Exercise 9.1

Open the Excel workbook in **Exe 9.1D.xlsx** from the Exercise folder. This contains the percentage frequencies together with the bar chart just created in the above example. Add a percentage frequency bar chart showing the brand preferences in Area 2, using the same format as that employed for the Area1 results in the above example. Drag your new chart so that it lies alongside that for Area 1.

Briefly interpret your findings. What do these results tell you about the patterns of brand preferences for each of the two demographic areas?

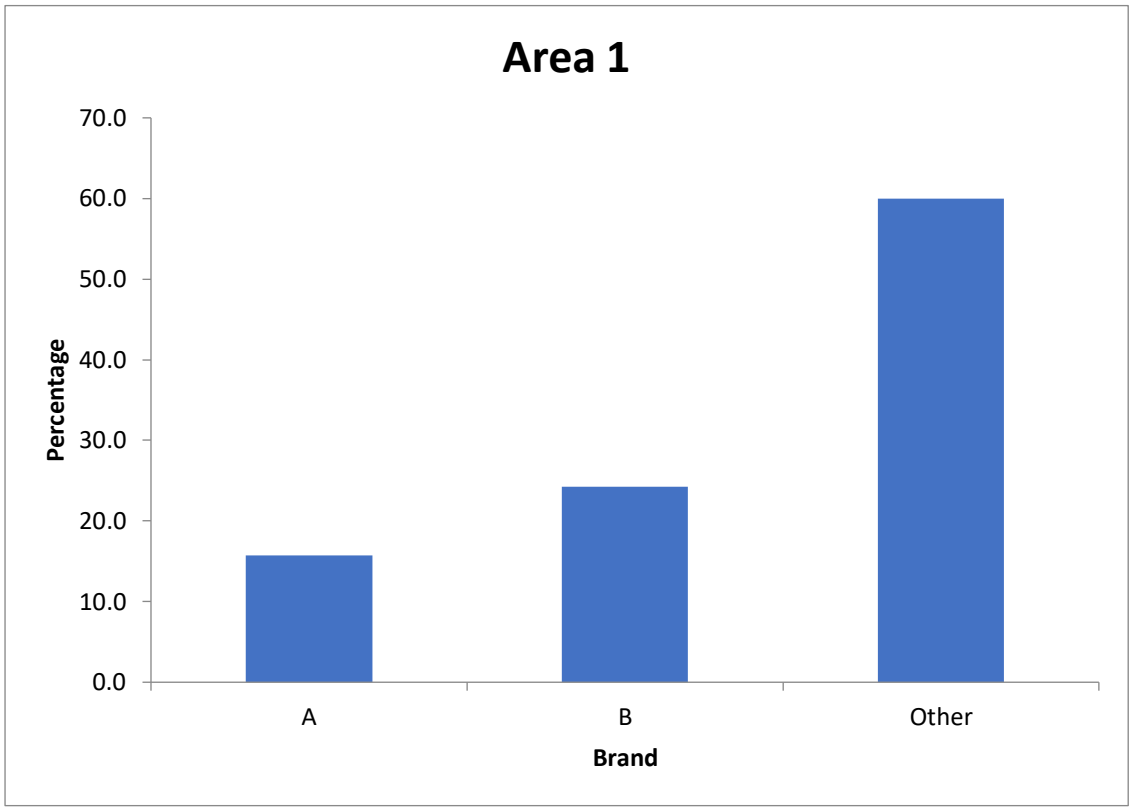

Figure 1-Percentage distribution for Area 1

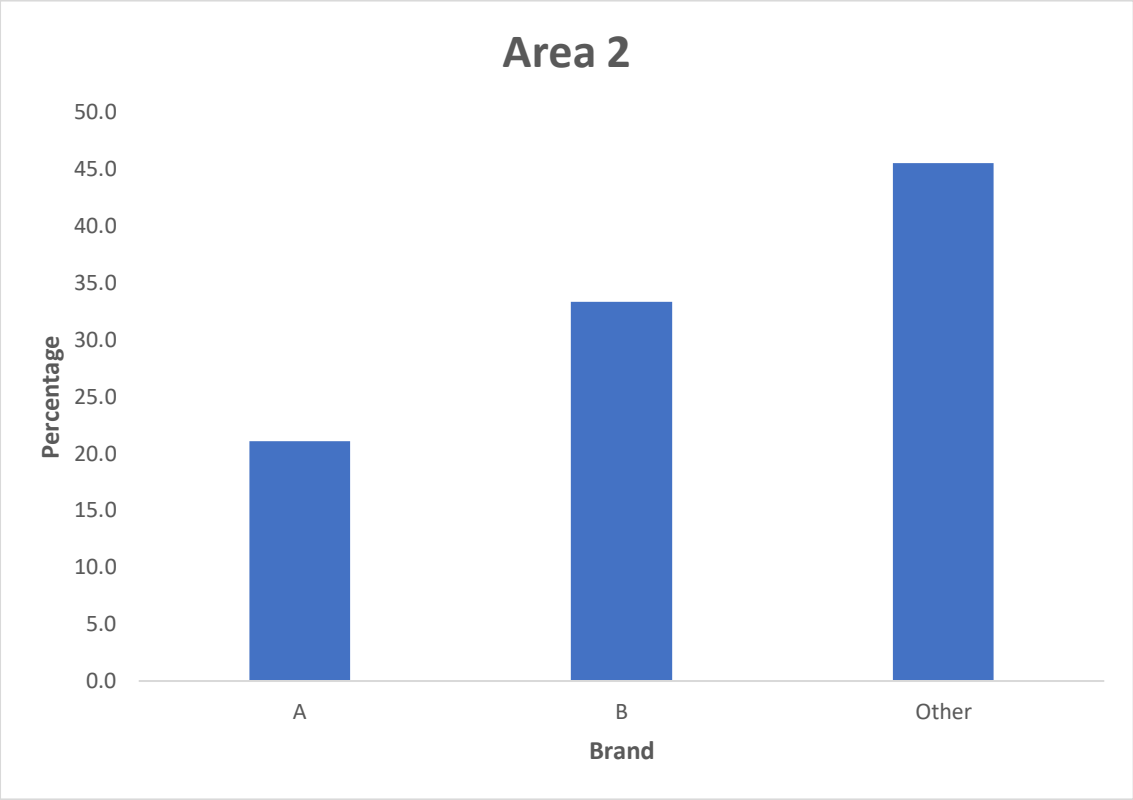

Figure 2- Figure distribution for Area 2

The charts show that in Area 2 both brands have a higher popularity and are widely preferred than in Area 1. The “Other” brands are less popular in Area 2 than in Area 1.

Exercise 9.2

Open the Excel workbook in **Exe 9.2E.xlsx** from the Exercise folder. This contains the frequency distributions for Data Set E to which has been added to the corresponding percentage frequency distributions. Complete a percentage frequency clustered column bar chart showing the heater species prevalences in the two different locations.

Briefly interpret your findings.

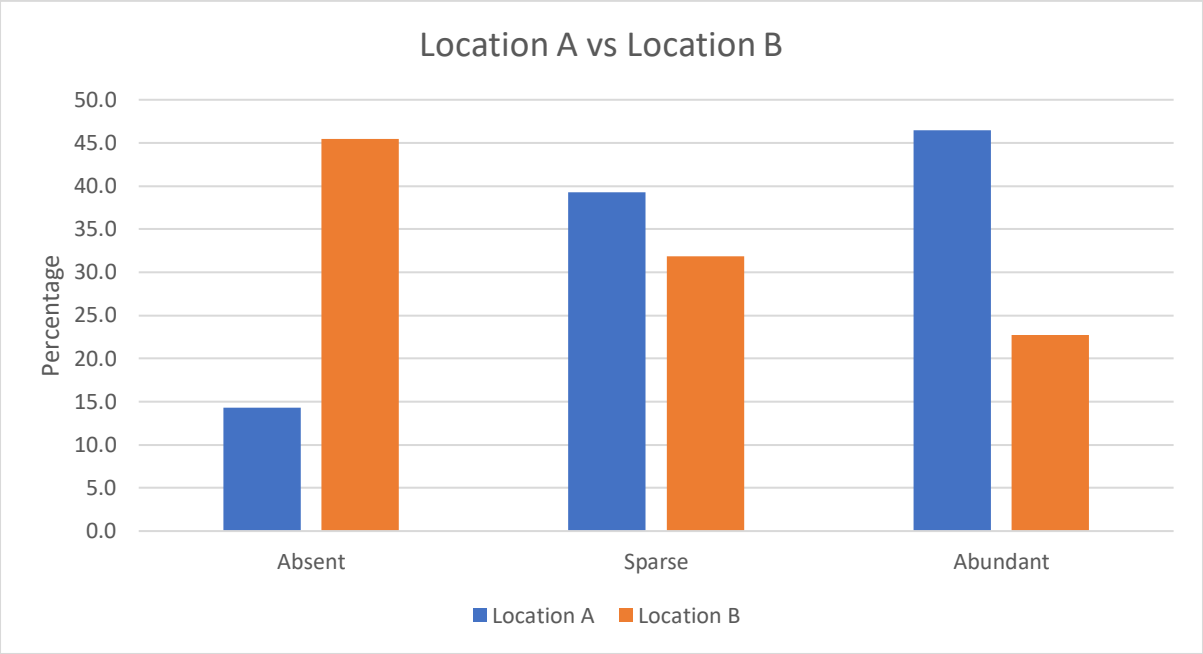

Figure 3- Percentage distribution comparison between Location A and Location B

Sparse has similar values between both Locations while absent and Abundant have a significant difference between each other. It can therefore be concluded that the two locations differ significantly with the closest point being Sparse.

Exercise 9.3

Open the Excel workbook 9.3B.xlsx from the Exercise folder. This contains the relative frequency histogram, for the Diet A weight loss produced in example 9.3 together with some of the Diet B weight loss statistics. Add a relative frequency histogram of the weight loss for Diet B, where possible using the same classes as those employed for the Diet A results in the above example.

Briefly interpret your histogram. What do these results tell you about the patterns of weight loss for each of the two diets?

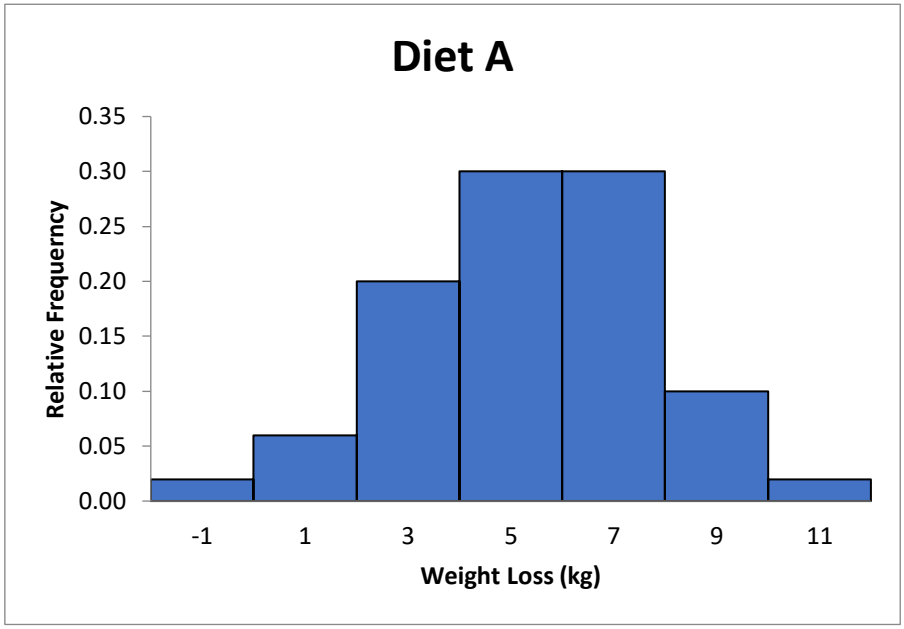

Figure 4-Histogram of weight loss in Diet A

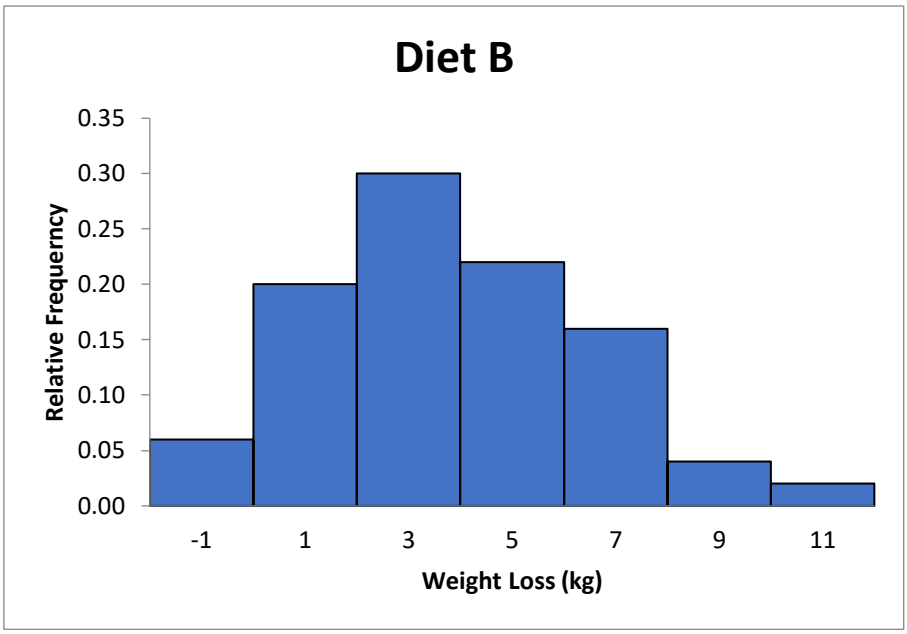

Figure 5-Histogram for weight loss in Diet B

Diet A has a left skewed distribution whereas Diet B has a right skewed distribution (Frost, n.d.). In Diet A the peak weight loss value is 5kg and 7kg with equal values whereas in Diet B the peak weight loss is 3kg. This therefore indicates that both diets are effective however Diet A is more effective than Diet B.

Reference:

Frost, J., n.d. *Using Histograms to Understand Your Data.* [Online]

Available at: https://statisticsbyjim.com/basics/histograms/

[Accessed 3 October 2023].