To learn more about Murray County’s current economic situation and to explore opportunities for economic development, community leaders from Murray County participated in the University of Minnesota's Economic Futures Workshop on Monday, September 14, 2015, in Slayton, Minnesota. This report, summarizing the workshop, is presented in partnership with the EDA Center at the University of Minnesota-Crookston (http://www.edacenter.org/).

**WHAT IS AN ECONOMIC FUTURES WORKSHOP?**

The Economic Futures Workshop is designed to help community leaders look objectively at the state of their local economy. The workshop examines the interactions within an economy - among businesses and between businesses and consumers. Using information about how these linkages function, leaders can begin to understand the full implications of change on the local economy. The Futures Workshop can also help communities understand how efforts by different organizations can affect the economy.

The three-hour Futures Workshop provided a profile of the Murray County economy, an analysis of how nine selected industries interact, and a facilitated exploration and discussion of the industries.

**PROFILE OF THE CURRENT ECONOMY**

In 2014, there were 2,959 jobs in Murray County.¹ Between 2001 and 2008, the number of jobs in Murray County remained fairly stable, varying between 2,700 and 2,800 jobs. The number of jobs climbed steadily between 2008 and 2012, despite the Great Recession. While the number of jobs declined by 4 percent in Minnesota between 2008 and 2009, the number of jobs in Murray County increased by 2 percent. Growth in the number of jobs in Murray County slightly out-paced national and industry trends between 2001 and 2014.²

Chart 1 illustrates employment by industry in Murray County. The agriculture, forestry, fishing, hunting, and mining industry employs nearly one-quarter of all workers in Murray County. Other major industries, as measured by the number of jobs, include trade and manufacturing.

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² Source: Shift-share analysis from EMSI (Economic Modeling System).
Industries adding the most jobs between 2001 and 2014 include manufacturing (80 new jobs), utilities (74 jobs), and retail trade (68 jobs). Industries shedding the most jobs in the same period include construction (-52 jobs), accommodation and food services (-26 jobs), and crop and animal production (-14 jobs).³

Employment by industry as compared to the average Greater Minnesota county is shown in chart 2. Murray County has a higher percentage of its employment the agriculture, forestry, fishing, hunting, and mining industry, as well as the construction and manufacturing industry. Murray County trails the average Greater Minnesota in percentage of employment in industries, such as the education and health services industry and the leisure and hospitality industry.

Wages in Murray County are lower than the Greater Minnesota average. Murray County’s average annual wage across all industries was $32,300 in 2014. Greater Minnesota's average annual wage across all industries was $41,700.⁴

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³ Only farm operations covered under the unemployment insurance program are included in the crop and animal production industry.
ANALYSIS OF INDUSTRIES

On June 26th, the Murray County Futures Workshop planning committee selected nine industries to be analyzed and discussed during the facilitated workshop. The input-output model IMPLAN was used in the analysis.

Note: these industries were selected to represent different economic activities in Murray County. The workshop is designed to use these industries as examples.

- Animal slaughtering and processing
- Wind energy
- Residential living facilities
- Crop production
- Cattle ranching and farming
- Machine shops
- Truck transportation
- Food services & drinking places
- Construction

Chart 2: Percent of Employment Industry, Murray County Versus Greater Minnesota 2013

Source: IMPLAN
EXPLORATION AND DISCUSSION OF INDUSTRIES

After reviewing the current structure of the Murray County economy, attendees divided into groups to explore the economic interdependencies of the selected industries. Each group was assigned two industries and asked to address the following four questions:

1. What surprises you about this information?
2. What information favors this industry in the region?
3. What information works against this industry in the region?
4. What could be done to support this industry in Murray County?

The small groups reported their summary thoughts and considerations to the full group. (Notes from each industry are provided in Appendix Two).

KEY CONCLUSIONS

Following the discussion of individual industries, the Murray County group discussed overall conclusions reached during the workshop. The main conclusions are listed here.

1. Wages are lower than most people expected. Many industries had very similar wages.
2. Variation of impact of 100 jobs – some industries are minimal, others are bigger. All jobs are not created equal.
3. We need everything to keep moving forward.
4. We are interdependent – to take one industry out affects other industries.
5. Succession planning may be necessary.
6. Education does not always have to be a four year degree.
7. Promoting the region – getting people to stay or come back is important.
8. Positive attitude is a draw – we are here, we are trying, and we are working together.

NEXT STEPS

The conversation in Murray County was broad and wide-ranging. After discussion key conclusions, the group voted on potential areas for further action. The group identified three primary areas of agreement for action. After identifying the three areas, the group discussed potential action steps. The potential action steps are summarized here.

1. Construction
   a. Host training sessions, not only trades but business ownership, bring in experts
   b. SCORE – bring in retirees to provide guidance
   c. Career days – opportunities to talk about the trades
   d. Work with schools – visit first, determine opportunities for hands-on experiences
2. Residential care
   a. Interagency group on aging – invite them in for conversation with facilities in the county (side note: administrators already attend regular meetings)
   b. Keep conversation open with legislators – let them know this is important and wages are low
   c. Encourage people to feel comfortable leaving own homes
   d. Educate older population about the opportunities

3. Food service
   a. Advertise outside the county – use social media to better effect
   b. Offer workshop – social media breakfast
   c. Placemat – all local restaurants could advertise on it
   d. One place – such as Chamber – advertises all the daily specials

**REFLECTION ON SESSION**

The workshop ended with a reflection on the experience. The group was asked to share an observation about the workshop, to reflect on something learned, to provide further clarification on an idea generated, or to share a personal action to be taken as a result of the workshop. The comments are provided here.

- Saw enthusiasm
- How to get workforce more dedicated – be the workforce businesses want
- Lots of potential, but we have to work for it
- Push for improvements in residential care
- Work with legislators to increase wages – low wages are not good for the economy
- Communities in county are working together
- Training – enjoy work and get satisfaction
- Bring information back into the community and use it
- Lots of information here for decision-makers and community leaders
- Training – approach legislators for funding for high school hands-on training
- Learned a lot about what others think about Murray County
- Still need to explore diversity that is coming
- Draw people here to eat – get them to stay
• Talked about silos, how can we bring them together, as we did in this meeting
• Gained a lot of knowledge – let’s support us
• Heard lots of positives

EXTENSION STAFF
The following University of Minnesota Extension staff participated in the planning, preparation, and presentation of the Economic Futures Workshop in Yellow Medicine County.

Brigid Tuck, Economic Impact Analyst, Presenter
Neil Linscheid, Extension Educator, Presenter
Gabriel Appiah, Community Economics Intern
Elizabeth Templin, Extension Educator, Program Manager

APPENDIX ONE: DEFINITIONS OF TERMS
Nine of Murray County’s industries were analyzed to measure their economic linkages for the workshop. The results of the analysis are presented in this appendix. To allow for comparison, the analysis considers the economic impact of 100 jobs in each industry. This allows one to compare and contrast the types of impacts each industry has in the county. The IMPLAN model used in this analysis is linear; therefore, if a person wanted to consider the economic linkages of 10 jobs, it could be done by dividing the results for 100 jobs by 10.

Interpreting the results requires knowing several definitions. Those are included here.

**Output**
Output is measured in dollars and is equivalent to total sales.

**Employment**
Employment includes full- and part-time workers and is measured in annual average jobs. Total wage and salaried employees, as well as the self-employed are included in employment estimates in IMPLAN. Because employment is measured in jobs and not in dollar values, it tends to be a very stable metric.

**Direct Impact**
The direct impact is equivalent to the initial change in the economy. For this workshop, the direct impact is 100 jobs.

**Indirect Impact**
The indirect impact is the summation of changes in the local economy that occur due to spending for inputs (goods and services) by the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, this implies a corresponding increase in output by the plant. As the plant increases output, it must also purchase more of its inputs, such as electricity, steel, and equipment. As it increases its purchase of these items, its suppliers must also increase their production, and so forth. As these ripples move through the
economy, they can be captured and measured. Ripples related to the purchase of goods and services are indirect impacts.

**Induced Impact**

The induced impact is the summation of changes in the local economy that occur due to spending by labor – by the employees in the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, the new employees will have money to spend to purchase housing, buy groceries, and go out to dinner. As they spend their new income, more activity occurs in the local economy. This can be quantified and is called the induced impact.

**Total Impact**

The total impact is the summation of the direct, indirect, and induced impacts.

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**APPENDIX TWO: SUMMARY OF INDUSTRY EXPLORATION AND DISCUSSION**

During small group discussions, the participants answered the following questions about ten selected industries. The responses, shared with the large group, are summarized below.

**Questions for Discussion**

1. What surprises you about this information?
2. What information favors this industry in the region?
3. What information works against this industry in the region?
4. What could be done to support this industry in Murray County?

**Truck Transportation**

1. Surprises?
   a. Pay range – lower than thought
   b. This likely includes UPS
2. Favors industry
   a. Strong ag economy - hauling and mechanics
   b. Good farm land
3. Against industry
   a. Weather - affects agriculture
   b. Fuel and grain prices fluctuate
   c. Land prices and rents
   d. Taxes
   e. Animal waste issues
   f. Fertilizers and chemicals
   g. Hauling on road conditions
4. Support?
   a. Educating farm workers
   b. Wages for farm workers
   c. Support education for truckers
i. Ex. Community colleges are not here; students leave – we should encourage them to come back

ii. Online learning opportunities?

Animal Slaughtering and Processing
1. Surprises?
   a. Ripple effects are high
   b. Potential job creation

2. Favors industry
   a. Transportation – state roads and highway

3. Against industry
   a. Wages
   b. Housing
   c. Workforce and workforce housing

4. Support?
   a. Workforce housing
   b. Maintain roads and infrastructure
   c. Dependable workforce

Residential Care
1. Surprises?
   a. Average page is low

2. Favors industry
   a. Number of people who are aging
   b. People need to live somewhere

3. Against industry
   a. Wages
   b. Revenues – there isn’t local control over revenues; need to rely on state legislature
   c. Nursing homes costs & people want to stay in their own homes

4. Support?
   a. **Encourage horizontal diversification – nursing homes, convalescent, assisted living in one facility** – 7 votes
   b. Encourage people to consider residential housing for socialization

Wind Energy
1. Surprises?
   a. Number of employees
   b. High output

2. Favors industry
   a. High wages
   b. Industry provides money back to county via production tax
   c. Friendly attitude towards alternative energy in Minnesota

3. Against industry
   a. Downhill trend – not building as many wind towers

4. Support?
   a. Zoning has been fairly favorable in the county – commission has been willing to keep zoning laws up-to-date
Construction
1. Surprises?
   a. Food service was lower than expected
2. Favors industry
   a. Aging infrastructure
   b. Excavators – water and sewer – opportunities for growth
   c. Demand is high
3. Against industry
   a. Seasonal nature of work
   b. Inputs – not a lot of local supply
   c. Shortage of workers, especially younger workers
4. Support?
   a. Training – need qualified people, doesn't have to be a four year degree (7 votes)
   b. More workers – attract younger workers (1 vote)
   c. High school exposure – talking to students, get them hands-on experiences (3 votes)

Machine Shops
1. Surprises?
   a. Number of employees
   b. Low wages
   c. Low output generated
   d. Low ripple effects
2. Favors industry
   a. Farm equipment repair needs
   b. Economic changes
3. Against industry
   a. Equipment becomes specialized – harder to work on
4. Support?
   a. Succession planning (3 votes)
   b. Support current establishments (1 vote)
   c. Transportation

Grain Farming
1. Surprises?
   a. Decline in employment
   b. Competitive share declining
   c. Truck transportation impacts – lower than expected
2. Favors industry
   a. Wages appear in line
3. Against industry
   a. Grain prices
4. Support?
   a. Ag-centric county – lots of support currently (1 vote)
   b. Educating population on farming practices/being stewards (3 votes)
   c. Use ethanol (1 vote)
   d. Youth involved – for non-farm families, maybe around technology (3 votes)
Animal Production - Beef
1. Surprises?
   a. Number of employees down
2. Favors industry
   a. Space – land
   b. Trucking
   c. Veterinarians
   d. Corn prices down
3. Against industry
   a. Farm prices up and down
   b. Feed prices – hard to plan ahead
   c. Replacement herd costs
   d. Wages for workers are relatively low
4. Support?
   a. Process for putting up buildings – zoning issues, etc.
   b. Greater workforce – need to have passion and training
   c. County/employees work with workforce center (1 vote)
   d. Advertising on county website for jobs
   e. Succession planning for owner/operator (1 vote)

Food Services
1. Surprises?
   a. Low wages
   b. Not much profit
2. Favors industry
   a. Quality food
   b. Service is good
   c. Diversity of options?
   d. Not many chains – local ownership
   e. Tourism draw?
3. Against industry
   a. Farm prices could affect
4. Support?
   a. Word of mouth (1 vote)
   b. Advertise outside of Murray County – attract those after a non-chain experience (10 votes)
APPENDIX THREE: INDUSTRY ANALYSIS SLIDES

ANIMAL SLAUGHTERING: MURRAY COUNTY

- 315 employees (EMSI)
- $209.6 million in output generated (IMPLAN)
- 89% of expenditures are for inputs
  - Beef cattle, animal products, wholesale trade
- 11% are for labor
  - Average weekly wage: $561 (all manufacturing, QCEW)
- This U.S. industry comprises establishments primarily engaged in slaughtering animals
- Business e.g.: Monogram Food Solutions, LLC

SHIFT-SHARE ANALYSIS

<table>
<thead>
<tr>
<th>SHIFT-SHARE MURRAY COUNTY</th>
<th>Employment Change 2001-2014</th>
<th>National Growth</th>
<th>Industrial Mix</th>
<th>Competitive Share</th>
<th>Competitive Share Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Slaughtering</td>
<td>8</td>
<td>16</td>
<td>-36</td>
<td>28</td>
<td>350%</td>
</tr>
</tbody>
</table>

Source: EMSI
ANIMAL SLAUGHTERING: MURRAY COUNTY

ANIMAL SLAUGHTERING: TOP INDUSTRIES AFFECTED
WIND ENERGY: MURRAY CO.

- 47 employees (electric generation transmission & distribution from wind, IMPLAN)
- $88.6 million in output
- 16% of expenditures are for inputs
- 84% for labor
  - Average weekly wage: $1,420 (electric power generation transmission & distribution, QCEW)
- This U.S. industry comprises establishments primarily engaged in operating wind electric power generation facilities
- Business e.g.: Nobel Cooperative Electric

<table>
<thead>
<tr>
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<th>Competitive Share Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric power generation</td>
<td>74</td>
<td>1</td>
<td>-2</td>
<td>76</td>
<td>102%</td>
</tr>
</tbody>
</table>

Source: EMRI
ELECTRIC POWER GENERATION-WIND: MURRAY COUNTY

![Bar chart showing direct, indirect, and induced employment for electric power generation-wind in Murray County.]

ELECTRIC POWER GENERATION-WIND: TOP INDUSTRIES AFFECTED

![Bar chart showing employment in various industries affected by electric power generation-wind in Murray County.]

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NURSING AND RESIDENTIAL CARE: MURRAY COUNTY

- 327 employees (QCEW)
- 5 establishments (QCEW)
- $16.2 million in output generated
- 41% of expenditures for inputs
  - Real estate, management consulting, insurance
- 59% of expenditures for labor
  - Average weekly wage: $441 (QCEW)
- Includes nursing care, residential intellectual and development disability care, & assisting living facilities
- Business e.g.: Maple Lawn Nursing Home, New Dawn Inc., Hospice of Murray County Inc.

SHIFT-SHARE ANALYSIS

### SHIFT-SHARE MURRAY COUNTY

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Nursing and residential care facilities</td>
<td>24</td>
<td>15</td>
<td>54</td>
<td>-45</td>
</tr>
</tbody>
</table>

Source: EMPL, based on CEW data
NURSING & RESIDENTIAL CARE: MURRAY COUNTY

NURSING AND RESIDENTIAL CARE: TOP INDUSTRIES AFFECTED
GRAIN PRODUCTION: MURRAY COUNTY

- 266 employees (IMPLAN)
- $108.7 million of output
- 40% of expenditures for inputs
  - Support activities for agriculture, refined petroleum products, pesticides and other agricultural chemicals
- 60% for labor
  - Average weekly wage: $979 (QCEW)
- This industry is comprised of enterprises that produce grains – corn, wheat, peas, and beans. It does not include oilseed (soybean) production.

SHIFT-SHARE ANALYSIS

SHIFT-SHARE MURRAY COUNTY

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</thead>
<tbody>
<tr>
<td>Crop Production</td>
<td>-60</td>
<td>5</td>
<td>-11</td>
<td>-54</td>
</tr>
</tbody>
</table>

Source: EMI
ANIMAL PRODUCTION-BEEF: MURRAY COUNTY

- 108 employees (IMPLAN)
- $44.5 million in output
- 60% of expenditures for inputs
  - Beef cattle, other animal food, wholesale trade
- 40% for labor
  - Average weekly wage: $548 (QCEW)
- This industry comprises establishments primarily engaged in raising cattle (including cattle for dairy herd replacements), or feeding cattle for fattening.
- Business e.g.: Les & Curt Miller Farm Inc., Gervais Brothers, Gervais Franics, Gengler Bros Inc.

SHIFT-SHARE ANALYSIS

<table>
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<tbody>
<tr>
<td>Employment Change 2001-2014</td>
</tr>
<tr>
<td>Animal production &amp; aquaculture</td>
</tr>
</tbody>
</table>

Source: EMBI
BEEF CATTLE RANCHING & FARMING: MURRAY COUNTY

![Bar chart showing direct, indirect, and induced employment in Murray County. Direct employment is 100, indirect is 54, induced is 39, and total is 193.]

BEEF CATTLE RANCHING & FARMING: TOP INDUSTRIES AFFECTED

![Bar chart showing employment in various industries affected by beef cattle ranching and farming. Industries include transportation, mining, construction, wholesale trade, retail trade, finance, insurance, real estate, and personal services.]

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FOOD SERVICE & DRINKING PLACES: MURRAY COUNTY

- 130 employees (QCEW)
- 19 establishments (QCEW)
- $8.6 million in output generated
- 58% of expenditures are for inputs
  - Real estate, advertising, and electricity
- 42% for labor
  - Average weekly wage: $170 (QCEW, does not include tips)
- Industries in the Food services and drinking places subsector prepare meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption.
- Business e.g.: DK Slayton Pizza Ranch Inc, Country Host, Good Times Bar & Grill

SHIFT-SHARE ANALYSIS

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<tbody>
<tr>
<td>Food services and drinking Places</td>
<td>-30</td>
<td>8</td>
<td>39</td>
<td>-77</td>
<td>-257%</td>
</tr>
</tbody>
</table>

Source: EMSI
FOOD AND DRINKING PLACES: MURRAY COUNTY

![Bar graph showing direct, indirect, and induced impacts.]

FOOD AND DRINKING PLACES: TOP INDUSTRIES AFFECTED

![Bar chart showing employment by industry, comparing induced and direct impacts.]

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CONSTRUCTION: MURRAY COUNTY

- 270 employees (EMSI)
- 59 establishments (QCEW)
- $15.6 million in output generated (construction of other new residential building)
- 61% of expenditures are for inputs
  - Reconstituted wood product, pump & pumping equipment, plastic pipes
- 39% are for labor
  - Average weekly wage: $604 (QCEW)
- Business e.g.: RUPP Construction Company Incorporated, GASS Trenching Inc., Johnson Ditching Inc.

SHIFT-SHARE ANALYSIS

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<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Construction</td>
</tr>
</tbody>
</table>

Source: EMSI, based on CEW data
CONSTRUCTION OF OTHER RESIDENTIAL BUILDINGS: MURRAY COUNTY

CONSTRUCTION OF OTHER RESIDENTIAL BUILDING: TOP INDUSTRIES AFFECTED
MACHINE SHOPS: MURRAY COUNTY

- 27 employees
- 10 establishments (manufacturing, QCEW)
- $1.5 million in output generated
- 61% of expenditures are for inputs
  - plates, iron & steel & ferroalloy products, machined products
- 39% for labor
  - Average weekly wage: $561 (all manufacturing, QCEW)
- This industry comprises establishments known as machine shops primarily engaged in machining metal and plastic parts and parts of other composite materials on an order basis.
- Business e.g.: Precision Manufacturing & Machine, Brad & Tim Tass Enterprises

SHIFT-SHARE ANALYSIS

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<tbody>
<tr>
<td>Machine shops</td>
<td>13</td>
<td>1</td>
<td>2</td>
<td>11</td>
<td>85%</td>
</tr>
</tbody>
</table>

Source: EMSI
MACHINE SHOPS: MURRAY COUNTY

MACHINE SHOPS: TOP INDUSTRIES AFFECTED
TRUCK TRANSPORTATION: MURRAY COUNTY

- 76 employees (EMSI)
- $21 million in output generated
- 21 establishments (QCEW)
- 57% of expenditures are for inputs
  - Refined petroleum products, couriers & messengers services
- 43% are for labor
  - Average weekly wage: $641
- Industries in the truck transportation subsector provide over-the-road transportation of cargo using motor vehicles, such as trucks and tractor trailers.
- Business e.g.: Tiesler Trucking Inc., NEPP Enterprise, Virgil Chapman, Hacker Hauling

SHIFT-SHARE ANALYSIS

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<tbody>
<tr>
<td>Truck transportation</td>
<td>6</td>
<td>2</td>
<td>-2</td>
<td>5</td>
<td>83%</td>
</tr>
</tbody>
</table>
TRUCK TRANSPORTATION: MURRAY COUNTY

TRUCK TRANSPORTATION: TOP INDUSTRIES AFFECTED