Geography 3190

Homework 1: Grouping and descriptive statistics (*due Friday Sep 11 at beginning of class*) 15 pts

The dataset below is per capita annual income for the US by state in 1997.

Alabama	18493.00
Alaska	22453.00
Arizona	19844.00
Arkansas	17378.00
California	23576.00
Colorado	24003.00
Connecticut	32117.00
Delaware	25752.00
D. C.	31812.00
Florida	22409.00
Georgia	21350.00
Hawaii	23100.00
Idaho	18170.00
Illinois	25024.00
Indiana	20944.00
Iowa	20499.00
Kansas	21632.00
Kentucky	19329.00
Louisiana	18350.00
Maine	19590.00
Maryland	25705.00
Massachusetts	27972.00
Michigan	22680.00
Minnesota	23777.00
Mississippi	16213.00
Missouri	21296.00
Montana	17787.00
Nebraska	21121.00
Nevada	23772.00
New Hampshire	24886.00
New Jersey	28974.00
New Mexico	17380.00
New York	27287.00
North Carolina	20714.00
North Dakota	17987.00
Ohio	21882.00
Oklahoma	18240.00
Oregon	21644.00
Pennsylvania	23122.00
Rhode Island	22857.00
South Carolina	18416.00
South Dakota	19030.00
Tennessee	20424.00
Texas	20990.00
Utah	18130.00
Vermont	20764.00
Virginia	23459.00
Washington	23707.00
West Virginia	16821.00
Wisconsin	21717.00
Wyoming	20096.00

<u>Grouping</u>

1) Using equal interval classes of approximately $3000 starting with 16,001 to 19,000; group these data into a frequency distribution table (by hand).

2) Using the frequency distribution from question 1 provide a histogram in SPSS (you will turn in printed output).

3) Using SPSS, provide a frequency distribution of your groups (print out the output and turn it in as part of your homework).

4) What is the weighted mean based on your frequency distribution?

5) Divide into quartile, tally the number of states in each quartile, and list the states that fall in each quartile.

<u>Descriptive Statistics</u>

5) By hand, determine the mean, variance, standard deviation, and coefficient of variation for these data.

6) If you wanted to compare variability between 1997 and 1998, which statistic would you use and why would you use it?

7) Calculate the 5 points of data summary for these data by hand.

8) Based on your frequency distribution from no. 2, what is the crude mode of this sample? Why is it a "crude mode" and not a simply a "mode?"