Does Thanksgiving dinner get more expensive every year?

Background

Thanksgiving dinner is a time to celebrate the season, give thanks for family and friends and enjoy a delicious feast! The American Farm Bureau Federation (AFBF) just conducted its 34th annual survey on the cost of classic items found on the Thanksgiving Day dinner table. To do this they enlisted 250 volunteer shoppers to check the prices of Thanksgiving foods at grocery stores in 38 states.

Dataset

To allow for consistent price comparisons across time, the Farm Bureau equips volunteers with its classic Thanksgiving menu shopping list that has remained unchanged since 1986. The menu includes turkey, stuffing, sweet potatoes, rolls with butter, peas, cranberries, a veggie tray, pumpkin pie with whipped cream and coffee and milk, all in quantities sufficient to serve a family of 10 with plenty of leftovers. Volunteer shoppers look for and record the best possible prices without taking advantage of promotions or coupons. This year (2019), they found that an American family of ten can celebrate with a classic turkey feast for less than $50 on average! Check out the attached data set to see the changing costs of this menu since 1986.

In order to accurately compare the prices over a historic time period, we must adjust for inflation. Inflation is the rate at which the general level of prices for goods and services rises, and consequently, the purchasing power of currency falls. In other words, Inflation reduces the value of a currency's purchasing power and has the effect of price increases. For example, the same gallon of milk your grandmother bought in 1950 costs much more today in 2019 dollars. One dollar in 1950 had nearly the same purchasing power as $11 now does in 2019 dollars!

Variables

Year- This numeric variable represents time and indicates the year for which the real cost and nominal cost were observed.

Real Cost (2019$)- This numeric variable is the cost of Thanksgiving dinner that has been adjusted for inflation and converted to 2019 dollars. This allows for a fair comparison of prices across different years.

Nominal Cost ($)- This numeric variable is the actual cost of Thanksgiving dinner in the year in which it was measured.

*Note the data for 2021 are current projections made by the USDA (11/10/21) based on inflation data. We will update with current data when it becomes available this week.

Activity

1) Make graphs for both the Nominal Cost and Real Cost over the time period of 1986 to 2019. Use the "Regression line" check box to fit a linear regression on each graph. What trend does the linear regression line show for each measure of cost from 1986 to 2019?

2) Now use the "Connect dots" check box to make a line graph on each graph. What information does the line graph highlight visually? Does the line graph highlight the exact same information about the data or does it show something different? Explain.

3) Is Grandma right? Does Thanksgiving dinner get more expensive every year? Explain the data to defend your answer to her. Whether you agree or disagree with Grandma, be sure to point out how the data may be seen as both supporting and conflicting with her statement.

4) Is it wise to argue with Grandma? Nevermind, that's a trick question with no right answer! Happy Thanksgiving to all :)

Link to article and 1 minute video on the Farm Bureau website.