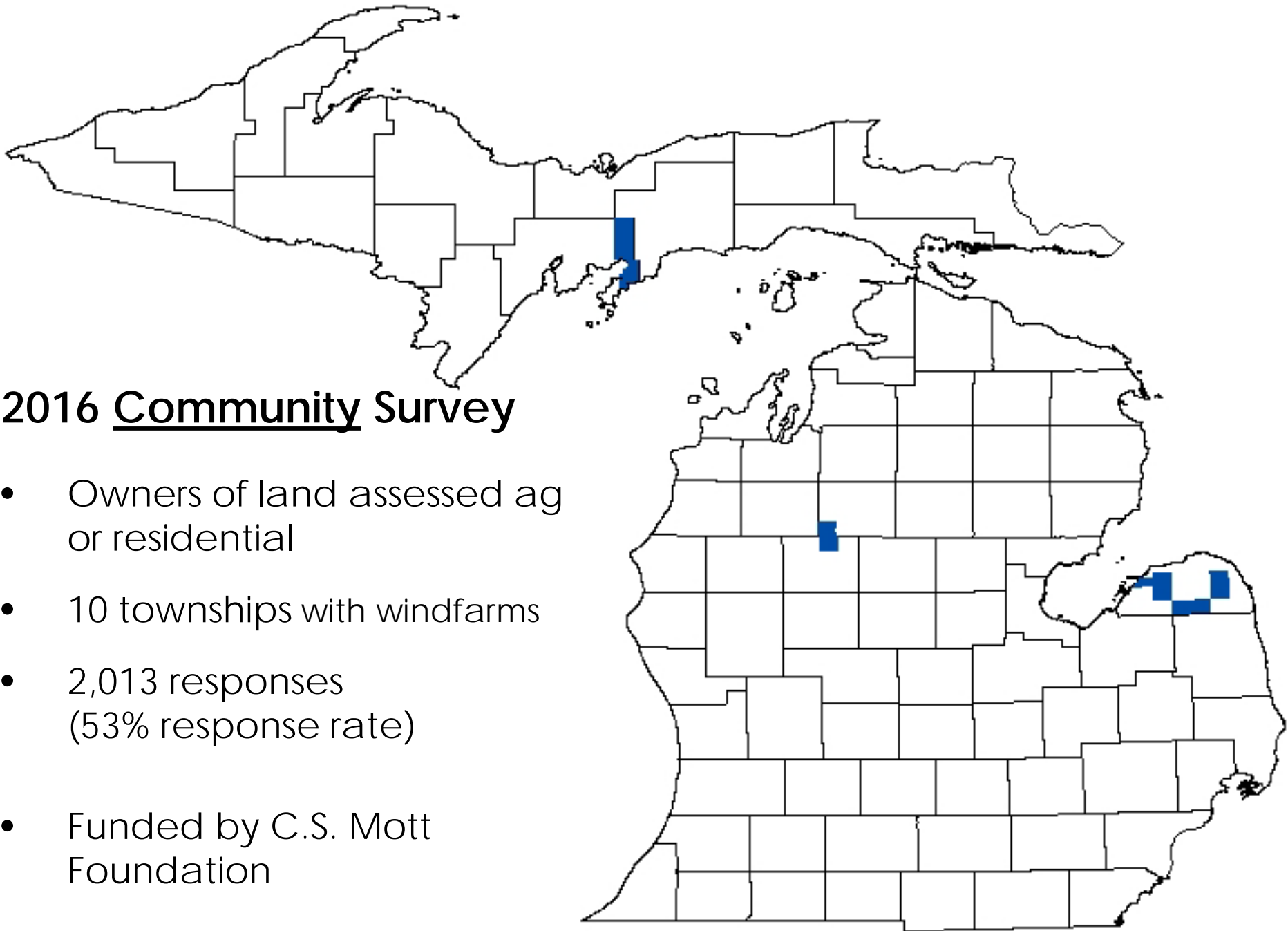


# Pros and Cons of Wind Turbines Experiences from Michigan

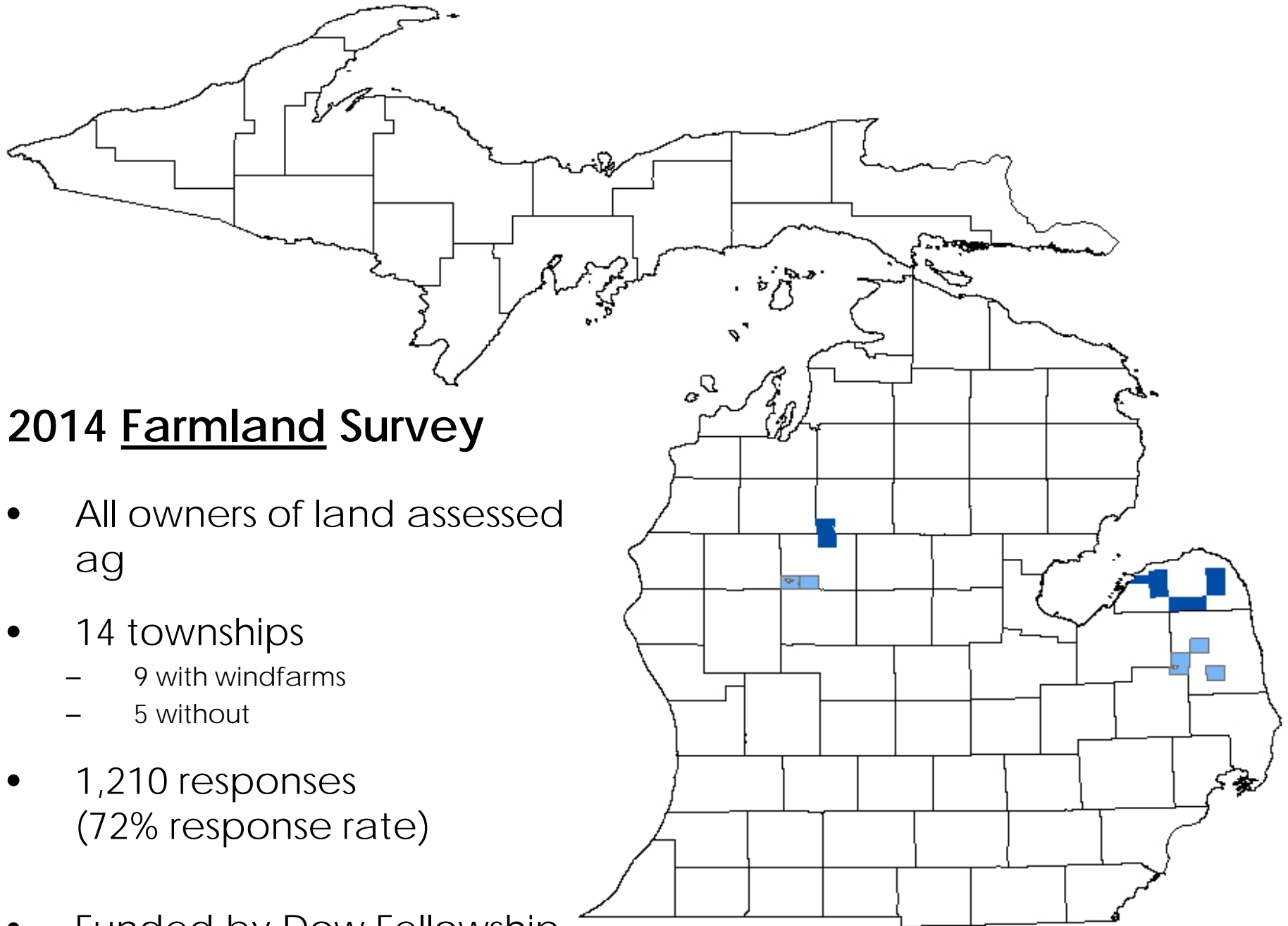
Gibson Township  
August 14, 2017

Sarah Mills, PhD



## 2016 Community Survey

- Owners of land assessed ag or residential
- 10 townships with windfarms
- 2,013 responses (53% response rate)
- Funded by C.S. Mott Foundation



## 2014 Farmland Survey

- All owners of land assessed ag
- 14 townships
  - 9 with windfarms
  - 5 without
- 1,210 responses  
(72% response rate)
- Funded by Dow Fellowship

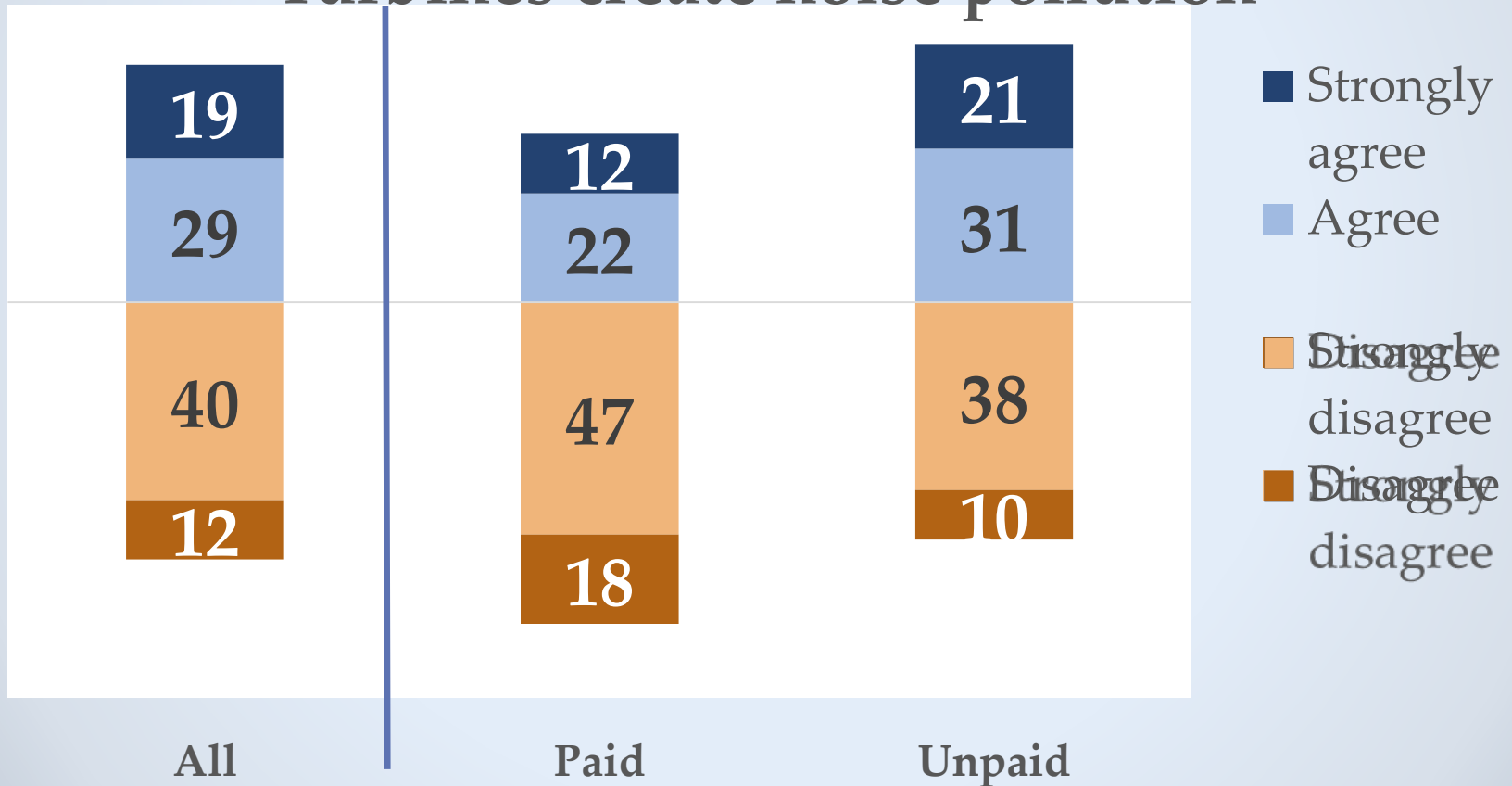
# Overall drivers of attitudes

- Type of land owned
  - secondary vs. primary residence
  - farmland / rental property *only*
- Being within earshot of turbines
- Direct compensation
  - Some better than none
  - \$1,000 per year as key threshold

# Common arguments AGAINST wind turbines ...

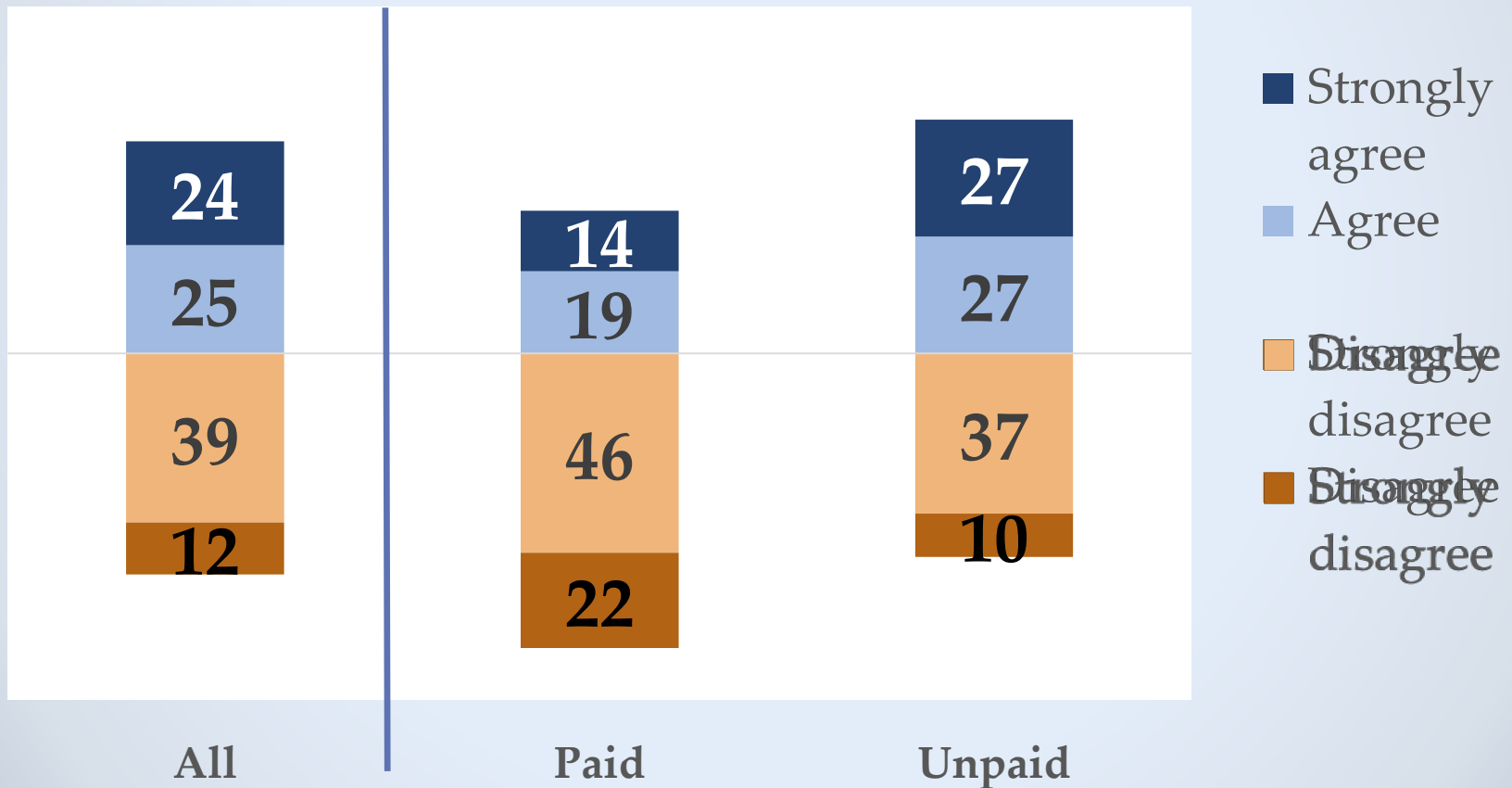
# Noise

## Turbines create noise pollution



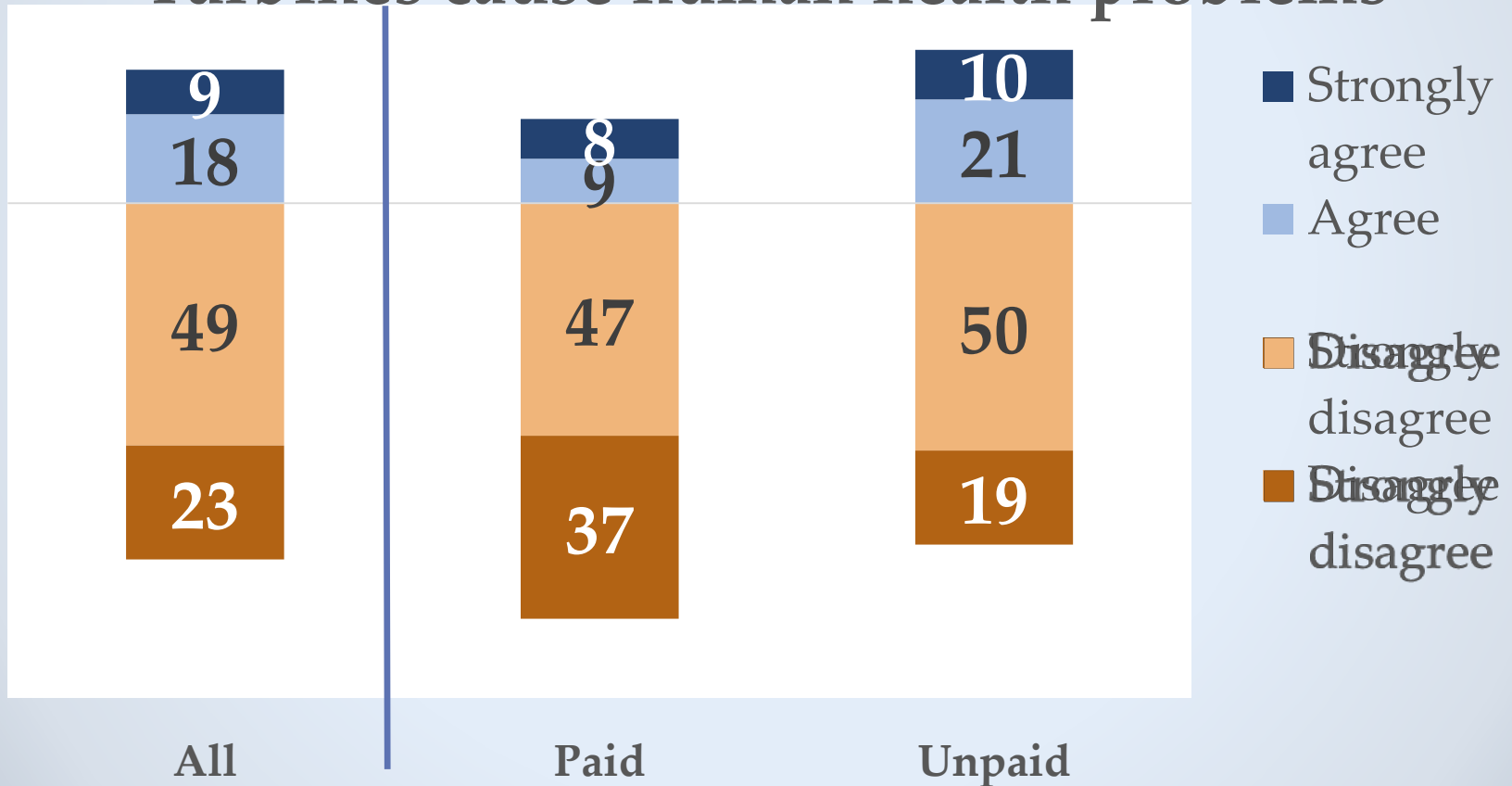
# Visual/Aesthetic

## Turbines create visual/aesthetic problems



# Health Problems

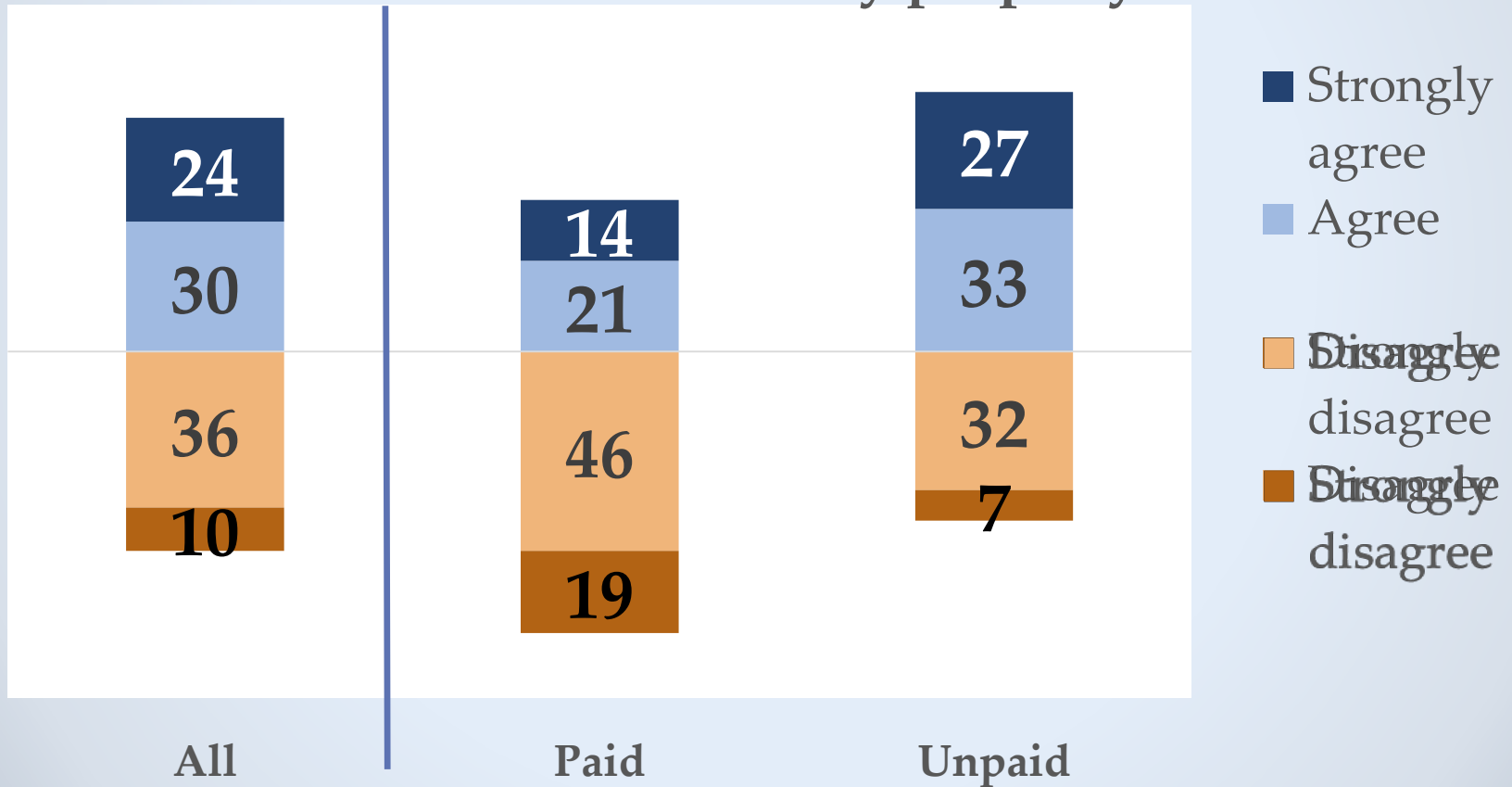
## Turbines cause human health problems





# Property values

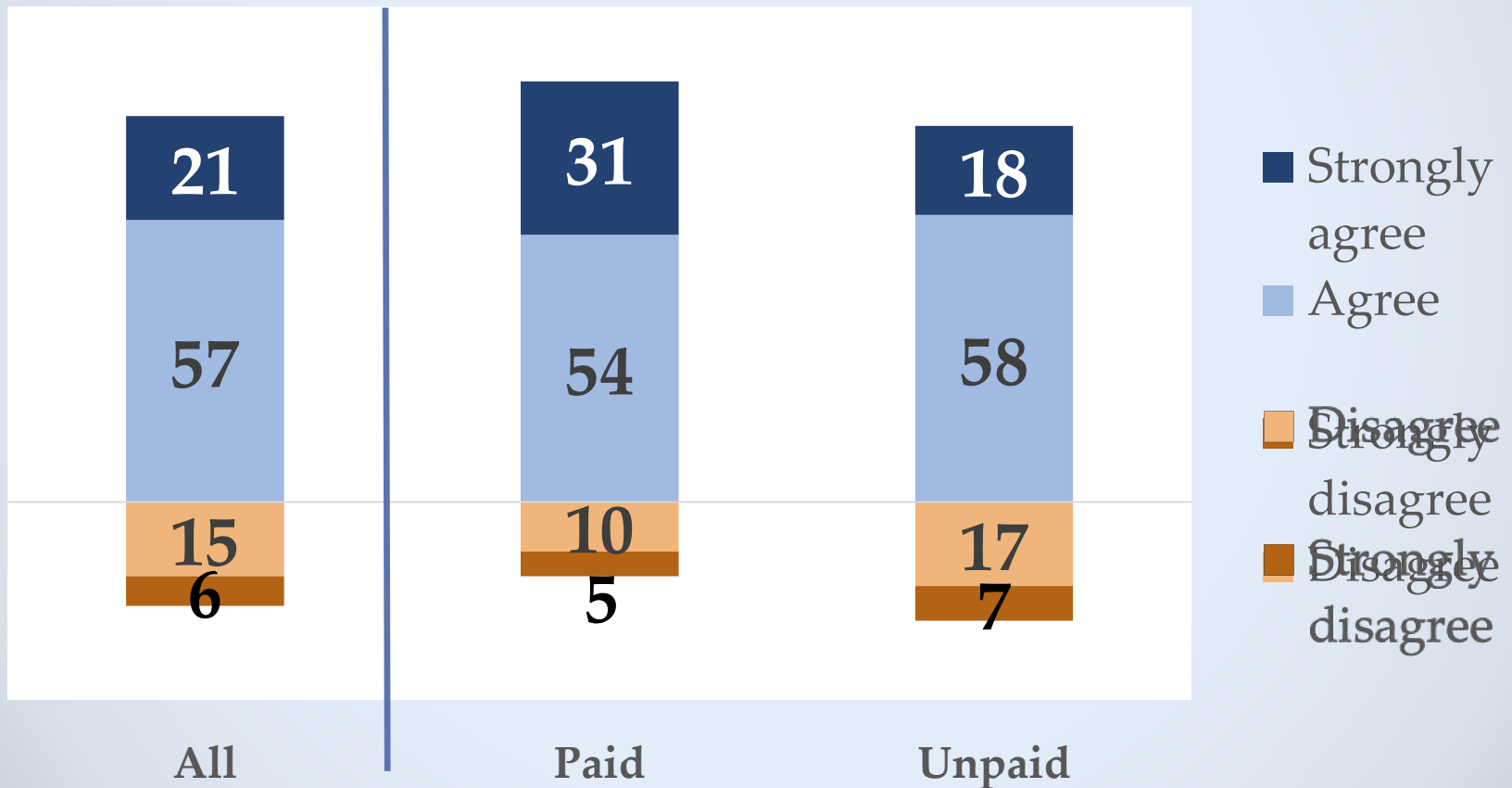
## Turbines decrease nearby property values



# Common arguments FOR wind turbines ...

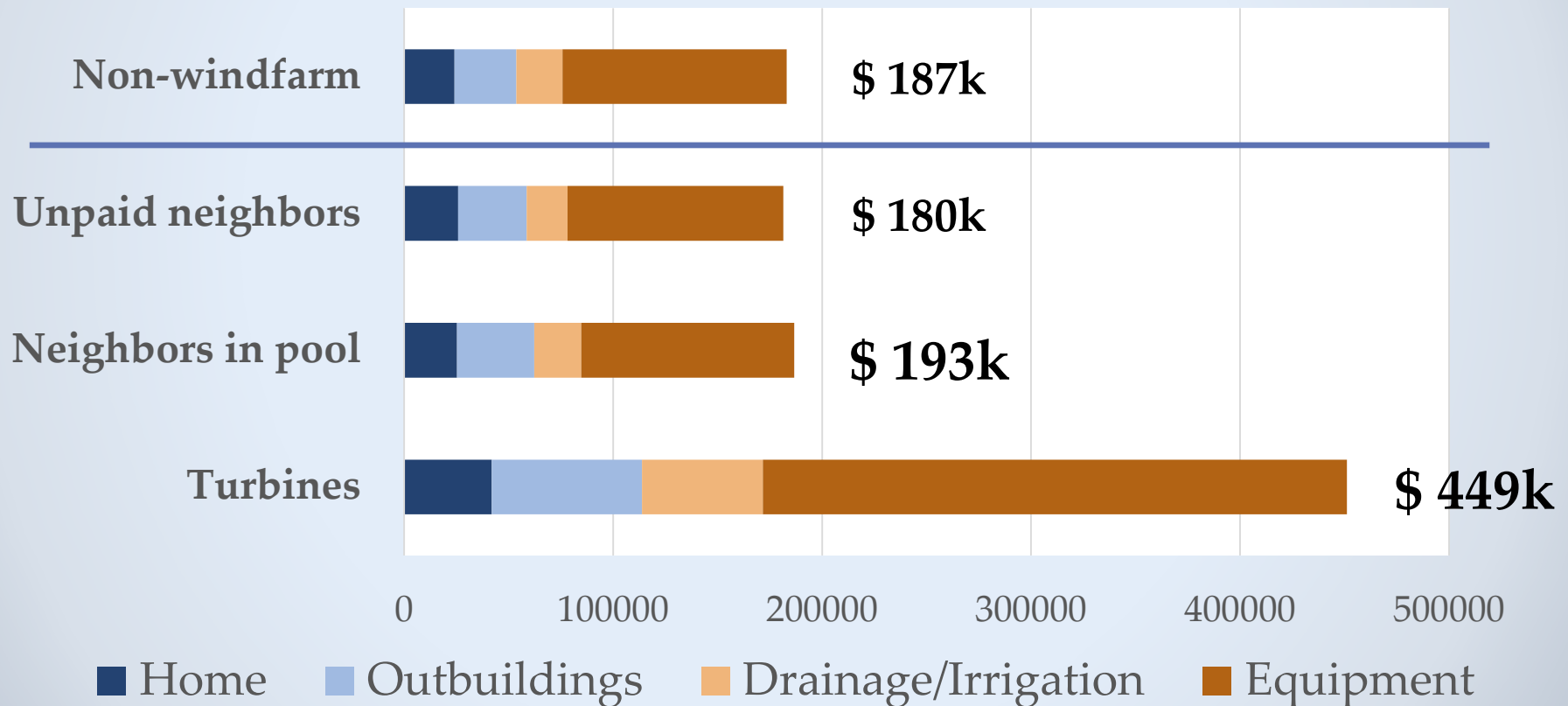
# Job Creation

## Turbines create jobs



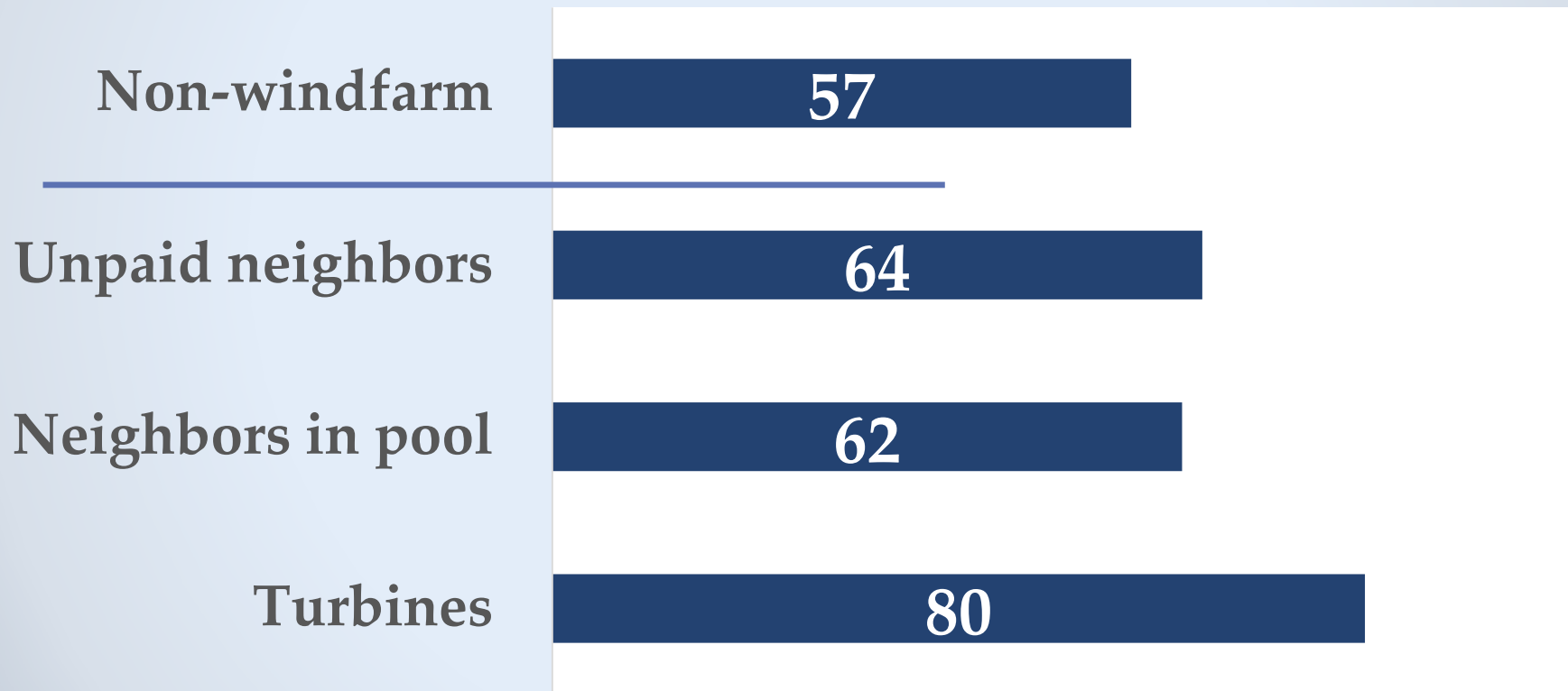
# Farm Income

Investments over 5 years: 2009-2013



# Farm Succession

% that have farm succession plan

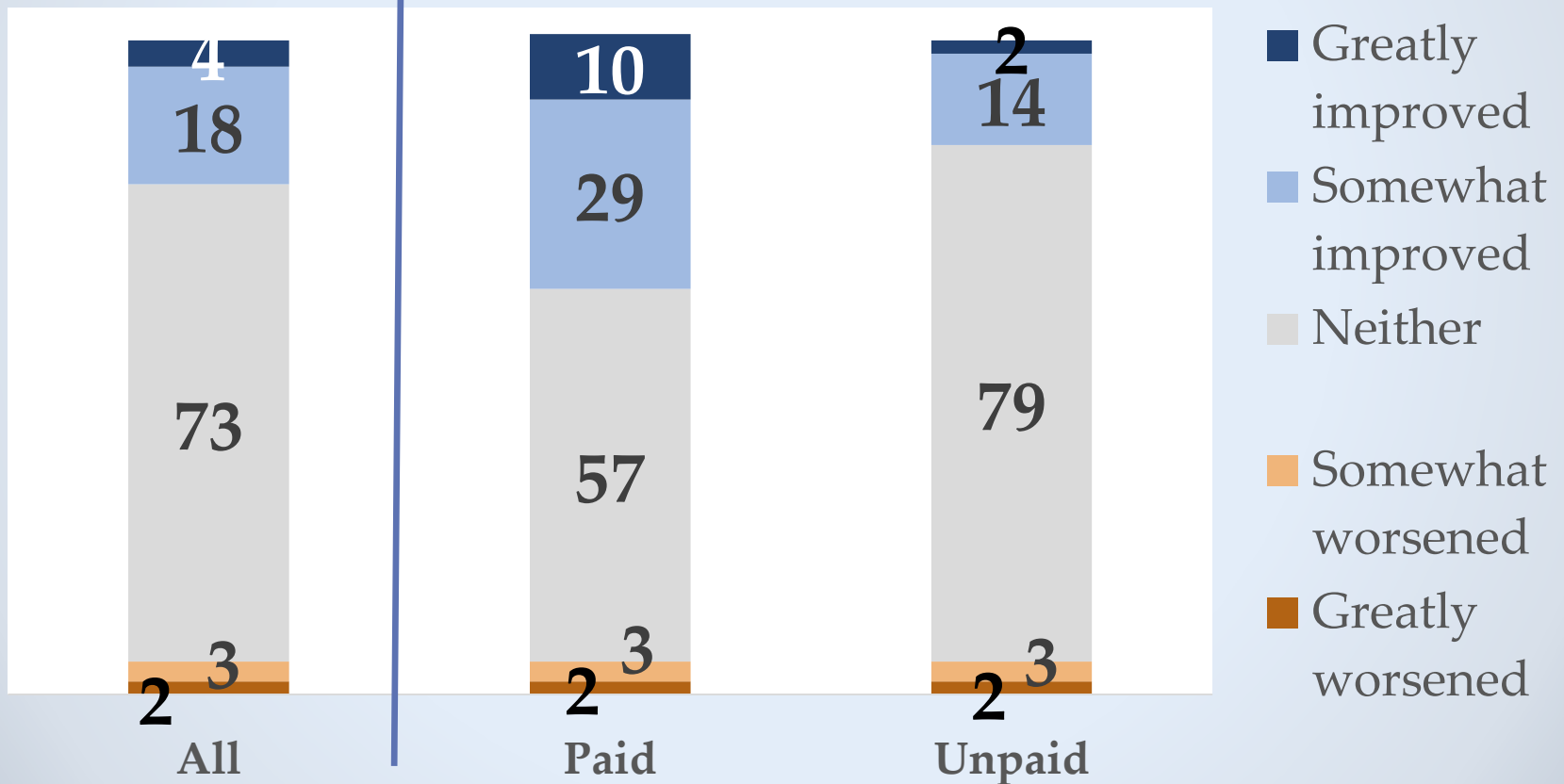


# Land usage

- 1-2 acres for turbine + road
- Practically no impact if placed on property line
  - Avoids field tile
  - Rent for previously unfarmed fence row
  - Nothing to farm around
  - New lane for trucks

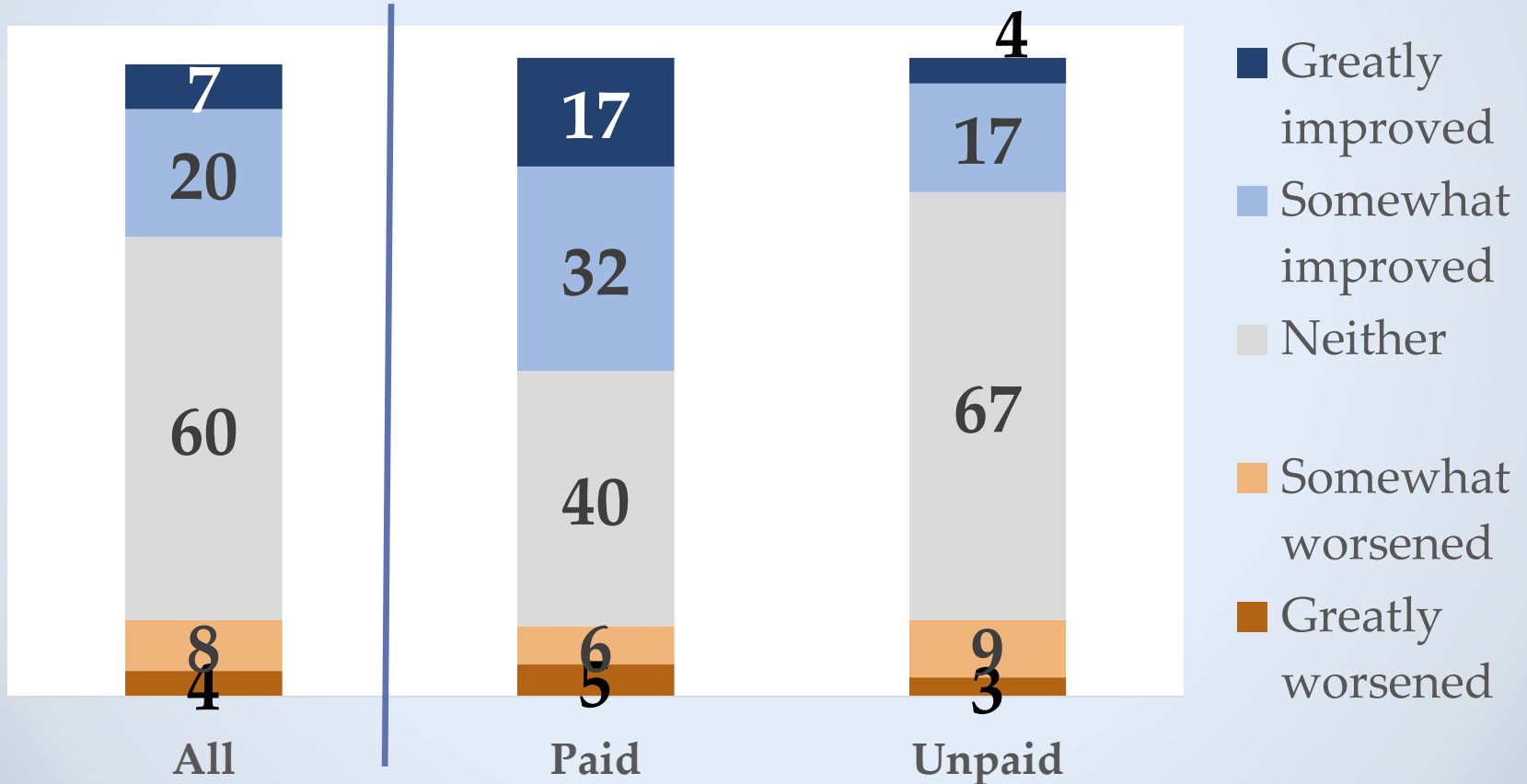
# Tax benefits

## Turbines' effect on township services



# Roads

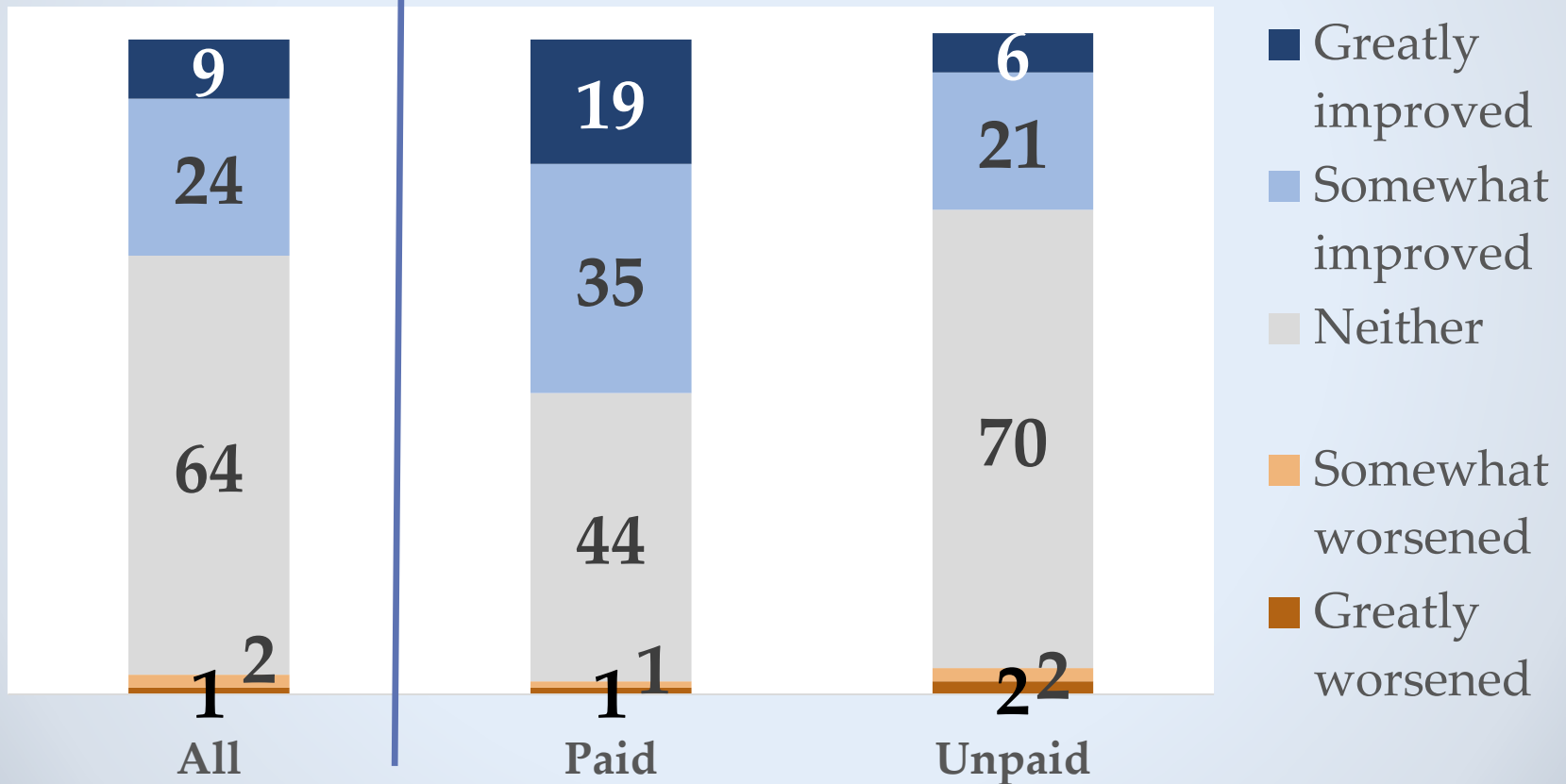
## Turbines' effect on local roads





# Local Schools

## Turbines' effect on local schools

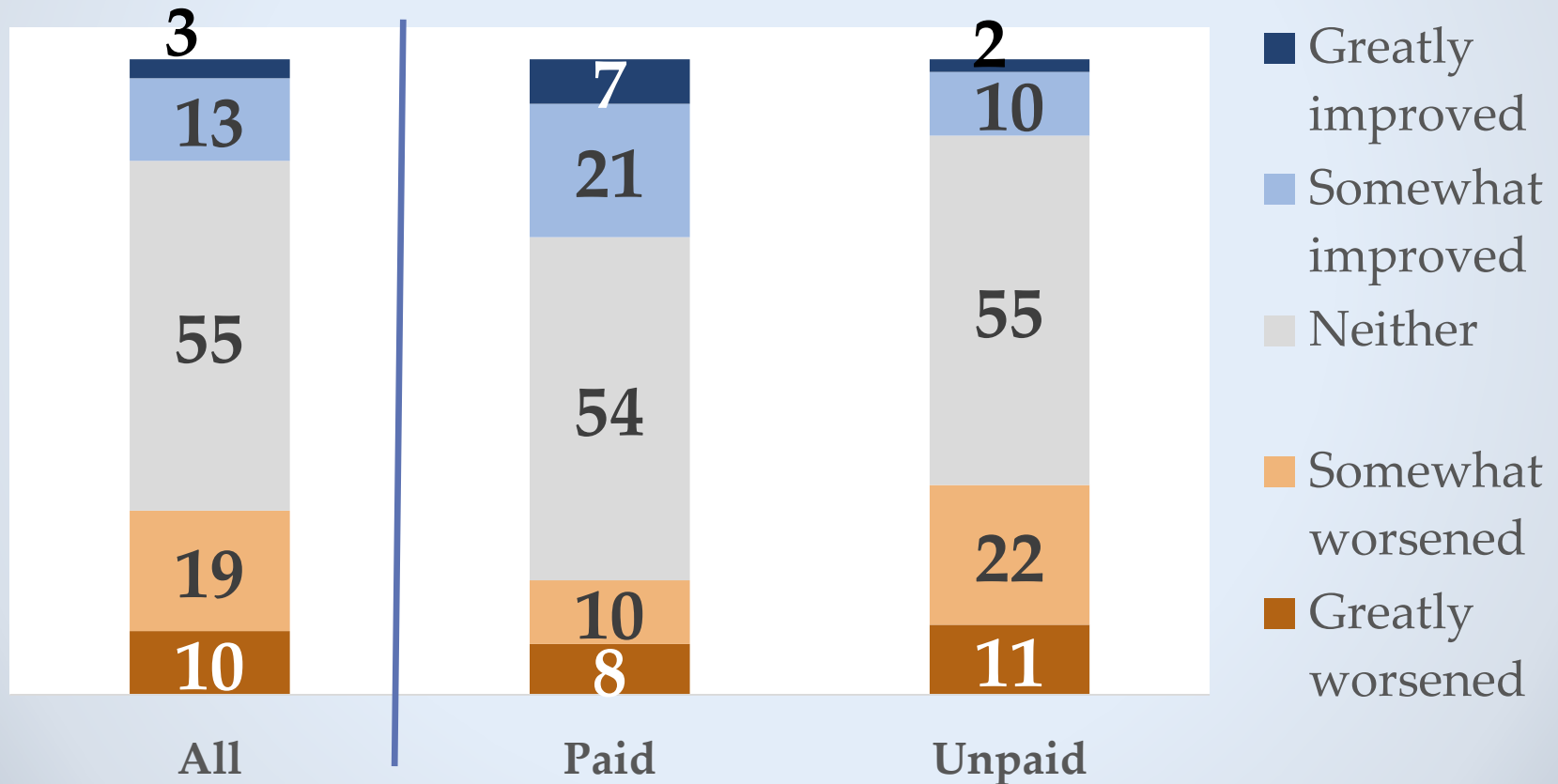


# Take-aways

- Most opinions relatively evenly split
  - Financial stake = rosier view
  - No financial stake = more soured view
  - BUT STILL SPLIT OPINIONS
- Most don't see health impacts, changes in local services
- Most do see job creation benefits
- Key benefit is to farmers

# How have turbines changed the community?

Turbines' effect on overall quality of life in township



# My recommendations on zoning

- How does the fit with your township's long-term plan?
  - If goal is for substantial residential development or growth of tourism, wind may not be right
  - If goal is to sustain agriculture, wind can fit
- Distinguishing between participating and non-participating landowners
- Be open & transparent

# The CLOSUP Wind Project

**Sarah Mills, Project Manager**

**Phone:** (734) 615-5315

**Email:** [sbmills@umich.edu](mailto:sbmills@umich.edu)

**Web:** [www.closup.umich.edu/wind](http://www.closup.umich.edu/wind)