

LOCAL INCLEMENT WEATHER SCHOOL CANCELLATIONS 1996 - 2019

INTRODUCTION / BACKGROUND

As a student, you've probably had the experience of hearing about how much snow "we used to get" and how "you kids today have it so easy – another snow day!" Is it that your elders have a faulty remembering system? Were they really more hearty? Did they have to walk to school "uphill both ways?"



In our region of Michigan, we frequently catch the edges of the snow belt. Lake effect snow, driven by our west to east weather patterns, occurs because as cold air from the upper Midwest moves across the warmer water of Lake Michigan it picks up moisture which then drops as snow as the winds move back to the colder land surface. It is not uncommon for Kalamazoo to receive significant snowfall as a result of these weather activities, although lake effect snows are more exaggerated in the counties that directly border Lake Michigan.

How much does location vary when the decision is made to cancel school? Are all the districts in the county in contact to coordinate their decision-making? Regardless of your beliefs, the "official" statement given by the Kalamazoo Public Schools' Superintendent's Office was as follows at the time this activity was written:

We close school for many reasons, including but not limited, to snow, ice, temperature, wind chill, and inadequately plowed or unplowed roads. On rare occasion, the decision is made based on weather forecasts, but usually the decision is made based on the evaluation of KPS transportation staff, who drive the district in the middle of the night to assess road conditions. (<https://www.facebook.com/KalamazooPublicSchools/posts/2093810707384221>)

It is possible that various superstitions can aid in the likelihood that a snow day will occur. Some of the more commonly employed strategies include (among others...):

- 1.) Putting a spoon under your pillow
- 2.) Wearing your pajamas inside out and backward
- 3.) Dropping an ice cube in your toilet for each inch of snow that is desired
- 4.) Shaking a snow globe
- 5.) Eating ice cream the night before the desired day off

Regardless of the reason, your group will be examining the trend in school cancellations due to inclement weather for the past twenty-plus years. The reasons for cancellations are usually related

to ice and snow, but I have included “fog” days as well. We will examine the school cancellation data for the Kalamazoo Public School district and somewhat abbreviated data from Vicksburg Community Schools. Of course, we will not be examining data from the 2019-2020 school year and beyond, due to pandemic shutdowns that do not relate to weather conditions.

DIRECTIONS

Open the data files and use Excel or Google Sheets to format and analyze the data. You will want to evaluate the information to see how the amount of measured snowfall per season has changed over many years. You should graph the data, generate a trendline (exponential, linear, other) by determining with your data partners which is most appropriate. Be sure to justify your choice. Include the equation of the trendline and its r^2 value. Establish a growth rate (positive or negative) using rolling data approximations. You may choose to add error bars to the data representation if it lends more confidence to your findings.

Be sure to keep track of any “noticings.” What do you notice as you examine the data? What is significant to you? Is the trendline predictive of the future? Why or why not? Are you confident that the data represents what is really happening? Are there data that you would like to see?

Prepare a poster that includes an appropriate title for your data analysis, a representation of your data with its trendline, a claim about the trend that you discover, based in evidence and your group should be able to justify the insights from your analysis. You may be asked to share your ideas with the larger KAMSC student group, so do your best!

REFERENCES:

<https://www.mlive.com/news/kalamazoo/2019/02/as-kalamazoo-takes-its-10th-snow-day-impact-on-dismissal-date-still-uncertain.html>

<https://www.lifeinpleasantville.com/how-to-make-a-snow-day-happen/>

<https://news.jrn.msu.edu/2021/09/educators-grapple-with-covid-days-as-the-new-snow-days/>