

IU course lesson plan

Frances Knepp

Ag in the Classroom '07

HS math lesson

Disposable Income Lesson

Standards: Math 2.6.11.A organize and represent data with graphs

Math 2.2.11.B Use estimation to solve problems for which an exact answer is not needed.

Materials: Farm Facts publication by American Farm Bureau; access to internet

Objectives: 1. Construct a bar graph of the percentage of disposable income spent on food in various countries.

2. Compare the percentage of disposable income spent on food for countries and determine if there is a correlation between the percentage of disposable income spent on food and the average family income in a country.

3. Construct a scatter plot of data and determine if there is a line of best fit.

4. Predict data from graph.

Procedures:

1. Using the information provided in the American Farm Bureau Federation Publication, Farm Facts, construct a bar graph of the percent of disposable income spent on food for the countries for which information has been provided. Note: make sure that students understand the term disposable income!

2. Using the resources available through the internet, find the average family income for 8 of the countries included in your bar graph. One of your choices must be the United States!!
3. After finding the average family incomes, construct a scatter plot to display the two sets of data you have obtained: a. Percentage of disposable income spent on food and b. average family income for the nation.
4. Determine if there is a correlation between the 2 sets of data.
5. If there is a correlation: Describe the correlation, construct a line of best fit, and predict the average family income for 4 of the nations you did not obtain information for and plot it on your graph.
6. If there is not a correlation: predict why you think there is not a correlation. What might have been a factor in this?

Follow up Activities:

1. Discuss factors that may determine percentage of disposable income spent on food. Why do some countries have much higher percentages than others? Determine what people in some countries need to live without in order to buy food.
2. Record your family's estimated food expenses for one month. Is this the typical amount spent monthly for a family in the United States? How did you determine this?
- 3.