

Cozad Development Corporation Target Industries Review March 2017

*Kenneth M. Lemke, PhD
Economist
Nebraska Public Power District
1414 15th Street - P.O. Box 499
Columbus, Nebraska 68602-0499
(877) 275-6773, Ext. 5535
E-Mail: kmlemke@nppd.com
Web Site: econdev.nppd.com*

Executive Summary

This study identifies a core set of industries as likely candidates for future retention, expansion, and possible recruitment efforts by Cozad Development Corporation (CDC). The area included in the study consists of Dawson plus six contiguous counties. Two of the six counties are Core Micropolitan counties and four counties are classified as rural. Key findings of this report include:

- Continuing population loss erodes an area's tax base, makes it difficult to maintain current employment levels, and places future growth at risk.
- Dawson County has the highest proportion, 23.1 percent, of population in the youngest age group of 0 to 14 years of age; this is a positive for potential future population growth in Dawson County.
- Dawson County relies on other counties for substantial numbers of both workers and jobs for its residences; but, overall, experiences a relatively small net inflow of workers.
- Dawson, Buffalo, Custer, and Phelps Counties provide a large number of jobs relative to their working age population; this indicates relatively tight local labor markets and a likely high level of dependence on in-commuters to fill job openings.
- Dawson County has a relatively low level of educational attainment when compared to other areas in this study and to Nebraska as a whole.
- Dawson County's relatively low educational attainment may limit the county's ability to sustain and compete for some business expansion or relocations.
- The average income level of Dawson County residents is lower than all of the other counties in this study and is also lower than both the Nebraska statewide and United States averages.
- Dawson County wages and salaries are relatively low in comparison to the other areas of the study.
- Wage data and employment data does not initially indicate the presence of a strong core of well paid workers in any specific occupation.

Information on recent and projected labor force, workforce, and industry trends plus data on occupational and industry wages is used to identify the relative strengths and importance of existing industries and occupations in the study area. Location quotient analysis is used to identify an initial, broad set of industries for further study as possible future drivers of the study area economy. Shift-share analysis for the recent period 2010 to 2016 and projected values for the period 2016 to 2022 is used to identify more detailed, 4-digit North American Industrial Classification System (NAICS) code, industries as possible future drivers of the Cozad Target Area economy. Sales to the core industries by other local businesses are compared to exports and this supply chain analysis identifies possible opportunities for local input substitution.

The core industries identified as possible drivers of the area economy in the location quotient analysis are grouped into seven, broad industry groups:

- 1) Crop and Animal Related Manufacturing
- 2) Metal, Metal Products and Machinery Manufacturing
- 3) All Other Manufacturing
- 4) Wholesale Trade
- 5) Transportation and Warehousing
- 6) Finance and Insurance
- 7) Professional, Scientific, and Technical Services

Shift share analysis is used to identify 15 more detailed, 4-Digit NAICS codes industries within the seven broad groups, as likely to be highly important to the current and future economic vitality of Dawson County. These 15, 4-digit NAICS industries are:

- 1) NAICS 3116 Animal Slaughtering and Processing
- 2) NAICS 3331 Agriculture, Construction, and Mining Machinery Manf.
- 3) NAICS 3339 Other General Purpose Machinery Manf.
- 4) NAICS 3251 Basic Chemical Manf.
- 5) NAICS 3261 Plastics Product Manf.
- 6) NAICS 3363 Motor Vehicle Parts Manf.
- 7) NAICS 4233 Lumber and Other Construction Materials Merchant Wholesalers
- 8) NAICS 4238 Machinery, Equipment, and Supplies Merchant Wholesalers
- 9) NAICS 4244 Grocery and Related Product Merchant Wholesalers
- 10) NAICS 4245 Farm Product Raw Material Merchant Wholesalers
- 11) NAICS 4249 Miscellaneous Nondurable Goods Merchant Wholesalers
- 12) NAICS 4821 Rail Transportation
- 13) NAICS 4842 Specialized Freight Trucking
- 14) NAICS 5222 Nondepository Credit Intermediation
- 15) NAICS 5416 Management, Scientific, and Technical Consulting Services

A total of seventeen industries are identified as targets for import substitution:

- 1) NAICS 423110 Automobile and Other Motor Vehicle Merchant Wholesalers
- 2) NAICS 423990 Other Miscellaneous Durable Goods Merchant Wholesalers
- 3) NAICS 424990 Other Miscellaneous Nondurable Goods Merchant Wholesalers
- 4) NAICS 482110 Rail transportation
- 5) NAICS 484110 General Freight Trucking, Local
- 6) NAICS 492110 Couriers and Express Delivery Services
- 7) NAICS 493110 General Warehousing and Storage
- 8) NAICS 517110 Wired Telecommunications Carriers
- 9) NAICS 522110 Commercial Banking

- 10) NAICS 541110 Offices of Lawyers
- 11) NAICS 541611 Administrative Management and General Management Consulting Services
- 12) NAICS 541990 All Other Professional, Scientific, and Technical Services
- 13) NAICS 551111 Offices of Bank Holding Companies
- 14) NAICS 561320 Temporary Help Services
- 15) NAICS 561730 Landscaping Services
- 16) NAICS 811310 Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance

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Nebraska Public Power District*

Introduction

The purpose of this study is to provide Cozad Development Corporation (CDC) with information to be used as part of a process to identify industries for future retention, expansion, and possible recruitment efforts. Additional information that may be used in this targeting process includes insights of CDC and community members plus possible further investigations conducted by CDC.

This report contains information on the relative sizes and trends, both recent and projected, of area industries and labor forces, plus information on interactions between the Dawson County economy and the economies of counties linked to it by commuting patterns. Industries that are key drivers of Dawson County's recent economic growth, that are expected to be future drivers of economic growth, and that appear to have potential to become drivers of the area economy are identified in this study. Also identified are industries that are currently highly important to the area's economic health but may be at risk due to expected declines in overall national employment.

Methodology

U.S. Census Department's Bureau of the Census and Economic Modeling Specialist International (EMSI) are the primary sources of information for this study. EMSI, a private data vendor, collects and analyzes data from a variety of public and private sources such as the U.S. Census Department, the U.S. Department of Labor, and the U.S. Department of Education. EMSI uses this information to derive estimates of local data suppressed by government agencies to protect proprietary information. Data from EMSI enables a level of analysis that would not be possible in many Nebraska counties due to high levels of data suppression common in areas of relatively small population. NPPD subscribes to EMSI data services and provides this information to wholesale and retail customers as part of its economic development services to these communities.

Data from the U.S. Census Bureau's OnTheMap Application have been used to identify six counties closely linked to Dawson County based on proximity and commuting patterns. All six of these counties are adjacent to Dawson County.

Two of the six counties are Core Micropolitan counties (Core Micro). Dawson and the remaining four counties are classified as rural. For the analysis of area industries workforces and labor forces data, the four rural counties are usually combined into a single group (Rural Counties) and information for Dawson County is reported separately. In the analysis of potential key or target industries, information about Dawson County is combined with the other Rural Counties (Dawson Plus Rural Counties).

Information on recent and projected labor force, workforce, and industry trends plus data on occupational and industry wages is reported for the Core Micro Counties, Rural Counties, and Dawson County. This information is used to identify the relative strengths and importance of existing industries and occupations in the Core Micro Counties and the Dawson Plus Rural Counties groups.

Location quotient analysis, using past, present, and projected future employment, wages and gross regional product, is used to identify an initial, broad set of industries for further study as possible drivers of the study area economy. Shift share analysis for the periods 2010 to 2016 and 2016 to 2022 is used to classify more detailed, 4-digit North American Industrial Classification (NAICS) code, industries as: (a) important drivers of area economies, (b) potential drivers of area economies, (c) important industries with national trends of declining employment, and (d) other industries. The other industries group includes businesses that primarily support local population such as retail trade, construction, personal service, and education.

Lastly, sales to key industries and to industries identified as having the potential to become key industries by businesses outside the study area are compared to exports by similar local businesses. This supply chain analysis identifies possible opportunities for local input substitution.

Study Area and Commuting Patterns

The geographic area selected for this study is based upon commuting data from the U.S. Census Bureau’s OnTheMap Application. As shown in Table One below and Figure One on the following page, six counties (Buffalo, Custer, Frontier, Gosper, Lincoln, and Phelps) abut Dawson County. Buffalo and Lincoln counties are both in close proximity and easily accessed via Interstate-80.

As shown in Table One, Dawson County is the location of primary jobs for 7,275, 69.0 percent, of the county’s 10,543 employed residents. The six adjacent counties provide primary jobs for 1,595, 15.1 percent, of Dawson County’s employed residents. Two Core Metropolitan counties, Hall and Lancaster, provide jobs for 3.2 percent, 341, of Dawson County’s residents. Also shown in Table One, Dawson County provides 66.7 percent of the workers for primary jobs within the county. The six other counties in Table One provide, 1,545 or 14.2 percent of workers for Dawson County’s primary jobs.

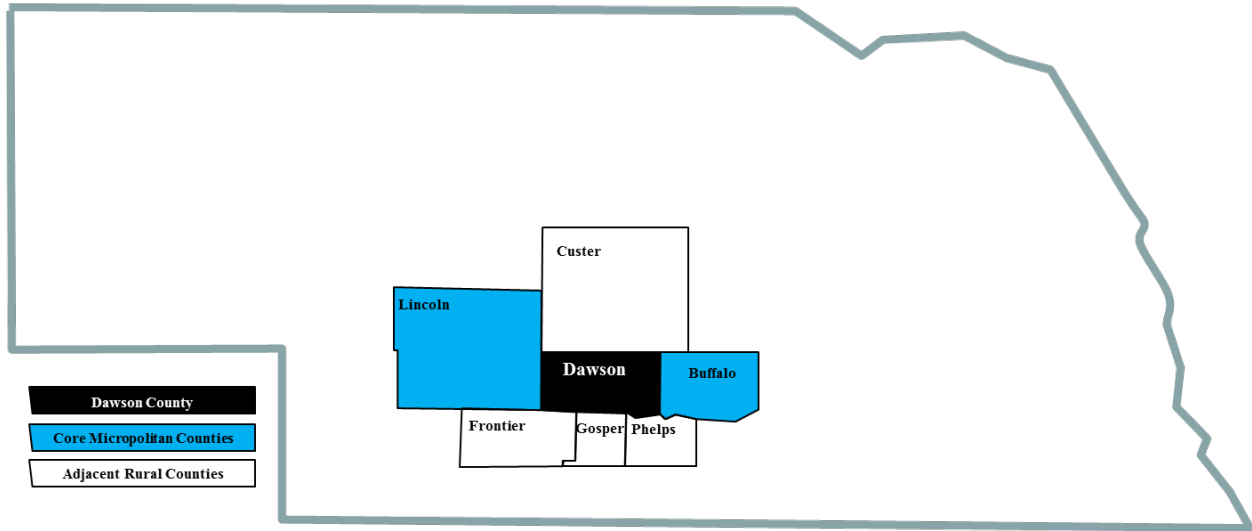
Table One also shows **Dawson County is a net importer of labor** and has 369 or 3.4 percent more primary jobs within the county than residents working at primary jobs.

Table One
Worker Inflows and Resident Outflows 2014

Nebraska County	Where Dawson County Workers Live		Where Dawson County Residents are Employed	
	Number	Percent	Number	Percent
Dawson County, NE	7,275	66.7%	7,275	69.0%
Buffalo County, NE	473	4.3%	825	7.8%
Custer County, NE	211	1.9%	141	1.3%
Frontier County, NE	127	1.2%	74	0.7%
Gosper County, NE	232	2.1%	72	0.7%
<i>Hall County, NE</i>	<i>174</i>	<i>1.6%</i>	<i>154</i>	<i>1.5%</i>
<i>Lancaster County, NE</i>	<i>214</i>	<i>2.0%</i>	<i>187</i>	<i>1.8%</i>
Lincoln County, NE	371	3.4%	319	3.0%
Phelps County, NE	131	1.2%	164	1.6%
All Other Locations	1,704	15.6%	1,332	12.6%
Total	10,912	100.0%	10,543	100.0%

Source: U.S. Census Bureau, OnTheMap Application, <http://onthemap.ces.census.gov>

Figure One
Study Area



Source: U.S. Census Bureau, OnTheMap Application, <http://onthemap.ces.census.gov>.

Two of the counties in the study (Buffalo and Lincoln) are Core Micropolitan counties (Core Micro). Dawson and the remaining four counties (Custer, Clay, Frontier, Gosper, and Phelps) are classified as rural. For the analysis of area industries, workforces, and labor forces data, the four rural counties are typically combined into a single group (Rural Counties) and information for Dawson County is reported separately. In the analysis of potential key or target industries, information about Dawson County is combined with the other Rural Counties (Dawson Plus Rural Counties).

Study Area – Labor Force

The size, skills composition, and recent and projected trends of an area’s labor force are critical to a community’s efforts to retain, grow, and attract businesses that offer superior compensation packages. An evaluation of a region’s current and potential employee pool is a critical step in identifying industries that will be a good fit and promote future growth.

The traditional definition of a labor force is the people living within an area, e.g., Dawson County residents, 16-years of age or older that are either working or actively seeking employment. The labor force may work at locations within or outside their area of residence. In addition to the traditional definition of labor force, the U.S. Department of Labor publishes information on discouraged workers and underemployed workers at the state and national levels.

This section provides information on the demographic characteristics of Dawson County’s, Rural Counties’, and Core Micro Counties’ populations and labor force.

Population Growth and Components of Growth

Typical of most rural Nebraska counties, both Dawson County and the four Rural Counties have experienced recent population declines while Core Micro Counties and Nebraska as a whole have experienced population increases. As shown in Table Two, Dawson County’s population declined by 269 people or 1.1 percent from 2000 to 2014. While the county was able to achieve a natural increase, births minus deaths, of 2,905 people, net out-migration resulted in the loss of 3,174 people. This out-migration was equal to 13.0 percent of 2000 population. The four Rural Counties also experienced substantial declines with a total population loss of 2,191 or 8.2 percent including 279 more deaths than births and net out-migration of 1,912. **Continued loss of population erodes an area’s tax base, makes it difficult to maintain current employment levels, and places future growth at risk.**

Table Two
Population Change by Areas and Total 2000–2014

Area	Population		Population Change 2000–2014		Natural Increase 2000–2014	Net Migration 2000–2014	
	2000	2014	Number	Percent		Number	Percent
Dawson County	24,365	24,096	-269	-1.1	2,905	-3,174	-13.0
Rural Counties	26,781	24,590	-2,191	-8.2	-279	-1,912	-7.1
Core Micro	76,891	84,039	7,148	9.3	6,800	348	0.5
Target Area Total	128,037	132,725	4,688	3.7	9,426	-4,738	-3.7
Nebraska	1,711,263	1,881,503	170,240	9.9	178,301	-8,061	-0.5

Source: U.S. Bureau of the Census, Census of Population, May 2016

When measured by population growth, the Core Micro Counties performed much better than Dawson County and about the same as the state as a whole over the period 2000 to 2014. During the period 2000 to 2014, Core Micro County population increased by 7,148 or 9.3 percent, which is slightly less than the 9.9 percent increase for the state as a whole. During the same 14-year period, net in-migration for the Core Micro Counties was equal to 0.5 percent of 2000 population while Nebraska as a whole experienced out-migration of about 0.5 percent.

The close proximity of growing population centers provides both a challenge and an opportunity for Dawson County. Growing counties provide a potential source of workers to support the expansion of local businesses but also offer a nearby alternative to families considering relocating to another area with similar life styles. **Data from Table One, presented earlier, suggests Dawson County relies on other counties for substantial numbers of both workers and jobs for its residences; but, overall, experiences a relatively small net inflow of workers.**

Population Age Profile

The age distribution of its population is another important factor in assessing the ability of an area to support future business and economic growth. Table Three contains information on the size and distribution of population by study area for important age groups.

As shown in Table Three, **Dawson County has the highest proportion, 23.1 percent, of population in the youngest age group, 0 to 14 years of age, of the three areas in this report. This is a positive for potential future population growth in Dawson County.** The proportion of residents in the prime working age group, 25 to 54, is similar across the three area and ranges from 33.5 in the Rural Counties to 36.0 percent in the Core Micro Counties. Dawson County’s proportion of workers age 25 to 54, 35.7 percent, is virtually the same as the Core Micro Counties’ average of 36.0 percent.

**Table Three
Age Profiles by Areas and Total 2015**

Age Group	Dawson County		Rural Counties		Core Micropolitan		Study Area Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0 to 14	5,516	23.1	4,778	19.3	16,800	19.9	27,094	20.4
15 to 24	3,195	13.4	2,944	11.9	13,742	16.3	19,881	14.9
25 to 54	8,519	35.7	8,263	33.5	30,468	36.0	47,250	35.5
55 to 64	2,957	12.4	3,567	14.4	10,695	12.7	17,219	12.9
65 Plus	3,699	15.5	5,147	20.8	12,814	15.2	21,660	16.3
15 to 64	14,671	61.4	14,774	59.8	54,905	65.0	84,350	63.4
Total	23,886	100.0	24,699	100.0	84,519	100.0	133,104	100.0

Source: U.S. Bureau of the Census, Census of Population, May 2016

Data in Table Four provides information on the number of jobs as a percent of total population and working age population (ages 15 to 65) for each of the seven counties. **In Dawson (89.6 percent), Buffalo (90.8 percent), Custer (91.7 percent), and Phelps (105.1 percent), working age population is a high percentage of primary jobs. This indicates relatively tight local labor markets and a likely high level of dependence on in commuters to fill job openings.**

Table Four
2015 Jobs as a Percent of 2015 Population Ages 15 to 64

County	Jobs 2015	2015 Jobs Percent of 2015 Population	2015 Jobs as a Percent 2015 Population Ages 15 to 65
Dawson	13,137	55.0%	89.6%
Buffalo	29,744	60.9%	90.8%
Custer	5,875	54.4%	91.7%
Lincoln	18,696	52.4%	84.5%
Frontier	950	36.2%	57.8%
Gosper	607	30.7%	51.6%
Phelps	5,837	62.8%	105.1%

Sources: U.S. Bureau of the Census, Census of Population, May 2016
Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

Population Educational Attainment Profile

An area’s ability to support current and future industry expansions and attract new business formations or relocations is heavily dependent on the quality and quantity of workers and their current skill sets. Unfortunately, most of the data on workers’ skills is collected from the local workforce, much of which often comes from areas other than the county, e.g., Dawson County, or region being studied. Until recently, this lack of information about the skills of the resident population has made educational attainment the default metric for evaluation of the potential skills and quality of an area’s labor force. This information is often supplemented with interviews of local employers to ascertain the availability and quality of important skills. Recently, estimates of the occupations of area residents have become available and are reported in the “*Major Occupations and Wages*” section of this report.

As shown in Table Five on the following page, the Rural Counties and Core Micro Counties have high percentages of residents 25 years of age and older with at least a high school diploma, while Dawson County’s percentage is well below the state average. The percent of residents 25 years of age and older with a Bachelor’s degree or higher is highest in the Core Micro Counties and lowest in Dawson County.

Dawson County has a relatively low level of education attainment when compared to other areas in this study and to Nebraska as a whole. As shown in Table Five, only 75.9 of Dawson County’s population aged 24 years and older have attained a high school diploma or equivalency. This is substantially less than the 90.7 percent statewide average, the 92.7 percent Core Micro Counties average and the 92.7 Rural Counties average. Dawson County also has the lowest percentage, 14.9 percent of residents with at least a bachelor’s degree. **Dawson County’s relatively low educational attainment may limit the county’s ability to sustain and compete for some business expansion or relocations.**

Table Five
Educational Attainment, Population 24 Years and Older, 2011–2015, 5-Year Estimates

Attainment	Dawson County		Rural Counties		Core Micro Counties		Cozad Area Total		Nebraska	
	NUM	PER	NUM	PER	NUM	PER	NUM	PER	NUM	PER
Total; Estimate; Population 25 years and over -	15,292	100.0	17,002	100.0	53,433	100.0	85,727	100.0	1,215,400	100.0
Less than 9th grade	2,321	15.2	422	2.5	1,605	3.0	4,348	5.1	49,864	4.1
9th to 12th grade, no diploma	1,365	8.9	819	4.8	2,330	4.4	4,514	5.3	63,610	5.2
High school graduate (includes equivalency)	5,114	33.4	5,653	33.2	15,093	28.2	25,860	30.2	334,449	27.5
Some college, no degree	2,892	18.9	4,588	27.0	14,349	26.9	21,829	25.5	290,878	23.9
Associate's degree	1,322	8.6	1,912	11.2	5,696	10.7	8,930	10.4	120,763	9.9
Bachelor's degree	1,488	9.7	2,575	15.1	10,182	19.1	14,245	16.6	238,158	19.6
Graduate or professional degree	790	5.2	1,033	6.1	4,178	7.8	6,001	7.0	117,678	9.7
Total; Estimate; High school graduate or higher	11,606	75.9	15,761	92.7	49,498	92.6	76,865	89.7	1,101,926	90.7
Total; Estimate; Bachelor's degree or higher	2,278	14.9	3,608	21.2	14,360	26.9	20,246	23.6	355,836	29.3

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates.

Income and Poverty

Information in Table Six, following page, shows **the average income level of Dawson County residents is lower than all of the Rural Counties, all of the Core Micro Counties and is also lower than both the Nebraska statewide and United States averages.** The most recent data available from 2015 shows Dawson County median household income, \$48,329, is lower than all of the four Rural Counties and both of the Core Micro Counties and is 91.2 percent of the state average of \$52,997. Dawson County per capita income of \$22,098 is also lower than all four of the Rural Counties, both of the Core Micro Counties and is 79.3 percent of the state average of \$27,882.

The proportion of Dawson County residents living below the poverty level, 15.3 percent in the most recent surveys, is the highest among both the Rural Counties and the Core Micro Counties, is higher than the Nebraska value of 12.7 percent, but is slightly below the national value of 15.5 percent.

When an area’s full time employment is defined as the percentage of its population ages 16 to 64 working at least 35 hours per week, the percentage of Dawson County’s residents employed full time, 57.7 percent, is slightly higher than the statewide average of 55.8 percent, but is forth lowest among the five rural counties in the study. Overall Table Six indicates **Dawson County wages and salaries are relatively low in comparison to the other areas.**

**Table Six
Income, Poverty Rates, and Hours Worked by County, Areas, and Total**

Area	Median household income in the past 12 months (in 2015 Inflation-adjusted dollars)	Per capita income in the past 12 months (in 2015 Inflation-adjusted dollars)	Percentage of all persons living below poverty level	Percent of 16 to 64 years; that usually worked 35 or more hours per week - 50 to 52 weeks
Dawson	48,329	22,098	15.3	57.7
Rural Counties				
Custer	49,241	28,525	8.9	59.7
Frontier	49,634	25,837	12.6	53.9
Gosper	54,375	27,402	5.7	65.5
Phelps	50,404	26,697	7.9	61.7
Core Micro Counties				
Buffalo	53,624	26,846	13.1	56.6
Lincoln	50,194	27,056	12.8	54.4
Nebraska	52,997	27,882	12.7	55.8
United States	53,889	28,930	15.5	47.7

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates.

Study Area – Workforce

While data about an area’s labor force describe the characteristics of local residents, analysis of an area’s workforce provides information about workers at local businesses, regardless of where they live.

Analysis of workforce data provides insights into the types of businesses that have been and are likely to be successful within a region. Table Seven below provides information on the relative size as measured by 2016 employment, relative compensation paid as indicated by 2016 average earnings inclusive of benefits, and productivity as measured by 2016 gross regional product for very broad categories of Dawson County businesses.

**Table Seven
Dawson County
Employment, Earnings & Gross Regional Product by Industry, 2016**

NAICS	Description	2016 Employment		2016 Average Earnings \$	2016 Gross Regional Product	
		Number	Percent		Level 1,000\$	Percent
11	Crop and Animal Production	1,168	8.9	37,135	80,620	8.9
21	Mining, Quarrying, and Oil and Gas Extraction	16	0.1	53,559	2,317	0.3
22	Utilities	17	0.1	71,262	4,451	0.5
23	Construction	469	3.6	39,264	29,340	3.2
31	Manufacturing	3,577	27.3	46,036	286,487	31.7
42	Wholesale Trade	564	4.3	53,146	70,648	7.8
44	Retail Trade	1,236	9.4	30,534	60,179	6.7
48	Transportation and Warehousing	448	3.4	59,999	41,546	4.6
51	Information	100	0.8	58,668	14,413	1.6
52	Finance and Insurance	299	2.3	55,991	39,638	4.4
53	Real Estate and Rental and Leasing	52	0.4	31,269	20,329	2.2
54	Professional, Scientific, and Technical Services	248	1.9	45,208	15,810	1.7
55	Management of Companies and Enterprises	58	0.4	167,040	11,311	1.3
56	Administrative and Support and Waste Management and Remediation Services	403	3.1	33,283	19,564	2.2
61	Educational Services	27	0.2	23,374	809	0.1
62	Health Care and Social Assistance	767	5.9	32,525	31,775	3.5
71	Arts, Entertainment, and Recreation	94	0.7	14,048	1,976	0.2
72	Accommodation and Food Services	736	5.6	13,994	17,135	1.9
81	Other Services (except Public Administration)	459	3.5	22,719	15,640	1.7
90	Government	2,349	17.9	54,885	140,199	15.5
	Total	13,089	100.0	42,659	904,186	100.0

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

As shown in Table Seven above, NAICS 31 Manufacturing and NAICS 90 Government, which includes public power utilities, account for 45.3 percent, 5,926, of 2016 jobs and 47.2 percent of 2016 gross regional product in Dawson County and pay above average wages. Average Earnings (total compensation) for NAICS 31 Manufacturing, \$46,036, is the above the Dawson County average of \$42,659 and average earnings for NAICS 90 Government, \$54,885, is well above the county average.

Table Eight provides the same information as Table Seven for the four Rural Counties in the study area. NAICS 31 Manufacturing, NAICS 42 Wholesale Trade, and NAICS 90 Government account for 32.6 percent, 4,347, of 2016 jobs, 37.5 percent of 2016 gross regional product, and pay above average wages. Average Earnings (total compensation) for NAICS 31 Manufacturing, \$67,925, and NAICS 42 Wholesale Trade, \$56,313, are well above the area average wage of \$42,856, while average earnings for NAICS 90 Government, \$47,690 also exceeds the average for the county. The high average wage for manufacturing is attributable to a large number of high wages employees in this sector in Phelps County.

Table Eight
Rural Counties, Cozad Target Study,
Employment, Earnings & Gross Regional Product by Industry, 2016

NAICS	Description	2016 Employment		2016 Average Earnings \$	2016 Gross Regional Product	
		Number	Percent		Number	Percent
11	Crop and Animal Production	2,679	20.1	36,824	213,044	21.1
21	Mining, Quarrying, and Oil and Gas Extraction	NA	NA	NA	4,788	0.5
22	Utilities	36	0.3	85,928	12,351	1.2
23	Construction	789	5.9	48,731	68,173	6.8
31	Manufacturing	1,410	10.6	67,925	171,968	17.1
42	Wholesale Trade	702	5.3	56,313	89,692	8.9
44	Retail Trade	1,128	8.5	27,674	51,899	5.1
48	Transportation and Warehousing	385	2.9	59,037	38,396	3.8
51	Information	99	0.7	29,456	7,148	0.7
52	Finance and Insurance	503	3.8	59,168	66,335	6.6
53	Real Estate and Rental and Leasing	66	0.5	38,134	34,355	3.4
54	Professional, Scientific, and Technical Services	304	2.3	42,518	18,939	1.9
55	Management of Companies and Enterprises	NA	NA	NA	1,028	0.1
56	Administrative and Support and Waste Management and Remediation Services	167	1.3	28,101	8,481	0.8
61	Educational Services	35	0.3	22,740	1,000	0.1
62	Health Care and Social Assistance	1,552	11.6	38,356	68,632	6.8
71	Arts, Entertainment, and Recreation	147	1.1	14,246	3,560	0.4
72	Accommodation and Food Services	621	4.7	14,644	15,451	1.5
81	Other Services (except Public Administration)	451	3.4	20,799	16,173	1.6
90	Government	2,235	16.8	47,690	116,685	11.6
	Total	13,324	100.0	42,856	1,008,096	100.0

NA – Not available.

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

As shown in Table Nine below, NAICS 31 Manufacturing, NAICS 42 Wholesale Trade, NAICS 48 Transportation and Warehousing, NAICS 62 Health Care and Social Assistance, and NAICS 90 Government account for 49.3 percent, 23,990, of 2016 jobs, 56.7 percent of 2016 gross regional product, and pay above average wages in the Core Micro Counties of this study. Average Earnings (total compensation) for NAICS 31 Manufacturing, \$58,921, NAICS 42 Wholesale Trade, \$54,392, NAICS 48 Transportation and Warehousing, \$73,644, NAICS 62 Health Care and Social Assistance, \$54,876, and NAICS 90 Government, \$56,700 are all well above the Core Micro County average of \$45,937.

Table Nine
Core Micro Counties, Cozad Target Study,
Employment, Earnings & Gross Regional Product by Industry, 2016

NAICS	Description	2016 Employment		2016	2016 Gross Regional	
		Number	Percent	Average Earnings \$	Product	Percent
11	Crop and Animal Production	1,903	3.9	35,485	182,318	5.2
21	Mining, Quarrying, and Oil and Gas Extraction	70	0.1	47,163	13,614	0.4
22	Utilities	82	0.2	99,308	28,456	0.8
23	Construction	2,654	5.5	50,079	205,980	5.9
31	Manufacturing	3,712	7.6	58,921	361,478	10.4
42	Wholesale Trade	1,734	3.6	54,392	215,347	6.2
44	Retail Trade	6,301	13.0	29,142	288,104	8.3
48	Transportation and Warehousing	3,981	8.2	73,644	483,929	13.9
51	Information	530	1.1	42,869	51,650	1.5
52	Finance and Insurance	1,219	2.5	59,996	162,980	4.7
53	Real Estate and Rental and Leasing	428	0.9	38,867	138,077	4.0
54	Professional, Scientific, and Technical Services	1,431	2.9	51,022	101,673	2.9
55	Management of Companies and Enterprises	817	1.7	51,250	49,459	1.4
56	Administrative and Support and Waste Management and Remediation Services	1,224	2.5	29,019	52,633	1.5
61	Educational Services	290	0.6	21,014	7,405	0.2
62	Health Care and Social Assistance	7,173	14.7	54,876	442,278	12.7
71	Arts, Entertainment, and Recreation	559	1.1	16,221	15,820	0.5
72	Accommodation and Food Services	4,707	9.7	17,671	128,112	3.7
81	Other Services (except Public Administration)	2,435	5.0	24,137	82,813	2.4
90	Government	7,390	15.2	56,700	469,630	13.5
	Total	48,642	100.0	45,937	3,481,756	100.0

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

As shown in Table Ten on the following page, industries in NAICS 31 Manufacturing and NAICS 42 Wholesale Trade provide above average compensation and make up significant portions of the economics in each of the three geographic segments of the Cozad Target Area. Industries in NAICS 62 Health Care and Social Assistance make up significant portions of the Rural Counties and the Micro Core Counties economies, provide average to above average compensation in the Core Micro Counties, but provide below average compensation in Dawson County and the Rural Counties. Industries in NAICS 52 Finance and Insurance provide average or above average wages in all three of the areas but have low levels of employment.

Industries in NAICS 48 Transportation and Warehousing pay above average wages in all areas, employ a large percent of the workforce in the Core Micro Counties, but employ much smaller portions of the rural area workforce. **It is highly likely businesses in these broad categories of NAICS 31 Manufacturing, NAICS 42 Wholesale Trade, 48 Transportation and Warehousing, and NAICS 62 Health Care and Social Assistance will be the major sources of future employment growth in the Cozad Target Area.**

While NAICS 90 Government makes up large portions of the area economy and provide above average compensation, recent trends suggest this may not be as strong a target for future growth.

Table Ten
Distribution of 2016 Employment, Gross Regional Product & Earnings as a Percent of U.S. Average
Dawson County, Rural Counties & Metro Core Counties

NAICS	Dawson County			Rural Counties			Core Micro Counties		
	Percent 2016 Employment	Percent 2016 GRP	2016 Average Annual Earnings	Percent 2016 Employment	Percent 2016 GRP	2016 Average Annual Earnings	Percent 2016 Employment	Percent 2016 GRP	2016 Average Annual Earnings
11 Crop and Animal Production	8.9	8.9	37,135	20.1	21.1	36,824	3.9	5.2	35,485
21 Mining, Quarrying, and Oil and Gas Extraction	0.1	0.3	53,559	NA	0.5	NA	0.1	0.4	47,163
22 Utilities	0.1	0.5	71,262	0.3	1.2	85,928	0.2	0.8	99,308
23 Construction	3.6	3.2	39,264	5.9	6.8	48,731	5.5	5.9	50,079
31 Manufacturing	27.3	31.7	46,036	10.6	17.1	67,925	7.6	10.4	58,921
42 Wholesale Trade	4.3	7.8	53,146	5.3	8.9	56,313	3.6	6.2	54,392
44 Retail Trade	9.4	6.7	30,534	8.5	5.1	27,674	13.0	8.3	29,142
48 Transportation and Warehousing	3.4	4.6	59,999	2.9	3.8	59,037	8.2	13.9	73,644
51 Information	0.8	1.6	58,668	0.7	0.7	29,456	1.1	1.5	42,869
52 Finance and Insurance	2.3	4.4	55,991	3.8	6.6	59,168	2.5	4.7	59,996
53 Real Estate and Rental and Leasing	0.4	2.2	31,269	0.5	3.4	38,134	0.9	4.0	38,867
54 Professional, Scientific, and Technical Services	1.9	1.7	45,208	2.3	1.9	42,518	2.9	2.9	51,022
55 Management of Companies and Enterprises	0.4	1.3	167,040	NA	0.1	NA	1.7	1.4	51,250
56 Administrative and Support and Waste Management and Remediation Services	3.1	2.2	33,283	1.3	0.8	28,101	2.5	1.5	29,019
61 Educational Services	0.2	0.1	23,374	0.3	0.1	22,740	0.6	0.2	21,014
62 Health Care and Social Assistance	5.9	3.5	32,525	11.6	6.8	38,356	14.7	12.7	54,876
71 Arts, Entertainment, and Recreation	0.7	0.2	14,048	1.1	0.4	14,246	1.1	0.5	16,221
72 Accommodation and Food Services	5.6	1.9	13,994	4.7	1.5	14,644	9.7	3.7	17,671
81 Other Services (except Public Administration)	3.5	1.7	22,719	3.4	1.6	20,799	5.0	2.4	24,137
90 Government	17.9	15.5	54,885	16.8	11.6	47,690	15.2	13.5	56,700
Total	100.0	100.0	42,659	100.0	100.0	42,856	100.0	100.0	45,937

NA – Not available.

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

Major Occupations and Wages

The composition of occupations, including associated skill levels, employed within a region is determined by the mix of existing industries. An analysis of average area compensation relative to national averages provides information on the relative skill levels and the attractiveness of an area for retention and growth of industries dependent upon specific skills.

Tables Eleven through Thirteen on the following pages provide information on the number of employees, projected total change in employment between 2016 and 2022, median hourly earnings of employees in Dawson County, the Rural Counties, and the Core Micro Counties. Information on employment and median hourly earnings of residents for these three areas are also provided. These tables also contain a comparison of median hourly earnings by occupation relative to an area's overall average by major occupational group. Table Fourteen compares median pay per occupation to the median U.S. compensation for each of the areas in the study.

As shown in Tables Eleven through Fourteen, Production is the largest occupational group by employment in Dawson County but has below average wages in Dawson and the Core Micro Counties. Management Occupations is the largest occupational group in the Rural Counties and has above average wages in all three areas. Office and Administrative Support is the largest occupational group in the Core Micro Counties, the second largest occupational group in Dawson County and the Core Micro Counties; but has below average wages in all three areas. The large numbers of Office and Administrative Support workers in all areas is due to the prevalence of these occupations across virtually all industries. The low absolute and relative average wages for this occupation within the study area, suggest relatively low overall levels of productivity for this group. **Wage data and employment data does not indicate the presence of a strong core of well paid workers in any specific occupation.**

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Table Eleven

**Dawson County, 2016 Workforce(Local Jobs), Labor Force (Local Residents), and Median Hourly Workforce Earnings Plus
2016–2022 Projected Workforce Change and Total Job Openings*
by Standard Occupational Category (SOC)**

SOC	Occupation Category	2016 Workforce		Employment of Residents By SOC		2016 Median Hourly Earnings		Projected Change in Local Jobs 2016-2022	
		#	%	#	%	Hourly \$	% Area Avg.	Increase	Openings
11-0000	Management Occ.	951	7.3	980	7.5	21.55	135.5	-29	306
13-0000	Business and Financial Operations Occ.	230	1.8	263	2.0	28.05	176.4	19	104
15-0000	Computer and Mathematical Occ.	79	0.6	92	0.7	26.51	166.7	9	33
17-0000	Architecture and Engineering Occ.	59	0.5	57	0.4	28.39	178.6	5	27
19-0000	Life, Physical, and Social Science Occ.	135	1.0	124	0.9	20.26	127.4	10	80
21-0000	Community and Social Service Occ.	153	1.2	159	1.2	18.08	113.7	19	117
23-0000	Legal Occ.	34	0.3	33	0.3	26.64	167.5	-2	10
25-0000	Education, Training, and Library Occ.	782	6.0	770	5.9	19.31	121.4	71	366
27-0000	Arts, Design, Entertainment, Sports, and Media Occ.	115	0.9	100	0.8	13.83	87.0	10	76
29-0000	Healthcare Practitioners and Technical Occ.	538	4.1	522	4.0	29.29	184.2	23	263
31-0000	Healthcare Support Occ.	255	1.9	249	1.9	12.60	79.2	20	143
33-0000	Protective Service Occ.	103	0.8	124	0.9	18.57	116.8	9	53
35-0000	Food Preparation and Serving Related Occ.	760	5.8	875	6.7	9.15	57.5	-7	462
37-0000	Building and Grounds Cleaning and Maintenance Occ.	595	4.5	592	4.5	11.43	71.9	37	330
39-0000	Personal Care and Service Occ.	296	2.3	294	2.2	10.04	63.1	-2	219
41-0000	Sales and Related Occ.	1,050	8.0	1,081	8.2	13.58	85.4	73	622
43-0000	Office and Administrative Support Occ.	1,363	10.4	1,492	11.4	14.02	88.2	27	510
45-0000	Farming, Fishing, and Forestry Occ.	450	3.4	440	3.4	15.46	97.2	37	258
47-0000	Construction and Extraction Occ.	466	3.6	468	3.6	16.29	102.5	60	297
49-0000	Installation, Maintenance, and Repair Occ.	575	4.4	580	4.4	18.26	114.8	64	330
51-0000	Production Occ.	2,941	22.5	2,554	19.5	13.68	86.0	119	1,297
53-0000	Transportation and Material Moving Occ.	1,076	8.2	1,174	9.0	15.23	95.8	44	475
55-0000	Military Occ.	84	0.6	96	0.7	21.54	135.5	-10	24
	Total	13,089	100.0	13,117	100.0	15.90	100.0	607	6,402

* Includes turnover of existing workers.

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

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Table Twelve
Rural Counties, Cozad Target Study,
2016 Workforce(Local Jobs), Labor Force (Local Residents), and Median Hourly Workforce Earnings Plus
2016–2022 Projected Workforce Change and Total Job Openings*
by Standard Occupational Category (SOC)

SOC	Occupation Category	2016 Workforce		Employment of Residents By SOC		2016 Median Hourly Earnings		Projected Change in Local Jobs 2016-2022	
		#	%	#	%	Hourly \$	% Area Avg.	Increase	Openings
11-0000	Management Occ.	1,864	14.0	1,870	12.7	19.14	114.8	155	909
13-0000	Business and Financial Operations Occ.	316	2.4	332	2.2	26.77	160.6	44	197
15-0000	Computer and Mathematical Occ.	96	0.7	98	0.7	25.30	151.8	9	42
17-0000	Architecture and Engineering Occ.	97	0.7	55	0.4	28.46	170.7	5	66
19-0000	Life, Physical, and Social Science Occ.	99	0.7	81	0.5	23.30	139.8	9	77
21-0000	Community and Social Service Occ.	225	1.7	243	1.6	16.49	98.9	26	173
23-0000	Legal Occ.	47	0.4	45	0.3	25.55	153.3	4	27
25-0000	Education, Training, and Library Occ.	811	6.1	885	6.0	18.73	112.4	35	406
27-0000	Arts, Design, Entertainment, Sports, and Media Occ.	131	1.0	109	0.7	13.11	78.6	7	102
29-0000	Healthcare Practitioners and Technical Occ.	673	5.1	738	5.0	27.02	162.1	47	363
31-0000	Healthcare Support Occ.	349	2.6	394	2.7	12.12	72.7	27	193
33-0000	Protective Service Occ.	129	1.0	136	0.9	17.13	102.8	2	61
35-0000	Food Preparation and Serving Related Occ.	725	5.4	935	6.3	9.30	55.8	14	487
37-0000	Building and Grounds Cleaning and Maintenance Occ.	423	3.2	503	3.4	10.75	64.5	31	303
39-0000	Personal Care and Service Occ.	418	3.1	451	3.1	10.07	60.4	11	349
41-0000	Sales and Related Occ.	1,134	8.5	1,442	9.8	14.35	86.1	120	812
43-0000	Office and Administrative Support Occ.	1,614	12.1	1,906	12.9	13.77	82.6	83	701
45-0000	Farming, Fishing, and Forestry Occ.	932	7.0	1,015	6.9	15.46	92.7	148	732
47-0000	Construction and Extraction Occ.	658	4.9	648	4.4	17.10	102.6	98	491
49-0000	Installation, Maintenance, and Repair Occ.	607	4.6	629	4.3	19.07	114.4	69	431
51-0000	Production Occ.	1,000	7.5	949	6.4	17.21	103.2	72	617
53-0000	Transportation and Material Moving Occ.	891	6.7	1,177	8.0	15.69	94.1	79	529
55-0000	Military Occ.	85	0.6	131	0.9	21.31	127.8	-11	25
	Total	13,324	100.0	14,772	100.0	16.67	100.0	1,085	8,094

* Includes turnover of existing workers.

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

Table Thirteen
Core Micro Counties, Cozad Target Study,
2016 Workforce(Local Jobs), Labor Force (Local Residents), and Median Hourly Workforce Earnings Plus
2016–2022 Projected Workforce Change and Total Job Openings*
by Standard Occupational Category (SOC)

SOC	Occupation Category	2016 Workforce		Employment of Residents By SOC		2016 Median Hourly Earnings		Projected Change in Local Jobs 2016-2022	
		#	%	#	%	Hourly \$	% Area Avg.	Increase	Openings
11-0000	Management Occ.	2,587	5.3	2,435	5.6	28.57	162.5	55	1,117
13-0000	Business and Financial Operations Occ.	1,280	2.6	1,163	2.7	27.23	154.9	153	645
15-0000	Computer and Mathematical Occ.	544	1.1	486	1.1	26.25	149.3	74	261
17-0000	Architecture and Engineering Occ.	344	0.7	302	0.7	29.48	167.7	21	174
19-0000	Life, Physical, and Social Science Occ.	412	0.8	330	0.8	24.84	141.3	23	251
21-0000	Community and Social Service Occ.	896	1.8	777	1.8	18.28	104.0	75	493
23-0000	Legal Occ.	169	0.3	147	0.3	28.51	162.2	9	67
25-0000	Education, Training, and Library Occ.	2,601	5.3	2,358	5.5	21.31	121.2	121	1,111
27-0000	Arts, Design, Entertainment, Sports, and Media Occ.	636	1.3	523	1.2	14.38	81.8	40	389
29-0000	Healthcare Practitioners and Technical Occ.	3,110	6.4	2,644	6.1	31.15	177.2	278	1,653
31-0000	Healthcare Support Occ.	1,434	2.9	1,278	3.0	13.00	73.9	139	768
33-0000	Protective Service Occ.	530	1.1	462	1.1	18.30	104.1	43	264
35-0000	Food Preparation and Serving Related Occ.	4,462	9.2	4,040	9.3	10.05	57.2	108	2,475
37-0000	Building and Grounds Cleaning and Maintenance Occ.	1,897	3.9	1,618	3.7	11.18	63.6	96	958
39-0000	Personal Care and Service Occ.	1,336	2.7	1,274	2.9	10.34	58.8	43	962
41-0000	Sales and Related Occ.	5,249	10.8	4,624	10.7	13.21	75.1	261	2,913
43-0000	Office and Administrative Support Occ.	7,056	14.5	6,085	14.1	14.43	82.1	291	2,732
45-0000	Farming, Fishing, and Forestry Occ.	864	1.8	813	1.9	14.25	81.1	89	608
47-0000	Construction and Extraction Occ.	2,576	5.3	2,442	5.6	17.92	101.9	166	1,166
49-0000	Installation, Maintenance, and Repair Occ.	2,309	4.7	2,083	4.8	20.00	113.8	97	1,040
51-0000	Production Occ.	3,295	6.8	2,911	6.7	16.91	96.2	94	1,579
53-0000	Transportation and Material Moving Occ.	4,761	9.8	4,141	9.6	17.52	99.7	205	2,340
55-0000	Military occ.	293	0.6	289	0.7	21.67	123.3	-22	84
	Total	48,642	100.0	43,226	100.0	17.58	100.0	2,460	24,048

* Includes turnover of existing workers.

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

Data shown in Tables Eleven, Twelve, and Thirteen on the previous pages, indicates Dawson County is a very small, net exporter of labor with 28 more employed residents, 13,117, than primary jobs, 13,089, in the county. The combined four Rural Counties are large net exporters of labor with 1,448 more employed residents, 14,772, than primary jobs, 13,324, in the area. The two Core Micro Counties are large, net importers of labor with 5,416 more primary jobs, 48,642, than employed residents.

SOC 51-0000 Production Occupations, has by far the largest number of net in-commuters, 387, to Dawson County even though the local median hourly wage of \$13.68 is well below the median for the other two areas in the study. Occupations with large numbers of net out-commuters from Dawson County plus their local median wage include:

- (a) SOC 35-0000 Food Preparation and Serving Related Occupations, 115 net out-commuters, \$9.15 local median hourly wage;
- (b) SOC 43-0000 Office and Administrative Support Occupations, 129 net out-commuters, \$14.02 local median hourly wage; and
- (c) SOC 53-0000 Transportation and Material Moving Occupations, 98 net out-commuters, \$15.23 local median hourly wage.

Occupations with large numbers of out-commuters from the Rural Counties plus their local median wage include:

- (a) SOC 35-0000 Food Preparation and Serving Related Occupations, 210 out-commuters, \$9.30 local median hourly wage;
- (b) SOC 41-0000 Sales and Related Occupations, 308 out-commuters, \$14.35 local median hourly wage;
- (c) SOC 43-0000 Office and Administrative Support Occupations, 292 out-commuters, \$13.77 local median hourly wage; and
- (d) SOC 53-0000 Transportation and Material Moving Occupations, 286 out-commuters, \$15.69 local median hourly wage.

Occupations with large numbers of in-commuters to the Rural Counties plus their local median wage include:

- (a) SOC 17-0000 Architecture and Engineering Occupations, 42 in-commuters, \$28.46 local median hourly wage and
- (b) SOC 51-0000 Production Occupations, 51 in-commuters, \$17.21 local median hourly wage

None of the occupations listed for the Core Micro Counties in the preceding tables indicated a net-out commuting of workers. Occupations with large numbers of in-commuters to the Core Micro Counties plus their local median wages include:

- (a) SOC 29-0000 Healthcare Practitioners and Technical Occupations, 466 net in-commuters, \$31.15 local median hourly wage;
- (b) SOC 35-0000 Food Preparation and Serving Related Occupations, 422 net in-commuters, \$10.05 local median hourly wage;
- (c) SOC 41-0000 Sales and Related Occupations, 625 net in-commuters, \$13.21 local median hourly wage;
- (d) SOC 43-0000 Office and Administrative Support Occupations, 971 net in-commuters, \$14.43 local median hourly wage; and
- (e) SOC 53-0000 Transportation and Material Moving Occupations, 620 net in-commuters, \$17.52 local median hourly wage.

Table Fourteen
Employment Distribution, Median Hourly Earnings, and Median Hourly Earnings as a Percent of U.S.
by Standard Occupational Category (SOC), 2016, Dawson County, Rural Counties, and Core Micro Counties

SOC	Occupation Category	Dawson County			Rural Counties			Core Micro Counties		
		% Jobs	Median Hourly Earnings		% Jobs	Median Hourly Earnings		% Jobs	Median Hourly Earnings	
			\$	% US		\$	% US		\$	% US
11-0000	Management Occ.	7.3	21.55	48.7	14.0	19.14	43.2	5.3	28.57	64.6
13-0000	Business and Financial Operations Occ.	1.8	28.05	87.2	2.4	26.77	83.2	2.6	27.23	84.6
15-0000	Computer and Mathematical Occ.	0.6	26.51	67.1	0.7	25.30	64.0	1.1	26.25	66.4
17-0000	Architecture and Engineering Occ.	0.5	28.39	74.3	0.7	28.46	74.5	0.7	29.48	77.2
19-0000	Life, Physical, and Social Science Occ.	1.0	20.26	62.7	0.7	23.30	72.1	0.8	24.84	76.9
21-0000	Community and Social Service Occ.	1.2	18.08	85.8	1.7	16.49	78.3	1.8	18.28	86.8
23-0000	Legal Occ.	0.3	26.64	61.7	0.4	25.55	59.1	0.3	28.51	66.0
25-0000	Education, Training, and Library Occ.	6.0	19.31	81.1	6.1	18.73	78.6	5.3	21.31	89.5
27-0000	Arts, Design, Entertainment, Sports, and Media Occ.	0.9	13.83	63.6	1.0	13.11	60.2	1.3	14.38	66.1
29-0000	Healthcare Practitioners and Technical Occ.	4.1	29.29	79.7	5.1	27.02	73.5	6.4	31.15	84.8
31-0000	Healthcare Support Occ.	1.9	12.60	91.0	2.6	12.12	87.6	2.9	13.00	93.9
33-0000	Protective Service Occ.	0.8	18.57	88.6	1.0	17.13	81.7	1.1	18.30	87.3
35-0000	Food Preparation and Serving Related Occ.	5.8	9.15	87.1	5.4	9.30	88.6	9.2	10.05	95.7
37-0000	Building and Grounds Cleaning and Maintenance Occ.	4.5	11.43	94.9	3.2	10.75	89.3	3.9	11.18	92.9
39-0000	Personal Care and Service Occ.	2.3	10.04	88.9	3.1	10.07	89.2	2.7	10.34	91.6
41-0000	Sales and Related Occ.	8.0	13.58	82.8	8.5	14.35	87.4	10.8	13.21	80.5
43-0000	Office and Administrative Support Occ.	10.4	14.02	83.5	12.1	13.77	82.0	14.5	14.43	85.9
45-0000	Farming, Fishing, and Forestry Occ.	3.4	15.46	126.5	7.0	15.46	126.5	1.8	14.25	116.6
47-0000	Construction and Extraction Occ.	3.6	16.29	79.3	4.9	17.10	83.3	5.3	17.92	87.2
49-0000	Installation, Maintenance, and Repair Occ.	4.4	18.26	87.2	4.6	19.07	91.1	4.7	20.00	95.6
51-0000	Production Occ.	22.5	13.68	82.1	7.5	17.21	103.3	6.8	16.91	101.5
53-0000	Transportation and Material Moving Occ.	8.2	15.23	95.7	6.7	15.69	98.6	9.8	17.52	110.1
55-0000	Military Occ.	0.6	21.54	122.9	0.6	21.31	121.6	0.6	21.67	123.6
	Total	100.0	15.90	74.6	100.0	16.67	78.3	100.0	17.58	82.5

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

Information shown in Table Fourteen on the previous page indicates occupations with relatively large numbers of employees and wages that tend to be at or above the local median average in at least one of the three areas of this study. **The availability of workers in these occupations is likely to be key to**

future growth of the Cozad Target Area economy:

- (a) SOC 11-0000 Management Occupations
- (b) SOC 25-0000 Education, Training, and Library Occupations
- (c) SOC 29-0000 Healthcare Practitioners and Technical Occupations
- (d) SOC 47-0000 Construction and Extraction Occupations
- (e) SOC 49-0000 Installation, Maintenance, and Repair Occupations
- (f) SOC 51-0000 Production Occupations

Analysis of Potential Targets

As noted in previous sections of this study, the broad industry categories Manufacturing, Wholesale Trade, Transportation and Warehousing, and Health Care and Social Assistance make up a large portion of the current Dawson County, Rural Counties, or Core Micro Counties economies when measured by employment and contribution to gross regional product. Additionally these industries pay from average to well above average wages.

Information in this section provides a more detailed analysis of the industries and sub-industries within the study area. This information is used to assess the suitability of individual industries as potential targets for retention, expansion, and recruitment efforts.

Excluded from this analysis are industries whose growth is highly dependent on local population growth. These include Retail Trade, Construction, Government, and Real Estate and Rental and Leasing. Industries currently employing less than 2.0 percent of the workforce are also excluded as information on these industries is subject to large errors in estimation. Additionally, only industries with average annual total earnings (wages and benefits) of at least \$43,000, just above the average for Dawson County, are included.

The services provided by Healthcare and Social Assistance establishments in rural areas are often designed to serve local markets. This local market focus typically excludes them from consideration as key drivers of area economies. Initially, the large presence of this industry in the Core Metro Counties justified the inclusion of this sector for further analysis in the study.

Location Quotient (LQ) Analysis

In this section, LQ analysis is used to identify study area industries that have recently and/or are expected to in the future perform better than the national average. Superior performance by area industries indicates the presence of substantial competitive advantages or regional strengths. These advantages and/or strengths, such as access to skilled labor or access or specialized resources, are critical to an industry and provide a rationale for a region's expected future growth.

LQs indicate whether the percentage of total employment¹ by an area industry is greater than the national average (LQ>1), is equal to the national average (LQ=1) or is less than the national average (LQ<1). Industries with a LQ>1 typically indicate the presence of a comparative advantage, such as a large source of skilled labor or access to specialized transportation linkages.

¹ In addition to employment, location quotients can be calculated for other factors, such as total sales and taxes. For this report LQs are reported for employment only.

Industries with a LQ>1, experiencing local employment growth, with expected future growth and paying good wages (at least \$43,000 per year) are key to the future growth of a region. Industries with low LQs, but increasing levels of employment and good wages may have the potential to become key drivers of the economy. Industries with a LQ>1 and stable to declining local employment are considered to be mature or declining industries. Mature or declining industries may command significant retention efforts when they employ large numbers of area workers. Other combinations of LQs and growth are typically not of interest and are not considered for further analysis in this study. The criteria used to categorize industries based on their likely potential to drive future growth are summarized in Table Fifteen below.

Table Fifteen
Initial Classification of Industries by Potential to Drive Local Growth

Category	LQ	Recent Growth	Projected Growth	Compensation
Key to Future Growth	1+	+	+	>\$43,000
Potential to Drive Future Growth	<1	+	+/-	>\$43,000
Mature or Declining	1+	+/-	-/+	>\$43,000
Not Further Considered	<1	+/-	-/+	> or < \$43,000

Tables Sixteen through Eighteen on the following pages contain information on recent, current, and projected future employment and LQs plus current average total earnings by major industry sector for Dawson County, the other Rural Counties, and the Core Micro Counties. Similarities in these data for Dawson County and the other Rural Counties justify combining them into a new, single category Dawson Plus Rural Counties for the remainder of this study.

Table Twenty contains information on current LQs, the expected trend in LQ values from 2016 to 2022, the distribution of jobs by industry, and whether or not a broad industry will be considered for further study for Dawson and the Rural Counties and the Core Micro County areas. Industries are selected for further study if they are classified as Key to Future Growth or as having the Potential to Drive Future Growth using the criteria in Table Sixteen above. The five major industries initially selected for further analysis as shown in Table Twenty are NAICS 31 Manufacturing; NAICS 42 Wholesale Trade; NAICS 48 Transportation and Warehousing; NAICS 52 Finance and Insurance; and NAICS 54 Professional, Scientific, and Technical Services.

NAICS 62 Health Care and Social Assistance meets the criteria for a potential study target in the Core Micro Counties but not in Dawson Plus Rural Counties and was not retained for further study.

As shown in Table Sixteen, Dawson County employment in NAICS 31 Manufacturing; NAICS 42 Wholesale Trade; NAICS 48 Transportation and Warehousing; NAICS 52 Finance and Insurance; and NAICS 54 Professional, Scientific, and Technical Services is projected to increase from 2016 to 2022. Additionally average earning in each of these industries exceeds the overall average for Dawson County.

Table Sixteen
Dawson County, Employment, Employment Percent Change,
Location Quotients, and Average Annual Earnings, 2010–2022, Selected Years

NAICS	Description	Employment				LQ			Average Earnings 2016
		2010	2016	2022	% Change 2016 - 2022	2010	2016	2022	
11	Crop and Animal Production	1,208	1,168	1,164	-0.3	7.25	7.21	7.08	37,135
21	Mining, Quarrying, and Oil and Gas Extraction	<10	16	15	-6.3	0.13	0.27	0.26	53,559
22	Utilities	15	17	22	29.4	0.29	0.37	0.45	71,262
23	Construction	459	469	544	16.0	0.67	0.67	0.76	39,264
31	Manufacturing	3,756	3,577	3,714	3.8	3.54	3.43	3.52	46,036
42	Wholesale Trade	489	564	619	9.8	0.96	1.13	1.19	53,146
44	Retail Trade	1,168	1,236	1,304	5.5	0.85	0.91	0.93	30,534
48	Transportation and Warehousing	448	448	450	0.4	1.09	1.01	0.95	59,999
51	Information	101	100	102	2.0	0.39	0.41	0.41	58,668
52	Finance and Insurance	311	299	313	4.7	0.59	0.59	0.60	55,991
53	Real Estate and Rental and Leasing	61	52	52	0.0	0.28	0.24	0.24	31,269
54	Professional, Scientific, and Technical Services	251	248	272	9.7	0.32	0.30	0.30	45,208
55	Management of Companies and Enterprises	89	58	56	-3.4	0.53	0.32	0.28	167,040
56	Administrative and Support and Waste Management and Remediation Services	361	403	391	-3.0	0.48	0.49	0.45	33,283
61	Educational Services	78	27	32	18.5	0.24	0.08	0.09	23,374
62	Health Care and Social Assistance	769	767	808	5.3	0.49	0.47	0.45	32,525
71	Arts, Entertainment, and Recreation	67	94	112	19.1	0.32	0.42	0.47	14,048
72	Accommodation and Food Services	688	736	732	-0.5	0.67	0.66	0.61	13,994
81	Other Services (except Public Administration)	499	459	490	6.8	0.74	0.73	0.75	22,719
90	Government	2,220	2,349	2,502	6.5	1.00	1.17	1.25	54,885
	Total	13,044	13,089	13,696	4.6	NA	NA	NA	42,659

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

Similar to Table Sixteen, Table Seventeen shows Rural Counties employment in NAICS 31 Manufacturing; NAICS 42 Wholesale Trade; NAICS 48 Transportation and Warehousing; NAICS 52 Finance and Insurance; and NAICS 54 Professional, Scientific, and Technical Services is projected to increase from 2016 to 2022. Additionally average earning in each of these industries exceeds the overall average for the Rural Counties.

Table Seventeen
Rural Counties, Cozad Target Study,
Employment, Employment Percent Change,
Location Quotients, and Average Annual Earnings, 2010–2022, Selected Years

NAICS	Description	Employment				LQ			Average Earnings 2016
		2010	2016	2022	% Change 2016 - 2022	2010	2016	2022	
11	Crop and Animal Production	2,157	2,679	3,012	12.4	13.53	16.25	17.42	36,824
21	Mining, Quarrying, and Oil and Gas Extraction	<10	<10	13	NA	0.02	0.15	0.20	NA
22	Utilities	18	36	46	27.8	0.37	0.75	0.89	85,928
23	Construction	662	789	958	21.4	1.01	1.10	1.27	48,731
31	Manufacturing	1,304	1,410	1,502	6.5	1.29	1.33	1.35	67,925
42	Wholesale Trade	606	702	779	11.0	1.24	1.38	1.43	56,313
44	Retail Trade	1,083	1,128	1,223	8.4	0.83	0.81	0.83	27,674
48	Transportation and Warehousing	454	385	406	5.5	1.16	0.85	0.81	59,037
51	Information	94	99	102	3.0	0.38	0.40	0.39	29,456
52	Finance and Insurance	466	503	558	10.9	0.92	0.97	1.01	59,168
53	Real Estate and Rental and Leasing	89	66	75	13.6	0.43	0.30	0.32	38,134
54	Professional, Scientific, and Technical Services	227	304	348	14.5	0.30	0.36	0.37	42,518
55	Management of Companies and Enterprises	76	<10	<10	NA	0.47	0.04	0.02	NA
56	Administrative and Support and Waste Management and Remediation Services	307	167	171	2.4	0.43	0.20	0.18	28,101
61	Educational Services	22	35	40	14.3	0.07	0.10	0.10	22,740
62	Health Care and Social Assistance	1,426	1,552	1,689	8.8	0.95	0.93	0.89	38,356
71	Arts, Entertainment, and Recreation	122	147	164	11.6	0.61	0.65	0.65	14,246
72	Accommodation and Food Services	642	621	637	2.6	0.65	0.55	0.51	14,644
81	Other Services (except Public Administration)	506	451	435	-3.5	0.79	0.70	0.64	20,799
90	Government	2,221	2,235	2,249	0.6	1.04	1.09	1.06	47,690
	Total	12,483	13,324	14,409	8.1	NA	NA	NA	42,856

NA: Not Available.

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

Table Eighteen shows employment in Core Micro Counties in NAICS 31 Manufacturing; NAICS 42 Wholesale Trade; NAICS 48 Transportation and Warehousing; NAICS 52 Finance and Insurance; NAICS 54 Professional, Scientific, and Technical Services; NAICS 55 Management of Companies and Enterprises; and NAICS 62 Health Care and Social Assistance is projected to increase from 2016 to 2022. Additionally average earning in each of these industries exceeds the overall average for the Core Micro Counties.

Table Eighteen
Core Micro Counties, Cozad Target Study,
Employment, Employment Percent Change,
Location Quotients, and Average Annual Earnings, 2010–2022, Selected Years

NAICS	Description	Employment				LQ			Average Earnings 2016
		2010	2016	2022	% Change 2016 - 2022	2010	2016	2022	
11	Crop and Animal Production	1,797	1,903	1,946	0.0	2.97	3.16	3.17	35,485
21	Mining, Quarrying, and Oil and Gas Extraction	70	70	65	-0.1	0.32	0.33	0.29	47,163
22	Utilities	53	82	98	0.2	0.29	0.47	0.53	99,308
23	Construction	2,416	2,654	2,886	0.1	0.98	1.02	1.08	50,079
31	Manufacturing	3,650	3,712	3,775	0.0	0.95	0.96	0.96	58,921
42	Wholesale Trade	1,475	1,734	1,970	0.1	0.80	0.93	1.02	54,392
44	Retail Trade	6,302	6,301	6,507	0.0	1.27	1.24	1.24	29,142
48	Transportation and Warehousing	4,217	3,981	3,963	0.0	2.83	2.40	2.23	73,644
51	Information	536	530	534	0.0	0.58	0.58	0.58	42,869
52	Finance and Insurance	1,216	1,219	1,264	0.0	0.64	0.65	0.65	59,996
53	Real Estate and Rental and Leasing	383	428	464	0.1	0.49	0.54	0.56	38,867
54	Professional, Scientific, and Technical Services	1,307	1,431	1,655	0.2	0.46	0.46	0.49	51,022
55	Management of Companies and Enterprises	642	817	974	0.2	1.05	1.19	1.32	51,250
56	Administrative and Support and Waste Management and Remediation Services	1,161	1,224	1,382	0.1	0.43	0.40	0.42	29,019
61	Educational Services	266	290	330	0.1	0.23	0.23	0.24	21,014
62	Health Care and Social Assistance	6,576	7,173	7,873	0.1	1.16	1.18	1.17	54,876
71	Arts, Entertainment, and Recreation	448	559	624	0.1	0.59	0.68	0.70	16,221
72	Accommodation and Food Services	4,593	4,707	4,767	0.0	1.24	1.14	1.07	17,671
81	Other Services (except Public Administration)	2,856	2,435	2,413	0.0	1.17	1.04	1.00	24,137
90	Government	7,349	7,390	7,613	0.0	0.91	0.99	1.02	56,700
	Total	47,313	48,642	51,102	0.1	NA	NA	NA	45,937

NA: Not Available.

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

The information in Table Nineteen shows industries in NAICS 31 Manufacturing; NAICS 42 Wholesale Trade; NAICS 48 Transportation and Warehousing; NAICS 52 Finance and Insurance; and NAICS 54 Professional, Scientific, and Technical Services meet the criteria to be potential targets in both the Dawson Plus Rural Counties and the Core Micro Counties areas. Industries in NAICS 62 Health Care and Social Assistance met the criteria to be potential targets in the Core Micro Counties but not in Dawson Plus the Rural Counties due to low average earnings. Industries in NAICS 55 Management of Companies and Enterprises do not meet potential target criteria because they employ less than two percent of the workforce in both areas.

Table Nineteen
Potential Target Indicators, Location Quotients, Jobs and Income
Combined Dawson and Rural Counties & Core Micro Counties

NAICS	Dawson Plus Rural Counties				Core Micro Counties				
	2016 LQ & Projected Trend	2016 Percent Total	2016 Total Income	Potential Target	2016 LQ & Projected Trend	2016 Percent Total	2016 Total Income	Potential Target	
11	Crop and Animal Production	11.77 +	14.60	36,918	No	3.16 +	3.90	35,485	No
21	Mining, Quarrying, and Oil and Gas Extraction	0.21 +	0.10	53,683	No	0.33 o	0.10	47,163	No
22	Utilities	0.56 +	0.20	81,108	No	0.47 +	0.20	99,308	No
23	Construction	0.89 +	4.80	45,200	No	1.02 +	5.50	50,079	No
31	Manufacturing	2.37 +	18.90	52,225	Yes	0.96 o	7.60	58,921	Yes
42	Wholesale Trade	1.25 +	4.80	54,901	Yes	0.93 +	3.60	54,392	Yes
44	Retail Trade	0.86 +	9.00	29,170	No	1.24 +	13.00	29,142	No
48	Transportation and Warehousing	0.93 o	3.20	59,554	Yes	2.4 o	8.20	73,644	Yes
51	Information	0.4 o	0.80	44,170	No	0.58 o	1.10	42,869	No
52	Finance and Insurance	0.78 +	3.00	57,983	Yes	0.65 +	2.50	59,996	Yes
53	Real Estate and Rental and Leasing	0.27 +	0.40	35,105	No	0.54 +	0.90	38,867	No
54	Professional, Scientific, and Technical Services	0.33 +	2.10	43,727	Yes	0.46 +	2.90	51,022	Yes
55	Management of Companies and Enterprises	0.18 o	0.30	159,892	No	1.19 +	1.70	51,250	No
56	Administrative and Support and Waste Management and Remediation Services	0.35 o	2.20	31,765	No	0.4 +	2.50	29,019	No
61	Educational Services	0.09 +	0.20	23,021	No	0.23 +	0.60	21,014	No
62	Health Care and Social Assistance	0.7 o	8.80	36,428	No	1.18 o	14.70	54,876	Yes
71	Arts, Entertainment, and Recreation	0.54 +	0.90	14,169	No	0.68 +	1.10	16,221	No
72	Accommodation and Food Services	0.6 o	5.10	14,291	No	1.14 o	9.70	17,671	No
81	Other Services (except Public Administration)	0.72 o	3.40	21,768	No	1.04 o	5.00	24,137	No
90	Government	1.13 +	17.40	51,377	No	0.99 +	15.20	56,700	No

* Future Trend Symbols: + increasing; o neutral; - decreasing

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

A more detailed analysis of the sub-industries, i.e., 3-Digit NAICS Code industries, within the five major industries selected for study, indicates the need to reorganize some of them into new groups of seven categories. Table Twenty shows the seven industry categories used in the following sections of this study. Manufacturing is broken out into three sectors: a. NAICS 31 Crop and Animal Related Manufacturing; b. NAICS 32 Metal, Metal Products and Machinery Manufacturing; and c NAICS 33 All Other Manufacturing. The remaining broad industry categories, NAICS 42 Wholesale Trade; NAICS 48 Transportation and Warehousing; NAICS 52 Finance and Insurance; and NAICS 54 Professional, Scientific, and Technical Services are the same as the major industries in previous sections of the study.

Table Twenty
Jobs and Percent Area Jobs by Target Industry Group
Dawson and Rural Counties & Core Micro Counties

Target Industry Group	Dawson and Rural Counties		Core Micro	
	Total Jobs	Percent Area Jobs	Total Jobs	Percent Area Jobs
Crop and Animal Related Manufacturing	3,075	11.6	729	1.5
Metal, Metal Products and Machinery Manufacturing	270	1.0	472	1.0
All Other Manufacturing	1,605	6.1	2,479	5.1
Wholesale Trade	1,244	4.7	1,725	3.5
Transportation and Warehousing	801	3.0	3,946	8.1
Finance and Insurance	797	3.0	1,219	2.5
Professional, Scientific, and Technical Services	542	2.1	1,414	2.9
Total	8,334	31.5	11,984	24.6

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

As shown in Table Twenty above, the seven industry categories account for 31.5 percent of current employment in Dawson and the Rural Counties and 24.6 percent in the Core Micro Counties. Crop and Animal Related Manufacturing is the largest industry category by employment in Dawson and Rural Counties while Transportation and Warehousing is the largest in the Core Micro Counties. All Other Manufacturing, Wholesale Trade, Transportation and Warehousing, and Finance and Insurance are the second, third, fourth, and fifth largest target industry employers in Dawson and Rural Counties. All Other Manufacturing, Wholesale Trade, and Professional, Scientific, and Technical Services are the second, third, and fourth largest employers in the Core Micro Counties.

Shift Share Analysis

Further analysis and refinement of the study area industries is accomplished using shift share analysis. Shift share analysis decomposes actual or projected changes in a local industry's employment into three components. These are the:

- National effect:** the local industry's starting employment multiplied by the percent change in national average employment for all industries—this shows the change in local employment attributable to the change in economy-wide employment;
- Industry effect:** the local industry's starting employment multiplied by the percent change in national employment for the industry minus the national effect—this shows the change in local employment attributable to an industry's employment trends after adjusting for national employment trends; and
- Competitive effect:** the difference between a local industry's ending and starting employment minus the national effect and the industry effect—this is an indication of the change in local employment attributable to an area's relative advantage or competitiveness.

The following is an example of a shift share decomposition:

1. Local Industry A grows by 10.0 percent from 1,000 to 1,100.
2. The average of all industry employment change in the U.S. is a 3.0 percent increase; the national effect is 30 or 1,000 times .03.
3. Average U.S. growth for Industry A is 5.0 percent.
4. The industry effect is .05 (5.0 percent) times 1,000 minus the national effect of 30; this is 50 minus 30 and the industry effect equals 20.
5. The competitive effect is 100 minus 30, the national effect, minus 20, the industry effect, and is equal to 50 or 5.0 percent. The industry has grown twice as fast as the average of similar industries across the U.S.

If a local industry's employment changes by the same percentage as the U.S. average for that industry, 5.0 percent in the above example, the competitive effect is zero. The change in employment for a U.S. industry is also referred to as the **expected effect** for a local industry.

If the competitive effect is very strong, a local industry can grow when the national and industry effects are both negative. Likewise, if a national industry is experiencing strong growth, the expected effect can be positive when the national effect is negative. Industries with positive industry and local competitive shift share effects are either key drivers or are likely to become key drivers of the local economy.

The criteria used to evaluate 4-digit NAICS industries within the seven broad industry categories, shown in Table Twenty, and the categories assigned are shown in Table Twenty-One. Industries are selected as

Key to Future Growth (K) if they have an LQ greater than one, they are projected to have both a positive competitive effect and they have a positive expected growth effect (industry effect plus national effect) and current annual earnings greater than \$43,000. Potential to Drive Future Growth (P) industries are projected to have a positive competitive effect, positive expected growth (Industry plus national effect), and current annual earnings greater than \$43,000, but have an LQ less than one. Mature (M), possibly declining industries, have an LQ greater than one and a negative expected growth effect.

Table Twenty-One
Shift Share Classification of Industries by Potential to Drive Local Growth

Shift Share Analysis Category	LQ	Projected Change LQ	Projected Competitive Effect	Expected Growth Effect (Projected Industry Effect + National Effect)	Average Earnings >\$43,000
(K) Key to Future Growth	>1	+/-	+	+	Yes
(P) Potential to Drive Future Growth	.1-1.0	+/-	+/-	+	Yes
(M) Mature or Declining	>1	+/-	+/-	-	Yes
(X) Not Further Considered	>.01	+/-	+/-	+/-	Yes/No

Table Twenty-Two, Parts A through N on this and the following pages contain the projected 2016 through 2022 national effects, industry effects, expected change effects, and competitive effects; the 2016 LQ and projected 2022 LQ; and the shift share target category, from Table Twenty-One for 4-digit NAICS industries in each of the two study areas for each of the seven target industry categories in Table Twenty.

Table Twenty-Two, Part A,
Dawson Plus Rural Counties
"Crop and Animal Related Manufacturing"

NAICS	Description	2016 -	2016 -	2016 -	Competitive Effect 2016 - 2022	LQ	LQ	Target
		2022 National Effect	2022 Industry Effect	2022 Expected Change		2015	2021	
3111	Animal Food Manufacturing	9	8	17	-21	14.37	12.45	M
3116	Animal Slaughtering and Processing	192	-73	119	51	34.85	35.53	K
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	2	0	2	-3	6.14	5.63	M

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part B,
Core Micro Counties
"Crop and Animal Related Manufacturing"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
3116	Animal Slaughtering and Processing	41	-16	25	-16	4.08	4.04	M
3118	Bakeries and Tortilla Manufacturing	2	0	2	14	0.24	0.37	P
3121	Beverage Manufacturing	3	4	7	1	0.68	0.71	P

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part C,
Dawson Plus Rural Counties
"Metal, Metal Products and Machinery Manufacturing"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
3331	Agriculture, Construction, and Mining Machinery Manufacturing	15	-3	12	-7	6.00	5.83	M
3339	Other General Purpose Machinery Manufacturing	3	1	4	-11	1.09	0.87	M

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part D,
Core Micro Counties
"Metal, Metal Products and Machinery Manufacturing"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
3323	Architectural and Structural Metals Manufacturing	5	0	5	-5	0.60	0.57	X
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	3	-1	2	10	0.46	0.55	P
3328	Coating, Engraving, Heat Treating, and Allied Activities	2	-1	1	21	0.86	1.37	P
3331	Agriculture, Construction, and Mining Machinery Manufacturing	9	-2	7	-51	1.96	1.27	M
3335	Metalworking Machinery Manufacturing	3	-2	1	10	0.90	1.09	P
3339	Other General Purpose Machinery Manufacturing	9	2	11	36	1.59	2.02	K

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part E,
Dawson Plus Rural Counties
"All Other Manufacturing"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
3152	Cut and Sew Apparel Manufacturing	1	-5	-4	9	1.03	1.59	X
3251	Basic Chemical Manufacturing	4	0	4	-7	2.48	2.23	M
3254	Pharmaceutical and Medicine Manufacturing	4	-1	3	4	1.29	1.38	K
3261	Plastics Product Manufacturing	6	-3	3	32	0.89	1.22	P
3344	Semiconductor and Other Electronic Component Manufacturing	1	-1	0	4	0.25	0.32	X
3363	Motor Vehicle Parts Manufacturing	10	4	14	-76	1.57	0.86	M
3391	Medical Equipment and Supplies Manufacturing	77	-18	59	-16	21.84	21.61	M

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part F,
Core Micro Counties
"All Other Manufacturing"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
3219	Other Wood Product Manufacturing	7	-2	5	-18	1.47	1.25	M
3251	Basic Chemical Manufacturing	5	0	5	12	1.67	1.95	K
3261	Plastics Product Manufacturing	5	-2	3	21	0.40	0.53	P
3262	Rubber Product Manufacturing	15	-10	5	-40	5.41	4.53	M
3273	Cement and Concrete Product Manufacturing	7	-3	4	20	1.70	2.05	K
3363	Motor Vehicle Parts Manufacturing	112	45	157	-141	9.37	8.78	M
3391	Medical Equipment and Supplies Manufacturing	1	0	1	-4	0.20	0.16	X

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part G,
Dawson Plus Rural Counties
"Wholesale Trade"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
4233	Lumber and Other Construction Materials Merchant Wholesalers	1	0	1	6	0.34	0.51	P
4234	Professional and Commercial Equipment and Supplies Merchant Wholesalers	4	-3	1	20	0.50	0.69	P
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	2	-2	0	-8	0.48	0.35	X
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	29	-13	16	26	3.81	4.03	K
4242	Drugs and Druggists' Sundries Merchant Wholesalers	1	-1	0	9	0.51	0.76	X
4244	Grocery and Related Product Merchant Wholesalers	1	0	1	6	0.10	0.15	P
4245	Farm Product Raw Material Merchant Wholesalers	24	6	30	-10	27.75	27.08	M
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	16	-13	3	29	4.11	4.62	K

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part H,
Core Micro Counties
"Wholesale Trade"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
4231	Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	9	-3	6	-7	1.26	1.21	M
4233	Lumber and Other Construction Materials Merchant Wholesalers	3	-1	2	19	0.68	0.96	P
4236	Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	3	-3	0	4	0.46	0.50	X
4237	Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	3	-1	2	3	0.62	0.67	P
4238	Machinery, Equipment, and Supplies Merchant Wholesalers	24	-11	13	24	1.73	1.86	K
4239	Miscellaneous Durable Goods Merchant Wholesalers	5	0	5	22	0.81	1.04	P
4244	Grocery and Related Product Merchant Wholesalers	24	-2	22	83	1.50	1.86	K
4245	Farm Product Raw Material Merchant Wholesalers	16	4	20	7	10.46	10.89	K
4247	Petroleum and Petroleum Products Merchant Wholesalers	7	0	7	11	3.53	3.92	K
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	4	3	7	1	0.96	0.99	P
4249	Miscellaneous Nondurable Goods Merchant Wholesalers	13	-11	2	-4	1.89	1.89	M

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part I,
Dawson Plus Rural Counties
"Transportation and Warehousing"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
4821	Rail Transportation	17	-4	13	-9	6.16	5.98	M
4841	General Freight Trucking	18	-6	12	-49	1.33	1.10	M
4842	Specialized Freight Trucking	16	2	18	16	2.96	3.16	K

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part J,
Core Micro Counties
"Transportation and Warehousing"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
4821	Rail Transportation	145	-30	115	-250	28.21	25.50	M
4841	General Freight Trucking	24	-7	17	-47	0.97	0.86	X
4842	Specialized Freight Trucking	25	4	29	22	2.54	2.72	K
4881	Support Activities for Air Transportation	2	2	4	-3	0.38	0.34	X
4882	Support Activities for Rail Transportation	2	5	7	-7	3.35	2.89	M
4884	Support Activities for Road Transportation	2	3	5	-3	0.98	0.92	X
4921	Couriers and Express Delivery Services	10	-2	8	-7	0.84	0.82	X
4931	Warehousing and Storage	46	66	112	-69	2.57	2.38	M

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part K,
Dawson Plus Rural Counties
"Finance and Insurance"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
5221	Depository Credit Intermediation	31	-34	-3	33	1.62	1.74	X
5222	Nondepository Credit Intermediation	3	-2	1	17	0.42	0.58	P
5231	Securities and Commodity Contracts Intermediation and Brokerage	3	-3	0	11	0.60	0.74	X
5241	Insurance Carriers	2	-1	1	-1	0.13	0.13	X
5242	Agencies, Brokerages, and Other Insurance Related Activities	15	10	25	-16	1.03	0.97	M

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part K,
Core Micro Counties
"Finance and Insurance"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
5221	Depository Credit Intermediation	39	-44	-5	-52	1.13	1.05	M
5222	Nondepository Credit Intermediation	9	-6	3	58	0.74	1.06	P
5231	Securities and Commodity Contracts Intermediation and Brokerage	5	-5	0	19	0.50	0.64	X
5239	Other Financial Investment Activities	2	3	5	-5	0.15	0.12	X
5242	Agencies, Brokerages, and Other Insurance Related Activities	21	14	35	-22	0.78	0.74	X

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part L,
Dawson Plus Rural Counties
"Professional, Scientific, and Technical Services"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
5411	Legal Services	8	-9	-1	-1	0.57	0.56	X
5416	Management, Scientific, and Technical Consulting Services	5	9	14	15	0.29	0.34	P
5417	Scientific Research and Development Services	3	1	4	9	0.37	0.44	X

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Two, Part M,
Core Micro Counties
"Professional, Scientific, and Technical Services"**

NAICS	Description	2016 - 2022 National Effect	2016 - 2022 Industry Effect	2016 - 2022 Expected Change	Competitive Effect 2016 - 2022	LQ 2015	LQ 2021	Target
5411	Legal Services	15	-16	-1	-3	0.56	0.56	X
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	17	-1	16	-34	0.73	0.64	X
5413	Architectural, Engineering, and Related Services	12	-2	10	-12	0.37	0.36	X
5415	Computer Systems Design and Related Services	13	21	34	22	0.29	0.33	P
5416	Management, Scientific, and Technical Consulting Services	22	36	58	103	0.64	0.83	P

Source: Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

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Table Twenty-Three below contains the 15, 4-digit NAICS industries that achieved a target classification of Key (K), Potential (P) or Mature (M) Industries in both Dawson Plus Rural Counties and Core Micro Counties. These 15 industries can form a core of potential target industries for CDC to consider for further evaluation as potential target industries.

**Table Twenty–Three
Key, Potential, and Mature Industries Located in Both Dawson Plus Rural and Core Micro Counties**

Category	NAICS		Dawson Plus Rural Counties				Core Micro Counties			
			2015–2021 Competitive Effect	2015 LQ	2021 LQ	Class	2015–2021 Competitive Effect	2015 LQ	2021 LQ	Class
Crop and Animal Related Manufacturing	3116	Animal Slaughtering and Processing	51	34.85	35.53	M	-16	4.08	4.04	K
Metal, Metal Products and Machinery Manufacturing	3331	Agriculture, Construction, and Mining Machinery Manf.	-7	6.00	5.83	M	-51	1.96	1.27	M
	3339	Other General Purpose Machinery Manf.	-11	1.09	0.87	K	36	1.59	2.02	M
All Other Manufacturing	3251	Basic Chemical Manf.	-7	2.48	2.23	K	12	1.67	1.95	M
	3261	Plastics Product Manf.	32	0.89	1.22	P	21	0.40	0.53	P
Wholesale Trade	3363	Motor Vehicle Parts Manf.	-76	1.57	0.86	M	-141	9.37	8.78	M
	4233	Lumber and Other Construction Materials	6	0.34	0.51	P	19	0.68	0.96	P
	4238	Machinery, Equipment, and Supplies Merchant Wholesalers	26	3.81	4.03	K	24	1.73	1.86	K
	4244	Grocery and Related Product Merchant Wholesalers	6	0.10	0.15	K	83	1.50	1.86	P
	4245	Farm Product Raw Material Merchant Wholesalers	-10	27.75	27.08	K	7	10.46	10.89	M
Transportation and Warehousing	4249	Miscellaneous Nondurable Goods Merchant Wholesalers	29	4.11	4.62	M	-4	1.89	1.89	K
	4821	Rail Transportation	-9	6.16	5.98	M	-250	28.21	25.50	M
	4842	Specialized Freight Trucking	16	2.96	3.16	K	22	2.54	2.72	K
Finance and Insurance	5222	Nondepository Credit Intermediation	17	0.42	0.58	P	58	0.74	1.06	P
Professional, Scientific, and Technical Services	5416	Management, Scientific, and Technical Consulting	15	0.29	0.34	P	103	0.64	0.83	P

Data source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

Supply Chain Opportunities

Tables Twenty-Four, Parts through H on the following pages identify local area, 6-Digit NAICS industries currently supplying a large portion of the total inputs purchased locally by industries in Table Twenty-Three. These industries may be able to increase their sales to Key, Potential, and Mature area industries and may also be considered potential targets for CDC retention, expansion, and recruitment efforts.

Table Twenty-Four, Part A
Amount and Percent of Local Industry Purchases by
Target Manufacturing Industries & Total Industry Exports

NAICS	Description	Purchased Out of Region		Exported from Region
		%	Amount \$	Amount \$
311615	Poultry Processing	74.8	15,538,027	5,073,056
326122	Plastics Pipe and Pipe Fitting Manufacturing	64.6	1,192,959	5,658,511
332322	Sheet Metal Work Manufacturing	40.3	1,043,767	3,402,787
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	42.5	824,247	5,724,546
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	50.4	1,235,973	4,424,002
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	66.5	3,249,198	4,257,479
423830	Industrial Machinery and Equipment Merchant Wholesalers	52.9	3,230,899	4,212,509
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	57.0	1,180,260	3,893,745
424210	Drugs and Druggists' Sundries Merchant Wholesalers	67.7	4,025,125	4,289,799
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	40.4	537,573	13,556,716
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers	61.7	1,132,126	1,757,964
482110	Rail transportation	57.9	4,048,463	848,689,663
484110	General Freight Trucking, Local	74.1	11,471,660	35,574,245
484121	General Freight Trucking, Long-Distance, Truckload	68.6	20,428,575	39,775,661
517110	Wired Telecommunications Carriers	48.1	1,394,086	21,736,496
523120	Securities Brokerage	44.4	541,952	10,215,523
541110	Offices of Lawyers	72.6	3,573,396	11,714,255
541211	Offices of Certified Public Accountants	44.7	509,887	8,187,689
541611	Administrative Management and General Management Consulting Services	56.2	1,534,546	8,019,046
541613	Marketing Consulting Services	63.3	596,295	3,460,388
541990	All Other Professional, Scientific, and Technical Services	71.5	3,633,161	2,610,733
551111	Offices of Bank Holding Companies	67.2	780,409	11,472,951
561320	Temporary Help Services	57.8	829,908	4,771,612
561730	Landscaping Services	64.7	2,145,370	11,289,989
562111	Solid Waste Collection	62.2	1,151,839	4,780,013
562910	Remediation Services	56.6	691,193	3,164,824
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	52.6	972,102	11,395,573

Source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Four, Part B
Amount and Percent of Local Industry Purchases by
Target Manufacturing Industries & Total Industry Exports
Core Micro Counties, 2016**

NAICS	Description	Purchased Out of Region		Exported from Region
		%	Amount \$	Amount \$
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	54.6	686,964	4,207,282
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	47.1	630,797	2,962,497
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers	56.9	676,804	1,664,601
482110	Rail transportation	63.6	2,703,035	763,313,204
484110	General Freight Trucking, Local	63.1	3,323,081	27,739,497
484122	General Freight Trucking, Long-Distance, Less Than Truckload	64.1	2,974,150	16,958,262
484210	Used Household and Office Goods Moving	74.6	870,176	1,743,708
517110	Wired Telecommunications Carriers	51.7	958,493	15,411,869
541110	Offices of Lawyers	72.9	2,599,177	7,605,987
541330	Engineering Services	71.7	2,016,263	6,989,435
541611	Administrative Management and General Management Consulting Services	50.7	1,103,824	7,581,770
541990	All Other Professional, Scientific, and Technical Services	63.0	1,644,447	2,405,904
551111	Offices of Bank Holding Companies	60.2	517,864	11,557,100
551114	Corporate, Subsidiary, and Regional Managing Offices	72.3	80,015,624	27,602,238
561320	Temporary Help Services	52.4	630,663	4,992,925
561730	Landscaping Services	63.3	1,181,610	7,460,907
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	55.6	623,451	8,501,595

Source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Four, Part C
Amount and Percent of Local Industry Purchases by
Target Wholesale Trade Industries
With Total Industry Exports Dawson Plus Rural Counties, 2016**

NAICS	Description	Purchased Out of Region		Exported from Region
		%	Amount \$	Amount \$
493110	General Warehousing and Storage	72.2	2,393,185	58,269,097
517110	Wired Telecommunications Carriers	60.9	930,151	21,736,496
541211	Offices of Certified Public Accountants	47.2	508,628	8,187,689
541611	Administrative Management and General Management Consulting Services	65.4	1,276,639	8,019,046

Source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Four, Part D
Amount and Percent of Local Industry Purchases by
Target Wholesale Trade Industries
With Total Industry Exports Core Micro Counties, 2016**

NAICS	Description	Purchased Out of Region		Exported from Region
		%	Amount \$	Amount \$
492110	Couriers and Express Delivery Services	66.1	1,328,055	12,457,234
493110	General Warehousing and Storage	64.0	1,111,154	60,301,565
541611	Administrative Management and General Management Consulting Services	59.7	610,908	7,581,770
492110	Couriers and Express Delivery Services	66.1	1,328,055	12,457,234

Source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Four, Part E
Amount and Percent of Local Industry Purchases by
Target Trucking Industries
With Total Industry Exports Dawson Plus Rural Counties, 2016**

NAICS	Description	Purchased Out of Region		Exported from Region
		%	Amount \$	Amount \$
482110	Rail transportation	58.1	557,419	848,689,663
492110	Couriers and Express Delivery Services	74.1	3,399,634	12,101,679
493110	General Warehousing and Storage	74.0	887,594	58,269,097

Source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Four, Part F
Amount and Percent of Local Industry Purchases by
Target Trucking Industries
With Total Industry Exports Core Micro Counties, 2016**

NAICS	Description	Purchased Out of Region		Exported from Region
		%	Amount \$	Amount \$
492110	Couriers and Express Delivery Services	66.8	1,924,256	12,457,234
493110	General Warehousing and Storage	71.2	536,363	60,301,565
551114	Corporate, Subsidiary, and Regional Managing Offices	74.8	639,611	27,602,238

Source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Four, Part G
Amount and Percent of Local Industry Purchases by
Target Finance & Professional Service Industries
With Total Industry Exports Dawson Plus Rural Counties, 2016**

NAICS	Description	Purchased Out of Region		Exported from Region
		%	Amount \$	Amount \$
522110	Commercial Banking	43.4	1,056,480	126,324,577

Source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.

**Table Twenty-Four, Part H
Amount and Percent of Local Industry Purchases by
Target Finance & Professional Service Industries
With Total Industry Exports Core Micro Counties, 2016**

NAICS	Description	Purchased Out of Region		Exported from Region
		%	Amount \$	Amount \$
522110	Commercial Banking	51.0	972,613	68,262,697

Source: Economic Modeling Specialists International (EMSI) / www.economicmodeling.com.