### SHERIDAN COUNTY



Comprehensive Plan

# Appendix 2: Innovation and the New Economy

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#### WHAT IS THE NEW ECONOMY?

While some use the term "New Economy" to refer to a brief period at the end of the 1990s, in fact, the real New Economy was not just a fad. Rather, it refers to a set of qualitative and quantitative changes that, in the last two decades, have transformed the structure, functioning, and rules of the U.S. economy. The New Economy is a global, entrepreneurial, and knowledge-based economy in which the keys to success lie in the extent to which knowledge, technology, and innovation are embedded in products and services.

**Today's economy is knowledge-dependent.** Of course, managers and "knowledge workers" always have been part of the economy, but, by the 1990s, they had become the largest occupational category. Managerial and professional jobs increased as a share of total employment from 22 percent in 1979, to 28.4 percent in 1995, and to 34.8 percent in 2003. In contrast, around one in fourteen workers is employed as a production worker in manufacturing and, even there, knowledge and continual skills enhancement is becoming more important.

**Today's economy is global.** While it is true that some firms have long had global links, today's globalization is pervasive, as more nations join the global marketplace, as more goods and services are traded, and as more of the production process is interconnected in a global supply web. Since 1980, global trade has grown 2.5 times faster than global GDP. World exports are now at \$12.5 trillion, nearly 20 percent of world GDP.

**Today's economy is entrepreneurial.** While it is true that entrepreneurial growth, market dynamism, economic "churning," and competition have been features of the American economy since the colonial days, after the 1990s the center of gravity seemed to shift to entrepreneurial activity, while, at the same time, the underlying operation of the economy accelerated to a new speed while becoming more customized and innovative. For example, in the 60 years after 1917, it took an average of thirty years to replace half of the 100 largest public companies. Between 1977 and 1998 it took an average of twelve years. Moreover, from 1980 to 2001, all of the net U.S. job growth was from firms less than five years old, while older firms actually lost jobs.

Today's economy is rooted in information technologies. While it also is true that information technologies have played a role in the economy since the invention of the telegraph, something happened in the 1990s when semiconductors, computers, software, and telecommunications became cheap enough, fast enough, and networked enough to become so ubiquitous as to power a surge in productivity growth. Indeed, information technology is now the key technology driving the economy, not just in the IT industry itself—which continues to see high-wage job growth—but also in the use of IT in virtually all sectors to boost productivity, quality, and innovation.

**Today's economy is driven by innovation**. The development and adoption of new products, processes, and business models. Nations, states, regions, firms, even individuals compete on their ability to accumulate, aggregate, and apply their assets to create value in new ways for increasingly diverse customers all over the world. For example, as R&D is the key fuel of the engine of New Economy growth, it is not surprising that business-funded R&D has increased from 1.19 percent of GDP in 1980 to 1.8 percent in 2005. Moreover, the number of patents issued has increased by more than 160 percent since 1984, with more than 173,771 issued in 2006.

From: http://www.itif.org/files/2008 State New Economy Index.pdf

#### **Guidelines for Regional Investment**

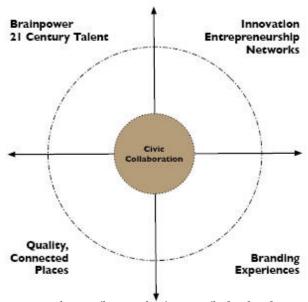
Projects are most successful when they are connected to a sensible regional strategy. The following framework and tool can help regions link and leverage assets in new and innovative ways.

#### What Investments Hold Strong Potential for the Region?

Regional leaders can simplify the process of developing a shared framework by first defining their goals in terms of five categories of strategic investment, corresponding to the critical ingredients for competitive regions in today's global economy.

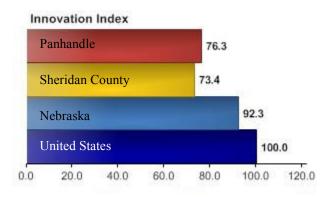
- **Brainpower:** A region needs people with the necessary skills to support globally competitive businesses.
- Innovation and Entrepreneurship Networks: A region needs business development networks to convert brainpower into wealth through innovation and entrepreneurship (including cluster organizations, angel capital networks, and mentoring networks).
- Quality, Connected Places: A region needs to develop places with a high quality of life that are connected to the rest of the world since skilled people and innovative companies are mobile and seek such characteristics.
- **Branding Experiences:** A region needs to define its most distinctive attributes and communicate them. Young people want to live in regions with a future, and they can see this future most clearly through the stories they hear about a region.
- Civic Collaboration: A region needs leaders skilled in collaboration. Economic and workforce development investments involve multiple partners, so a region that understands how to collaborate will be more competitive.

By defining and mapping regional goals onto the strategy mapping tool, regional leaders can gain some insights into whether their current level and pattern of economic development investments appropriately reflect their goals.



Entire page from: http://www.statsamerica.org/innovation/process/index.html

## Overall Innovation Index



#### **Components Measuring Innovation**

The overall index incorporates a mix of input measures that characterize the place and its people (accounting for 60 percent of the overall index score) and output measures that characterize its economic success (40 percent of the overall score). The state context category is provided for reference, but is not part of the broader index. Overall, Sheridan County scored slightly below the Panhandle region but well below both the state and national rates in the overall innovation index.

#### **Inputs and Capacity** (60% of score)

## The ability of the population and labor force to innovate is captured in 2 component indexes that include inputs into local economies.

#### **State Context** (reference only)

A measure of the resources available in a state to entrepreneurs and businesses.

#### Outputs (40% of score)

Productivity and Employment

40.0

Panhandle

Nebraska

United States

20.0

0.0

Sheridan County

Direct outcomes and economic improvements of innovative activities are displayed in the output indexes.

68.1

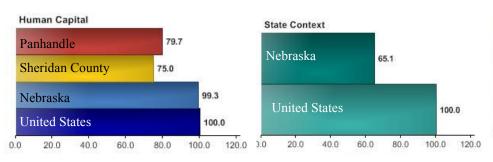
80.0

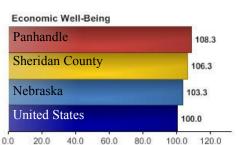
92.0

100.0

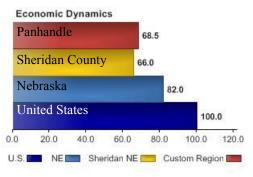
100.0

120.0





60.0



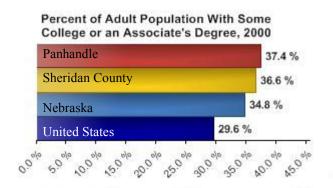
# Human Capital

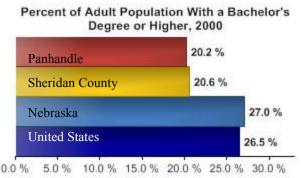
- Educational Attainment
- Population Growth Rates
- High-Tech Employment Share
- Technology-Based Knowledge Occupations

#### **Educational Attainment**

Educational attainment is a measure of the population's capacity to contribute to innovation with necessary skills and knowledge. Two component indicators are presented for education to measure not only highly educated residents with a bachelor's degree or higher, but also residents with some college. Research shows that the some college/ associate's degree indicator has significant effects on GDP per worker growth.

Sheridan County has a much higher percentage of adults with some college or an Associate's Degree than the national average. It also ranks ahead of the state and just behind the region as a whole. However, Sheridan County is well behind the state and nation in the percentage of adults with a Bachelor's Degree or higher.



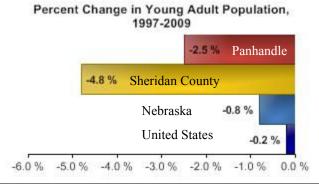


Percent of Adult Population 25 to 64 in the year 2000 with Some College or an Associate's Degree OR a Bachelor's Degree or Higher						
		ges 25-64 with or Associate's	Population Age Bachelor's Degi		Population Ages 25-64	
Panhandle	37.4%	16,253	20.2%	8,775	43,414	
Sheridan NE	36.6%	1,059	20.6%	596	2,893	
Nebraska	34.8%	297,083	27.0%	230,857	854,882	
United States	29.6%	43,521,981	26.5%	39,078,598	147,232,667	
Panhandle Counties						
Banner County	45.2%	188	21.9%	91	416	
Box Butte County	39.3%	2,400	15.9%	972	6,110	
Cheyenne County	39.1%	1,897	19.8%	959	4,850	
Dawes County	36.2%	1,329	32.6%	1,194	3,667	
Deuel County	36.2%	374	20.5%	212	1,033	
Garden County	36.8%	417	18.4%	208	1,132	
Kimball County	38.5%	763	17.1%	338	1,981	
Morrill County	34.3%	913	15.8%	420	2,661	
Scotts Bluff County	37.1%	6,638	20.1%	3,606	17,903	
Sheridan County	36.6%	1,059	20.6%	596	2,893	
Sioux County	35.8%	275	23.3%	179	768	

#### **Population Growth Rates**

High population growth rates for younger working age persons (ages 25 to 44) suggest new residents are attracted to an area, growing the workforce, adding to the innovative base and launching new businesses. A declining population suggests the opposite situation may persist. Research shows this indicator has significant effects on GDP per worker growth.

Sheridan County has faired very poorly with one of the highest youth out-migration rates in the country. The county is losing youth at a much faster rate than the Panhandle region, which in itself is performing poorly in retaining young adults..

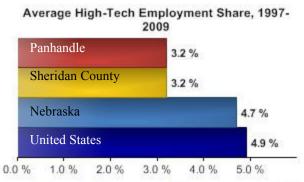


Average Annual Mid-Aged Population Growth Rate, 1997 to 2009			
	Average Annual Change in Young Adult Population	Young Adult Population 2009	Young Adult Population 1997
Panhandle	-2.5%	17,807	23,952
Sheridan County	-4.8%	879	1,569
Nebraska	-0.8%	451,666	498,804
United States	-0.2%	83,096,278	85,573,378
Panhandle Counties			
Banner County	-4.4%	137	231
Box Butte County	-4.2%	2,186	3,634
Cheyenne County	-1.1%	2,376	2,700
Dawes County	-3.2%	1,371	2,018
Deuel County	-3.7%	329	513
Garden County	-6.7%	256	573
Kimball County	-3.5%	661	1,012
Morrill County	-3.1%	970	1,401
Scotts Bluff County	-1.4%	8,349	9,897
Sheridan County	-4.8%	879	1,569
Sioux County	-2.7%	293	404

#### **High-Tech Employment Share**

Firms requiring a highly skilled and specialized workforce contribute to innovation in a county by providing a resource for workers, other firms and other industries. (This metric measures the point in time innovative capacity of the region as opposed to the growth of innovative capacity in the productivity and employment index.)

The share of high tech employment in Sheridan County is on par with the Panhandle region, but is well behind the state and national average in this category.

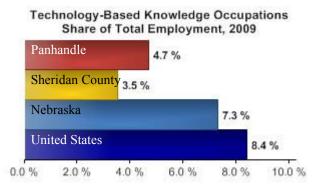


Average High Tech Employment Share, 1997 to 2009				
	Average High-Tech Employment Share, 1997-2009	Average High-Tech Employment Share, 1997-2002	Average High-Tech Employment Share, 2003-2009	
Panhandle	3.2%	3.9%	2.6%	
Sheridan County	3.2%	3.8%	2.8%	
Nebraska	4.7%	5.0%	4.4%	
United States	4.9%	5.1%	4.6%	
Panhandle Counties				
Banner County	0.5%	0.6%	0.5%	
Box Butte County	3.8%	4.0%	3.6%	
Cheyenne County	3.8%	4.3%	3.4%	
Dawes County	2.4%	1.9%	2.6%	
Deuel County	3.4%	4.1%	2.7%	
Garden County	0.8%	1.0%	0.6%	
Kimball County	3.6%	4.0%	3.4%	
Morrill County	1.3%	1.2%	1.5%	
Scotts Bluff County	3.2%	4.5%	2.2%	
Sheridan County	3.2%	3.8%	2.8%	
Sioux County	1.6%	1.8%	1.4%	

#### **Technology-Based Knowledge Occupations**

These six occupation clusters are often thought to be closely associated with the production of innovations. They include information technology; engineering; health care and medical science practitioners and scientists; mathematics, statistics, data and accounting; natural science and environmental management; and postsecondary education and knowledge creation.

Sheridan County not only rates behind the Panhandle region in technology-based knowledge occupations, its share is less than half the state and national levels.



Technology-Based Knowledge Occupations, 2009			
	Technology-based Knowledge Occupation Cluster Share of Total Employment, 2009		
Panhandle	4.7%		
Sheridan County	3.5%		
Nebraska	7.3%		
United States	8.4%		
Panhandle Counties			
Banner County	2.7%		
Box Butte County	4.4%		
Cheyenne County	4.3%		
Dawes County	6.6%		
Deuel County	3.1%		
Garden County	3.6%		
Kimball County	4.3%		
Morrill County	3.2%		
Scotts Bluff County	5.1%		
Sheridan County	3.5%		
Sioux County	2.7%		

# Economic Dynamics

- Average Venture Capital
- Average Private R&D
- Broadband Density and Penetration
- Establishment Churn
- Establishment Sizes

#### **Average Venture Capital**

Venture capital provides a source of funds to launch new ideas or expand innovative companies.

Sheridan County, like most rural areas, does not attract much venture capital.

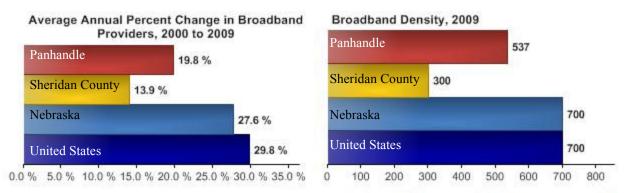


Average Venture Capital Investment per \$10,000 GDP, 2003 to 2008		
	Average Venture Capital Investment per \$10,000 GDP, 2003 to 2008	
Panhandle	\$0.00	
Sheridan County	\$0.00	
Nebraska	\$0.65	
United States	\$5.26	
Panhandle Counties		
Banner County	\$0.00	
Box Butte County	\$0.00	
Cheyenne County	\$0.00	
Dawes County	\$0.00	
Deuel County	\$0.00	
Garden County	\$0.00	
Kimball County	\$0.00	
Morrill County	\$0.00	
Scotts Bluff County	\$0.00	
Sheridan County	\$0.00	
Sioux County	\$0.00	

#### **Broadband Density and Penetration**

Innovation and knowledge are linked to widespread Internet usage for individuals and businesses. This indicator is defined as the number of broadband providers available to residents in a given county, which serves as a proxy for actual broadband penetration into rural markets. This indicator is presented as the population-weighted mean of broadband service providers available per county translated from population-weighted ZIP code data.

Sheridan County trails the region in broadband density and is well behind the levels in the state and nation..

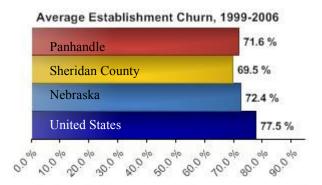


Average Rate of Change in Broadband Holding Companies, 2000-2009			
	Average Annual Per- cent Change, 2000- 2009	Midpoint - Weighted Connections per 1,000 Households, 2009	Residential Fixed Con- nections per 1,000 Households, 2009
Panhandle	19.8%	537	401-600
Sheridan County	13.9%	300	201-400
Nebraska	27.6%	700	601-800
United States	29.8%	700	601-800
Panhandle Counties			
Banner County	17.9%	300	201-400
Box Butte County	20.8%	700	601-800
Cheyenne County	25.0%	700	601-800
Dawes County	18.9%	700	601-800
Deuel County	16.7%	500	401-600
Garden County	15.4%	500	401-600
Kimball County	18.9%	500	401-600
Morrill County	18.9%	300	201-400
Scotts Bluff County	21.6%	500	401-600
Sheridan County	13.9%	300	201-400
Sioux County	18.9%	300	201-400

#### **Establishment Churn**

Innovative and efficient companies typically replace outdated establishments, or those firms unable to modernize techniques and processes. Average churn is a measure of total establishment births and deaths, and expansions and contractions, relative to the total number of firms in a county for all years available.

Sheridan County's average establishment churn is slightly behind the regional and statewide churn. The national rate of establishment churn is well ahead of the county level.

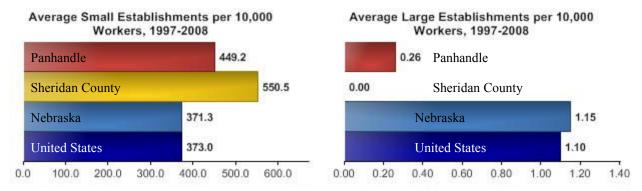


Average Establishment Churn, 1999-2006			
Average Establishment Churn			
Panhandle	71.6%		
Sheridan County	69.5%		
Nebraska	72.4%		
United States	77.5%		
Panhandle Counties			
Banner County	66.7%		
Box Butte County	70.9%		
Cheyenne County	72.2%		
Dawes County	70.7%		
Deuel County	62.3%		
Garden County	64.1%		
Kimball County	72.5%		
Morrill County	70.0%		
Scotts Bluff County	73.4%		
Sheridan County	69.5%		
Sioux County	59.4%		

#### Size of Establishments

The size of establishments provide an indication of a regional economy's structural composition. Small establishments with fewer than 20 employees are flexible and not overburdened by a bureaucratic organizational structure enabling rapid changes to implement new ideas and evolve with technology. On the other end of the spectrum, large establishments with more than 500 employees have both the capital and labor resources to fund research and other innovative activities. Large companies can often reap economies of scale and thus often have much greater productivity than smaller firms. Research shows that the average share of small establishments has significant effects on GDP per worker growth.

Sheridan County has a much greater share of small business establishments per resident than the region, state, and nation. The County does not have any large employment establishments.



Average Small and Large Establishments per 10,000 Workers, 1997 to 2008				
	Average Small Establishments per 10,000 Workers	Average Large Establishments per 10,000 Workers		
Panhandle	449.2	0.26		
Sheridan County	550.5	0.00		
Nebraska	371.3	1.15		
United States	373.0	1.10		
Panhandle Counties				
Banner County	133.7	0.00		
Box Butte County	426.0	0.00		
Cheyenne County	374.2	0.33		
Dawes County	493.7	0.00		
Deuel County	591.6	0.00		
Garden County	386.3	1.14		
Kimball County	518.5	0.30		
Morrill County	419.2	0.00		
Scotts Bluff County	460.8	0.43		
Sheridan County	550.5	0.00		
Sioux County	239.4	0.00		

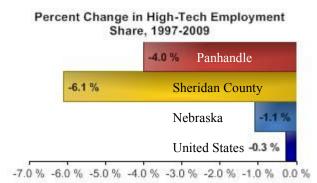
# Productivity and Employment

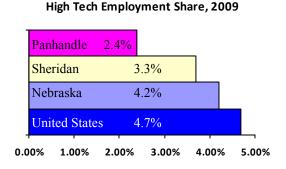
- Change in High-Tech Employment
- Job Growth
- Gross Domestic Product per Worker
- Average Patents per 10,000 Workers

#### **Change in High-Tech Employment**

Firms requiring a highly skilled and specialized workforce are drawn to innovative areas. Growth in this sector suggests the increasing presence of innovation. High-tech employment, derived from a NAICS-based definition by Moody's, measures an aggregation of employment in key sectors (e.g., telecommunications, Internet providers, scientific laboratories) as an average annual rate of change in the share of high-tech employment. Research shows this indicator has significant effects on GDP per worker growth.

Sheridan County has a greater share of high tech employment share than the region. However, the county has a smaller high tech employment share than the state and nation and its share is declining at a significant pace.



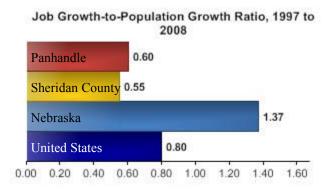


Rate of Change in High-Tech Employment Share, 1997-2009			
	Rate of Change in High-Tech Employment Share, 1997- 2009	High-Tech Employment Share, 1997	High-Tech Employment Share, 2009
Panhandle	-4.0%	3.9%	2.4%
Sheridan County	-6.1%	3.3%	1.6%
Nebraska	-1.1%	4.8%	4.2%
United States	-0.3%	4.9%	4.7%
Panhandle Counties			
Banner County	-2.4%	0.8%	0.6%
Box Butte County	-0.9%	3.8%	3.4%
Cheyenne County	-3.2%	5.4%	3.7%
Dawes County	3.5%	2.4%	3.6%
Deuel County	-0.9%	3.3%	3.0%
Garden County	-7.8%	1.5%	0.6%
Kimball County	-2.4%	3.9%	2.9%
Morrill County	-0.3%	1.2%	1.2%
Scotts Bluff County	-7.4%	4.3%	1.8%
Sheridan County	-6.1%	3.3%	1.6%
Sioux County	-3.0%	2.1%	1.4%

#### **Job Growth**

High employment growth relative to population growth suggests jobs are being created faster than people are moving to a region. A high ratio between these two variables indicates strong economic growth.

Even though the county has been losing population, its job growth in relation to population growth still trails the region and is well behind the state, which is adding jobs faster than it is adding people

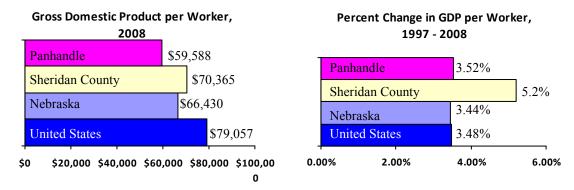


Job Growth-to-Population Growth Ratio, 1997 to 2008					
	Job Growth to Population Growth Ratio	Total Employment (1997)	Total Employment (2008)	Total Population (1997)	Total Population (2008
Panhandle	0.60	53,988	57,423	91,568	85,802
Sheridan County	0.55	3,732	3,044	6,516	5,267
Nebraska	1.37	1,111,371	1,239,401	1,686,418	1,780,143
United States	0.80	154,541,200	179,610,200	272,646,925	304,059,724
Panhandle Counties					
Banner County	-0.06	433	444	855	674
Box Butte County	0.37	7,866	7,302	12,719	11,201
Cheyenne County	64.09	6,627	8,037	9,838	9,860
Dawes County	-2.15	4,823	5,880	9,190	8,698
Deuel County	0.12	1,168	1,143	2,079	1,866
Garden County	0.32	1,550	1,366	2,361	1,787
Kimball County	0.42	2,776	2,552	4,082	3,547
Morrill County	-0.46	2,629	2,871	5,467	4,936
Scotts Bluff County	-9.62	21,648	24,071	36,901	36,649
Sheridan County	0.55	3,732	3,044	6,516	5,267
Sioux County	0.09	736	713	1,560	1,317

#### **Gross Domestic Product per Worker**

The gross domestic product (GDP) output of a community may be the most important economic indicator. It represents a broad measure of economic activity and signals the direction of overall aggregate economic activity. GDP serves as a measure of county-level economic output, while increases in GDP per worker measures increases in worker productivity.

Sheridan County performs very well in this regard. Although it trails the national level, the GDP per worker is ahead of the state and regional levels. The annual growth in GDP per worker in Sheridan County is also significantly outpacing the national, state and regional growth rates. However, this may be due to high commodity prices which may not be sustainable or consistent over the long term.

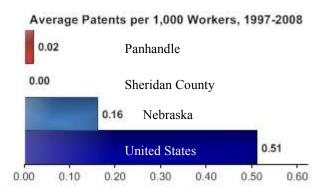


Gross Domestic Product (GDP) per Worker and Average Rate of Change, 1997-2008				
	GDP per Worker, 2008	Average Annual Change in GDP per Worker	GDP per Worker, 1997	
Panhandle	\$65,296	3.5%	40,447	
Sheridan County	\$71,943	3.4%	45,477	
Nebraska	\$66,430	3.7%	50,540	
United States	\$79,057	3.5%	53,917	
Panhandle Counties				
Banner County	\$87,225	4.4%	43,614	
Box Butte County	\$60,443	3.7%	35,578	
Cheyenne County	\$70,841	4.6%	41,434	
Dawes County	\$57,521	2.8%	37,991	
Deuel County	\$66,956	2.8%	43,360	
Garden County	\$57,162	2.8%	42,288	
Kimball County	\$84,678	6.3%	40,630	
Morrill County	\$71,549	3.9%	38,812	
Scotts Bluff County	\$62,583	2.6%	42,195	
Sheridan County	\$71,943	5.2%	39,691	
Sioux County	\$84,500	3.9%	46,894	

#### Average Patents per 10,000 Workers

New patented technologies provide an indicator of individuals' and firms' abilities to develop new technologies and remain competitive in the economy. Patents are presented as total number per 10,000 workers

Without any large corporations, universities or research laboratories, it is not surprising that the county is not producing any patent activity. Regardless of the reason for the lack of patent activity, this makes it more difficult for the county to compete in a knowledge-driven economy.



Average Patents per 1,000 Workers, 1997-2008					
	Average Patents per 1,000 Workers				
Panhandle	0.02				
Sheridan County	0.00				
Nebraska	0.16				
United States	0.51				
Panhandle Counties					
Banner County	0.00				
Box Butte County	0.00				
Cheyenne County	0.11				
Dawes County	0.00				
Deuel County	0.07				
Garden County	0.00				
Kimball County	0.00				
Morrill County	0.00				
Scotts Bluff County	0.01				
Sheridan County	0.00				
Sioux County	0.00				

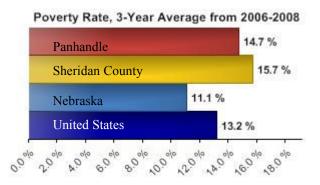
# Economic Well-Being

- Average Poverty Rate
- -Average Unemployment Rates
- Average Net Migration
- Average Growth in Per Capita Personal Income
- Compensation

#### **Average Poverty Rate**

Innovative economies are thought to be less poverty stricken as a result of elevated employment opportunities and a more highly educated workforce with diverse skills that open the doors to an increased number of employers. As poverty rates decrease, presumably innovation has increased. It also demonstrates how well wealth is distributed throughout the population.

Even though Sheridan County has a high GDP level per worker, its poverty figures are well above the statewide level. This may demonstrate that a large proportion of the local population is not sharing in that wealth compared to the state, nation and region.

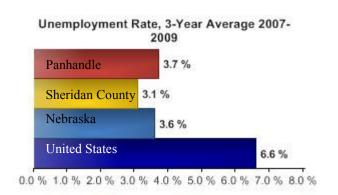


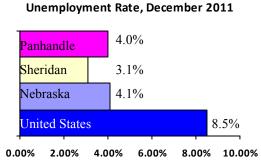
Poverty Rate, 3-Year Average from 2006 to 2008						
	Avg Poverty Rate	Number in Poverty (2006)	Number in Poverty (2007)	Number in Poverty (2008)		
Panhandle	14.7%	13,071	12,578	11,257		
Sheridan County	15.7%	880	812	809		
Nebraska	11.1%	194,595	190,463	186,480		
United States	13.2%	38,757,253	38,052,247	39,108,422		
Panhandle Counties						
Banner County	13.2%	97	99	101		
Box Butte County	11.8%	1,275	1,393	1,153		
Cheyenne County	10.0%	936	1,040	945		
Dawes County	18.9%	1,449	1,439	1,555		
Deuel County	11.5%	235	207	207		
Garden County	15.3%	307	277	242		
Kimball County	12.8%	503	439	417		
Morrill County	15.4%	825	807	659		
Scotts Bluff County	16.1%	6,359	5,877	5,002		
Sheridan County	15.7%	880	812	809		
Sioux County	13.9%	205	188	167		

#### **Average Unemployment Rates**

Innovative economies have greater employment opportunities and lower unemployment rates. Much like poverty rates which demonstrate how wealth is being distributed through the community, unemployment rates demonstrate how opportunities are created for a community to participate.

Sheridan County's unemployment rate is less than half the national rate and is also lower than the state and region. However, this does not demonstrates that employment opportunities are abundant for its citizens. It is more likely that the county has a low unemployment rate because young adults are leaving the county while relatively few people are moving to Sheridan County to take local employment.



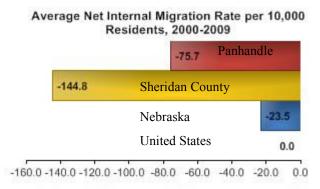


Unemployment Rate, 3-Year Average 2007-2009							
	Unemployment Rate 3-year Average 2007-2009	Unemploy- ment 2007	Unemploy- ment 2008	Unemploy- ment 2009	Labor Force 2007	Labor Force 2008	Labor Force 2009
Panhandle	3.7%	1,283	1,576	2,304	46,366	46,882	45,920
Sheridan County	3.1%	76	86	125	3,121	3,132	3,096
Nebraska	3.6%	28,590	31,727	46,857	981,647	992,165	981,018
United States	6.6%	7,078,000	8,924,000	14,265,000	153,124,000	154,287,008	154,142,000
Panhandle Counties							
Banner County	2.6%	8	10	13	406	409	397
Box Butte County	4.5%	178	212	379	5,646	5,744	5,600
Cheyenne County	3.2%	125	150	234	5,275	5,350	5,056
Dawes County	3.3%	127	142	208	4,828	4,936	4,778
Deuel County	3.3%	30	32	42	1,056	1,047	1,061
Garden County	3.4%	25	29	42	942	943	953
Kimball County	3.7%	54	67	94	1,985	1,963	1,905
Morrill County	3.4%	72	92	125	2,795	2,843	2,855
Scotts Bluff County	3.9%	568	731	1,017	19,600	19,815	19,484
Sheridan County	3.1%	76	86	125	3,121	3,132	3,096
Sioux County	3.3%	20	25	25	712	700	735

#### **Average Net Migration**

Total migration of all persons into a county serves as an indicator of whether a region is attractive to job seekers and families.

Despite Sheridan County's generation of wealth, it is still experiencing a very large level of net internal out-migration. The level of out-migration is among the highest in the nation and it nearly double the Panhandle region's very high level.

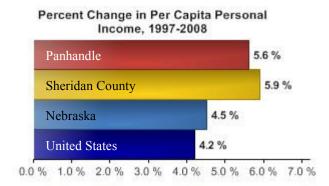


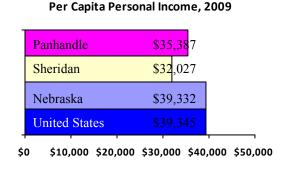
Average Net Internal Migration Rate, 2000-2009					
	Average Net Internal Migration Rate per 10,000 Residents				
Panhandle	-75.7				
Sheridan County	-144.8				
Nebraska	-23.5				
United States	0.0				
Panhandle Counties					
Banner County	-256.9				
Box Butte County	-146.5				
Cheyenne County	-29.4				
Dawes County	-48.3				
Deuel County	-91.5				
Garden County	-199.1				
Kimball County	-103.3				
Morrill County	-109.2				
Scotts Bluff County	-39.5				
Sheridan County	-144.8				
Sioux County	-170.8				

#### Average Growth in Per Capita Personal Income

Personal Income is the broadest measure of a person's income because it includes rental income, dividends and interest payments, in addition to salary, wages and benefits. As a result, it is probably the best measure of well-being.

This demonstrates that the average Sheridan County resident is generating much less wealth annually than both the state and nation. Sheridan County's per capita personal income is also below the Panhandle region's low level. Although the rate of income growth in Sheridan County from 1997 to 2008 outpaced the regional, state and national rates of income growth, it was largely due to the very low income levels in Sheridan County in 1997. Per Capita Personal Income in the county actually fell from 2008 to 2009, as they did in most of America.



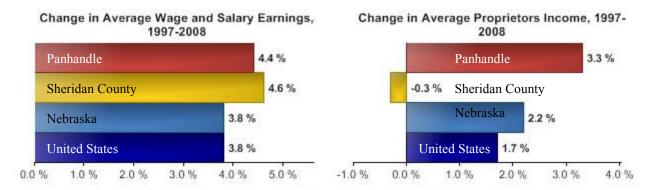


Average Annual Growth in Per Capita Personal Income, 1997-2008, 2009						
	Average Annual Growth in Per Capita Personal Income (PCPI)	PCPI , 1997	PCPI, 2008	PCPI, 2009		
Panhandle	5.6%	\$19,862	\$36,675	\$35,387		
Sheridan County	5.9%	\$17,458	\$33,330	\$32,027		
Nebraska	4.5%	\$24,359	\$40,163	\$39,332		
United States	4.2%	\$25,654	\$40,674	\$39,345		
	Panhan	dle Counties				
Banner County	6.7%	\$18,179	\$38,009	\$30,556		
Box Butte County	4.8%	\$21,736	\$36,874	\$35,225		
Cheyenne County	6.7%	\$21,038	\$43,729	\$40,908		
Dawes County	5.8%	\$15,875	\$29,930	\$28,981		
Deuel County	4.4%	\$21,600	\$35,219	\$33,981		
Garden County	8.1%	\$20,263	\$49,187	\$45,888		
Kimball County	6.1%	\$20,568	\$40,118	\$37,197		
Morrill County	8.1%	\$17,606	\$42,773	\$39,392		
Scotts Bluff County	4.8%	\$20,798	\$35,166	\$34,915		
Sheridan County	5.9%	\$17,458	\$33,330	\$32,027		
Sioux County	9.1%	\$12,589	\$34,207	\$35,737		

#### **Compensation**

Improvements in earnings per worker, or compensation, signify a positive trend in economic growth being passed on to workers. Two specific categories of workers are considered: wage and salary employees and nonfarm proprietors.

Sheridan County's figures in these area's demonstrate that while workers experiences above average growth in wages and salaries, proprietors incomes actually declined.



Compensation, Chg. in Avg. Wage and Salary Earnings, 1997 to 2008						
	Average Annual Change in Wage and Salary Earnings per Worker	Wage and Salary Employment, 1997	Wage and Salary Employment, 2008	Wage and Salary Disbursements, 1997 (000s)	Wage and Salary Disbursements, 2008 (000s)	
Panhandle	4.4%	39,367	42,222	\$829,132	\$1,441,145	
Sheridan County	4.6%	2,321	1,899	\$35,755	\$48,460	
Nebraska	3.8%	897,691	994,816	\$22,520,992	\$37,730,705	
United States	3.8%	128,681,000	143,024,000	\$3,872,441,000	\$6,551,432,000	
Panhandle Counties						
Banner County	4.2%	182	185	\$3,923	\$6,323	
Box Butte County	4.1%	6,207	5,619	\$166,741	\$237,996	
Cheyenne County	5.4%	4,988	6,347	\$106,028	\$243,871	
Dawes County	3.3%	3,297	4,090	\$59,944	\$107,220	
Deuel County	2.8%	623	638	\$11,915	\$16,674	
Garden County	5.8%	927	689	\$14,334	\$20,135	
Kimball County	4.2%	1,748	1,581	\$32,787	\$47,256	
Morrill County	5.5%	1,608	1,776	\$28,040	\$56,722	
Scotts Bluff County	4.2%	17,160	19,102	\$365,273	\$647,046	
Sheridan County	4.6%	2,321	1,899	\$35,755	\$48,460	
Sioux County	7.3%	306	296	\$4,392	\$9,442	

Compensation Change in Average Proprietors Income, 1997 to 2008						
	Average Annual Change in Proprietors' Income per Proprietor	Proprietors' Employment, 1997	Proprietors' Employment, 2008	Proprietors' Income 1997 (000s)	Proprietors' Income 2008 (000s)	
Panhandle	3.3%	9,565	11,448	\$162,540	\$281,197	
Sheridan County	-0.3%	726	687	\$11,646	\$10,633	
Nebraska	2.2%	160,239	205,949	\$3,242,079	\$5,286,006	
United States	1.7%	23,648,200	34,683,200	\$595,645,000	\$1,051,150,000	
Panhandle Counties						
Banner County	-4.4%	51	100	\$725	\$880	
Box Butte County	2.5%	1,129	1,308	\$16,254	\$24,659	
Cheyenne County	4.2%	976	1,226	\$17,914	\$35,593	
Dawes County	-1.4%	1,018	1,402	\$16,191	\$19,033	
Deuel County	-1%	283	324	\$4,580	\$4,704	
Garden County	-3.2%	316	449	\$4,169	\$4,180	
Kimball County	2.3%	691	681	\$9,918	\$12,549	
Morrill County	3.5%	535	703	\$6,937	\$13,338	
Scotts Bluff County	5.3%	3,753	4,424	\$73,461	\$154,628	
Sheridan County	-0.3%	726	687	\$11,646	\$10,633	
Sioux County	-1.9%	87	144	\$745	\$1,000	

# Additional 'New Economy' Characteristics and Trends

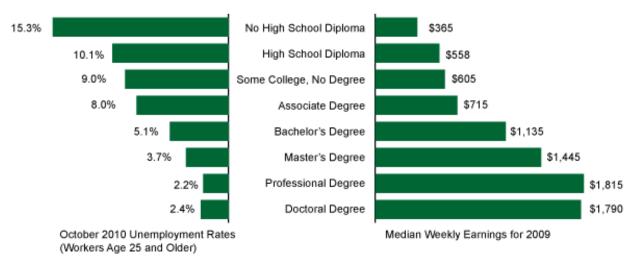
#### **Education Matters**

The gap in pay and employment between highly educated and less educated persons continues to widen. Persons with a high school diploma or less as their highest level of education now, on average, make less in real dollar terms than they did 30 years ago.

The recent recession fell particularly hard on less educated persons. While persons with a college degree were nearly at full employment levels, over 15% of adults without a high school diploma were unemployed while persons with no greater than a high school diploma experienced 10% unemployment.

Globalization has made it especially difficult for persons with no specialized skills or college degree. Companies now have access to billions of persons who are willing to provide manual or routine labor for dollars a day. Willingness to simply put in a hard days work no longer guarantees employment or a livable wage.

#### Unemployment Rates and Weekly Earnings Are Inversely Related by Education Level



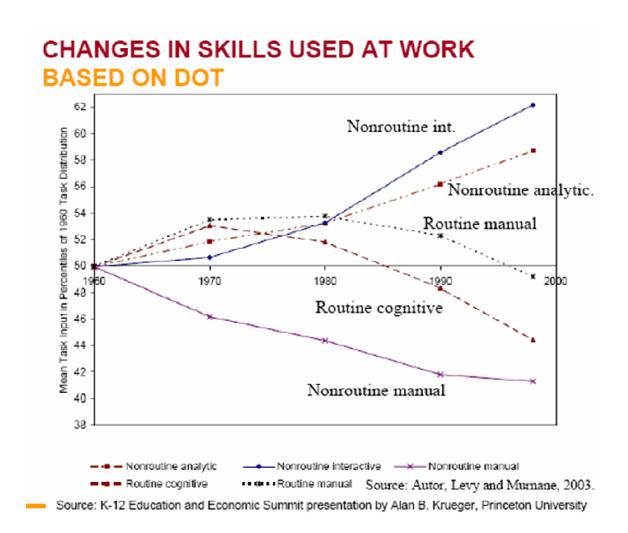
Source: U.S. Census Bureau

#### **Changes in Skills Used at Work**

Changes in skills used at work reinforce the importance of education and the challenges facing unskilled and uneducated persons.

Jobs that are routine or manual in nature have been declining in America for the past 30 to 50 years. These jobs are often the types of positions that are easily outsourced to unskilled workers in foreign countries who are willing to work for very little pay.

Job growth in non-routine interactive or analytic occupations have been growing significantly in the United States over the past 30 years. These occupations, though, usually require specific skills training or an advanced education.



#### **Shift from Manufacturing to Services**

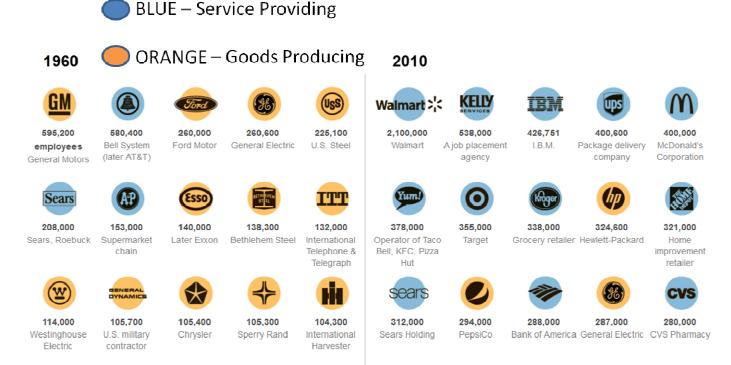
Examining the largest employers shows how America's economy has changed. Over the last 50 years, the country has shifted from creating goods to providing services. Today, about a tenth of Americans work in manufacturing, while service providers and retailers employ about six in seven of the nation's workers.

In 1960, all but three of the largest employers in the United States were goods producing companies.

In 2010, only three of the top 15 employers in the country are goods producing companies. Even among the three goods producers, HP has a large service unit, GE has both a large finance and service unit, and Pepsi is producing non-durable goods such as soft drinks and snacks.

It is also notable that America's two largest companies, Apple and Exxon are not among the largest US employers. Apple for example, is estimated to employ over 700,000 of its approximately 750,000 workers in other countries.

#### Largest Employers IN the USA



By AMANDA COX, CHARLES DUHIGG, XAQUÍN G.V., MIKA GRÖNDAHL, HAEYOUN PARK, GRAHAM ROBERTS, KARL RUSSELL | Send Feedback

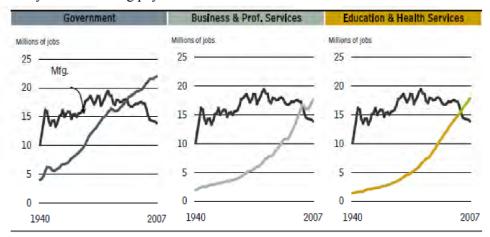
#### **Large Growth in Service Industries**

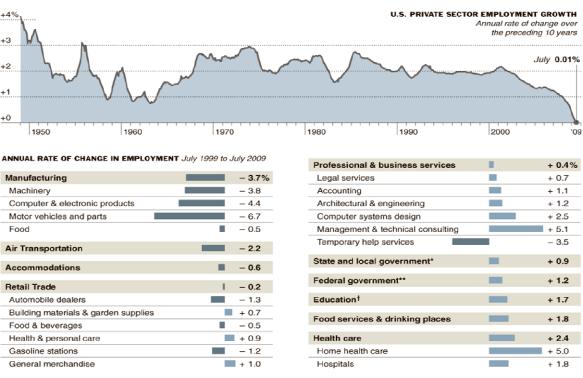
Between May 1999 and May 2009, the US private sector added 6.6 millions service jobs and lost 5.4 million production jobs. Services now account for 83% of private sector jobs.

Areas of job growth in the past decade have largely been in business and professional services, health care, education, food services, and government. With the exception of food services, all these industries require advanced degrees or skills and are high paying occupations.

Occupations that once provided good wages to less educated persons, particularly those in the manufacturing and production areas, have continued decades of decline while retail sales have been flat.

Also, the rate of overall private sector employment growth has been declining well before the recent recession. This is largely due to technology, software and outsourcing making it easier to increase productivity while reducing payrolls.





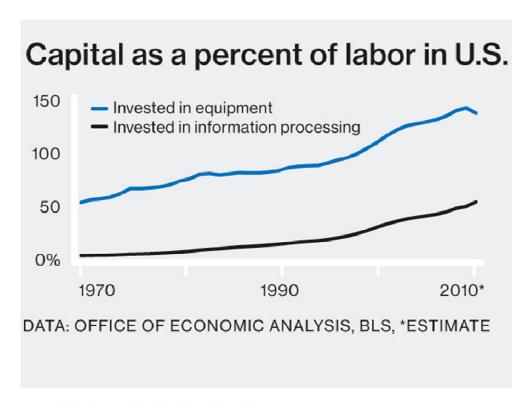
\*Excludes education \*\*Excludes postal service †Includes private school employees as well as state and local government employees

#### Non-Human Capital Replacing Labor

Companies in the United States have significantly increased their investment in equipment and software in relation to their investment in labor.

Labor is typically the most expensive production cost for businesses. Technology has enabled businesses to replace labor with machines, robotics and, increasingly, software devices.

This trend will likely accelerate as technology greatly increases productivity and reduces costs leading to greater profits. While America has suffered high unemployment the past few years, corporate America has benefited with record profits and record levels of cash due to these investments in technological capital and cost cutting, much of which has been reducing labor. While many of the jobs lost in the past recession will simply never return, new occupations will arise with the changing and growing economy.





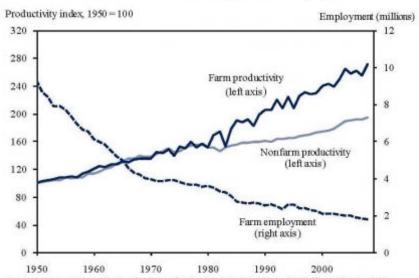


#### **Farms Continue Producing More with Fewer People**

American companies are producing much more with fewer people. This has been quite evident in agriculture over the past century. Rising productivity due to advances in technology and improved farming practices meant that fewer workers were needed to produce the same amount of output. But this shift hardly spelled disaster for the national economy. Workers who moved from farms found jobs in other sectors, although for Sheridan County, that often meant finding jobs in other locations..

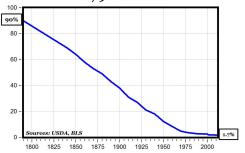
Perhaps the defining feature in the history of U.S. agriculture is its persistent gains in efficiency. Even relative to America's surge in productivity over the past half century, American agricultural productivity has grown rapidly. Farm productivity nearly tripled in the second half of the twentieth century, while nonfarm productivity increased by about 75 percent. Almost all of this divergence in productivity growth occurred after 1980. A consequence of this tremendous increase in productivity is that, despite increases in total agricultural output, employment has declined. In 1900, about 41 percent of the total U.S. workforce farmed. This share dropped to 16 percent in 1945, 4 percent in 1970, and only 2 percent in 2000. <sup>3</sup>

Figure 3
Farm and Nonfarm Productivity and Farm Employment



Sources: Department of Labor (Bureau of Labor Statistics), Historical Multifactor Productivity Measures, Table XG4b, and Current Employment Survey, Department of Agriculture (Economic Research Service), Agricultural Productivity in the United States, Table 1; Department of Commerce (Bureau of Economic Analysis), National Income and Product Accounts, Table 6.4.

Farm Jobs, % of Total U.S. Jobs 1790 to 2011

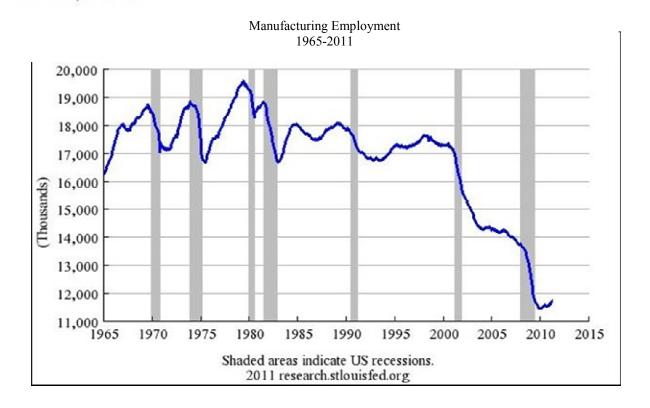


#### The Decline in Domestic Manufacturing Employment Accelerates

While the percent of the US labor force in manufacturing has been declining for the past six decades, the actual number of Americans employed in manufacturing remained relatively steady from 1965 to 2000.

However, between 2000 and 2010, the number of domestic manufacturing jobs dropped dramatically. This was due partly to an increase in out-sourcing, but also do to technology and software. Much like agriculture, even though domestic manufacturing employment has been declining, production is increasing.

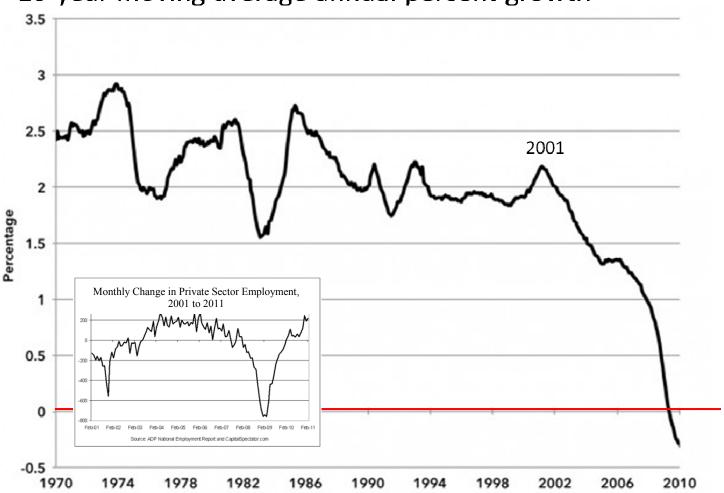
U.S. Manufacturing Employment and Middle-Income Country Manufacturing Exports 1962-2009 35% MANUFACTURING MANUFACTURING **PRODUCTIVITY EMPLOYMENT** 125 20 million 30% Index of output per hour In millions Percent of U.S. workforce of workers for employed workers employed in manufacturing 25% 100 20% 75 15% Including China 10% 50 Developing country manufacturing exports as a 5% percent of world total Excluding China 25 0% 1962 1966 1970 1974 1978 1982 1986 1990 1994 1998 2002 2006 0 Note: Middle-income countries include Argentina, Bolivia, Brazil, Chile, '00 '05 10 . '90 200 '05 Colombia, Ecuador, India, Mexico, Morocco, Panama, the Philippines, Tunisia, and Turkey, for which a complete record is available. Data for China is available beginning in 1984. Sources: BLS, World Bank.



#### **Rate of Private Sector Employment Slowing**

Long before the 2007 recession, the rate of private sector employment in the United States had been slowing. As in manufacturing and agriculture, private employers are more efficient as they are able to do more with less labor, thanks to technological and software advances.

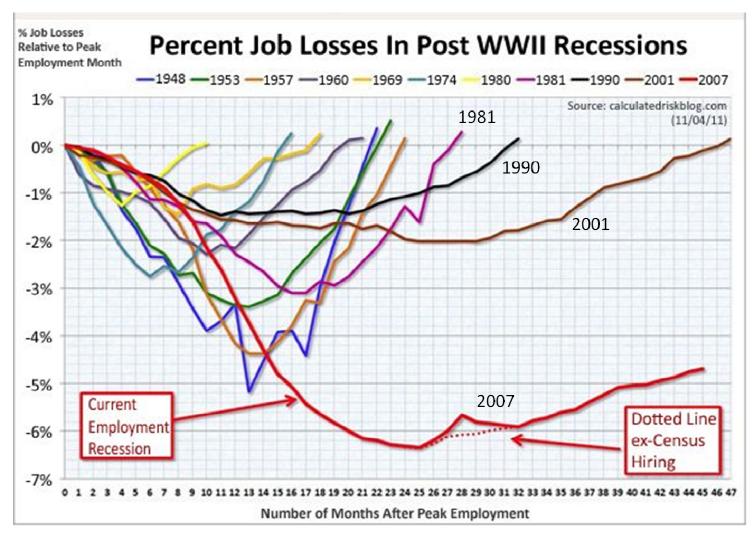
# US Private Sector Job Growth – 10-year moving average annual percent growth



#### **Economic Recoveries are Slowing**

One of the benefits of economic recessions is that businesses tend to come out of them more efficient. However, as the gains in economic efficiency have increased, economies are bouncing back much quicker than employment. As a result each of the last four recessions have taken longer to recover from than the previous recession.

The job recoveries of the last two recessions have been especially long. The 2001 recession took nearly four full years for jobs to fully recover, yet during that time over 7 million persons were added to the labor force. The current recession, the deepest since the Great Depression, may take nearly a decade to return to 2007 levels. However, this will not account for the millions of new entrants to the labor force.

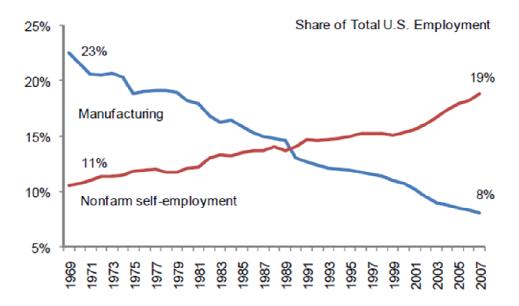


#### **Free Agent Workforce**

Self-employment is becoming a more significant part of our nation's economy. Self-employment has grown at a rate three times greater in the last decade than in the previous 30 years.

Sheridan County will be greatly served by creating an economic environment that is conducive to selfemployed persons; this means primarily reliable transportation, internet access, and a high quality of life.

#### "Free agent" workforce



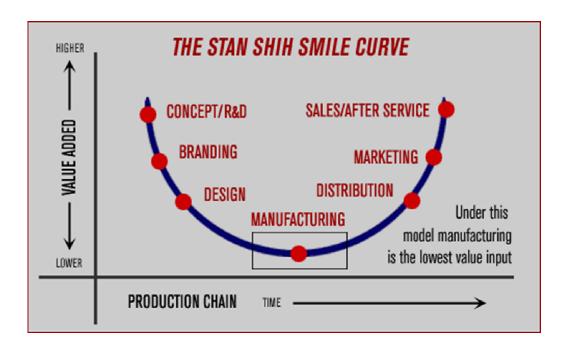
Source: Bureau of Economic Analysis. "Free agent" is used by Daniel Pink in his book Free Agent Nation.

#### **Greater Value Produced in Non-Production Activities**

Many persons who grew up in the industrial age were conditioned to believe that the source of wealth creation is in producing things through manufacturing, agriculture or other means.

However, in today's economy, greater value often comes from research and development, branding, design, distribution, marketing, and sales/services after initial purchase, while the physical act of making things is often the least valuable input of the final product (which is why manufacturing and/or assembly functions are often out-sourced).

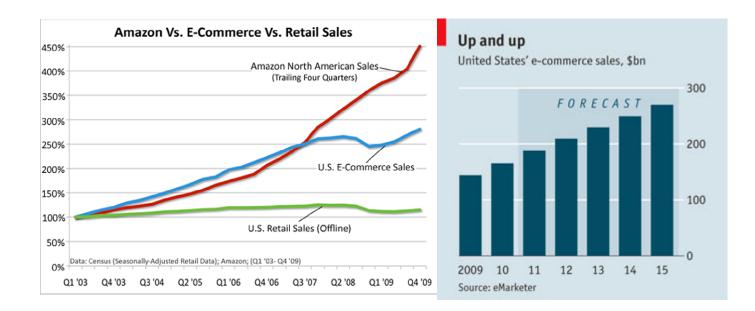
Cabela's is a good example of a regional company that has learned how to maximize profits through this modern paradigm. Cabela's does not manufacture its own product line. Rather, they generate wealth through their company concept, branding, marketing, distribution, services, and sales.



#### **E-Commerce Capturing Most Retail Sales Growth**

Americans are purchasing a much greater amount of retail items on-line. While on-line sales grew 14.8% in 2010, "bricks and mortar" retail sales have remained flat over the past decade. Even "big box" retail behemoths are impacted. Wal-Mart, for example, had declining same store sales for seven consecutive quarters before recently reversing the trend. The e-commerce boom will likely continue to benefit from innovation of mobile applications like iPads and unique, innovative websites like Amazon, Groupon, and Priceline.

This trend will likely impact local retail stores and local sales tax revenues. Local retailers will need to adapt to these trends and utilize the internet to expand their markets while local planning efforts will need to acknowledge that greater growth potential in service related industries rather than storefront retail operations



#### Strengths

- Sheridan County has a strong history of fostering successful entrepreneurs
- Sheridan County has quality K-12 school systems
- Sheridan County has one of the lowest unemployment rates in the United States
- Sheridan County has a much higher percentage of adults with some college or an Associate's Degree than the national average.
- Sheridan County has a much greater share of small business establishments per resident than the region, state, and nation
- GDP per worker is ahead of the state and regional levels. The annual growth in GDP per worker in Sheridan County is also significantly outpacing the national, state and regional growth rates.
- Sheridan County's wages and salaries grew at a faster rate from 1997 to 2008 than the state and national average.

#### Weaknesses

- Sheridan County is well behind the state and nation in the percentage of adults with a Bachelor's Degree or higher.
- Sheridan County has fared very poorly with one of the highest youth out-migration rates in the country.
- The share of high tech employment in Sheridan County is on par with the Panhandle region, but is well behind the state and national average in this category.
- Sheridan County not only rates behind the Panhandle region in technology-based knowledge occupations, its share is less than half the state and national levels.
- Sheridan County trails the region in broadband density and is well behind the levels in the state and nation.
- Sheridan County's average establishment churn is slightly behind the regional and statewide churn. The national rate of establishment churn is well ahead of the county level..
- The County does not have any large employment establishments.
- The county has a smaller high tech employment share than the state and nation and its share is declining at a significant pace.
- Even though the county has been losing population, its job growth in relation to population growth still trails the region and is well behind the state, which is adding jobs faster than it is adding people
- The county's high GDP per worker is likely due to high commodity prices which may not be sustainable or consistent over the long term
- The county is not producing any patent activity.
- Even though Sheridan County has a high GDP level per worker, it's poverty figures are well above the statewide level.
- The county's low unemployment rate is probably a result of young adults leaving the county while relatively few people are moving to Sheridan County to take local employment.
- -Sheridan County's out-migration is among the highest in the nation; nearly double the Panhandle region's very high level.
- The average Sheridan County resident is generating much less wealth annually than both the state and nation.
- Although the rate of income growth in Sheridan County from 1997 to 2008 outpaced the regional, state and national rates of income growth, it was largely due to the very low income levels in Sheridan County in 1997.
- Proprietor's incomes declined in the county between 1997 and 2008.

#### **Opportunities**

- Continued technological advancement provides local businesses the ability to greatly improve their productivity
- Modern telecommunications enable local businesses to greatly expand their customer base to a world-wide market
- UNL is expanding their research efforts
- Modern technology enables many knowledge driven industries to locate in areas where many fixed and variable costs are lower than large cities.
- WNCC can provide job training assistance to local residents for many emerging industries
- Growth in service industries, especially health care, will provide many high paying employment opportunities in Gordon

#### **Threats**

- Young residents who are more interested and involved with modern technology will continue to leave the community and not return if employment is not available to meet their career interests.
- The present and future knowledge- driven economy will likely leave many less educated residents unprepared for good paying job opportunities
- Many residents, especially those who grew up in an industrial age when education was less important in finding a good paying job, will remain stuck in an old economy mindset and will resist positive change.
- Many quality employers are deterred from investing in the area due to a perception they will not be able to find a sufficient number of workers
- The County has very few new economy businesses to generate additional new economy business opportunities
- The county's substandard new economy infrastructure will make it difficult to maintain and attract entrepreneurs that desire state of the art communication infrastructure