

Bullet Points

Quantitative Analysis of the Labs

Writing bullet points is difficult in that the words must all count – there is not space for a lot of fluff. Attached are samples and guidance from previous semesters.

Example 1: Diabetes in the United States [Lab#1 – Fall 2013]

Task: Describe the characteristics of the diabetic population as a function of age.

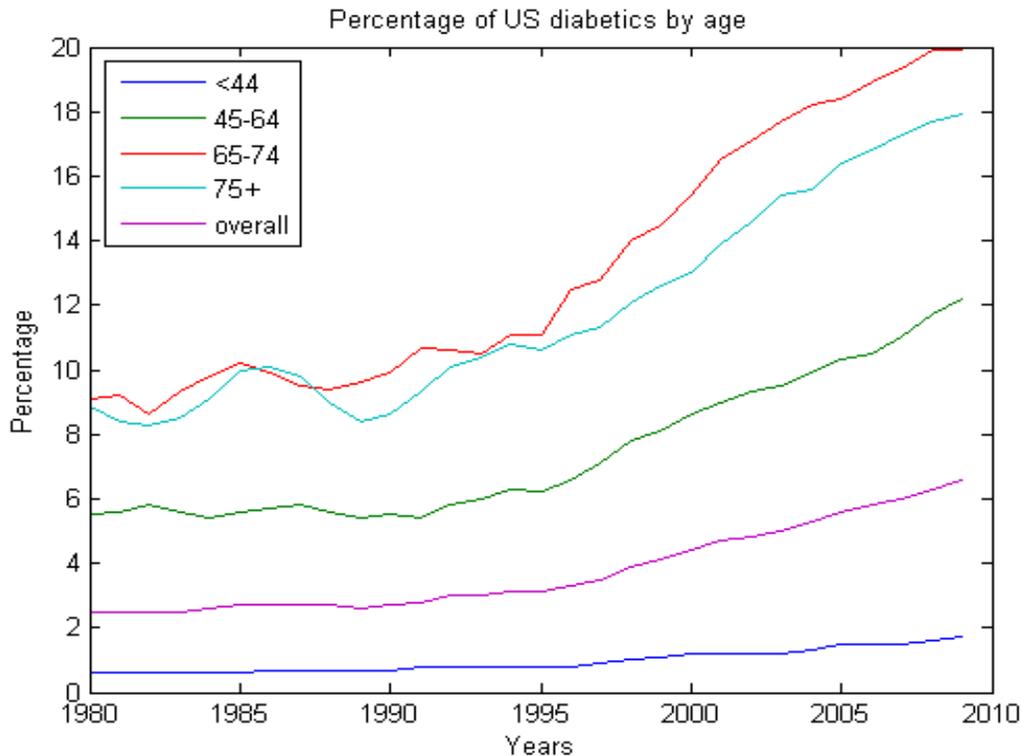


Figure 1. Overall percentages of diabetics in the US

What is required?

- Explain the trends of different age groups (analysis as a function of age), rather than saying one is below the other one.
- Address the trend of the '64-75' age group and the '75 or older' age group, as the '75 or older' age group is the oldest but has a lower percentage of diabetes than the '65-74' age group.

Good Examples:

- As the population ages, people are more susceptible to diabetes, however the age group '65-74' has diagnosis greater percentage of diagnosed cases of diabetes than the age group of '75 or older'. A possible explanation is that many people who were diagnosed with diabetes died before age 75.

- All slopes are relatively flat before 1995, and then there is a steady increase in the percentage of diabetics in all age groups. This might be a result of better health care, which results in a better survival rate for diabetics.
- The age group 65-74 experienced the steepest increase in percentage of diagnosed diabetics, starting at 9% in 1980 and rising to more than 20% of the population in 2009. Most of this increase occurred in the last half of the recording period.
- The overall percentage is much lower than all cases except for the under 44 group, indicating that the youngest group has the largest population. The slower percentage increase after 1995 might be hidden in this larger population.

Common mistakes:

- Points that only mention “percentage of diabetic population increases with age” which is clearly contradicted by ‘75 or older’ age group in the graph.
- Analysis of graph not focused on age groups (as function of age), one or two generalized points included.
- Points such as “one age group is greater than the other” are incomplete and incorrect.

Example 2: Diabetes in the United States [Lab#1 – Fall 2013]

Task: Compare the characteristics of the black ethnic group to the overall population

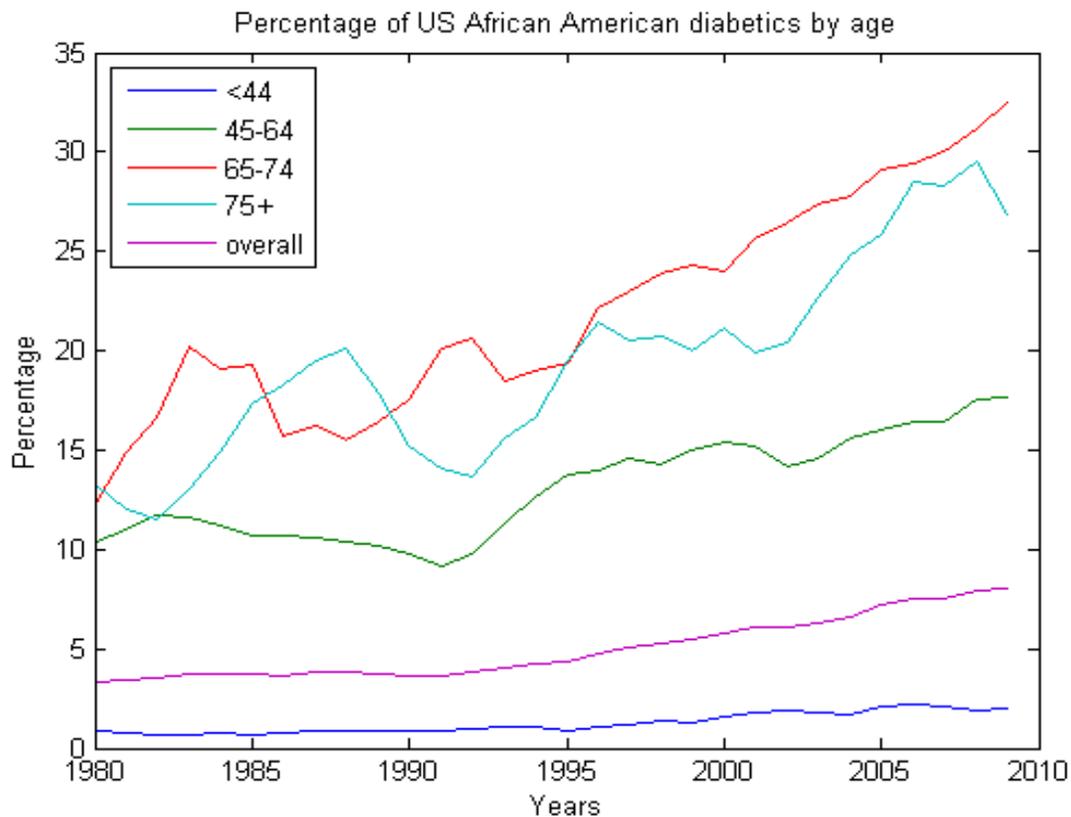


Figure 2

Common mistakes:

- Do not compare the age groups of same ethnic group (within same graph), when comparison need to be done between the age groups of different ethnic groups (two different graphs).
- While comparing make sure to look at the scales on the y-axis, (**Figure 1** y-axis scales are 2,4,... and **Figure 2** y-axis scales are 5,10, ...) so comparison without considering the scales ends up into incorrect analysis [‘44 or younger’ age group for black ethnic group actually has more percentage of population than the ‘44 or younger’ age group in overall population].

What is required?

- Comparison (similarities/differences) need to be done between overall population (Figure 1) and one ethnic group (Figure 2). To do this, you can either plot them on the same graph, or look at each graph specifically, especially noting the similarities and differences in the x and y scales.
- Describe the trends (consistency/fluctuations in the graphs) in compare to each other and its significance rather than saying this is smallest and this is largest.

Sample:

- For overall population, each age group increases steadily and linearly each year, however in black ethnicity the percentage of diabetic population rapidly increases and there are more fluctuations except for ‘44 or younger’ age group
- Both the black ethnicity and the overall population demonstrate similar pattern as the percentage of diabetics increased with increase in each age group except for ‘75 or older’ age group and ‘65-74’ has the highest percentage of diabetic population which means most of the diabetic population is within this age group

Paragraph on implications

What is required?

Draw implications based on the data provided in the lab. What do *you understand* from the graphs? Present an overall view (a bigger picture) from different pieces of available data and try to think of some reasons behind the trends shown in graph (Why it is like this or why is it happening?) and suggest something based on your understanding (What can be done to improve the condition?). Consider the specific scenario mentioned, if any, and put forth relevant implications.

Sample:

“The data indicates a higher percentage of Americans of both the black and white ethnicity are getting diabetes each year. From 1980, the percentage of diagnosed diabetics within the American population has almost doubled. The problem is especially serious among black. This data also shows that the age group 64-75 had greater percentages of diabetics in the white, black, and overall populations, indicating that our elderly are at greater risk. The change in way of life in America has influenced these numbers. The exposure and use of fast foods, candy, and videogames has caused people to eat larger unhealthy quantities, and have an inactive life style with less exercise and workout. These lifestyle changes are a likely cause of people getting diabetes at younger ages within all ethnicities than in the past.”

Common mistakes:

- Only two or three sentences in a paragraph that are not completely relevant to the data
- A brief summary of bullet points of above sections/parts without including your own perspective
- Without analyzing the available data, making assumptions such as the data is old or does not supports/covers all the American population

Things to remember:

- Always create a word document for the bullet points, rather than writing them as comments in the script
- Save the word document inside the Lab folder that you have created in V: drive
- Make sure to include the word document inside the zipped folder before submitting in blackboard

General Errors:

- Errors in graph or the legends of the graph, results into incorrect analysis
- In the bullet points, any erroneous reference to figures, gives inaccurate analysis
- Repetition of the same points twice, just changing the words in a sentence does not count for two different points

Note: Compiled based on Fall 2013 submissions