The Nebraska Economy
Historical Perspective and
Economic Outlook for 2010

MIDLANDS FINANCIAL PROFESSIONALS
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ERIC THOMPSON, DIRECTOR
BUREAU OF BUSINESS RESEARCH
UNIVERSITY OF NEBRASKA – LINCOLN
ETHOMPSON@UNL.EDU

CHRISTOPHER DECKER, ASSOC. PROFESSOR OF
ECONOMICS
DEPT. OF ECONOMICS
UNIVERSITY OF NEBRASKA – OMAHA
CHRISTOPHERDECKER@MAIL.UNOMAHA.EDU
Outline

• Comparing Business Cycles
  ○ Nebraska vs. US
  ○ Omaha vs. US
  ○ Reasons for differences

• Employment conditions for 2010
• Opportunities/challenges related to the recession
• Long-term opportunities in manufacturing
• Regional conditions within the State

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Recession duration

- Recessionary periods (1980s and 1990s)
  - Research indicates:
    - United States Average: 6.1 quarters
    - California: 8.0 quarters
    - New York: 7.7 quarters
    - Iowa: 7.0 quarters
    - Nebraska: 3.2 quarters

Unemployment rates, 2004 – 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Nebraska</th>
<th>Omaha</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>3.9</td>
<td>4.3</td>
<td>5.5</td>
</tr>
<tr>
<td>2005</td>
<td>3.4</td>
<td>4.3</td>
<td>5.1</td>
</tr>
<tr>
<td>2006</td>
<td>3.4</td>
<td>3.0</td>
<td>4.6</td>
</tr>
<tr>
<td>2007</td>
<td>3.4</td>
<td>3.0</td>
<td>4.6</td>
</tr>
<tr>
<td>2008</td>
<td>3.3</td>
<td>3.7</td>
<td>5.8</td>
</tr>
<tr>
<td>2009</td>
<td>4.6</td>
<td>5.0</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics
Unemployment rate cycles, 1980 – 2009

Source: Bureau of Labor Statistics
Existing home prices

Source: National Association of Realtors and the Omaha Chamber of Commerce
# Existing home price appreciation

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>Omaha</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 to 2005</td>
<td>7.27%</td>
<td>4.53%</td>
</tr>
<tr>
<td>2005 to 2008</td>
<td>-4.80%</td>
<td>-1.77%</td>
</tr>
</tbody>
</table>

Source: National Association of Realtors and the Omaha Chamber of Commerce
Non-farm employment, indexed 1999:1 = 100

Source: Bureau of Labor Statistics
Non-farm employment, Nebraska’s share of US

Nebraska/United States

99 00 01 02 03 04 05 06 07 08 09
Non-farm employment, Omaha’s share of US
Why the more modest cycle?

- Favorable Industrial (sectoral) diversification
- Favorable Industrial (sectoral) composition
  - Agriculture
  - Insurance
  - Health Services
- Banking stability
- Favorable energy prices and the cost of doing business
Recent Research* has demonstrated that economies that are more diversified in their industrial composition experience reduced unemployment.

- Diversification provides a form of employment insurance to states during cyclical downturns.
- Acts much like a diversified portfolio in reducing investor risk.
- Some sectors are less cyclical than others.
- Some healthier sectors can absorb labor released from other sectors.

*Izraeli and Murphy, The Annals of Regional Science*
How do we measure an economy’s level of diversity?

There are many measures BUT the most common is called a Herfindahl-Hirschman Index (HHI)

Usually constructed using data on sector employment for a particular economy
For a given economy (state, city, country), j, there are a set of sectors (construction, manufacturing, health services, etc.) i.

To construct an HHI,

- Calculate each sector’s share of total employment in an economy:
  - $S_i = \frac{empi}{emptotal}$
- Square the share
  - $S_i^2$
- Add up the squared shares (and multiply by 10,000 for fun)
  - $HHI = (\Sigma S_i^2) * 10,000$
Industrial (sectoral) diversification, cont.

So how do we interpret the resulting HHI?

The LOWER the HHI, the more diversified the economy

The HIGHER the HHI, the less diversified the economy

- Consider an economy with only one industrial sector
  - The HHI is $12 = 1 \times 10,000 = 10,000$

- Consider an economy with two equally sized industrial sectors
  - The HHI is $0.52 + 0.52 = 0.25 + 0.25 = 0.5 \times 10,000 = 5,000$

- Consider an economy with two unequal sectors
  - The HHI is $0.92 + 0.12 = 0.81 \times 10,000 = 8,100$
Industrial (sectoral) diversification, cont.

Nebraska, the United States, and select states

Source: Author’s Calculation based on BEA Regional Economic Information Service data
Omaha, NE vs. Akron, OH

Source: Author’s Calculation based on BEA Regional Economic Information Service data
Some sectors are less prone to recessions than others
  - A-cyclical or counter-cyclical

An economy with more such industries will tend to experience less-dramatic downturns
  - The reverse, however, is true as well; such economies tend not to experience substantial booms during economic expansions
Sectors that experience larger declines during recessions

- Manufacturing
- Construction
- Retail Trade
- Food Services and Accommodations
Troubling news for Omaha and Nebraska

<table>
<thead>
<tr>
<th>Sector</th>
<th>US</th>
<th>Nebraska</th>
<th>Omaha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>9.43%</td>
<td>10.31%</td>
<td>7.09%</td>
</tr>
<tr>
<td>Construction</td>
<td>7.56%</td>
<td>7.20%</td>
<td>7.84%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>12.53%</td>
<td>13.62%</td>
<td>13.27%</td>
</tr>
<tr>
<td>Accomm. and food services</td>
<td>7.96%</td>
<td>7.42%</td>
<td>7.79%</td>
</tr>
</tbody>
</table>

Source: Author’s Calculation based on BEA Regional Economic Information Service data
Sectors that experience smaller declines during recessions

- Transportation and Warehousing
- Information
- Finance and Insurance
- Health Services
- Education
- Agriculture
Better news for Omaha and Nebraska

<table>
<thead>
<tr>
<th>Sector</th>
<th>US</th>
<th>Nebraska</th>
<th>Omaha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trans. and Ware.</td>
<td>3.83%</td>
<td>6.29%</td>
<td>5.91%</td>
</tr>
<tr>
<td>Information</td>
<td>2.30%</td>
<td>2.16%</td>
<td>2.92%</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>5.48%</td>
<td>6.94%</td>
<td>8.01%</td>
</tr>
<tr>
<td>Manag. Of Companies</td>
<td>1.27%</td>
<td>1.75%</td>
<td>2.27%</td>
</tr>
<tr>
<td>Health Services</td>
<td>11.82%</td>
<td>12.56%</td>
<td>11.74%</td>
</tr>
</tbody>
</table>

Source: Author’s Calculation based on BEA Regional Economic Information Service data
Growth of business enterprises – Nebraska vs. United States

Business growth - select industries

- Finance and Insurance
- Health Services
- Management of Companies and Enterprises
- Information
- Transportation and Warehousing

Source: Author’s Calculation based on US Census data
Growth of business enterprises – Omaha vs. United States

Business Growth - select industries - Omaha

<table>
<thead>
<tr>
<th>Industry</th>
<th>Omaha</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of Companies and Enterprises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s Calculation based on US Census data
Notice that recently both Omaha and Nebraska have been experiencing business growth (that outpaces the United States) in sectors that tend to be less cyclical than average.

- In particular, Health Services

This helps our economy weather the current recession better than in other states of the country.
Farm Income
- There has been a big drop in farm income in 2009 and livestock producers are suffering.
- However, while farm incomes in 2009 are down from record levels in 2007 and 2008, incomes remain above the 10-year average.

Therefore, in agriculture, 2009 is not a good year, but it is (overall) not a disastrous year either.
During 2008, there was a substantial run-up in farm-land prices.

So, there was no dramatic decrease in household property wealth in Nebraska during the 2008-2009 period, as in other parts of the country.

Of course, one potential concern for 2010 is a collapse in the price of farm land (this did not happen in 2009).
Cost of doing business in Nebraska

- Milken Institute’s Cost of Doing Business Index:
  - 5 most expensive states
    1. Hawaii
    2. New York
    3. Massachusetts
    4. California
    5. Connecticut
  - 5 least expensive states
    46. Idaho
    47. Montana
    48. Iowa
    49. North Dakota
    50. South Dakota
  - Nebraska ranks 38th.
Cost of doing business in Nebraska

- Reasons
  - Wage costs tend to be comparatively lower
  - Industrial and commercial rental costs tend to be comparatively lower
  - Energy costs tend to be comparatively lower
Total cost of Energy for Commercial Buyers

Source: US Department of Energy’s Energy Information Administration
### Ratio of Nebraska to US energy costs

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio of Nebraska to US Energy Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>77.8%</td>
</tr>
<tr>
<td>2001</td>
<td>76.4%</td>
</tr>
<tr>
<td>2002</td>
<td>75.9%</td>
</tr>
<tr>
<td>2003</td>
<td>76.0%</td>
</tr>
<tr>
<td>2004</td>
<td>73.8%</td>
</tr>
<tr>
<td>2005</td>
<td>73.2%</td>
</tr>
<tr>
<td>2006</td>
<td>68.2%</td>
</tr>
<tr>
<td>2007</td>
<td>68.3%</td>
</tr>
</tbody>
</table>

Source: US Department of Energy’s Energy Information Administration
Omaha and Nebraska area banks are in comparatively good shape relative to the larger national banks we hear about in the popular press.

Many local loans are in the farming sector:
- Recent years agriculture has been quite strong
  - Farm commodity prices have been strong
  - Demand for corn-based fuel has been strong
  - Loan repayments are steady

Banking in this region for the most part avoided sub-prime mortgage exposure:
- Nebraska is one of the 10 states least affected by sub-prime lending

Source: Omaha World Herald: March 11, 2009
Recovery Gains Steam Throughout 2010

- Incomes are growing again in Nebraska
  - This has spurred growth in consumer spending
- A relatively weak dollar also has aided Nebraska’s export-oriented industries in agriculture, manufacturing, and services
- As the year continues, growing consumer spending and exports will support business investment
Employment Trends and Outlook
Non-Farm Employment

Non-Farm Employment

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Employment Outlook (pro-cyclical sector)
Construction Employment

Construction

UNL Bureau of Business Research
Employment Outlook (pro-cyclical sectors)
Business and Professional Services

UNL Bureau of Business Research
<table>
<thead>
<tr>
<th>Industry</th>
<th>Growth 2009</th>
<th>Growth 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Non-Farm</td>
<td>-1.6%</td>
<td>+1.0%</td>
</tr>
<tr>
<td>Construction</td>
<td>-3.0%</td>
<td>+1.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-8.4%</td>
<td>-2.1%</td>
</tr>
<tr>
<td>Transportation</td>
<td>-2.0%</td>
<td>+1.3%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>-1.5%</td>
<td>+0.2%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>-1.8%</td>
<td>+0.1%</td>
</tr>
</tbody>
</table>
## Employment Growth By Industry
### 2009 and 2010

<table>
<thead>
<tr>
<th>Industry</th>
<th>Growth 2009</th>
<th>Growth 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>-5.5%</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>-0.2%</td>
<td>+1.3%</td>
</tr>
<tr>
<td>Services</td>
<td>-1.2%</td>
<td>+2.2%</td>
</tr>
<tr>
<td>Federal Government</td>
<td>+2.5%</td>
<td>+2.4%</td>
</tr>
<tr>
<td>State &amp; Local Gov’t</td>
<td>+2.5%</td>
<td>+0.8%</td>
</tr>
</tbody>
</table>
### Other Measures of Growth 2009 and 2010

<table>
<thead>
<tr>
<th>Measure</th>
<th>Growth 2009</th>
<th>Growth 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Income</td>
<td>-0.5%</td>
<td>+4.1%</td>
</tr>
<tr>
<td>Taxable Sales</td>
<td>-3.2%</td>
<td>+3.5%</td>
</tr>
<tr>
<td>Population</td>
<td>+0.8%</td>
<td>+0.8%</td>
</tr>
</tbody>
</table>

**Unemployment Rate**

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment Rate</td>
<td>4.8%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>
Unemployment Rate Trends and Outlook

Unemployment Rate

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In the latter half of this decade, an exaggerated cost of living made many areas on the West and East Coasts less competitive.

- Climate, access to oceans have amenity value, but property prices had risen far in excess of those amenity values on the East and West Coasts.

This problem has now been addressed

- Property prices have declined, more in line with the real value of amenities.

As a result, Nebraska has lost a competitive advantage that it held in the 2005-2008 period.
## Nebraska Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>0.6%</td>
</tr>
<tr>
<td>2006</td>
<td>0.5%</td>
</tr>
<tr>
<td>2007</td>
<td>0.6%</td>
</tr>
<tr>
<td>2008</td>
<td>0.8%</td>
</tr>
<tr>
<td>2009</td>
<td>0.8%</td>
</tr>
</tbody>
</table>
Opportunities for the Nebraska Economy—Strength and Decentralization of Manufacturing

Average Annual Growth Rate
Manufacturing Value-Added 1972 to 2002

United States: 3.1%
Metropolitan Areas: 3.0%
Non-Metropolitan Areas: 3.9%

Source: Hammond and Thompson (2009)
## Decentralization of Manufacturing

### Component of Growth 1972-2002

<table>
<thead>
<tr>
<th>Component</th>
<th>Metro</th>
<th>Non-Metro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Hours</td>
<td>-0.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Capital Stock</td>
<td>1.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Productivity</td>
<td>2.3</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3.0</strong></td>
<td><strong>3.9</strong></td>
</tr>
</tbody>
</table>

Source: Hammond and Thompson (2009)
Nebraska – A Leading Indicator for the United States and The West?

- Nebraska’s recent strengths and emerging advantages will carry it through the next few years.
- But, more generally, the strength of the entire “Upper Midwest” may provide a roadmap for national recovery.
  - Stabilization of household wealth and a recovery in household income
    - Both portend solid, steady growth in consumer spending
  - An economy with a larger export sector and a smaller housing and real estate sector