Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BA 355: Business Analytics, Case 4**

Use the FLC zip code data to answer the following questions:

1. How many students come to FLC from each state? List the top 10 states where FLC students come from (in order with, of course, Colorado first). List both the number of students and percentage of the total. Are there any states with no students attending FLC?
2. Use the new Excel “Data Types: Geography” feature to estimate the populations of the 10 states from part a) above. Provide a list of these states and populations.
3. For zip code **81301**, estimate/calculate how many miles each student ZIP Code is from 81301; there are hints online how to do this. List how many students were from the ranges below and the percentages of the total from each range, too. Don’t worry about the cumulative numbers, so list how many from 0-10, 10-25, 25-50, etc. The ranges are 10, 25, 50, 100, 250, 500, 1000 and 2000.
4. Redo c) but use a different zip code (your choice) for the home base zip code. What city is it? How does this affect the results?
5. Use a PivotTable on the distance data to determine where students are coming from. I think a group size of 50 might work, but use a better group size if you can find one. List how many students (and what percentage of students) come from each category – let’s say up to 1000 miles, unless there happens to be a big number somewhere after 1000.
6. Draw a graph using your results from part d). On the graph, see if you can identify which population centers cause big spikes in the data. For example, I think you’ll find a big spike between 200 and 250 miles due to the Front Range. Will you find a spike for Phoenix? Label all the spikes on the graph with the cities/population centers that cause them (you can do this by hand or on maybe on Excel). Make this graph really nice – I believe that it will explain FLC enrollment as well or better than the states/distance data.
7. Draw a map like below by inserting the data into the Map function on Excel. One state – spoiler alert, it’s Colorado -- will be too dark while all other too similar in color; figure out a way to adjust the input data to make the map more informative.
8. Write up your results in a couple of paragraphs combining everything from above.

