BUS 230: Business and Economics Communication and Research
In-class Exercise: Data Visualization
Instructor: James Murray
Fall 2012

Your Name: _____

Directions: Work in groups of up to four people and answer the following questions based on Chapter 10 of your textbook. All papers will be collected, but only one member's paper will be randomly selected and graded and all members of the group will receive the same grade. Failure to complete the worksheet with a group will result in a 20 percentage point penalty.

By signing below, you agree that the following work represents the efforts of everyone in the group, and you are willing to accept as your own grade for the group project the grade earned from this representation of your group's work.
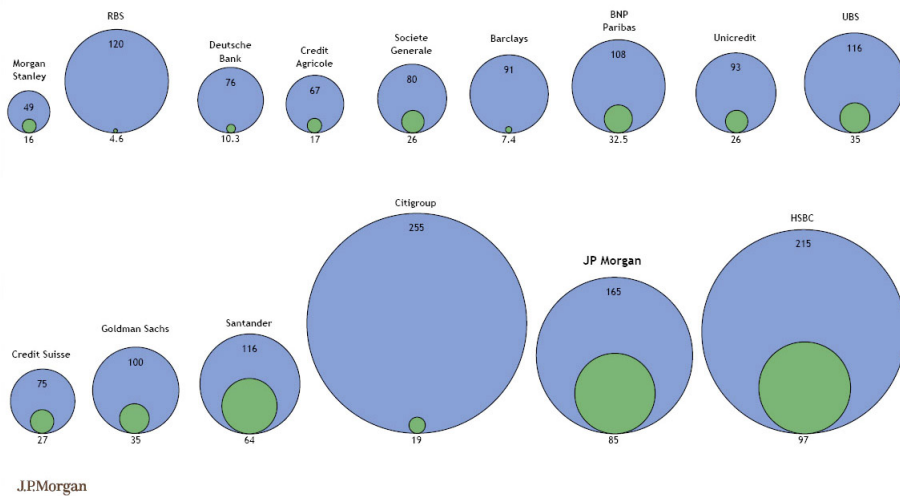
_____   _____   _____
Signature Group Member 1   Print Name   Date

_____   _____   _____
Signature Group Member 2   Print Name   Date

_____   _____   _____
Signature Group Member 3   Print Name   Date

_____   _____   _____
Signature Group Member 4   Print Name   Date

Directions: For each of the following graphs in problems 1-5, (a) describe all the problems the researcher made in choosing how to visualize the data, (b) suggest an alternative graph to more effectively communicate the same data, and (c) sketch out the alternative graph that you suggest (it's a paper-pencil sketch, so it doesn't have look perfect).
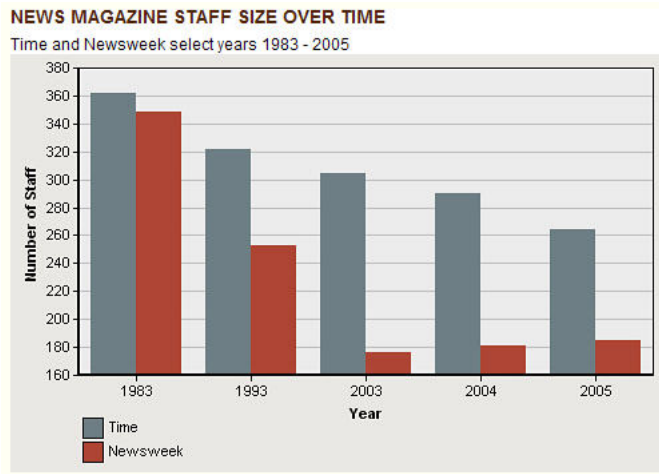
1. The following graph shows the market value of major financial firms in Quarter 2 of 2007 (blue) and again in Quarter 1 of 2009 (green). The purpose is to illustrate the effect the 2007-2008 financial crisis had on the value of these firms. In your sketch of an alternative graph, you may include only the first three companies to keep it simple.
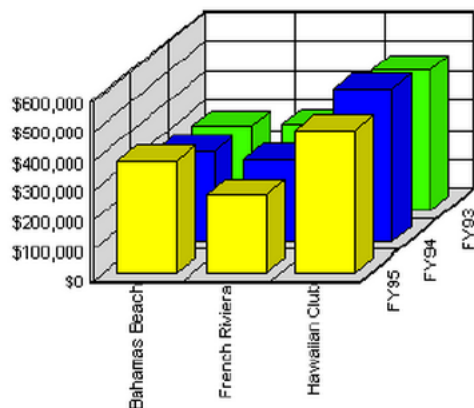

Banks: Market Cap

● Market Value as of January 20th 2009, $Bn
● Market Value as of Q2 2007, $Bn

While JPMorgan considers this information to be reliable, we cannot guarantee its accuracy or completeness
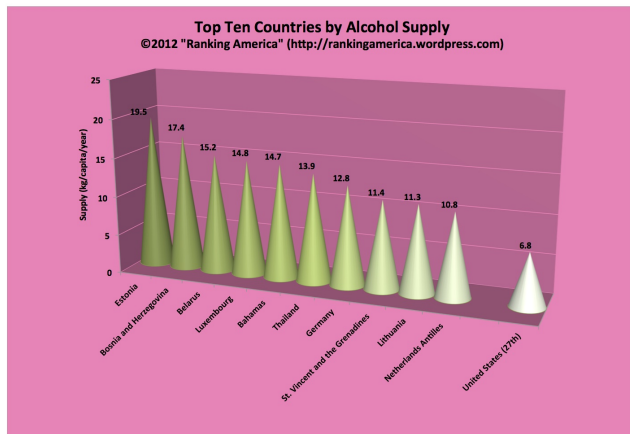
Source: Bloomberg, Jan 20th 2009

2. The following graph shows the staff size of Time and Newsweek magazines from 1983 through 2005. The purpose is to illustrate how these magazines have had to downsize over time.

3. The following graph shows the revenue of three different resorts at three different time periods. The purpose is to illustrate the relative performance of each of the three resorts, and the change that has occurred over time.
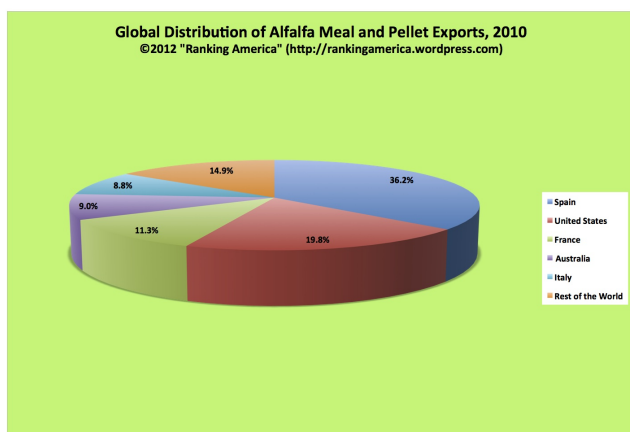
4. The following graph shows alcohol supply for the top ten countries in the world, and the United States. In your sketch of an alternative graph, you may include only the first three countries plus the United States to keep it simple.

Top Ten Countries by Alcohol Supply
©2012 "Ranking America" (http://rankingamerica.wordpress.com)

Data from FAOStat
http://faostat.fao.org/site/609/DesktopDefault.aspx?PageID=609#ancor

5. The following graph illustrates the percentage of world-wide alfalfa exports that comes from the top alfalfa exporting countries.

Global Distribution of Alfalfa Meal and Pellet Exports, 2010
©2012 "Ranking America" (http://rankingamerica.wordpress.com)

Data from FAOStat
http://faostat.fao.org/site/535/DesktopDefault.aspx?PageID=535#ancor

6. The Governor has just given his State of the State address and has stated that the strength of the manufacturing and service industries in the state of Wisconsin reflects the strength of these same industries in the entire United States.

You are a reporter for the La Crosse Tribune covering Trempealeau county and have been asked to write an article about the Governor's speech that includes some statistics which either support or refute his message and whether it applies to Trempealeau county. Use the data below create a graph that addresses the Governor's claims. Write a headline for your graph that reflects the message that you wish to convey with your graph.

The following table contains data on non-farm employment (the number of jobs) in different industries for the United States, The State of Wisconsin and Trempealeau County.

SIC Code	Total Non-Farm Employment	United States	Wisconsin	Trempealeau
		128,901,000	2,783,900	11,999
1	**Goods Producing**	25,507,100	741,800	5,346
1.1	Manufacturing	18,554,800	617,700	5,001
1.1.1	Durable Goods	11,112,100	377,000	3,289
1.1.2	Nondurable Goods	7,442,670	240,700	1,713
2	**Service Producing**	103,394,000	2,042,100	6,653
2.1	Transportation and Public Utilities	6,833,580	131,100	483
2.2	Wholesale and Retail Trade	29,760,500	626,900	1,844
2.3	Finance, Insurance, and Real Estate	7,555,170	146,000	306
2.4	Services	39,048,300	739,200	2,062
2.5	Total Government	20,195,900	398,900	1,958