963
Environmental engineers	207	97	121	118	42	39	52	81	117	117	101	138	121	97
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
First-line supervisors of construction trades and extraction workers	5,311	5,903	5,597	5,814	5,268	5,299	5,528	5,525	5,099	5,166	4,831	4,437	4,632	4,482
Construction laborers	9,154	9,535	10,050	10,006	11,449	12,849	13,360	13,293	14,122	13,286	11,861	10,731	10,488	9,796
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Electrical power-line installers and repairers	1,325	1,343	1,361	1,397	1,413	1,456	1,567	1,426	1,455	1,264	1,288	1,219	1,504	1,565
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A10: Establish Hub-and-Spoke Anaerobic Digester/Biogas Hubs for Agricultural Waste

Measure Description:
Provide incentives to develop regional anaerobic digester/biogas hubs near existing natural gas pipelines. These facilities would receive and process cattle and hog manure from farm operations in the surrounding region. They would be designed and managed to ensure efficient and environmentally friendly operation.

Table A10: Establish Hub-and-Spoke Anaerobic Digester/Biogas Hubs for Agricultural Waste

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Biomedical and agricultural engineers	77	98	160	163	153	124	144	112	96	137	387	360	387	401
Environmental engineers	207	97	121	118	42	39	52	81	117	117	101	138	121	97
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
Environmental scientists and specialists, including health	163	122	144	147	130	206	229	187	144	156	196	175	197	202
Environmental science and geoscience technicians, and nuclear technicians	0	0	0	0	0	0	0	0	283	239	145	126	32	107
Agricultural inspectors	258	246	295	425	439	409	472	450	379	371	332	299	269	238
Construction laborers	9,154	9,535	10,050	10,006	11,449	12,849	13,360	13,293	14,122	13,286	11,861	10,731	10,488	9,796
Construction equipment operators	2,834	3,098	2,825	2,890	2,689	2,734	2,795	2,936	2,832	3,071	2,891	2,680	3,243	3,489
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
Pipelayers	279	272	271	257	243	236	261	258	100	168	328	449	422	444
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Control and valve installers and repairers	247	187	63	99	91	79	128	128	79	76	336	322	337	417
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92
Stationary engineers and boiler operators	650	740	809	699	674	630	610	424	541	762	719	814	890	965
Water and wastewater treatment plant and system operators	526	503	453	413	408	323	314	324	309	286	357	383	491	626

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A11: Incentives to Reduce Food Waste

Measure Description:
Provide incentives to reduce food waste and recycle organics. Because food waste is a complex challenge, this concept incorporates a multipronged approach: (1) Fund a marketing company to build a campaign for Nebraska and provide the materials to schools, NGOs, the public, as well as food handling entities such as growers, distributors, and restaurants regarding food waste and the circular economy; (2) Develop a statewide composting program to divert organics, including food waste, from entering Nebraska's 22 landfills; (3) Fund university research into food rescue (waste prevention) and redistribution. Research would involve a multidiscipline analysis of all facets of the challenge.

Table A11: Incentives to Reduce Food Waste

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Environmental engineers	207	97	121	118	42	39	52	81	117	117	101	138	121	97
Agricultural and food scientists	740	760	866	882	838	869	789	595	573	645	795	999	1,026	1,168
Environmental scientists and specialists, including health	163	122	144	147	130	206	229	187	144	156	196	175	197	202
Agricultural and food science technicians	373	360	492	533	647	677	627	573	562	609	621	637	695	830
Environmental science and geoscience technicians, and nuclear technicians	0	0	0	0	0	0	0	0	283	239	145	126	32	107
First-line supervisors of mechanics, installers, and repairers	2,724	2,712	2,368	2,517	2,363	2,206	1,899	2,082	1,781	1,824	1,655	1,590	1,682	1,729
Maintenance and repair workers, general	3,668	3,596	3,835	3,850	3,618	3,684	3,358	3,429	3,315	3,936	3,962	4,820	5,625	6,211
Helpers–installation, maintenance, and repair workers	93	214	245	246	221	187	23	16	33	28	30	56	80	92

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Measure A12: Incentives for Production and Use of Biochar to Reduce Organic Waste and Sequester Carbon in Soil

Measure Description:
Provide financial incentives to aid entities to purchase biochar processing equipment to reduce organic waste and sequester carbon in soils. The incentives would cover a percentage of the costs of material handling equipment, pyrolysis unit, wiring and installation, and utility upgrade and connection charges.

Table A12: Incentives for Production and Use of Biochar to Reduce Organic Waste and Sequester Carbon in Soil

Supply Side Occupation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Construction managers	4,992	4,551	4,200	3,984	3,919	3,824	3,960	4,104	4,532	4,500	4,953	5,506	6,063	6,414
Natural sciences managers	32	55	60	59	35	37	8	3	13	26	24	29	79	104
Biomedical and agricultural engineers	77	98	160	163	153	124	144	112	96	137	387	360	387	401
Civil engineers	1,652	1,650	1,730	1,723	1,805	1,744	1,651	1,568	1,900	1,807	1,969	1,906	2,341	2,396
Electrical and electronic engineering technologists and technicians	394	428	370	340	385	367	332	377	597	530	559	478	324	377
Environmental scientists and specialists, including health	163	122	144	147	130	206	229	187	144	156	196	175	197	202
Environmental science and geoscience technicians, and nuclear technicians	0	0	0	0	0	0	0	0	283	239	145	126	32	107
First-line supervisors of construction trades and extraction workers	5,311	5,903	5,597	5,814	5,268	5,299	5,528	5,525	5,099	5,166	4,831	4,437	4,632	4,482
Electricians	762	1,821	2,578	3,554	4,767	5,391	5,444	5,820	6,101	6,492	6,851	7,125	7,739	7,671
Maintenance and repair workers, general	3,668	3,596	3,835	3,850	3,618	3,684	3,358	3,429	3,315	3,936	3,962	4,820	5,625	6,211

Note. Adapted from the Nebraska Department of Water, Energy, and Environment (DWEE), Priority Climate Action Plan (2024, pp. 14–47), and CPAR analysis of data from the U.S. Census Bureau, American Community Survey (ACS), and Bureau of Labor Statistics (BLS), 2010 to 2023.

Appendix B Stakeholder Profiles

This appendix provides detailed information on Nebraska's education, training, and industry stakeholders that contribute to the state's EES workforce. These profiles expand on the analysis in Section 6.0, offering information on enrollment numbers, programs offered, workforce pipelines, and partnerships relevant to the DWEE's PCAP. All information was obtained from the National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) and individual institution websites and factbooks.

B1: Community Colleges

Metropolitan Community College (MCC)

- Programs
    - Offers degrees and certificates in logistics, industrial automation, welding, electrical technology, HVAC, manufacturing, and diesel technology.
- **Career & Technical Education Center:** MCC invested $9.5M in a new facility that unites seven career pathways, including renewable energy, construction trades, CAD/manufacturing, and automotive technology. The college also partners with local employers on apprenticeships with tuition sponsorships and hands-on training.
- **Sustainability Initiatives:** MCC participates in the AASHE STARS rating system and tracks sustainability content across courses. Plans are in progress to launch a sustainability certificate program, further integrating environmental stewardship into academics.

Southeast Community College (SCC)

- Programs
    - Agriculture
        - ◊ Horticulture and Turfgrass Management (mentions sustainability – greenhouse gas reduction)
        - ◊ Precision Agriculture
        - ◊ Management and Production
    - Automotive
        - ◊ Technology
    - Building Construction Technology
        - ◊ Construction Process
        - ◊ Commercial Design and Estimating
        - ◊ Carpentry and Cabinetmaking Construction
        - ◊ Computer Information Technology
        - ◊ Applications Development
        - ◊ Concrete Construction Technician
    - Design and Drafting
        - ◊ Architectural Design
        - ◊ Computer Aided Design Drafting
        - ◊ Designing Software
        - ◊ Intro to Design Software
    - Diesel Technology
        - ◊ Ag Equipment Service Technology
        - ◊ Truck
    - Electrical & Electromechanical Technology

        - ◊ Automation & Robotics
        - ◊ Electrical Technician
        - ◊ Electronic Systems Technician
        - ◊ AVD/Low Voltage Technician
        - ◊ Energy Generation Operations
        - ◊ Geographic Information Systems Technician
    - Heating, Ventilation, Air Conditioning & Refrigeration Technology
    - Integrated Technologies
    - John Deere Construction and Forestry Equipment Tech
    - John Deere Tech
    - Land Surveying/GIS/Civil Engineering Technology
    - Manufacturing Engineering Technology
    - Operations and Service Management
    - Plumbing Technology
    - Plumbing, Heating, and Air Conditioning Technology
    - Precision Machining and Automation Technology
        - ◊ Advanced CNC & Automation
        - ◊ Tool Maker Mold & Die
    - Welding Technology
- **Welding Technology Center:** SCC is constructing a $33M Welding Technology Center, set for completion in mid-2025. The facility will deliver advanced training in welding and manufacturing to meet regional and national workforce needs.
- **Future-Ready Workforce Initiative:** In partnership with the American Job Center, SCC provides full-tuition scholarships and support services to expand access to high-demand workforce programs.

Central Community College (CCC)

- Programs
    - Advanced Manufacturing Design Technology
    - Agricultural Sciences
    - Auto Body Technology
    - Automotive Technology
    - Construction Technology
    - Diesel Technology
    - Drafting and Design Technology
    - Electrical Technology
    - Energy Technology
    - Environmental Health and Safety
    - Heating, Air Conditioning, and Refrigeration
    - Heavy Equipment Operator Technician
    - Logistics
    - Mechatronics
    - Welding Technology
- **Climate & Energy Commitment:** CCC is a signatory to the Second Nature Environmental and Energy Solutions Commitment and conducts annual greenhouse gas inventories. Its action plan targets emissions reduction, energy conservation, and resilience, with a goal of achieving carbon-neutral impacts by 2034.
- **Academics & Credentials:**
    - Sustainability in Curriculum: 17.8% of courses include sustainability content (56 sustainability-focused; 72 sustainability-inclusive). A sustainability certificate program is under development for 2026.

    - eBadge System: Students earn digital badges in areas such as Leadership in Environmental Stewardship, Symbiosis, Problem Solving, and Community Involvement. Currently, 147 students enrolled; 35 completed requirements.
    - Enrollment Growth: Plans are underway to expand enrollment in *Introduction to Sustainability* by fall 2025 through marketing, orientations, and advising.
- **Collaborative Leadership:** CCC co-hosts the Sustainability Leadership Presentation Series (SLPS), a statewide partnership engaging experts and institutions — including Creighton, Hastings, Metropolitan CC, the University of Nebraska system, and others — on global and regional sustainability challenges.

Nebraska College of Technical Agriculture (NCTA)

- Programs
    - Agricultural mechanics and agronomy with emphasis on sustainable practices and precision agriculture.
- **Program Focus:** NCTA emphasizes sustainable agronomy and agricultural mechanics, reinforcing Nebraska's role as a leader in modern farming practices.
- **National Recognition:** Students achieved success in precision agriculture competitions, demonstrating the college's strength in applied agricultural training.
- **Expanded Pathways:** In 2025, NCTA deepened its partnership with UNL's College of Agricultural Sciences and Natural Resources, broadening student pathways and resources to meet future workforce needs.

Western Nebraska Community College (WNCC)

- Programs
    - Agriculture Science (Pre)
    - Automotive Technology
    - Construction Trades
    - Diesel, Truck & Heavy Equipment Technology
    - Engineering (Pre)
    - Powerline Construction & Maintenance Technology
    - Welding Technology
- Construction Trades Training: WNCC offers Entry-Level Electrician (7 weeks) and Entry-Level HVACR (17 weeks) courses, preparing students for entry into the trades. HVACR graduates earn NCCER certification.
- Student Support: The WNCC Foundation received a $10,000 scholarship gift from Nebraska Machinery Company to assist Diesel, Truck & Heavy Equipment students with tuition, fees, and tool costs.
- Program Upgrades: With ARPA funding, WNCC is modernizing its Powerline Maintenance & Construction facilities to expand workforce training capacity.

Northeast Community College (NECC)

- Programs
    - Agriculture & Natural Resources
        - ◊ Agronomy
        - ◊ Mechanized Agriculture
        - ◊ Precision Agriculture
    - STEM & Pre-Professional Health
        - ◊ Pre-Engineering
    - Skilled and Technical Trades

        - ◊ Building Constructing
        - ◊ Heating, Ventilation, and Air Conditioning
        - ◊ Plumbing Technology
        - ◊ Electrical Construction and Control
        - ◊ Electrician Apprenticeship
        - ◊ Electromechanical Apprenticeship
        - ◊ Electromechanical Technology
        - ◊ Utility Line
        - ◊ Ag Diesel Apprenticeship
        - ◊ Auto Body Repair Technology
        - ◊ Automotive Light Service Technician Certificate
        - ◊ Automotive Technology, AAS, Diploma
        - ◊ Diesel Technology
            - Diesel Technology: Agriculture
            - Diesel Technology: Truck
        - ◊ Drafting: Mechanical, AAS, Diploma, Certificate
        - ◊ Machining and Manufacturing Automation Diploma, Certificate
        - ◊ Tool & Die Apprenticeship
        - ◊ Welding Diploma, Certificate
        - ◊ Welding Apprenticeship
- **Rural Workforce Development:** NECC partnered with USDA Rural Development through the Community College Alliance for Agriculture Advancement (C2A3) to expand resources and skills training for Midwest students in agriculture and rural economic development.
- **Scholarship Support:** Gene Haas Foundation: $12,500 awarded in 2025, bringing total contributions to $75,000 since 2015, supporting manufacturing engineering and scholarships.
- **Nebraska Public Power District:** Over $2M in scholarships provided over 33 years, including a $15,000 gift in Dec. 2024.
- **Events & Training:** Hosted the Nebraska Agriculture and Spray Drone Conference, the largest in the Midwest, and partnered with the Nebraska Rural Electric Association to train 100 utility workers in 2024.
- **Innovation Hub:** Construction is underway on the Northeast iHub, a robotics and automation training center set to open in 2026. The facility will provide hands-on education in motor controls, circuits, PLCs, and mechanical systems to support agriculture and manufacturing workforce needs.

Mid-Plains Community College

- Programs
    - Agriculture
        - ◊ Applied Agriculture in Diesel or Welding
    - Applied Science
        - ◊ Auto Body Technology
        - ◊ Automotive Technology
        - ◊ Building Construction Technology
        - ◊ Diesel Technology
        - ◊ Electrical Technology
        - ◊ Electro-Mechanical Technology
        - ◊ HVAC Technology
        - ◊ Welding Technology
- **National Recognition:** MPCC earned first place in the 2025 Jenzabar Impact Award.

- **Award-Winning Program:** The *Ready-to-Work Building Construction: Homes for Heroes* initiative was recognized for boosting student success and delivering community impact.

Little Priest Tribal College

- Programs
    - Diversified Agriculture
    - Indigenous Science (Environmental)
    - Carpentry (Diploma, Certificate)
    - Drywall (Certificate)
    - Framing (Certificate)
- **New Facility:** On March 21, 2025, Little Priest Tribal College announced the construction of a new Carpentry Building, expanding hands-on training opportunities for students.

Nebraska Indian Community College

- Programs
    - Industrial Trades (AAS)
    - Carpentry (AAS; Certificate)
    - Indigenous Environmental Health
- New Baccalaureate Program: Beginning fall 2025, NICC will launch its second bachelor's degree, focused on Indigenous Environmental Health. The 124-credit program blends public health and environmental science through an Indigenous perspective and is designed to meet accreditation standards. NICC will be the first U.S. institution to offer a baccalaureate in Indigenous Environmental Health.

B2: Universities

Bellevue University

- Programs
    - Software Development
    - Sustainability Management
- **OPPD Partnership Renewal:** Bellevue renewed its Campus@Work agreement with Omaha Public Power District (Aug. 2024), ensuring continued access to educational programs. A new Workplace Learning Portfolio and Direct Bill Agreement will launch in Jan. 2025 to expand employee learning opportunities.
- **Accreditation Reaffirmed:** The Global Accreditation Center (GAC) reaffirmed accreditation for three project management programs:
    - B.S. in Project Management
    - Master of Project Management
    - M.S. in Management of Information Systems (IT Project Management concentration)

Concordia University Nebraska

- Programs
    - Agricultural Science
        - ◊ Uzziah Scholars
            - The Uzziah Ag Scholars Program prepares future agricultural leaders by combining enriched academic study with hands-on field experiences.
    - Environmental Science/Studies
    - Physics
    - Pre-Engineering
- Agriculture Industry Partners
    - Pioneer
    - Corteva Agriscience
    - BASF
    - Aurora Cooperative

Creighton University

- Programs
    - Applied Physics and Pre-Engineering
    - Dual Degree in Physics/Engineering
    - Environmental Science
- **Sustainable Creighton Initiative:** Guided by Jesuit values and the UN's *Our Common Future* framework, Creighton integrates sustainability into academics and campus life.
- **Curriculum Integration:** 1 in 7 courses include sustainability themes; the freshman course *The Christian Tradition* addresses ecological and global challenges.
- **Employee Engagement:** Programs such as the Sustainable Creighton Office Certificate encourage faculty and staff to adopt impactful, intentional sustainability practices.
- **National Recognition:** Creighton holds a STARS (Sustainability Tracking, Assessment & Rating System) Silver rating for sustainability, with a target of achieving Gold by 2026.

Doane University

- Programs
    - Engineering
    - Natural Resources and Environmental Sciences
- **NSF Grant Award:** In 2024, Doane received a $1.5M National Science Foundation grant to fund scholarships and paid research opportunities for low-income, high-achieving STEM students through the SUCCESS Program (Sustaining Undergraduate Classroom and Career Excellence for STEM Students).

Hastings College

- Programs
    - Engineering (pre-professional track)
    - Environmental Studies
- **New Academic Programs:** Beginning fall 2024, Hastings added three majors: Environmental Studies, Skilled and Technical Sciences Education, and Agricultural Education. The latter two are offered in partnership with Central Community College and address regional workforce needs while meeting student demand.

Nebraska Wesleyan University

- Programs
    - Architecture (Pre-professional)
    - Artificial Intelligence
    - Engineering (Pre-professional)
    - Environmental Studies (Minor)
    - Project Management
- **Engineering Pathway Partnership:** NWU and UNL's College of Engineering launched a dual-degree pathway allowing students to study physics, chemistry, or biochemistry at NWU, then complete engineering at UNL, earning two bachelor's degrees in about five years. The program combines NWU's small class mentoring with UNL's technical expertise, preparing graduates for a strong engineering job market.

University of Nebraska at Kearney

- Programs
    - Arts & Sciences
        - ◊ Physics, Astronomy, and Engineering
            - Engineering Emphasis (Foundations and Physics Comprehensive)
            - Physics
    - Business & Technology
        - ◊ Construction Management
        - ◊ Computer Science
- **National Research Recognition:** UNK has been classified as a Research College and University by the American Council on Education and the Carnegie Foundation, joining only 216 institutions nationwide recognized for significant research activity.
- **Construction Management Program:** Over 80 students enrolled in 2024; the program maintains a 100% job placement rate, with many students receiving offers before graduation. Employers actively recruit as early as freshman year.
- **Engineering Foundations 2+2 Program:** Students complete two years at UNK and two years at UNL's College of Engineering to earn a bachelor's degree. The program offers a smaller, affordable starting point before transferring to UNL or another ABET-accredited school.

University of Nebraska - Lincoln

- Programs
    - College of Agricultural Sciences and Natural Resources
        - ◊ Agricultural Systems Technology
        - ◊ Agronomy
        - ◊ Environmental Science
        - ◊ Environmental and Sustainability Studies
        - ◊ Food Science and Technology
        - ◊ Plant and Landscape Systems
    - College of Architecture
        - ◊ Architecture
        - ◊ Landscape Architecture
    - College of Engineering
        - ◊ Agricultural Engineering
        - ◊ Biological Systems Engineering

        - ◊ Civil Engineering
        - ◊ Environmental Engineering
        - ◊ Architectural Engineering
        - ◊ Construction Engineering
        - ◊ Electrical Engineering
        - ◊ Mechanical Engineering
        - ◊ Computer Engineering
        - ◊ Software Engineering
        - ◊ Robotics Engineering (Minors in Engineering)
- **Architecture Hall:** In April 2024, the University of Nebraska–Lincoln announced that its expansion of Architecture Hall would honor HDR's deep engagement by naming the addition HDR Pavilion, officially approved by the University Board of Regents. The project acknowledges HDR's gift to the building campaign and the firm's legacy of collaboration with UNL, including recruiting graduates and partnering on design, research, and academic initiatives.
- **New Engineering Facility:** A $115M building made possible by a gift from Peter Kiewit Sons' Inc.
- **Agricultural Research:** Nebraska scientists helped identify a new genetic control layer in corn, advancing drought resistance and crop resilience
- **Global Recognition:** UNL agriculture and natural resources rank in the top 10% worldwide (QS Rankings).
- **Institute of Agriculture and Natural Resources**
  Dean/Director: Charlie Stoltenow (charles.stoltenow@unl.edu)
    - Partners: https://casnr.unl.edu/our-partners/
    - Partner Database: https://research.unl.edu/broaderimpacts/partner-search/

University of Nebraska at Omaha

- Programs
    - Applied Computing and Informatics
    - Architectural Engineering
    - Civil Engineering
    - Computer Engineering
    - Computer Science
    - Construction Engineering
    - Construction Management
    - Electrical Engineering
    - Environmental Engineering
    - Environmental Science
    - Physics
    - Systems Development (Certificate)
    - Uncrewed Aircraft System Drone Technology (Minor)
- **New Workforce Unit:** UNO launched the Center for Competencies, Skills, and Workforce Development (CCSW), led by the inaugural Executive Director Erin Bass. The center will expand competency-based education and create a Skills Lab to align academic programs with industry needs.
- **PKI Expansion Proposal:** Chancellor Joanne Li called for a strategic investment in expanding the Peter Kiewit Institute (PKI) to address Nebraska's growing demand for technology professionals.
- S**TEM TRAIL Center Opening:** On August 29, 2024, UNO celebrated the reopening of its renovated STEM TRAIL Center, supporting teaching, research, and inquiry-based learning in STEM fields.

Wayne State College

- Programs
    - Agricultural Engineering
    - Applied Mathematics
    - Applied Science (Agriculture + Biology)
    - Civil Engineering
    - Construction Management
    - Drafting and Design
    - Engineering (Pre-Engineering)
    - Engineering Technology
    - Geospatial Technology
    - Industrial Operations Management
    - Industrial Technology
    - Manufacturing Management
    - Mechanical Engineering
    - Technology
- **Major Donation:** An anonymous $2.6M gift will double scholarships for freshmen in the Career Scholars Cooperative Education Program beginning fall 2024, supporting students in business, communication, criminal justice, IT, industrial technology, and education.
- **Workforce Development Award:** The Northeast Nebraska Growing Together initiative, in which Wayne State plays a key role, won the 2024 Mid-America Economic Development Council Workforce & Talent Award (Large Division) for efforts to attract, develop, and retain young professionals.

York University

- Programs
    - Pre-Engineering, Natural Science (dual degree)
    - Natural Sciences

*For Midland University, Nebraska Methodist College, Union Adventist University, and University of Nebraska Medical Center, no academic programs or major initiatives were identified.

B3: Relevant Environmental Engineering/Construction Firms Contact Information

Organization	Address	Phone
Advanced Consulting Engineering Services, Inc.	133 W Washington St West Point, NE 68788	402-372-1923
AECOM	12120 Shamrock Plaza, Suite 100 Omaha, NE 68154	402-334-8181
Alvine & Associates	1201 Cass St Omaha, NE 68102	402-346-7007
Anderson-Shaw Construction	710 Ave I Scottsbluff, NE 69361	308-632-2570
B2 Environmental, Inc.	3325 W Capital Ave Grand Island, NE 68803 4503 S 90th St Omaha, NE 68127	308-381-9677 402-330-0763
Benesch	16910 Marcy St, Suite 102 Omaha, NE 68118	402-333-5792
Black & Veatch	4911 S 25th St Omaha, NE 68107	402-592-7845
Brickyard Consulting, Inc.	Brickyard Dr Hooper, NE 68031	402-302-0421
Burns & McDonnell	1010 N 102nd St Omaha, NE 68114	402-408-3010
Cascade Earth Sciences	PO Box 358 Valley, NE 68064	402-359-6140
Chief Industries	3942 W Old Hwy 30 Grand Island, NE 68803	308-389-7200
Coranco Great Plains, Inc.	141 W 10th St, PO Box 23 Wahoo, NE 68066	402-443-4340
Davis Design	1221 N St, Suite 600 Lincoln, NE 68508	402-476-9700
E & A Consulting Group, Inc.	10909 Mill Valley Rd, Suite 100 Omaha, NE 68154 2077 N St, Suite 400 Lincoln, NE 68510	402-895-4700 402-420-7217
EA Engineering Science and Technology	221 Sun Valley Blvd, Suite D Lincoln, NE 68528	402-476-3766
EAD Corporate	3635 S 149th St Omaha, NE 68144	402-884-8650
Ehrhart Griffin & Associates	3552 Farnam St Omaha, NE 68131	402-551-0631
Environmental Sciences, Inc.	1010 Avenue E Wisner, NE 68791	402-540-6056

Organization	Address	Phone
Farris Engineering	12700 W Dodge Rd Omaha, NE 68154 818 P St, Suite 100 Lincoln, NE 68508	402-330-5900 402-477-6163
Felsburg Holt & Ullevig	14606 Branch St, Suite 400 Omaha, NE 68154	402-445-4405
G.N. Kuhn Engineering, LLC	4611 S 96th St, Suite 258 Omaha, NE 68127	402-991-3031
General Excavating	6701 Cornhusker Hwy Lincoln, NE 68507	402-467-1627
George Butler Associates	8790 F St, Suite 113 Omaha, NE 68127	402-504-4757
GHD	3807 S 148th St Omaha, NE 68144	402-778-4801
Gilmore & Associates, Inc.	2670 33rd Ave PO Box 565 Columbus, NE 68601	402-564-2807
Hausmann Construction	8885 Executive Woods Dr Lincoln, NE 68512 11627 Virginia Plaza, Suite 106 La Vista, NE 68128	402-438-3230 402-979-8200
Hawkins Construction Company	2516 Deer Park Blvd Omaha, NE 68105	402-342-1607
HDR, Inc.	1917 S 67th St Omaha, NE 68106 8404 Indian Hills Dr Omaha, NE 68114	402-399-1000 402-399-1270
HGM Associates Inc.	450 Regency Pkwy, Suite 120 Omaha, NE 68114	402-346-7559
Houston Engineering, Inc.	12702 Westport Pkwy #300 La Vista, NE 68138	402-502-7131
Jacobs Engineering Group Inc.	222 S 15th St, Suite 1408-S Omaha, NE 68102	408-609-7510
JE Dunn Construction	14606 Branch St, Suite 300 Omaha, NE 68154	402-384-5380
JEO Consulting Group, Inc.	2000 Q St, Suite 500 Lincoln, NE 68503	402-435-3080
JES Environmental Services, Inc.	5535 Wilderness View Lincoln, NE 68516	402-423-8054
JL Consulting	80630 475th Ave Ord, NE 68862	308-730-1215
Kiewit Corporation	1550 Mike Fahey St Omaha, NE 68102	402-342-2052

Organization	Address	Phone
Kirkham Michael & Associates, Inc.	12700 W Dodge Rd Omaha, NE 68154	402-393-5630
KPE Engineering	3555 Farnam St, Suite 406 Omaha, NE 68131	402-291-1444
Lamp Rynearson	14710 W Dodge Rd, Suite 100 Omaha, NE 68154	402-496-2498
M.C. Schaff & Associates, Inc.	818 S Beltline Hwy E Scottsbluff, NE 69361	308-635-1926
MCL Construction	14558 Portal Cir Omaha, NE 68138 4111 4th Ave, Suite #3 Kearney, NE 68845	402-339-2221 308-708-7100
McLaury Engineering, Inc.	120 S 3rd St, Suite B Norfolk, NE 68701	(402) 316-2625
Midwest Engineering, Inc.	3260 Folkways Blvd, Suite B Lincoln, NE 68504	402-786-2203
MILCO Environmental Services, Inc.	1111 Central Ave Kearney, NE 68847 109 E 2nd St McCook, NE 69001	308-237-5923 308-345-4741
Miller & Associates Consulting Engineers, P.C.	1111 Central Ave Kearney, NE 68847 109 E 2nd St McCook, NE 69001	308-234-6456 308-345-3710
Morrissey Engineering	4940 N 118th St Omaha, NE 68164	402-491-4144
NEBCO, Inc.	1815 Y St Lincoln, NE 68508	402-434-1212

Organization	Address	Phone
Olsson	2111 S 67th St, Suite 200 Omaha, NE 68106	402-341-1116
	6415 Second Ave, Suite 1 Kearney, NE 68847	308-708-7650
	11627 Virginia Plaza, Suite 103 La Vista, NE 68128	402-827-7220
	1707 Dakota Ave South Sioux City, NE 68776	402-494-3059
	601 P St, Suite 200 Lincoln, NE 68508	402-474-6311
	201 E 2nd St Grand Island, NE 68801	308-384-8570
	1017 W 2nd St Hastings, NE 68901	402-463-0240
	PO Box 885 Holdrege, NE 68949	308-995-8706
Panhandle Geotechnical & Environmental, Inc.	818 S Beltline Hwy E Scottsbluff, NE 69361	308-632-6735
Paul Reed Construction & Supply Inc	2970 10th St Gering, NE 69341	308-635-2213
Performance Engineering	11811 Fort St, Suite 104 Omaha, NE 68164	402-343-3960
Pinnacle Engineering, Inc.	12107 Anne St Omaha, NE 68144	402-932-2045 402-932-4830
Professional Environmental Solutions	2854 County Rd A Valparaiso, NE 68065	402-649-4880
R.W. Engineering & Surveying	7525 N 101st St Omaha, NE 68122	402-573-2205
RDG Geoscience & Engineering, Inc.	10360 Sapp Brothers Dr Omaha, NE 68138	402-894-2678
Schemmer	1044 N 115th St, Suite 300 Omaha, NE 68154	402-493-4800
Schnackel Engineers	3035 South 72nd St Omaha, NE 68124	402-391-7680
SCS Aquaterra	14755 Grover St Omaha, NE 68144	402-884-6202
Short Elliott Hendrickson Inc.	15750 W Dodge Rd, Suite 304 Omaha, NE 68164	402-513-8200
Snyder & Associates	11850 Nicholas St, Suite 110 Omaha, NE 68154	402-934-5122

Organization	Address	Phone
Southwest Environmental Engineering	37983 Rd 717 McCook, NE 69001	308-340-0063
Specialized Engineering Solutions	10360 Ellison Circle Omaha, NE 68134	402-991-5520
Speece-Lewis Engineers	906 S 26th St Lincoln, NE 68510	402-483-5466
SRF Consulting Group	Commerce Village 950 S 10th St, Suite 8 Omaha, NE 68108	402-513-2160
Structural Design Group	410 S 7th St Lincoln, NE 68508	402-438-7788
TC Engineering Inc.	1 South Sycamore North Platte, NE 69103	308-534-9245
Terracon Consultants Inc.	15080 A Circle Omaha, NE 68144	402-384-7019
The Flatwater Group	8200 Cody Dr, Suite A Lincoln, NE 68512	402-435-5441
Thiele Geotech, Inc.	13478 Chandler Rd Omaha, NE 68138	402-556-2171
Thompson Dreessen & Dorner (TD2)	10836 Old Mill Rd Omaha, NE 68154	402-330-8860
UES Professional Solutions 25, LLC	2960 N Diers Ave Grand Island, NE 68803	308-381-1987
Valley View Environmental	28001 Ida Circle Valley, Nebraska 68064	402-359-2578
W Design Associates	214 E 1st St McCook, NE 69001	308-345-2370
Wade Trim	1700 Farnam St, Suite 1290 Omaha, NE 68102	402-345-3900
Wilson & Company Inc.	11422 Miracle Hills Dr, Suite 308 Omaha, NE 68154	402-896-6100
WLA Consulting	610 J St, Suite 205 Lincoln, NE 68508	402-475-8588

University of Nebraska Omaha