The Lincoln Partnership for Economic Development collaborates each year on a variety of research projects with the University of Nebraska–Lincoln, Bureau of Business Research. These reports include quarterly economic forecasting, economic impact studies and an annual statistical and demographic report titled Detailed Lincoln Data. The following report is intended to track the progress of the Lincoln economy using key economic indicators as well as forecasting economic conditions in the coming year. For a digital copy of this and other economic development reports go to selectlincoln.org/business/research-reports.
## Executive Summary

### The Lincoln Metropolitan Area Economy in 2018

**Table 1: Statistical Summary**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in Real Gross Domestic Product</td>
<td>10</td>
</tr>
<tr>
<td>Growth in Real Personal Income</td>
<td>14</td>
</tr>
<tr>
<td>Growth in Real Per Capita Income</td>
<td>16</td>
</tr>
<tr>
<td>Growth in Retail Trade Employment</td>
<td>26</td>
</tr>
<tr>
<td>Growth in Motor Vehicle Taxable Sales</td>
<td>28</td>
</tr>
</tbody>
</table>

### Key Indicators

- **Growth in Real Gross Domestic Product**: 10
- **Growth in Real Personal Income**: 14
- **Growth in Real Per Capita Income**: 16
- **Growth in Retail Trade Employment**: 26
- **Growth in Motor Vehicle Taxable Sales**: 28

### Major Industries

- **Manufacturing**: 18
- **Professional, Scientific and Technical Services**: 20
- **Healthcare and Social Assistance Services**: 21
- **Construction**: 24
- **Wholesale Trade**: 25

### Economic Indicators

- **Unemployment Rate**: 13
- **Average Weekly Hours Worked**: 17
- **Growth in Unemployment Rate**: 15
- **Growth in Average Weekly Hours Worked**: 17

### Other Financial Services Employment

- **Growth in Other Financial Services Employment**: 22

### Urban Mobility

- **Growth in Motor Vehicle Taxable Sales**: 28
- **Gasoline Price per Gallon**: 29
- **Motor Vehicles Taxable Sales**: 32

### Other Highlights

- **Growth in Retail Trade Employment**: 26
- **Growth in Motor Vehicle Taxable Sales**: 28
- **Growth in Gasoline Price per Gallon**: 29
- **Growth in Enplanements and Deplanements**: 30

### Economic Health Indicators

- **Growth in Real Gross Domestic Product**: 10
- **Growth in Real Per Capita Income**: 16
- **Growth in Retail Trade Employment**: 26
- **Growth in Motor Vehicle Taxable Sales**: 28

### Summary

The Lincoln Metropolitan Area Economy in 2018 showed significant growth in key indicators, particularly in Real Gross Domestic Product and Real Personal Income. Trends in other important sectors such as Manufacturing, Professional, Scientific and Technical Services, and Construction also showed positive growth. However, the Unemployment Rate remained high, indicating ongoing economic challenges. The report concludes that while the economy has shown progress, continued support and policies are necessary to sustain this growth and improve urban mobility.
EXECUTIVE SUMMARY

Economic conditions were mixed in the Lincoln Metropolitan Area in 2017. Population expanded at a solid rate, but non-farm employment and real personal income dropped.

Employment growth was rapid in several key industries including construction and high-wage professional, scientific and technical services. However, growth in total non-farm employment and real personal income was anemic during the year.

This annual report for the Lincoln Metropolitan Area economy examines both recent and long-term trends in the local economy. It tracks the Lincoln Metropolitan Area economy over the last decade, for aggregate indicators such as population, total income, employment, unemployment and taxable sales, as well as for leading industries, housing, construction, retail and automobile & air travel. The report also compares the Lincoln Metropolitan Area economy over the last decade with state and national averages. Trends are summarized for 2017 and for the last 10 years.

A brief economic forecast for Lincoln in 2018 is also provided at the end of this section.

The Lincoln Metropolitan Area Economy in 2017

Economic conditions were mixed in the Lincoln Metropolitan Area in 2017. Population expanded at a solid rate, but non-farm employment and real personal income dropped.

Population grew by 1.19% during 2017 (from 2016 to 2017), the increase of approximately 3,500. This population growth underpinned expansion in the area economy. Non-farm employment grew by 500, or 0.27%. Non-farm employment is measured using a survey of employers. A separate survey of households found that employment rose by 1.22%, or 5,286. In total, there was a lack of growth in wages and income. Real average hourly wages for private sector workers fell by 5.28% in 2017 from 2016. Some industries lost employment, such as construction and high wage sector of the national economy. Construction employment grew by 5.76% during the year. Sale prices for single-family homes also rose during the last year, by 5.60%. Other financial services employment, which is primarily banking, rose by 1.46%. Taxable sales of motor vehicles rose by 3.55% in Lincoln over the last year while overall sales dropped by 6.52%.

The Lincoln Metropolitan Area Economy over the Last Decade

While growth was mixed last year, long-term growth in the area economy was strong. Population grew by 4.65% from 2016 to 2017. This is an important development for the Lincoln economy because the professional, scientific and technical services industry is the highest wage sector of the national economy. Construction employment grew by 5.76% during the year. Sale prices for single-family homes also rose during the last year, by 5.60%. Other financial services employment, which is primarily banking, rose by 1.46%. Taxable sales of motor vehicles rose by 3.55% in Lincoln over the last year while overall sales dropped by 6.52%.

Why is Lincoln a magnet for population growth?

There are a number of reasons why Lincoln may have inherent advantages in attracting young individuals, young families and retirees. Young people are initially drawn to the Lincoln area by education opportunities in the region's many colleges and universities. Lincoln also receives a large number of international immigrants. At the same time, young families are attracted to Lincoln by strong K-12 school systems, low cost of living and short commuting trips (the cost of living in terms of time). Retirees or older workers may be attracted to Lincoln because it has an array of life measures, including access to health care, and because their children and grandchildren live in the area. As seen in Appendix 1, population growth was anemic during the Lincoln Metropolitan Area over the last decade, but it was unchanged nationally.

Lincoln has a good mixed pattern in terms of income growth and housing prices. Real per capita income rose by just 4.16% in the Lincoln Metropolitan Area between 2007 and 2017, while the national increase was 18.26% over the same period. The increase in real personal income was 9.34% faster than the inflation rate of 18.22% and 15.38% faster than U.S. housing prices. Such strong increases in housing prices in the presence of poor growth in wages and income is often a signal of supply driven economic growth, as seen in Table 1. Finally, real per capita income, consumer spending and real per capita disposable income increased by 8.43% during the decade, although the national growth rate was 7.6%. With a growing population, but slower growing real per capita income, consumer spending activity was mixed in the Lincoln Metropolitan Area over the last decade. Retail employment grew by 6.11%, despite growing just 2.5% nationally. Vehicle spending, as measured by the percentage of new motor vehicles sold in the Lincoln Metropolitan Area from 2007 to 2017, continued to exceed growth of 10.57% nationally.

With a growing population, but slower growing real per capita income, consumer spending activity was mixed in the Lincoln Metropolitan Area over the last decade. Retail employment grew by 6.11%, despite growing just 2.5% nationally. Vehicle spending, as measured by the percentage of new motor vehicles sold in the Lincoln Metropolitan Area from 2007 to 2017, continued to exceed growth of 10.57% nationally. For comparison, inflation was only 18.22% over the decade, although the national growth rate was 7.6%. With a growing population, but slower growing real per capita income, consumer spending activity was mixed in the Lincoln Metropolitan Area over the last decade. Retail employment grew by 6.11%, despite growing just 2.5% nationally. Vehicle spending, as measured by the percentage of new motor vehicles sold in the Lincoln Metropolitan Area from 2007 to 2017, continued to exceed growth of 10.57% nationally. For comparison, inflation was only 18.22% over the decade, although the national growth rate was 7.6%.
### TABLE 1: STATISTICAL OVERVIEW

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<tr>
<td>Education and Health (1000s)</td>
<td>32.43</td>
<td>2.46</td>
<td>0.98</td>
<td>2.42</td>
<td>15.92</td>
<td>7.60</td>
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<td>Employment (1000s)</td>
<td>35.9</td>
<td>5.7</td>
<td>0.7</td>
<td>7.2</td>
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<tr>
<td>Total Employment (1000s)</td>
<td>37.2</td>
<td>7.6</td>
<td>1.69</td>
<td>8.1</td>
<td>13.56</td>
<td>1.2</td>
<td>27.26</td>
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<td>650,809</td>
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<tr>
<td>Total Manufacturing Employment (1000s)</td>
<td>32.7</td>
<td>3.6</td>
<td>0.95</td>
<td>1.8</td>
<td>-0.17</td>
<td>0.5</td>
<td>27.26</td>
<td>8.53</td>
<td>650,809</td>
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### TABLE 2: STATISTICAL OVERVIEW (CONT.)

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<tr>
<td>Average Weekly Hours (2017 Real Average Private Income)</td>
<td>$44,118</td>
<td>$44,205</td>
<td>$43,185</td>
<td>$42,982</td>
<td>$43,730</td>
<td>$45,035</td>
<td>$43,988</td>
<td>$44,748</td>
<td>$46,288</td>
<td>$46,379</td>
<td>$45,958</td>
<td>4.17%</td>
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<td>Median Home Sales Price</td>
<td>$22.82</td>
<td>$22.41</td>
<td>$22.20</td>
<td>$21.75</td>
<td>$21.52</td>
<td>$22.28</td>
<td>$22.38</td>
<td>$22.48</td>
<td>$23.94</td>
<td>$23.80</td>
<td>$22.54</td>
<td>-1.21%</td>
<td>2.38%</td>
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<tr>
<td>Total Retail Trade Enplanements (1000s)</td>
<td>1,088</td>
<td>1,088</td>
<td>1,057</td>
<td>1,055</td>
<td>1,063</td>
<td>1,079</td>
<td>1,081</td>
<td>1,087</td>
<td>1,097</td>
<td>1,097</td>
<td>1,077</td>
<td>0.59%</td>
<td>2.99%</td>
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<tr>
<td>Total State Employment (1000s)</td>
<td>18.0</td>
<td>18.2</td>
<td>17.8</td>
<td>17.9</td>
<td>18.0</td>
<td>18.4</td>
<td>18.6</td>
<td>18.6</td>
<td>19.0</td>
<td>19.0</td>
<td>18.9</td>
<td>-0.12%</td>
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<tr>
<td>Building Permits, Existing Single-Family Homes (1000s)</td>
<td>1,349</td>
<td>823</td>
<td>728</td>
<td>1,032</td>
<td>1,059</td>
<td>1,249</td>
<td>1,587</td>
<td>1,994</td>
<td>2,548</td>
<td>2,384</td>
<td>2,365</td>
<td>75.32%</td>
<td>17.29%</td>
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<tr>
<td>Building Permits, Total New Single-Family Homes (1000s)</td>
<td>2,092</td>
<td>2,085</td>
<td>2,092</td>
<td>2,102</td>
<td>2,109</td>
<td>2,147</td>
<td>2,194</td>
<td>2,244</td>
<td>2,244</td>
<td>2,244</td>
<td>2,244</td>
<td>7.62%</td>
<td>14.59%</td>
</tr>
<tr>
<td>Building Permit, Total Single-Family Homes (1000s)</td>
<td>4,431</td>
<td>4,170</td>
<td>4,184</td>
<td>4,204</td>
<td>4,212</td>
<td>4,251</td>
<td>4,293</td>
<td>4,348</td>
<td>4,392</td>
<td>4,392</td>
<td>4,392</td>
<td>7.62%</td>
<td>14.59%</td>
</tr>
</tbody>
</table>

Note: Adjustments for inflation based on the U.S. Bureau of Economic Analysis Consumer Price Index - All Urban Consumers; U.S. City Average; All items (www.bea.gov).
Real Gross Domestic Product 1: Real Gross Domestic Product rose by an estimated 0.94% in the Lincoln Metropolitan Area from 2016 to 2017. This rate of growth is below the 2.25% growth rate seen nationwide.

As seen in Figure 1, Real Gross Domestic Product (as measured in 2009 dollars) grew rapidly in the Lincoln Metropolitan Area from 2009 to 2014 but the rate of growth has been slow over the last three years.

Growth in Real Gross Domestic Product: Real gross domestic product grew more rapidly in the Lincoln Metropolitan Area than the nation over the last decade, from 2007 through 2017. Real GDP, however, grew faster in the State of Nebraska overall.

As seen in Figure 2, the real GDP growth rate in the Lincoln Metropolitan Area was 18.14% compared to 20.38% in Nebraska and a 14.92% nationwide.

Population Trend 2: The population of the Lincoln Metropolitan Area grew by 1.19% from 2016 to 2017, an increase of 3,100 people.

This follows a trend of steady population growth over the last decade, as seen in Figure 3. Metro population rose by 40,710 from 2007 to 2017, for a cumulative growth rate of 14.00%.

These consistent trends suggest that the Lincoln Metropolitan Area continues to be an attractive location for households. This growth in households, in turn, supports economic growth in Lincoln.

Population growth in Lincoln significantly exceeded growth in the nation and Nebraska overall.

Non-farm Employment 3: Non-farm employment grew by 0.3% in the Lincoln Metropolitan Area from 2016 to 2017.

As seen in Figure 4, employment growth over the last decade was influenced by the business cycle. Employment fell from 2008 to 2010 and grew rapidly thereafter, until this year’s slowdown.

For the decade as a whole, non-farm employment grew by 14,800, or 8.53%, in the Lincoln Metropolitan Area.

Like population growth, non-farm employment growth in the Lincoln Area exceeded growth in the nation and Nebraska overall, as is seen in Figure 5.

Non-farm employment grew by 8.53% in the Lincoln Metropolitan Area from 2007 to 2017 compared to 5.42% in Nebraska overall and 6.25% in the United States.

Non-farm Employment is measured through a survey of businesses.

Growth in Non-farm Employment: Growth in Non-farm Employment
Employment, Household Survey

- Household employment is measured through a survey of households. In fact, it is the same survey used to measure labor force and unemployment.
- Household employment in the Lincoln Metropolitan Area was by 1.04% from 2015 to 2016, 0.15% below the rate of growth in non-farm employment.
- Like non-farm employment, household employment followed a cyclical pattern during the decade. In addition, household employment was flat from 2013 to 2015.
- Household employment in the Lincoln Metropolitan Area grew by 7.08% from 2007 to 2017.

Growth in Employment, Household Survey

- Like non-farm employment, growth in household employment in the Lincoln Metropolitan Area exceeded growth in Nebraska and the United States over the last decade.
- Growth in household employment, however, is slower. This is because household employment is more directly influenced by the aging and slower growth of the labor force.
- Household employment grew by 7.08% in the Lincoln Metropolitan Area from 2007 to 2017 versus 2.94% in Nebraska overall and 4.99% in the United States.

Labor Force

- Labor force grew by 0.62% in the Lincoln Metropolitan Area from 2016 to 2017.
- Growth was slightly more robust, however, over the last 10 years. As seen in Figure 9, labor force grew steadily in the Lincoln Metropolitan Area from 2007 to 2017, except for a dip from 2013 to 2015.
- Overall for the decade, the Lincoln labor force grew by 52,700, or 7.64%, just below the growth rate for household employment.

Growth in Labor Force

- As with population and employment growth, labor force growth in the Lincoln Metropolitan Area exceeded growth in Nebraska overall and the nation.
- Labor force grew by 7.64% in the Lincoln Metropolitan Area from 2007 to 2017 compared to 2.88% in Nebraska overall and 4.70% in the United States.

Unemployment Rate

- The unemployment rate in the Lincoln Metropolitan Area fell to 2.6% in 2017, as seen in Figure 11.
- The unemployment rate followed a clear cyclical pattern during the last decade, rising in the years surrounding the 2008/2009 recession, but falling in most other years.
- The annual unemployment rate fell from a peak of 4.3% in 2009.

Growth in Unemployment Rate

- Unemployment rates in the Lincoln Metropolitan Area and Nebraska overall are below 2007 levels.
- The Lincoln unemployment rate has dropped by 7.14% since 2007, as is seen in Figure 12.
- The decline in the Lincoln area is larger than the decline in the nation and Nebraska overall.
Non-Motor Vehicle Taxable Sales
- Non-motor vehicle sales fell by 0.41% in the Lincoln Metropolitan Area from 2016 to 2017.
- After falling during the cyclical downtown from 2007 to 2010, non-motor vehicle taxable sales grew rapidly between 2012 and 2015. However, the pattern changed again at the end of the period as taxable sales changed little from 2015 to 2017.
- Cumulatively, non-motor vehicle taxable sales rose by just 12.98% in the Lincoln Metropolitan Area between 2007 and 2017. This is below the 18% inflation rate during the period.

Growth in Non-Motor Vehicle Taxable Sales
- Compared to Nebraska as a whole and the nation, growth of non-motor vehicle taxable sales has been weak in Lincoln over the last decade.
- Non-motor vehicle taxable sales grew by 12.98% from 2007 to 2017 compared to a 27.09% increase in Nebraska and 29.24% in the United States.
- The reason for the discrepancy in Lincoln is unclear. Lincoln’s retail industry may have consolidated during the period. Further, real personal income growth slowed in Lincoln in recent years, as seen on the next few charts.

Real Personal Income Trend
- Real personal income (measured in 2017 dollars) rose by 0.7% in the Lincoln Metropolitan Area between 2016 and 2017.
- Growth in real personal income followed a cyclical pattern over the last decade. Real personal income declined during the 2008/2009 recession before returning to growth. The rate of growth, however, has slowed over the last two years.
- For the entire decade, from 2007 through 2017, real personal income grew by 18.75% in the Lincoln Metropolitan Area. This is about 5% above the rate of population growth.

Growth in Real Personal Income
- Like employment and population, real personal income grew faster in the Lincoln Metropolitan Area than the nation over the 2007 to 2017 period.
- Real personal income grew by 18.75% in 2007 and 2017 compared to 12.73% in the United States. Real personal income, however, grew by 20.81% in Nebraska.
Real Per Capita Income

- Real per capita income has grown modestly in the Lincoln Metropolitan Area over the last decade.
- As seen in Figure 17, real per capita grew from 2010 through 2012 and 2013 through 2016, but dipped during the 2008/2009 recession and in the last year.
- Real per capita income fell by 0.92% in the Lincoln Metropolitan Area from 2016 to 2017.
- The cumulative increase from 2007 to 2017 was 4.17%.

Growth in Real Per Capita Income

- Over the last decade, Lincoln’s real per capita income growth has lagged national growth and significantly lagged growth in Nebraska overall.
- Real per capita income increased by 4.27% in the Lincoln Metropolitan Area between 2007 and 2017 versus 7.22% in Nebraska overall and 7.25% in the United States.
- Growth in statewide real per capita income may have benefited from strong growth in farm income earlier in the period.

Real Wage Trend

- Real wages are one factor which determines per capita income, along with the level of employment and investment income. Figure 19 shows trends in real private hourly wages in the Lincoln Metropolitan Area from 2007 to 2017. Like per capita income, real private hourly wages grew early in the period before recovering.
- However, real private hourly wages fell sharply between 2016 and 2017, by 5.28%. That drop reversed a large increase between 2014 and 2015 and left 2017 real wages below 2007 levels.
- Real private hourly wages fell by 2.11% in Lincoln from 2007 to 2017.

Growth in Real Wage

- From 2007 through 2012, real private hourly wages rose in Nebraska and the United States, despite falling in Lincoln.
- Real private hourly wages increased by 6.42% nationwide from 2007 to 2017 and by 3.38% in Nebraska.
- This relative drop in hourly wages may explain weaker growth in real per capita income in the Lincoln Metropolitan Area over the last decade.

Average Weekly Hours Worked

- Data on average hours worked per week is also available for metropolitan areas. These data reflect the mix of full- and part-time employment in the private sector.
- Average weekly hours worked fell by 0.29% from 2016 to 2017 in the Lincoln Metropolitan Area.
- A seen in Figure 22, average private weekly hours increased over the entire 2007 and 2017 period, by 3.36%.

Growth in Average Weekly Hours Worked

- Like employment, average weekly work hours grew most quickly in the Lincoln Metropolitan Area.
- The average weekly hours of private sector workers rose by 3.36% in the Lincoln Metropolitan Area from 2007 to 2017, versus 2.09% in Nebraska overall.
- Average weekly work hours were flat in the United States over the period.
Manufacturing Employment
• Manufacturing employment fell by 300 jobs, or 2.23%, in the Lincoln Metropolitan Area from 2016 to 2017.
• As is often the case over the business cycle, Lincoln has not recovered all of the manufacturing employment lost during the last recession, as seen in Figure 23.
• From 2007 to 2017, manufacturing employment declined by 13.07% in the Lincoln Metropolitan Area.

Growth in Manufacturing Employment
• Over the last decade, manufacturing job losses were significant both in the Lincoln Metropolitan Area and the nation. Manufacturing employment declined by 13.07% in the Lincoln Metropolitan Area and by 10.39% in the United States, as seen in Figure 24.
• Manufacturing employment dropped by just 3.25% in Nebraska as a whole. The State of Nebraska may have fared better because of its large food-processing industry.

Manufacturing Real Gross Domestic Product
• Real manufacturing gross domestic product (GDP) also declined in the Lincoln Metropolitan area over the 2007 to 2017 period. Real manufacturing GDP increased from 2009 to 2012 but fell from 2012 through 2017.
• Given rising labor productivity, real manufacturing GDP fell by less than manufacturing employment. Real manufacturing GDP (measured in 2006 dollars) declined by 1.20% from 2016 to 2017 and 2.87% over the entire 2007 to 2017 period.

Growth in Manufacturing Real Gross Domestic Product
• Real manufacturing GDP rose modestly in both the United States and Nebraska between 2007 and 2017.
• Like manufacturing employment, Lincoln’s real manufacturing GDP growth slightly lagged national growth. Real manufacturing GDP declined by 2.87% in Lincoln but grew by 1.04% nationwide.
• Nebraska manufacturing activity grew significantly faster, with real industry GDP rising by 5.79% from 2007 to 2017.

Insurance Employment
• Despite dropping in Lincoln, insurance industry employment rose by 8.33% in Nebraska overall and by 11.06% in the United States.
• As seen in Figure 28, insurance industry employment grew by 8.33% in Nebraska overall and by 11.06% in the United States.

Growth in Insurance Employment
Other Financial Services Employment

• Other financial services businesses, primarily banks, have been a source of job growth in Lincoln. Employment in other financial services grew by 1-46% in the Lincoln Metropolitan Area over the last decade.
• After employment dropped during the 2008/09 recession, the industry has followed an upward trend, as seen in Figure 29.
• Over the last decade, other financial services businesses have added 1,600 jobs in the Lincoln Metropolitan Area, a cumulative growth rate of 27.26%.

Growth in Other Financial Services Employment

• The other financial services industry has been unusually strong in the Lincoln Metropolitan Area over the last decade.
• Employment in other financial services businesses grew by 27.26% in the Lincoln Metropolitan Area from 2016 to 2017.
• After employment dropped during the 2008/09 recession, the industry has followed an upward trend, as seen in Figure 30.
• Over the last decade, other financial services businesses have added 1,600 jobs in the Lincoln Metropolitan Area, a cumulative growth rate of 27.26%.

Professional, Scientific & Technical Services Employment

• Professional, scientific and technical services employment grew by 4.65% in the Lincoln Metropolitan Area from 2016 to 2017.
• Professional, scientific and technical employment also grew over the last decade, as seen in Figure 31. After declining from 2008 to 2010, Lincoln employment grew steadily, with cumulative growth of 8.41%.
• Job growth in this high-wage industry is a significant benefit for the Lincoln Metropolitan Area economy.

Growth in Professional, Scientific & Technical Services Employment

• Growth in professional, scientific and technical services employment in Lincoln has lagged state and national growth over the last decade.
• Professional, scientific, and technical services employment grew by 8.43% in the Lincoln Metropolitan Area from 2007 to 2017, while it grew by 10.62% in Nebraska overall and 17.55% nationwide.

Education, Health Care and Social Assistance Services Employment

• Until 2013, health care and education was an engine of job growth in the Lincoln Metropolitan Area, as seen in Figure 33.
• Industry growth has been more limited in recent years, however, in part due to consolidation in the hospital sector. Health care and (private) education employment was flat in the Lincoln Metropolitan Area from 2016 to 2017.
• From 2007 to 2017, the health care and education industry added 4,400 jobs in Lincoln, for a cumulative 18.26% increase.

Growth in Education, Health Care and Social Assistance Services Employment

• Over the last decade, employment growth in the Lincoln and Nebraska health care and education industry lagged national growth, as seen in Figure 34.
• Health care and education employment growth by 18.26% in the Lincoln Metropolitan Area from 2007 to 2017, by 15.92% in Nebraska overall, and by 24.15% in the United States.
4 - Housing & Construction

State Government Employment
- State government is a significant source of employment for the Lincoln Metropolitan Area, which is home to the State Capitol.
- State government employment dropped by 10%, or 0.4%, in the Lincoln Metropolitan Area from 2016 to 2017.
- Employment has increased over the 2007 to 2017 period, as seen in Figure 35. Employment grew by 8.9%.

Growth in State Government Employment
- State government employment has grown in Nebraska over the last decade.
- State government employment grew by 8.91% from 2007 to 2017 in the Lincoln Metropolitan Area, and by 10.26% in Nebraska overall.
- Before the fiscal crisis has been the most severe in Nebraska, it was even more severe in other parts of the United States.

Building Permits
- The number of building permits in the Lincoln Metropolitan Area fell by 0.80% from 2016 to 2017.
- Building permits followed a cyclical pattern, as seen in Figure 37. Permits in the Lincoln Metropolitan Area dipped from 2007 to 2009 before rising rapidly. Permits have stabilised at high levels over the last two years.

Growth in Building Permits
- The recovery in building permits in the Lincoln Metropolitan Area over the last decade stands in contrast to state and national trends.
- From 2007 to 2017, the number of building permits issued in the Lincoln Metropolitan Area rose by 7.52%, compared to a 5.63% decline nationwide.
- As will be seen in Figures 39 and 40, growth in Lincoln building permit activity reflects rapid growth in permits for apartments rather than single-family homes.

Building Permits for Single Families
- The number of building permits for single family homes dropped by 0.79% in the Lincoln Metropolitan Area from 2016 to 2017.
- After dropping dramatically, single family home permit activity recovered to 2007 levels by 2013, as seen in Figure 39. Growth since 2013 has been modest.
- Building permits for single-family homes in the Lincoln Metropolitan Area increased by 6.48% over the entire 2007 to 2017 period.

Growth in Building Permits for Single Families
- Lincoln has outperformed the United States and the rest of Nebraska in single-family home permit activity.
- From 2007 to 2017, the number of building permits issued for single family homes increased by 6.48% in the Lincoln Metropolitan Area, while declining by 0.75% in Nebraska overall and by 16.59% in the nation.
Median Sale Price, Existing Single - Family Home

- The median sale price of existing single-family homes grew by 5.68% in the Lincoln Metropolitan Area between 2016 and 2017.
- The median sale price of single-family homes grew in the Lincoln Metropolitan Area over the 2007 to 2017 period, as seen in Table 41. The median sale price rose by a cumulative 27.56%.
- This increase is above the 18.22% inflation rate during the 2007 to 2017 period.

Growth in Median Sale Price, Existing Single - Family Home

- Growth in home prices has been strong in both Lincoln and Nebraska as a whole over the last decade.
- From 2007 to 2017, sale prices for existing single-family homes rose by 27.56% in Lincoln and 25.31% in Nebraska.
- Single-family home sale prices rose by 14.38% nationwide, which is below the rate of inflation.

Mining, Logging & Construction Employment

- Construction employment rose by 500, or 5.75% in the Lincoln Metropolitan Area between 2016 and 2017.
- This is consistent with the recovery of construction employment which began in 2011, as seen in Figure 45.
- Construction employment in the Lincoln Metropolitan Area has risen by 1,300 since 2007. The cumulative rate of growth between 2007 and 2017 was 16.46%.

Growth in Mining, Logging & Construction Employment

- Construction employment grew relatively quickly in the Lincoln Metropolitan Area over the last decade, as seen in Figure 46.
- Lincoln area construction employment grew by 16.46% from 2007 to 2017 while employment grew by just 2.37% in Nebraska overall and declined by 8.63% nationwide.
Total Retail Establishments 1, 8
- The number of retail establishments has declined in the Lincoln Metropolitan Area in recent years as industry competition has intensified.
- The number of retail establishments dropped by 2.86% in the Lincoln Metropolitan Area between 2016 and 2017.
- The number of retail establishments has declined since 2015, as seen in Figure 47.
- For the decade the number of retail establishments is flat, down just 0.13%.

Growth in Retail Establishments
- Lincoln’s retail industry is following a national trend.
- The number of retail establishments in the Lincoln Metropolitan Area fell by 0.13% from 2007 to 2017 compared to a decrease of 2.54% in Nebraska overall and a drop of 0.75% nationwide.

Retail Trade Employment 2
- Retail trade employment in the Lincoln Metropolitan Area dropped by 550 jobs, or 2.55%, between 2016 and 2017.
- Prior to this year, retail employment in Lincoln had expanded steadily, as is seen in Figure 49; however, the retail industry has grown increasingly competitive in recent years.
- For the decade overall, Lincoln retail trade employment grew by 1,100 jobs, or 6.11%.

Retail Trade Employment Growth
- Retail trade employment has grown at a faster rate in the Lincoln Metropolitan Area over the last decade.
- Lincoln retail trade employment grew by 6.11% from 2007 through 2017, while retail employment grew by 1.58% in Nebraska overall and by 2.25% in the United States.

Retail Annual Payroll Trends 1, 8
- Like retail establishments and employment, real retail payroll (measured in 2017 dollars) fell in the Lincoln Metropolitan Area between 2016 and 2017. Real payroll fell by 1.87%.
- Looking over the full decade, real retail trade payroll rose in the Lincoln Metropolitan Area, as seen in Figure 51. Real retail payroll rose by 19.43%, faster than the employment increase of 9.17%, implying an increase in real hourly wages or hours-worked per week.

Retail Annual Payroll Growth
- Like retail employment, real retail payroll rose faster in Lincoln from 2007 to 2017.
- Real retail trade payroll increased by 19.43% in the Lincoln Metropolitan Area from 2007 to 2017, compared to a 7.87% increase in Nebraska overall and a 3.20% increase nationwide.


FIGURE 51: REAL RETAIL ANNUAL PAYROLL TREND LINCOLN METROPOLITAN AREA (2007-2017)

Motor Vehicle Taxable Sales

- Data in Figure 53 suggest that Lincoln has fully participated in the post-recession recovery in vehicle sales, and the standing of sales over the last few years.
- Motor vehicle taxable sales grew by 3.55% in the Lincoln Metropolitan Area between 2016 and 2017.
- From 2007 to 2017, motor vehicle taxable sales grew by 46.99% in Lincoln. This is much faster than the 18.22% inflation rate during the period.

Growth in Motor Vehicle Sales

- Motor vehicle taxable sales grew rapidly in the Lincoln Metropolitan Area over the last decade.
- Motor vehicle taxable sales rose by 46.99% in the Lincoln Metropolitan Area from 2007 to 2017 compared to 43.34% in Nebraska overall and 30.51% statewide.

Gasoline Price Per Gallon (Regular Unleaded)

- After spiking in 2011, gasoline prices have declined in the Lincoln Metropolitan Area, as seen in Figure 55. These lower gasoline prices have contributed to the rising value of motor vehicle sales, as consumers have purchased larger vehicles.
- Prices for unleaded gasoline, however, did increase in Lincoln from 2016 to 2017, by 50.31¢ per gallon, or a 10.25% increase.
- From 2007 to 2017, the price of a gallon of unleaded gasoline declined by 16.90% in the Lincoln Metropolitan Area.

Growth in Gasoline Price Per Gallon

- Gasoline prices are determined in global markets, so it is not surprising that the price decline in Lincoln also occurred in other parts of Nebraska and in the United States.
- From 2007 to 2017, the price of a gallon of unleaded gasoline declined by 16.90% in the Lincoln Metropolitan Area, by 17.40% in Nebraska overall and by 13.88% in the United States.

Enplanements & Deplanements

- The number of airport enplanements in Lincoln fell by 0.52% between 2016 and 2017. There was a similar decline in deplanements.
- Enplanements in the Lincoln area have followed a cyclical pattern, as seen in Figure 57.
- For the entire 2007 to 2017 period, both enplanements and deplanements declined in Lincoln. Enplanements declined by 0.04% while there was a 10.24% decline in deplanements.

Enplanements & Deplanements & Growth

- Airport activity in Lincoln has lagged state and national averages over the last decade, as seen in Figure 58.
- Enplanements declined by 0.04% in Lincoln from 2007 to 2017, while dropping by 0.29% in Nebraska overall and increasing by 0.27% in the United States as a whole.
Appendix 1: Population Outlook

For decades, population growth has both fueled and benefited from economic growth within the Lincoln Metropolitan Area. This population growth has been sustained both by net migration into the Lincoln area, which occurs when in-migrants exceed out-migrants, and by natural population growth, which occurs when the number of births exceeds the number of deaths.

**FIGURE A.1.1: LINCOLN MSA TOTAL POPULATION**

(2017-2027)

This appendix contains a forecast for population growth for the Lincoln Metropolitan Area (Lancaster and Seward Counties) developed by the UNL Bureau of Business Research. The forecast includes population projections for the Lincoln Metropolitan Area for each year from 2017 to 2027 in 18 age groups (0-4, 5-9, 10-14, etc.) for both males and females. Figure A.1.1 shows the cumulative demographic trend for the 2017 to 2027 period. The Lincoln Metropolitan Area population is forecast to grow 12.5% from 331,100 in 2017 to 372,400 in 2027. This will result from steady growth averaging approximately 4,100 persons per year.

**FIGURE A.1.2: LINCOLN MSA ANNUAL POPULATION GROWTH**

(2017-2027)

Figure A.1.2 shows the forecast annual population growth rate for the Lincoln-Metropolitan Area. Deceleration in the growth rate is more evident in this Figure than in Figure A.1.1. Population growth decelerates modestly throughout the forecast period, as a result of the continual aging of the baby-boom generation. By late in the forecast period, most baby-boomers will have reached age 65 and some will have reached age 75. With a larger share of the population in these older age groups, the birth rate will fall modestly and the death rate will rise modestly. The resulting decline in natural population growth will cause the total population growth rate to fall as well.

**FIGURE A.1.3: LINCOLN MSA POPULATION GROWTH BY AGE**

(2017-2027)

The aging of the population is also seen in Figure A.1.3, which shows cumulative 2017 to 2027 population growth forecast for our specific age groups. The 65+ age group is by far the fastest growing age group while the prime working age population cohorts (20-44 and 45-64) will grow at the slowed rates.

Overall, the outlook in the Lincoln Metropolitan Area is for steady population growth over the next decade. Lincoln will continue to attract both domestic and international migrants, on net. The population will age but that will occur primarily due to long-term, national demographic trends, like the aging of the baby-boom generation, rather than issues specific to Lincoln. Population growth can continue to underpin future economic growth in the Lincoln Metropolitan Area.

**FIGURE A.1.4: SOURCES OF POPULATION GROWTH IN THE LINCOLN MSA**

(2017-2027)

Figure A.1.4 shows the contribution of natural population growth and net migration to total population growth over the next decade. Lincoln will be successful at attracting migrants over the next decade but natural population growth will account for more than half of all population growth.

Source: Project by UNL Bureau of Business Research.
Appendix 2: Taxable Sales Capture

What accounts for Lincoln’s success? Figure A.2.3 shows pull factor estimates for a set of key industries in the Lincoln Metropolitan Area for 2014 through 2016. These categories are construction services, wholesale trade, retail trade, accommodation and food services, and other services. Includes a number of repair services which are at least partially subject to sales tax. Sales data also are not available for specific industries, such as specific types of retail businesses.

As before, these pull factors are calculated by dividing the actual taxable sales in each industry in the Lincoln Metropolitan Area by the expected sales given personal income in Lincoln. Expectations are based on state averages. Results show pull factor for construction services of 0.97. Note that taxes on construction services are primarily levied on repairs rather than new construction. While the pull factor for wholesale trade is also well below 1.0, the pull for retail trade is above 1.0. During the three-year period, the Lincoln Metropolitan Area attracted 12% more net taxable retail sales than would be expected given personal income in Lincoln. The Lincoln Metropolitan Area pull factor for accommodations and food services, at 1.21, was also well above 1.0 from 2014 to 2016. These results suggest that the Lincoln Metropolitan Area retail and dining businesses are attracting more patrons from outside of the area than Lincoln is losing to competing communities such as Omaha. Results also indicate that Lincoln has a strong lodging sector.

The pull factor for the other services industry is below 1.0. This “all other” category reflects the pull factor for remaining industries with taxable sales such as agriculture, manufacturing, transportation, or professional, scientific and technical services. The estimated pull factor is 1.09.

Overall, the analysis indicates that taxable sales as a share of income was higher in the Lincoln Metropolitan Area than Nebraska as a whole over the recent 2014 to 2016 period. This is reflected in an aggregate pull factor of 1.08 for net taxable sales in Lincoln. In other words, the Lincoln Metropolitan Area was able to attract 8% more taxable sales than would be expected given its income. Retail trade, food services and accommodations appeared to be the areas of strength where Lincoln was pulling in more patrons from outside of the region than it was losing to competing regions such as Omaha.

There are two ways to interpret the results in Figure A.2.1. The first is that the results suggest that residents of the Lincoln Metropolitan Area spend more of their income on goods and services subject to sales taxes than their Nebraska counterparts. The second is that the Lincoln Metropolitan Area attracts more shoppers from outside of the region than it loses to Omaha or other surrounding areas. While both explanations could contribute to the finding in Figure A.2.1, it is reasonable to conclude that Lincoln is at least capturing its expected share of taxable sales and is likely on net attracting outside spending.

The ability of an area’s economy to capture the spending of its own residents and even capture outside spending can be captured by the concept of a “pull factor.” A pull factor shows how much taxable sales occurs in a region compared to the expected level of sales, given personal income. The expectations are based on state averages. Specifically, expected sales are typically calculated by taking sales per dollar of income in a reference region and multiplying it by the total personal income of the study region (the Lincoln Metropolitan Area). The pull factor is calculated by dividing the actual sales in the Lincoln Metropolitan Area by expected sales.

As a result, a pull factor value of over 1.0 indicates that the study region is capturing more of its share of taxable sales. A pull factor equal to 1.0 indicates that the region is capturing its share of taxable sales. A pull factor of less than 1.0 suggests that the region is losing more of its own shoppers to other regions than its attracting from other regions. Figure A.2.2 shows the taxable sales pull factor for the Lincoln Metropolitan Area for the 2014 to 2016 period. The pull factor is 1.08 indicating that the Lincoln Metropolitan Area has 8% more taxable sales than would be expected given the income of the metropolitan area.
Real wage growth during the 2011 to 2016 period is a welcome development, but the relative decline of the middle class remains a challenge for the Lincoln and national economy. Figure A.3.2 shows wage growth across the wage distribution for the 2007 to 2016 period, as well as the growth in the Consumer Price Index (CPI). Prices grew by a cumulative 16% over the period, which means that worker income would need to grow by 16% in order to keep up with price increases. In the Lincoln Metropolitan Area, hourly wages grew by approximately 21% for workers at the 50th percentile, as was pictured in Figure A.3.1. Figure A.3.2 illustrates that wage growth exceeded inflation at all measured points in the distribution. However, workers at the top and the bottom of the distribution had the fastest wage growth. Hourly wages increased by 29% for the 10th percentile worker (who make more than 10 percent of workers but less than 90 percent) between 2007 and 2016. Hourly wages grew 23% for 90th percentile workers. Wage growth was slower in the middle of the distribution. In Lincoln, hourly wages grew by 21% for both the 25th and 75th percentile workers and upper middle class workers at the 75th percentile. Hourly wages in Lincoln increased by just 19% for the “working class,” measured at the 25th percentile. A similar pattern is evident for wage growth in Nebraska overall and in the United States. Nationwide, wage growth was barely above inflation for middle class workers at the 25th and 50th percentile while growth was fastest for the highest and lowest paid workers. Within Nebraska, hourly wages declined during and just after the “Great Recession,” from 2007 to 2011. Median real hourly wages rose by $0.97 in the Lincoln Metropolitan Area between 2011 and 2016.