

Risk Lab

We all face risks in our everyday lives. Often, we do not accurately perceive the level of risk we introduce into our lives when we engage in an activity, or we believe the possibility of a particularly terrifying event such as an earthquake introduces more risk in our lives than is actually warranted. In this activity, you will survey friends and family to find out how they perceive various risks. You will also collaborate on the compilation and analysis of data collected by a team.

Materials

- Survey Question and Data Table
- 12 people to survey

Procedure

1. Conduct the survey on the back of the page with twelve people.
2. Survey between 4 and 8 individuals 25 years of age and under, and between 4 and 8 individuals 26 years of age and over. Do not survey anyone younger than 16 years of age.
3. Record the respondent's name and age at the top of the column that corresponds with their responses.
4. Do not allow the person being surveyed to see the responses of others.
5. Do not survey anyone who has already been surveyed by an APES student (ask them first).
6. Thank each respondent for his or her participation.

Data Analysis

After completing the survey, prior to class

1. Calculate the average responses of individuals 25 years of age and under.
2. Calculate the average responses of individuals 26 years of age and older.
3. Calculate the average responses of all respondents.

In Class

1. You will be placed in a team.
2. As a member of your team, combine your data with the rest of your teams' data.
3. Calculate the teams' average responses of individuals 25 years of age and under.
4. Calculate the teams' average responses of individuals 26 years of age and older.
5. Calculate the teams' average responses of all respondents.

Plot the data

1. For the surveys you conducted draw three graphs for: (1) individuals 25 years of age and under, (2) 26 years of age and older, and (3) all respondents.
2. Plot the *actual risk* on the y-axis and the *perceived risk* on the x-axis.
3. Label each graph, and each point on each graph with the identity of the risk it represents.
4. For your teams' data draw three graphs for: (1) individuals 25 years of age and under, (2) 26 years of age and older, and (3) all respondents.
5. Plot the *actual risk* on the y-axis and the *perceived risk* on the x-axis.
6. Label each graph, and each point on each graph with the identity of the risk it represents.
7. Draw two lines on each graph from (0,2) to (8,10) and from (2,0) to (10,8).

Discussion

1. As a team, discuss your individual and team survey results.
2. Write a thoughtful, insightful, and logical discussion in which you attempt to fully explain the results of the surveys. A good discussion will include thorough explanations for significant differences between actual and perceived risk, as well as for relatively accurately perceived risk.

Three students; Melody, Harmony, and Chance each conducted a survey in which they asked people to estimate the number of piano tuners living in the city of Diamond Bar.

- ⊙ Melody surveyed 9 people and found that the average response was that 15 piano tuners live in Diamond Bar.
- ⊙ Harmony surveyed 4 people and found that the average response was that 8 piano tuners live in Diamond Bar.
- ⊙ Chance surveyed 6 people and found that the average response was that 17 piano tuners live in Diamond Bar.

Calculate the average response of all the people surveyed.