In February 2014, owners of farmland in 14 townships in Michigan were sent a mail survey about their opinions of wind energy, recent investments in their homes and farms, and their future plans for their land. A total of 1,210 landowners—72% of all of those who received the survey—responded. Some of these landowners live in townships with a windfarm, while others live where there are no large wind turbines. The aim of the survey was to understand what impact the wind turbines were having on the landowners in the windfarm communities by comparing their survey answers to those from landowners in townships without wind turbines. In summary, the survey data show:

- Landowners with wind turbines on their property:
  - invested twice as much money in their farms—in home improvements, outbuildings, farm equipment, and drainage/irrigation—in the last 5 years than their neighbors and landowners in townships without windfarms.
  - bought more farmland in the last 5 years than other landowners.
  - are more likely to believe that their land will be farmed in the future and less likely to believe their land will go idle than other landowners.
  - are more likely to have a succession plan in place for their farm than other landowners.
  - are more convinced of the positive impacts of turbines and less convinced of the negative impacts than other landowners.
  - report both pros and cons on the impact of the turbines on their ease of farming, but most said that it was neither easier nor more difficult to farm around the turbines.

- Overall, landowners in all townships—with and without windfarms—believe more in the positive impacts of wind turbines than in the negative impacts.
  - While landowners with wind turbines on their property see wind turbines in the most positive light, landowners in windfarm townships who do not have turbines on their property have opinions that are similar to landowners in the townships where there is no windfarm.

- Most landowners think that landowners should have a great deal of authority in deciding where wind turbines are sited.
  - The majority think that local governments and the state should have some authority, but think that the federal government should have no authority in such decisions.

The data for many of these survey questions are on the following pages. Additional analysis, including findings from interviews with county and township officials and a review of zoning ordinances, is included in the full project report which will be available online in the coming months. You can request a link to this report by emailing Sarah Mills at sbmills@umich.edu.
Question: How strongly do you agree or disagree with each statement about wind turbines?

Wind turbines…

- **Provide revenues for land owners**: 63% Agree, 29% Strongly agree, 2% Strongly disagree, 5% Disagree
- **Create jobs**: 64% Agree, 20% Strongly agree, 5% Strongly disagree, 4% Disagree
- **Reduce nearby property values**: 31% Agree, 14% Strongly agree, 12% Strongly disagree, 42% Disagree
- **Produce visual or aesthetic problems**: 27% Agree, 18% Strongly agree, 17% Strongly disagree, 38% Disagree
- **Preserve rural land**: 37% Agree, 7% Strongly agree, 12% Strongly disagree, 43% Disagree
- **Create noise pollution**: 31% Agree, 11% Strongly agree, 17% Strongly disagree, 47% Disagree
- **Help limit climate change**: 21% Agree, 6% Strongly agree, 17% Strongly disagree, 48% Disagree
- **Disrupt bird migration**: 22% Agree, 7% Strongly agree, 17% Strongly disagree, 48% Disagree
- **Cause human health problems**: 12% Agree, 5% Strongly agree, 26% Strongly disagree, 56% Disagree
- **Disrupt local weather patterns**: 8% Agree, 3% Strongly agree, 30% Strongly disagree, 59% Disagree

Question: How much authority should each of these groups have for deciding where wind turbines are sited?

- **State governments**: 4% A great deal of authority, 55% Some authority, 41% No authority, 2% No authority
- **Federal government**: 2% A great deal of authority, 69% Some authority, 29% No authority, 2% No authority
- **Local governments**: 28% A great deal of authority, 55% Some authority, 17% No authority, 1% No authority
- **Landowners**: 85% A great deal of authority, 14% Some authority, 1% No authority, 1% No authority
**Question:** For how much longer do you think you will own any farmland in this county?

- 1-10 years: 41%
- 11-20 years: 23%
- 21-30 years: 19%
- 30+ years: 16%

**Question:** How do you think most of your land in this county will be used when you sell it?

- Farmed: 86%
- Developed: 9%
- Idle or recreation: 3%
- Other: 2%

**Question:** Do you have a succession plan in place for your land?

- Yes: 62%
- No: 38%

**Question:** Since 2008, have you purchased any additional farmland and, if so, how many acres?

- Did not buy: 79%
- <40 acres: 12%
- 40-79 acres: 4%
- 80+ acres: 4%
Question: Since 2008, about how much money have you spent on...

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Average of all responses</th>
<th>Average of those with turbines on their property</th>
</tr>
</thead>
<tbody>
<tr>
<td>...improvements to your home?</td>
<td>$26,897</td>
<td>$41,970</td>
</tr>
<tr>
<td>...improvements to your outbuildings?</td>
<td>$36,521</td>
<td>$71,780</td>
</tr>
<tr>
<td>...improvements to your field drainage and irrigation?</td>
<td>$25,321</td>
<td>$57,863</td>
</tr>
<tr>
<td>...purchasing new or used farm equipment?</td>
<td>$125,027</td>
<td>$279,539</td>
</tr>
</tbody>
</table>

Asking only of landowners with turbines on their property

Question: Are fields with turbines easier or more difficult to farm?