

### Appendix 3: Shift Share Analysis - Employed Civilian Population 16+ years by employment category (SIC)

Source: American FactFinder, U.S. Bureau of the Census

#### 1990 - 2000

SIC Industry Classification	Dickinson County			United States		National	National	Competitive	Industrial
	Total Employment 1990	Total Employment 2000	Percent Change	Total Employment 1990	Total Employment 2000	Percent Change	Growth Component	Share	Mix
Ag, Forestry & Fishing	998	684	-31.46%	3,115,372	1,929,683	-38.06%	121	65.8	-500.96
Mining	58	70	20.69%	723,423	496,370	-31.39%	7	30.2	-25.24
Construction	521	737	41.46%	7,214,763	8,801,507	21.99%	63	101.4	51.35
Manufacturing	1,143	1,242	8.66%	20,462,078	18,286,005	-10.63%	139	220.6	-260.28
Transport, Com & Utility	797	946	18.70%	8,205,062	10,736,666	30.85%	97	-96.9	149.18
Wholesale Trade	326	341	4.60%	5,071,026	4,666,757	-7.97%	40	41.0	-65.56
Retail Trade	1,663	1,490	-10.40%	19,485,666	15,221,716	-21.88%	202	190.9	-565.75
Finance, Ins & R.E.	321	409	27.41%	7,984,870	8,934,972	11.90%	39	49.8	-0.76
Services							0	0.0	0.00
Bus & Repair	223	267	19.73%	5,577,462	12,061,865	116.26%	27	-215.3	232.20
Personal Service	258	490	89.92%	3,668,696	7,903,810	115.44%	31	-65.8	266.52
Entertain & Rec	67	153	128.36%	1,636,460	2,306,485	40.94%	8	58.6	19.30
Health Services	552	1,017	84.24%	9,682,684	14,471,823	49.46%	67	192.0	206.03
Educational Serv	793	870	9.71%	9,633,503	11,371,206	18.04%	96	-66.0	46.80
Other Services	336	428	27.38%	7,682,060	6,320,632	-17.72%	41	151.5	-100.33
Public Admin/Govt.	523	482	-7.84%	5,538,077	6,212,015	12.17%	63	-104.6	0.17
<b>Total Civilian Employment - 16+</b>	<b>8,579</b>	<b>9,626</b>	<b>12.20%</b>	<b>115,681,202</b>	<b>129,721,512</b>	<b>12.14%</b>	<b>1041</b>	<b>553</b>	<b>-547</b>
<b>Total Population</b>	<b>18,948</b>	<b>19,344</b>							

**National Growth Component (NGC)** =(Base Yr Emp) \* (National Average Growth Rate)

Purpose: To measure how many new jobs were created locally due to state or national economic trends

Interpretation: 1,041 new jobs were created as a result of national economic trends.

**Competitive Share (CS)** =(Base Yr Emp) \* (Local Growth Rate - National Growth Rate)

Purpose: To determine whether local businesses are growing faster or slower than similar businesses nationally

Interpretation: 553 jobs were gained (if positive) beyond national growth trends and its industrial mix. The city is growing faster than the nation. If negative, the city has lost its competitive edge in industries with negative values.

**Industrial Mix (IM)** =(Base Yr Emp)\*(Sector National Growth Rate - National Average Growth Rate)

Purpose: To determine whether the local economy contains industries that are growing slower or faster than the national average.

Interpretation: -547 If negative, the city had this many fewer jobs than if its economic structure were identical to the nation. If positive, the city's economy had this many more jobs than if its economic structure were identical to the nation.

<b>Change in Employment (Check)</b>	<b>NGC+CS+IM</b>	<b>1,047</b>	<b>EMP00-EMP90</b>	<b>1,047</b>	<b>Difference</b>	<b>0</b>
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### Appendix 3: Shift Share Analysis - Employed Civilian Population 16+ years by employment category (SIC)

Source: American FactFinder, U.S. Bureau of the Census

#### 1980-1990

SIC Industry Classification	Dickinson Total Employment		County Percent Change	United States Total Employment		National Percent Change	National Growth Component	Competitive Share	Industrial Mix
	1980	1990		1980	1990				
Ag, Forestry & Fishing	1,116	998	-10.57%	2,913,589	3,115,372	6.93%	206	-195.3	-128.93
Mining	45	58	28.89%	1,028,178	723,423	-29.64%	8	26.3	-21.65
Construction	526	521	-0.95%	5,739,598	7,214,763	25.70%	97	-140.2	38.00
Manufacturing	1,016	1,143	12.50%	21,914,754	20,462,078	-6.63%	188	194.3	-255.09
Transport, Com & Utility	898	797	-11.25%	7,087,455	8,205,062	15.77%	166	-242.6	-24.33
Wholesale Trade	376	326	-13.30%	4,217,232	5,071,026	20.25%	69	-126.1	6.65
Retail Trade	1,635	1,663	1.71%	15,716,694	19,485,666	23.98%	302	-364.1	89.97
Finance, Ins & R.E.	332	321	-3.31%	5,898,059	7,984,870	35.38%	61	-128.5	56.12
Services				0	0		0	0.0	0.00
Bus & Repair	234	223	-4.70%	4,081,677	5,577,462	36.65%	43	-96.8	42.51
Personal Service	286	258	-9.79%	3,075,764	3,668,696	19.28%	53	-83.1	2.29
Entertain & Rec	35	67	91.43%	1,007,070	1,636,460	62.50%	6	10.1	15.41
Health Services	649	552	-14.95%	7,250,465	9,682,684	33.55%	120	-314.7	97.79
Educational Serv	740	793	7.16%	8,377,213	9,633,503	15.00%	137	-58.0	-25.76
Other Services	271	336	23.99%	4,184,141	7,682,060	83.60%	50	-161.6	176.48
Public Admin/Govt.	467	523	11.99%	5,147,466	5,538,077	7.59%	86	20.6	-50.85
<b>Total Civilian Employment - 16+</b>	<b>8,626</b>	<b>8,579</b>	<b>-0.54%</b>	<b>97,639,355</b>	<b>115,681,202</b>	<b>18.48%</b>	<b>1592</b>	<b>-1660</b>	<b>19</b>
<b>Total Population</b>	<b>20,175</b>	<b>18,948</b>							

**National Growth Component (NGC)**                      =(Base Yr Emp) \* (National Average Growth Rate)

Purpose: To measure how many new jobs were created locally due to state or national economic trends

Interpretation:                      1,592 new jobs were created as a result of national economic trends.

**Competitive Share (CS)**                                      =(Base Yr Emp) \* (Local Growth Rate - National Growth Rate)

Purpose: To determine whether local businesses are growing faster or slower than similar businesses nationally

Interpretation:                      -1,660 jobs were gained (if positive) beyond national growth trends and its industrial mix. The city is growing faster than the nation. If negative, the city has lost its competitive edge in industries with negative values.

**Industrial Mix (IM)**    =(Base Yr Emp)\*(Sector National Growth Rate - National Average Growth Rate)

Purpose: To determine whether the local economy contains industries that are growing slower or faster than the national average.

Interpretation:                      19 If negative, the city had this many fewer jobs than if its economic structure were identical to the nation.  
If positive, the city's economy had this many more jobs than if its economic structure were identical to the nation.

**Change in Employment (Check)**    **NGC+CS+IM**                      **-49**                      **EMP00-EMP90**                      **-47**                      **Difference**                      **2**

### Appendix 3: Shift Share Analysis - Employed Civilian Population 16+ years by employment category (SIC)

Source: American FactFinder, U.S. Bureau of the Census

#### 1970-1980

SIC Industry Classification	Dickinson			United States		National Percent Change	National Growth Component	Competitive Share	Industrial Mix
	Total Employment 1970	Total Employment 1980	County Percent Change	Total Employment 1970	Total Employment 1980				
Ag, Forestry & Fishing	1,243	1,116	-10.22%	2,840,488	2,913,589	2.57%	342	-159.0	-310.38
Mining	31	45	45.16%	630,788	1,028,178	63.00%	9	-5.5	10.99
Construction	508	526	3.54%	4,572,235	5,739,598	25.53%	140	-111.7	-10.22
Manufacturing	860	1,016	18.14%	19,837,208	21,914,754	10.47%	237	65.9	-146.81
Transport, Com & Utility	846	898	6.15%	5,186,101	7,087,455	36.66%	233	-258.2	77.14
Wholesale Trade	230	376	63.48%	3,133,382	4,217,232	34.59%	63	66.4	16.21
Retail Trade	1,285	1,635	27.24%	12,239,498	15,716,694	28.41%	354	-15.1	11.13
Finance, Ins & R.E.	243	332	36.63%	3,838,387	5,898,059	53.66%	67	-41.4	63.46
Services							0		0.00
Bus & Repair	112	234	108.93%	2,394,887	4,081,677	70.43%	31	43.1	48.04
Personal Service	368	286	-22.28%	3,536,576	3,075,764	-13.03%	101	-34.1	-149.31
Entertain & Rec	56	35	-37.50%	631,193	1,007,070	59.55%	15	-54.3	17.92
Health Services	402	649	61.44%	4,246,187	7,250,465	70.75%	111	-37.4	173.70
Educational Serv	603	740	22.72%	7,278,293	8,377,213	15.10%	166	46.0	-75.04
Other Services	177	271	53.11%	1,986,724	4,184,141	110.61%	49	-101.8	147.02
Public Admin/Govt.	438	467	6.62%	4,201,652	5,147,466	22.51%	121	-69.6	-22.05
<b>Total Civilian Employment - 16+</b>	<b>7,402</b>	<b>8,626</b>	<b>16.54%</b>	<b>76,553,599</b>	<b>97,639,355</b>	<b>27.54%</b>	<b>2039</b>	<b>-667</b>	<b>-148</b>
<b>Total Population</b>	<b>19,993</b>	<b>20,175</b>							

#### National Growth Component (NGC) = (Base Yr Emp) \* (National Average Growth Rate)

Purpose: To measure how many new jobs were created locally due to state or national economic trends

Interpretation: 2,039 new jobs were created as a result of national economic trends.

#### Competitive Share (CS) = (Base Yr Emp) \* (Local Growth Rate - National Growth Rate)

Purpose: To determine whether local businesses are growing faster or slower than similar businesses nationally

Interpretation: -667 jobs were gained (if positive) beyond national growth trends and its industrial mix. The city is growing faster than the nation. If negative, the city has lost its competitive edge in industries with negative values.

#### Industrial Mix (IM) = (Base Yr Emp) \* (Sector National Growth Rate - National Average Growth Rate)

Purpose: To determine whether the local economy contains industries that are growing slower or faster than the national average.

Interpretation: -148 If negative, the city had this many fewer jobs than if its economic structure were identical to the nation. If positive, the city's economy had this many more jobs than if its economic structure were identical to the nation.

**Change in Employment (Check)    NGC+CS+IM            1,224                    EMP00-EMP90            1,224                    Difference                    0**



### Appendix 3: Shift Share Analysis - Employed Civilian Population 16+ years by employment category (SIC)

Source: American FactFinder, U.S. Bureau of the Census

#### 2000-2010

SIC Industry Classification	County			United States		National	National	Competitive Share	Industrial Mix
	Total Employment 2000	Total Employment 2010	Percent Change	Total Employment 2000	Total Employment 2010	Percent Change	Growth Component		
Ag, Forestry & Fishing	684	633	-7.46%	1,929,683	2,646,975	37.17%	83	-305.3	171.24
Mining	70	0	-100.00%	496,370	0	-100.00%	8	0.0	-78.50
Construction	737	520	-29.44%	8,801,507	8,686,813	-1.30%	89	-207.4	-99.05
Manufacturing	1,242	1,150	-7.41%	18,286,005	14,439,691	-21.03%	151	169.2	-411.99
Transport, Com & Utility	946	857	-9.41%	10,736,666	9,859,100	-8.17%	115	-11.7	-192.14
Wholesale Trade	341	343	0.59%	4,666,757	3,941,066	-15.55%	41	55.0	-94.41
Retail Trade	1,490	1,154	-22.55%	15,221,716	16,203,408	6.45%	181	-432.1	-84.75
Finance, Ins & R.E.	409	312	-23.72%	8,934,972	9,275,465	3.81%	50	-112.6	-34.05
Services							0	0.0	0.00
Bus & Repair	267	482	80.52%	12,061,865	14,710,089	21.96%	32	156.4	26.21
Personal Service	490	0	-100.00%	7,903,810	0	-100.00%	59	0.0	-549.47
Entertain & Rec	153	738	382.35%	2,306,485	12,859,572	457.54%	19	-115.0	681.47
Health Services	1,017	2,202	116.52%	14,471,823	32,311,107	123.27%	123	-68.6	1130.21
Educational Serv	870	0	-100.00%	11,371,206	0	-100.00%	106	0.0	-975.59
Other Services	428	430	0.47%	6,320,632	6,913,449	9.38%	52	-38.1	-11.80
Public Admin/Govt.	482	558	15.77%	6,212,015	7,187,193	15.70%	59	0.3	17.16
<b>Total Civilian Employment - 16+</b>	<b>9,626</b>	<b>9,379</b>	<b>-2.57%</b>	<b>129,721,512</b>	<b>139,033,928</b>	<b>7.18%</b>	<b>1168</b>	<b>-910</b>	<b>-505</b>
<b>Total Population</b>	<b>19,344</b>	<b>19,754</b>							

#### National Growth Component (NGC) = (Base Yr Emp) \* (National Average Growth Rate)

Purpose: To measure how many new jobs were created locally due to state or national economic trends

Interpretation: 1,168 new jobs were created as a result of national economic trends.

#### Competitive Share (CS) = (Base Yr Emp) \* (Local Growth Rate - National Growth Rate)

Purpose: To determine whether local businesses are growing faster or slower than similar businesses nationally

Interpretation: -910 jobs were gained (if positive) beyond national growth trends and its industrial mix. The city is growing faster than the nation. If negative, the city has lost its competitive edge in industries with negative values.

#### Industrial Mix (IM) = (Base Yr Emp) \* (Sector National Growth Rate - National Average Growth Rate)

Purpose: To determine whether the local economy contains industries that are growing slower or faster than the national average.

Interpretation: -505 If negative, the city had this many fewer jobs than if its economic structure were identical to the nation. If positive, the city's economy had this many more jobs than if its economic structure were identical to the nation.

<b>Change in Employment (Check)</b>	<b>NGC+CS+IM</b>	<b>-247</b>	<b>EMP10-EMP00</b>	<b>-247</b>	<b>Difference</b>	<b>0</b>
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