APES ~ Risk Perception and Risk Reality

WHAT TO TURN IN: Survey Data Table – perceived risks by individual people
Individual Bar Graph Team Bar Graph #1 *(one per team)*
Team Bar Graph #2 *(one per team)* Discussion *(one per team)*

Staple each individual student's survey data table and individual line graph together. Paper-clip the entire group's work together.

Introduction

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 an event such as an earthquake introduces far more or less risk in our lives than it warrants. 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.

Data Analysis

Before Class

Complete the survey. Record the average of each row of data as instructed in the survey.

Graphs

Individual Bar Graph

For the survey you conducted individually, plot all three averages (individuals 25 years of age and under, individuals 26 years of age and older, and the average of all respondents) of the "perceived risks" on the same graph. Plot perceived risk on the y-axis, choosing three different colors, one for each average group. Plot risk number 1-20 on the x-axis, leaving enough room for three bars per risk number. Title the graph and include a color key.

Team Bar Graph #1

Examine the "experts' risk" rankings. Plot these risks on a new graph, choosing a different color for each bar. Plot expert risk on the y-axis. Plot risk number 1-20 on the x-axis. Title the graph and include a color key.

Team Bar Graph #2

Combine your data with the rest of your team members' data and determine your team average for each age group and all respondents for each row of data. This is like the individual bar graph, but this time you'll have three team averages instead of three individual averages.

As a team, on one piece of graph paper, plot all three averages on the same graph. Plot perceived risk on the y-axis, choosing three different colors, one for each average group. Plot risk number 1-20 on the x-axis, leaving enough room for three bars per risk number. Title the graph and include a color key.

Discussion

As a team, collaborate on a thoughtful, insightful, and logical discussion of the results of your team's surveys. Include explanations for large differences between actual and perceived risk, as well as for relatively accurate perceptions of risk.

The Survey

Conduct the following survey twelve times. Do not allow the person being surveyed to see the responses of others. Do not survey anyone younger than 16 years of age (4 to 8 16-25 year olds and 4 to 8 26 and older). Do not survey anyone who has already been surveyed by an A.P.E.S. student (ask them first). Thank respondents for their participation.

Record the respondent's initials in the second row. Use the last three columns of the survey to average the results of individuals 25 years of age and under, individuals 26 years of age and older, and the average of all respondents.

"Please rate each of the following risks on a 1-10 scale: 10 being an activity or event which you perceive as a great risk to citizens of the United States, and 1 being an activity or event which you perceive as a minor risk to citizens of the United States."

SURVEY DATA TABLE – perceived risks by individual people

	PERSON # →	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**AVG. 16-25**	**AVG. > 26**	**TOTAL AVG.**
RISK # ↓	**INITIALS** → **AGE RANGE** →													-------	-------	--------
1	High fat / low fruit and vegetable diet															
2	Acid precipitation															
3	Pollution to surface waters															
4	Terrorism															
5	Airplane accidents															
6	Global Warming															
7	Infectious diseases (excluding AIDS)															
8	AIDS															
9	Firearms															
10	Loss of wildlife habitat															
11	Violent Crime (excluding terrorism)															
12	Hazardous waste															
13	Stratospheric-ozone depletion															
14	Cigarette smoking															
15	Poverty															
16	Second-hand smoke (cigarettes)															
17	Pesticide residues on food															
18	Automobile accidents															
19	Natural Disasters															
20	Particulate air pollution															