

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

---

Business in Nebraska

Bureau of Business Research

---

11-2020

## PRODUCER SERVICES: AN ENGINE FOR HIGH-WAGE JOB GROWTH

Spencer Cook

Eric Thompson

Follow this and additional works at: <https://digitalcommons.unl.edu/bbrbin>



Part of the [Growth and Development Commons](#), [Labor Economics Commons](#), [Macroeconomics Commons](#), [Other Economics Commons](#), [Public Economics Commons](#), and the [Regional Economics Commons](#)

---

This Article is brought to you for free and open access by the Bureau of Business Research at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Business in Nebraska by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.



# Business in Nebraska

VOLUME 75 NO. 727

PRESENTED BY THE UNL BUREAU OF BUSINESS RESEARCH (BBR)

NOVEMBER 2020

## PRODUCER SERVICES: AN ENGINE FOR HIGH-WAGE JOB GROWTH

By Spencer Cook, Eric Thompson

### Introduction

**P**roducer services providers are firms that sell services primarily to the business community rather than to individuals and households. Many producer services businesses are classified in the Professional, Scientific, and Technical Service (PSTS) industry. Accounting firms, consultants, and computer design services are prominent examples of PSTS businesses which are worth studying for three reasons:

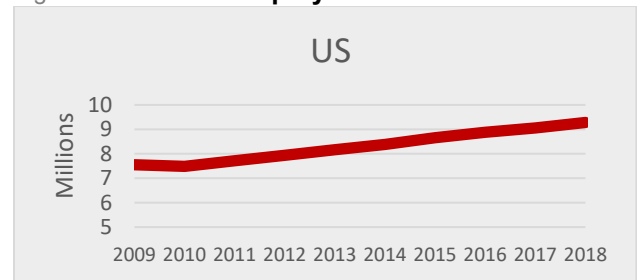
1. **SUPPORT OF OTHER INDUSTRIES:** PSTS industries supply the broader business community, making them a critical segment of the economy.
2. **RAPID HIGH WAGE JOB GROWTH:** Many PSTS industries are rapidly growing and pay high wages. The producer services sector, in fact, is the principal source of high-wage job growth in our evolving service economy.
3. **STEM ASSOCIATION:** PSTS industries employ high numbers of STEM workers, itself a critical segment of the economy. By 2022 over 40% of the jobs in top STEM occupations are expected to be in producer service industries<sup>1</sup>.

This report highlights the performance of the PSTS sector in the nation and Nebraska over the last decade and explores whether the state of Nebraska has captured a significant share of sector employment. The report updates of 2015, 2017, and 2019 reports on the same topic authored by Brock Thompson, Eric Thompson, Uyen Tran, and Kalana Jayanetti. The current report covers a period before the recession caused by the Covid-19 Pandemic.

### Nationwide Growth

Figure 1 shows the national employment in the PSTS sector from 2009 to 2018. PSTS industries lost jobs during the Great Recession period, but are now expanding steadily. Between 2009 and 2018, the PSTS sector had the fourth highest growth rate, at 22.89% nationwide, as seen in Figure 2. This growth rate is exceeded only by the Transportation and Warehousing, Leisure and Hospitality, and Administrative and Waste sectors.

Figure 1 **US PSTS Employment 2009-2018**



Source: CES, US Bureau of Labor Statistics

<sup>1</sup> Data from the Employment Projections program, U.S. Department of Labor, U.S. Bureau of Labor Statistics (BLS). The list of top STEM occupations comes from the May 2010 BLS Occupational Employment Statistics chart book (figures 7 and 8).

Figure 2 **US Industries 2009-2018**

Industry	2009 Employment (thousands)	2018 Employment (thousands)	'09-'18 % Employment Growth	'14-'18 % Employment Growth	Mean Weekly Wage 2018*
Administrative and Waste Services	7208.5	9294.3	28.94%	8.53%	\$788
Transportation and Warehousing	4224.8	5426.4	28.44%	16.73%	\$1023
Leisure and Hospitality	13077	16295	24.61%	10.88%	\$463
Professional and Technical Services	7552	9281	22.89%	10.69%	\$1868
Construction	6016	7288	21.14%	18.48%	\$1206
Education and Health Services	19630	23638	20.42%	10.26%	\$970
Total Nonfarm	131296	148908	13.41%	7.17%	\$1100
Financial Activities	7838	8590	9.59%	7.68%	\$1838
Retail Trade	14527.9	15786.4	8.66%	2.75%	\$622
Other Services	5367	5831	8.65%	4.74%	\$740
Manufacturing	11847	12688	7.10%	4.13%	\$1318
Wholesale Trade	5520.9	5840.9	5.80%	1.77%	\$1498
Mining and Logging	694	727	4.76%	-18.41%	\$1928
Information	2804	2839	1.25%	4.15%	\$2188
Government	22555	22455	-0.44%	2.62%	\$1042
Utilities	560	553.4	-1.18%	0.34%	\$2115

\*Wage data represents the Mean Weekly Wage of workers in the private sector

\*\*Government mean weekly wage calculated as a weighted average of Federal, State, and Local Government wages

Employment Source: CES, US Bureau of Labor Statistics

Wage Source: QCEW, US Bureau of Labor Statistics

Figure 2 also shows the higher wages paid nationwide in the Professional, Scientific, and Technical Services sector. In 2018, the PSTS sector paid the fourth highest mean wage among BLS supersectors at \$1,868 per week. These wages were paid to workers in a variety of high-skill occupations including lawyers, accountants and tax preparers, engineers, computer programmers, technical consultants, veterinarians, market researchers, and scientific researchers, just to name a few.

A natural question is: Where are these higher-paying jobs being created? As it turns out, many of the businesses in the PSTS sector are concentrated in larger cities. This can be seen in Figure 3, which shows how select major cities in the United States compare in terms of the share of 2018 employment in the PSTS sector. Washington, D.C. is a city that stands out as having the highest share of employment at 15.73%.

This high share may result from a large number of consultants and attorneys who work with the federal government. However, all of these major cities, except for Phoenix, exhibit greater shares of employment in the PSTS sector than the national average share, which is 6.23%. PSTS businesses are drawn to large metropolitan areas by factors such as a concentration of potential clients and an abundance of skilled labor.

Figure 3 **Major US regions PSTS Share of Employment**

Major Metropolitan Area	PSTS Concentration (2018)
Phoenix	5.88%
LA	6.81%
Philadelphia	6.94%
Dallas	7.35%
Houston	7.41%
Detroit	7.65%
Atlanta	8.09%
DC	15.73%

Source: CES, US Bureau of Labor Statistics

## Producer Services in Nebraska

Nebraska does not have cities as large as those featured in Figure 3. This raises the question: are producer services as large a part of the economy in Nebraska as nationwide? The answer can be found in Figure 4, which compares the share of employment by industry sector for the state of Nebraska.

PSTS accounted for just 4.44% of nonfarm employment in Nebraska in 2018 compared to 6.23% nationally. This was one of the largest differences in the employment structure of Nebraska and the nation, as seen in Figure 4. The other major difference was the financial activities sector, where Nebraska had a much larger share.

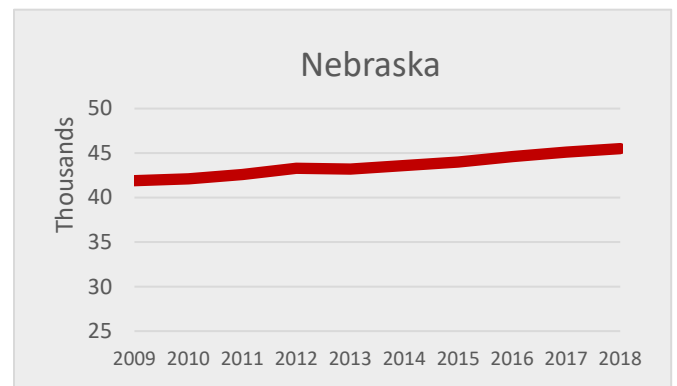
Figure 4 US / NE Industry Employment Shares (2018)

Industry	US	Nebraska
Government	15.08%	16.92%
Education and Health Services	15.87%	15.23%
Retail Trade	10.60%	10.54%
Manufacturing	8.52%	9.74%
Leisure and Hospitality	10.94%	9.04%
Financial activities	5.77%	7.24%
Transportation and Warehousing	3.64%	5.20%
Administrative and Waste Services		
Construction	4.89%	5.12%
Professional and Technical Services	6.23%	4.44%
Wholesale Trade	3.92%	3.94%
Other Services	3.92%	3.94%
Information	1.91%	1.72%
Utilities		
Mining and Logging	0.49%	0.11%

Source: CES, US Bureau of Labor Statistics

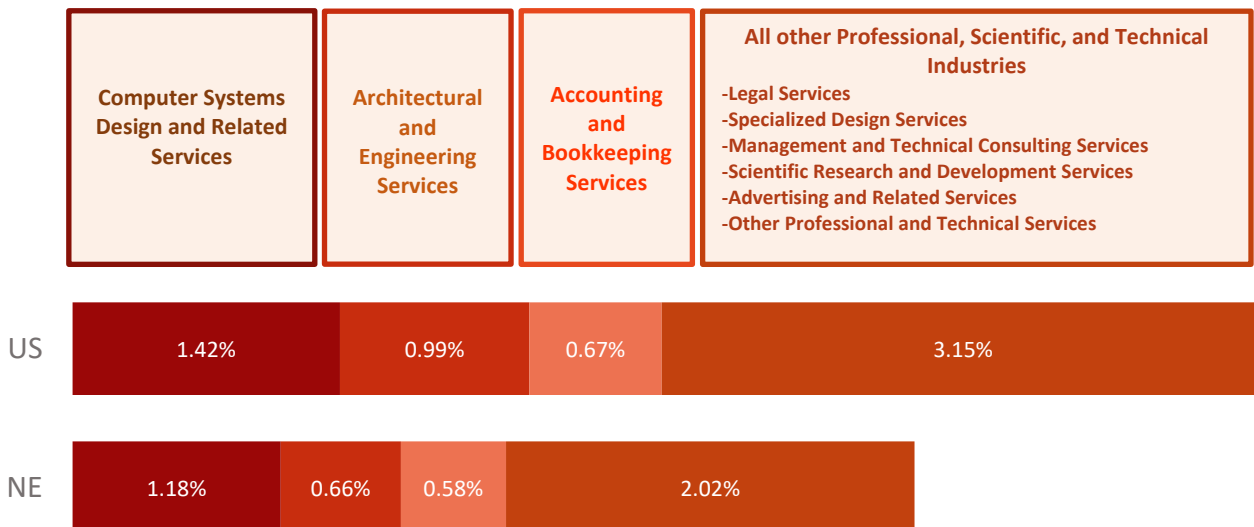
Nebraska also lost jobs in the PSTS sector during the Great Recession but the industry is now growing (Figure 5). Furthermore, the PSTS sector is so diverse, it is helpful to understand the distribution of employment among PSTS subindustries, as shown in Figure 6. As a share of nonfarm employment, we can see that Nebraska lags the nation in employment concentration for all PSTS subindustries.

Figure 5 NE PSTS Employment 2009-2018



Source: CES, US Bureau of Labor Statistic

Figure 6 PSTS Subindustry Shares (as a percentage of total nonfarm employment)



If Nebraska has a lower share of PSTS employment, is the state at least closing the gap? In other words, is PSTS employment growing faster in Nebraska than nationwide?

Figure 7 shows the recent growth of PSTS employment in Nebraska. Even though Nebraska PSTS employment grew by 8.59% between 2009 and

2018, it did not keep pace with national PSTS employment growth of 22.89%. Further, Nebraska did not close the gap for the 2014 to 2018 period. Nebraska PSTS employment grew 4.36% from 2014 to 2018 compared to 10.69% nationwide. Finally, Nebraska’s PSTS sector paid 71.20% of the weekly wage of the national PSTS sector.

Figure 7 **Nebraska Industries 2009-2018**

Industry	2009 Employment (thousands)	2018 Employment (thousands)	'09-'18 % Growth	'14-'18 % Growth	Mean Weekly Wage 2018*	Percent of National Wage
Administrative and Waste Services	40.8	51.9	27.21%	4.43%	741	94.04%
Leisure and Hospitality	81.3	92.6	13.90%	6.44%	321	69.33%
Construction	46.6	52.4	12.45%	13.17%	993	82.34%
Education and Health Services	138.7	155.9	12.40%	5.41%	898	92.58%
Mining and Logging	1	1.1	10.00%	-8.33%	1083	56.17%
Professional and Technical Services	41.9	45.5	8.59%	4.36%	1330	71.20%
Financial Activities	68.4	74.1	8.33%	4.51%	1282	69.91%
Total Nonfarm	949.8	1023.8	7.79%	3.12%	882	80.18%
Manufacturing	93.2	99.7	6.97%	2.26%	992	75.27%
Retail Trade	104.4	107.9	3.35%	-0.28%	534	85.85%
Government	168.5	173.2	2.79%	2.12%	807	77.45%
Transportation and Warehousing	50.8	52.1	2.56%	-0.19%	906	88.56%
Other Services	36.2	37	2.21%	0.54%	619	83.65%
Information	17.9	17.6	-1.68%	-1.12%	1239	56.63%
Wholesale Trade	41	40.3	-1.71%	-5.18%	1215	81.11%
Utilities	1.9	1.1	-42.11%	-15.38%	2149	101.61%

\*Wage data represents the Mean Weekly Wage of workers in the private sector

\*\*Government Mean Weekly Wage calculated as a weighted average of Federal, State, and Local Government wage

Employment Source: CES, US Bureau of Labor Statistics

Wage Source: QCEW, US Bureau of Labor Statistics

Source: CES, US Bureau of Labor Statistics

## Producer Services in Nebraska Cities

Nebraska has fewer jobs, and relatively slow job growth, in high-wage PSTS sectors. This occurs in part because Nebraska has a large non-metropolitan population and mid-size rather than large cities.

However, Nebraska metropolitan areas also lag in PSTS activity compared to similar size cities. This is seen in Figure 8, 9, and 10, which compare the

concentration of PSTS employment in Omaha, Lincoln, and Grand Island to a set of peer metros. Peer metros were similar in terms of population and geographic location.<sup>3</sup>

Omaha is behind its peer metros in the share of PSTS employment. Omaha is ranked 6<sup>th</sup> out of 9, and its 5.29% share is below the 6.30% average.

<sup>3</sup> “Peer” and “aspirational” cities for Omaha and Lincoln were selected largely from studies produced by the UNL Bureau of Business Research for the Greater Omaha and Lincoln Chambers of Commerce. A different selection of peer regions might show the Nebraska metros in a different light.

**Figure 8 Omaha Comparison Metropolitan Areas (2018)**

PEER COMPARISONS	PSTS Concentration (2018)
Louisville	4.81%
Milwaukee	4.92%
Oklahoma City	5.28%
Omaha	5.29%
Des Moines	5.56%
Boise	5.66%
Salt Lake City	7.79%
Colorado Springs	8.82%
Kansas City	8.54%
Peer average	6.30%

Source: CES, US Bureau of Labor Statistics

The Lincoln metro PSTS concentration is 4.74%, somewhat below its peer average.

**Figure 9 Lincoln Comparison Metropolitan Areas (2018)**

PEER COMPARISONS	PSTS Concentration (2018)
Lansing	3.84%
Lincoln	4.74%
Louisville	4.81%
Fargo	4.81%
Lexington	5.14%
Madison	7.46%
Peer average	5.13%

Source: CES, US Bureau of Labor Statistics

Grand Island also finds itself in a similar position and its PSTS share of employment is well behind its peer metros, 1.8% below the peer average.

**Figure 10 Grand Island Comparison Metropolitan Areas (2018)**

PEER COMPARISONS	PSTS Concentration (2018)
Grand Island	2.44%
St. Joseph	N/A
Grand Forks	3.66%
Dubuque	3.79%
Cheyenne	5.35%
Peer average	4.24%

Source: QCEW, US Bureau of Labor Statistics  
Grand Island Source: QCEW, Nebraska Department of Labor's NEWorks

Nebraska also has a significant share of its population living in rural areas, and these areas also have a smaller concentration of PSTS jobs.

Figure 11 illustrates the extent to which Nebraska producer services employment is concentrated in Nebraska's micropolitan areas (regions centered on a city with a population between 10,000 and 50,000). Micropolitan areas tend to have a relatively low concentration of employment in PSTS industries. However, Kearney is closing the gap with Lincoln and Omaha. Overall the highest shares appear to be found in the western regions of Nebraska, away from competitors in Omaha and Lincoln. PSTS employment share is 3.46% in Kearney, 3.09% in North Platte, and 3.2% in Scottsbluff.

**Figure 11 Nebraska PSTS Employment by Micropolitan Area (2018)**

Area	Average Weekly Wages	PSTS Concentration
Fremont	1000	1.72%
Lexington	802	2.10%
Beatrice	714	2.29%
Hastings	1053	2.67%
All Non-Metro	911	2.71%
Columbus	1088	2.76%
Norfolk	835	3.08%
North Platte	855	3.09%
Scottsbluff	877	3.20%
Kearney	957	3.46%

Source: QCEW, US Bureau of Labor Statistics via Nebraska Department of Labor's NEWorks

## Summary

The PSTS sector is comprised of businesses that primarily provide services to other businesses (i.e., producer services). The PSTS sector is a fast-growing, high-wage sector in the nation. However, Nebraska lags the nation in terms of the PSTS sector. PSTS employment made up 4.44% of Nebraska employment compared to 6.23% nationwide and grew 8.59% in Nebraska between 2009 and 2018 compared to 22.89% nationwide. This pattern is partly the result of Nebraska's urban structure, characterized by small and mid-size metropolitan areas and a large non-metropolitan population. Nonetheless, there are policies that may be able to grow PSTS employment. These are increased training of STEM workers, an improved tax environment for small businesses, and improvements in quality of life, which make the state even more attractive to college graduates.