

## Quantitative Methods Statistics Assignment Example of Group Project

This assignment counts 10% if you are taking the double module and 20% if you are taking the single module of your final classification for the module.

The assignment involves examining data from a hypothetical village. The village comprises 480 households for which there is a variety of data. You will be asked to construct a sample of 40 households from this data. You can then access data concerning these households which you will then need to analyse to answer a variety of questions.

Please arrange yourselves into groups of five (+/- 1) and you are required to submit a group piece of work.

The sample should be random and you must indicate in your report how you have attempted to randomise your sample bearing in mind the information on the first page of the following website.

<http://www.amstat.org/publications/jse/v5n2/schwarz.suppl/index.html>

When you have read this information you need to click on

Maximal village - 128 blocks either from this word document or from the website.

You then select the sample by clicking on 40 of the households (each block has 8 households) – remember to try and randomise this and write this down for your report.

When you have selected 40 households click on the box titled ‘get the sample units’ at the bottom of the page.

Using your cursor select the block of data and copy it. Paste it into an excel file at cell b1. Make sure that you have a space at the start of the first row of data so it matches the other rows. You then need to convert the data into individual columns. You do this as follows:

Select ‘Data’ from the line of commands and then ‘text to columns’

Select ‘delimited’ and then ‘next’

Make sure the only delimiter which is ticked is ‘space’

Click on ‘finish’

The headings for the columns are available in the spreadsheet statvillage.xls. You can access it from blackboard. Paste or type in the headings above the columns leaving column a blank. Save your spreadsheet. The second sheet of statvillage.xls explains what each column means.

Your spreadsheet is now ready for you to analyse the data and answer the following questions.

1. Provide suitable diagrams to show the number of households with the following:

Number of persons in the household

Number of persons receiving an income in the household (income recipients).

Structural Type of Dwelling

Number of Rooms

Number of Bedrooms

Mother Tongue of Primary Household Maintainer

Highest Level of Schooling of Primary Household Maintainer

Labour Force Activity of Primary Household Maintainer

2. Identify the mean, median, mode, and standard deviation for the following columns:

Total Household Employment Income

Total Investment Income of Household

Total Household Government Transfer Payments

Total Household Income

3. Produce a Lorenz curve to determine whether total household income is equally distributed amongst the households.

4. Produce a report which should contain the following:

- Introduction, stating what data you have collected, your research questions, how you are going to display the data and answer your research questions.
- Background: A brief description of what the data is and where you have collected it from
- Methodology: This section should discuss your data for example, where it comes from and what it represents. This section should also describe what your questions are, how you are going to represent the data and how you will answer the questions.
- Results: This section should present and discuss your results.
- Usefulness: Briefly discuss who this information would be useful for and why.
- Conclusions; You should summarise what you have done, how you have done it and what your results suggest. You should also suggest whether there any limitations with your data and analysis and how you might improve your analysis.

Your report should be submitted via Turnitin.