# Demographic Differentiation of Opinion Regarding Climate Change in the Ohio Sugar Creek Watershed Farmers.

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There are cultural differences between the Amish and non-Amish occupants of Ohio's Wayne and Holmes counties, and these differences can be seen in the responses of Amish and non-Amish farmers when asked to indicate their convictions on climate change and its causes.



## <u>INTRODUCTION</u>

In 2011, a survey was distributed by the Iowa State University Extension to Iowa farmers in order to gather opinions and thoughts on climate change. Similar questions were included in the annual Iowa Farm and Rural Life Poll in 2011, which was completed by 1,276 Iowa farmers. According to the results, the second highest aggregated percentage of answers expressed that there was not sufficient evidence to determine if climate change was actually occurring. Likewise, when asked to gauge future effects of climate change on agriculture, respondents expressed general uncertainty. These responses suggest that climate change was still a considerable grey area for farmers.

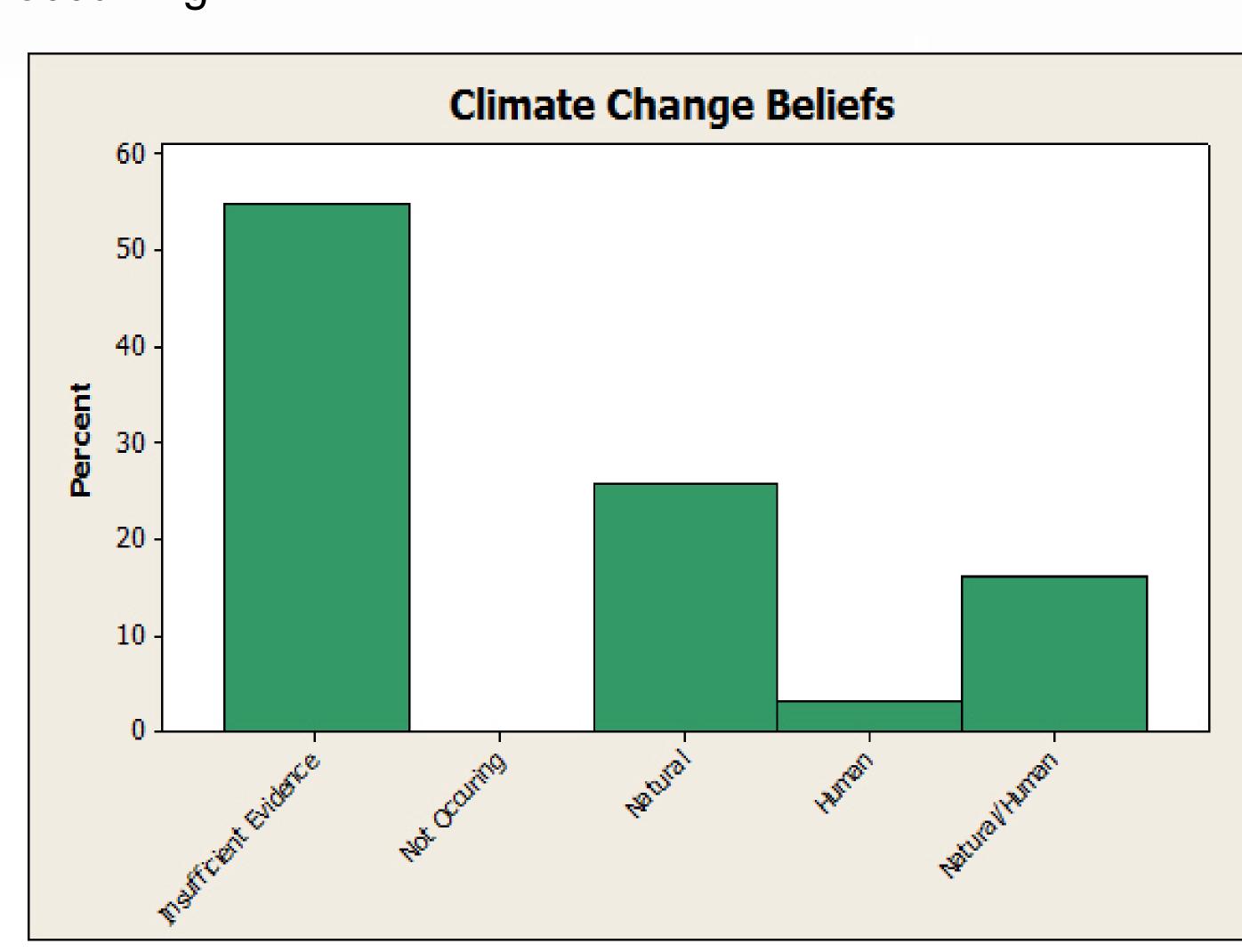
As an extension of the Iowa survey project, surveys were distributed by Dr. Richard Moore, Dr. Rachel Hintz, and interns Gretchen Pleuss and Bethany Herman of the Ohio Agricultural Research and Development Center to Amish and non-Amish farming communities of Wayne and Holmes counties.

# MATERIALS & METHODS

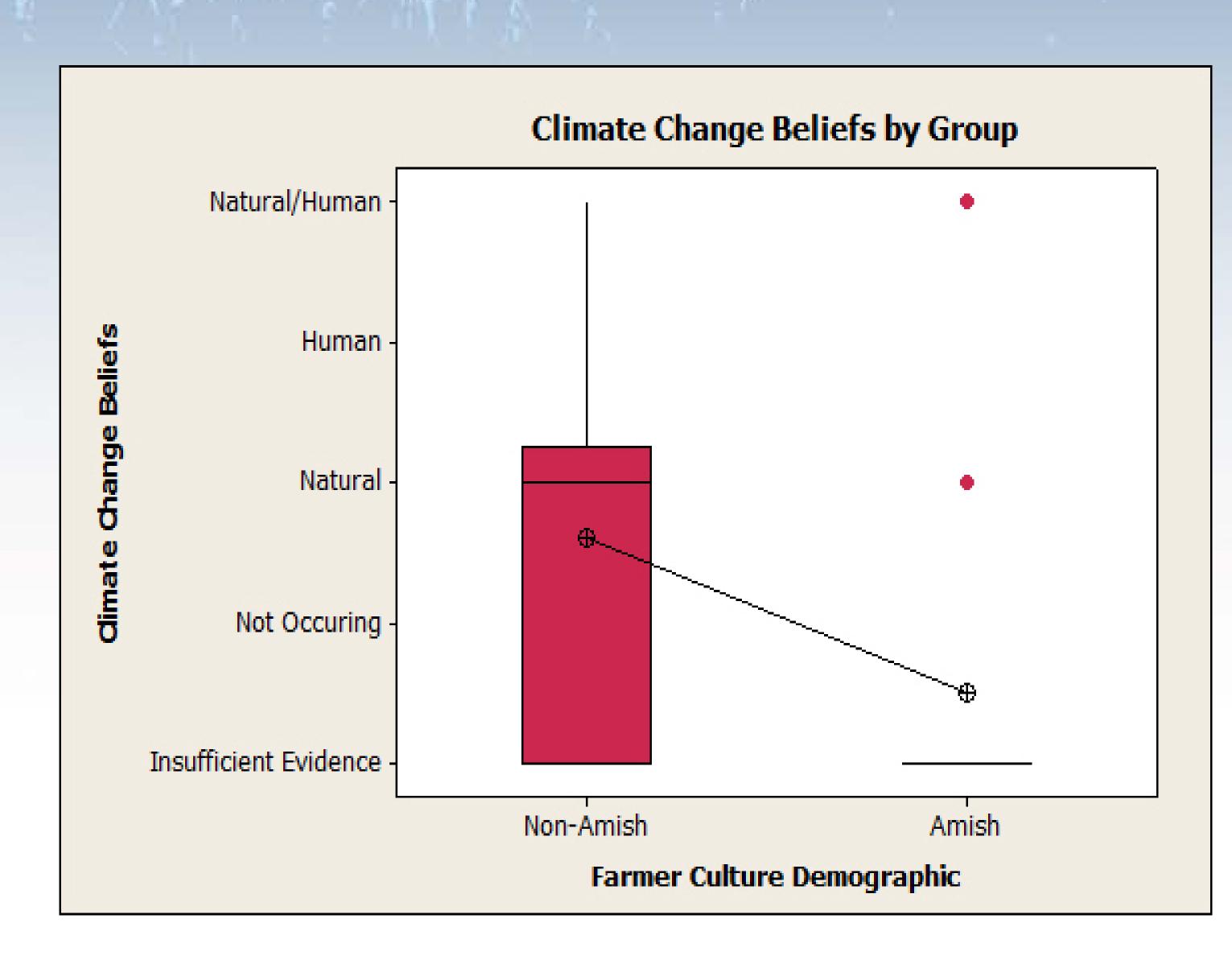
- Drop off/pick up survey method
- Data entry and analysis

#### **RESULTS & DISCUSSION**

To date, 36 surveys have been retrieved, 21 of which are non-Amish (including Mennonite) and 12 of which are Amish. 47% of the survey respondents believe there is insufficient evidence to determine if climate change is occurring. 83% of the total Amish responders state there is insufficient evidence to determine if climate change is occurring.



A two-sample t-test was conducted to compare the culture demographic and climate change belief variables in an effort to understand if culture—such as being Amish or non-Amish—has any trace effect on beliefs regarding climate change. The t-test revealed a p-value of 0.036, a significant value. As shown in the box plot in the top right corner, persons of Amish background are more likely to believe that there is insufficient evidence for the existence of climate change, while persons of non-Amish background (including both Mennonite groups) are more likely to believe climate change is occurring in some form or another.



#### CONCLUSION

While the sample size is too small to make any concrete conclusions, there is an emerging trend of difference in response between Amish and non-Amish farmers. This pattern may become more defined as more surveys are distributed and collected.



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