Ohio Shale Development Community Impact Survey
Summary 2016

Presenter
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The Team

• A large team helped make the survey happen!
• **Development** (alphabetical): Daniel Kloepfer, Gilbert Michaud, Scott Miller, Jonathan Norris, Elissa Welch, and Mike Zimmer
  • Thank you to the Ohio University IRB for survey approval.
• **Implementation**: Holly Craycraft
• **Analysis**: Daniel Kloepfer
• **Presentation**: Lindsey Siegrist
Background

• In 2013, the Voinovich School and CE3 completed the Ohio Shale Survey.

• The 2016 Survey represents:
  • Follow-up to 2013 Survey; shift in focus

• Current topics of interest:
  • Socio-economic impacts
  • Economic growth and tax revenue
  • Employment and workforce development
New Feature – Sector Decomposition

2016 Survey design allows decomposition of shale effects by “sector”:
1. Primary; extraction and production of shale gas (and oil)
2. Secondary; all shale activity beyond primary sector
3. Indirect; all other economic activity caused by shale development
Sampling

Mail survey sent to 520 local public officials including:
- County commissioners (78)
- County auditors, sheriffs, and health commissioners (78)
- Township trustees (234)
- Mayors / Municipal administrators (130)

26 counties with “significant” shale activity defined by:
- Number of production/injection wells
- Number of primary/secondary oil & gas workers

- Overall response rate: 24.2% (126); balance by type and county
Overview Results

Respondents indicate that shale development has led to:
1. Overall economic growth and wealth creation
2. Growth in tax/fee revenue but from indirect sources
3. Growth in temporary employment
4. Economic growth overall but slower in past year
Survey Summary Table

<table>
<thead>
<tr>
<th>Topic</th>
<th>Respondents Reporting Increase (%)</th>
<th>Sector Providing Most Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Socio-economic Impacts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Values/Cost of Land</td>
<td>45.6</td>
<td>Primary/Secondary</td>
</tr>
<tr>
<td>Traffic Volume/Congestion</td>
<td>41.5</td>
<td>Primary</td>
</tr>
<tr>
<td>Rental Housing Prices</td>
<td>40.9</td>
<td>Primary</td>
</tr>
<tr>
<td><strong>Economic Growth &amp; Tax Revenue</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-Year Economic Growth</td>
<td>52.7</td>
<td>Primary</td>
</tr>
<tr>
<td>Local Citizen Wealth</td>
<td>47.7</td>
<td>Secondary</td>
</tr>
<tr>
<td>Local Tax/Fee Revenue</td>
<td>43.7</td>
<td>Indirect</td>
</tr>
<tr>
<td><strong>Employment &amp; Workforce Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Jobs for Temporary Residents</td>
<td>52.9</td>
<td>Primary</td>
</tr>
<tr>
<td>Number of Temporary Jobs</td>
<td>46.1</td>
<td>Secondary</td>
</tr>
<tr>
<td>Number of Jobs for Permanent Residents</td>
<td>43.0</td>
<td>Secondary/Indirect</td>
</tr>
</tbody>
</table>

- Percentage reported is the percentage of respondents indicating a “significant increase” or “moderate increase” on a 5-point Likert scale.
Property Values in Detail

*charts show the percentage of respondents who reported an increase in property value/cost of land with selected shale activities occurring in their region.*
Longitudinal Comparison

• Goal: Make comparison between 2013 and 2016 Surveys.
  • Not all questions identical between surveys.

• Finding: Greater percentage of respondents in 2016 reporting increased tax revenue compared to 2013
  • Consistent with increased indirect activity subject to local taxes/fees.
Caveats & Conclusion

• **Caveat**: Response to survey request not random.
• **Conclusion**: Shale development lead to many positive outcomes but some concerns still to be addressed.