Exercise 9.1

Open the Excel workbook in **Exe 9.1D.xlsx** from the Exercises 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?

Answer

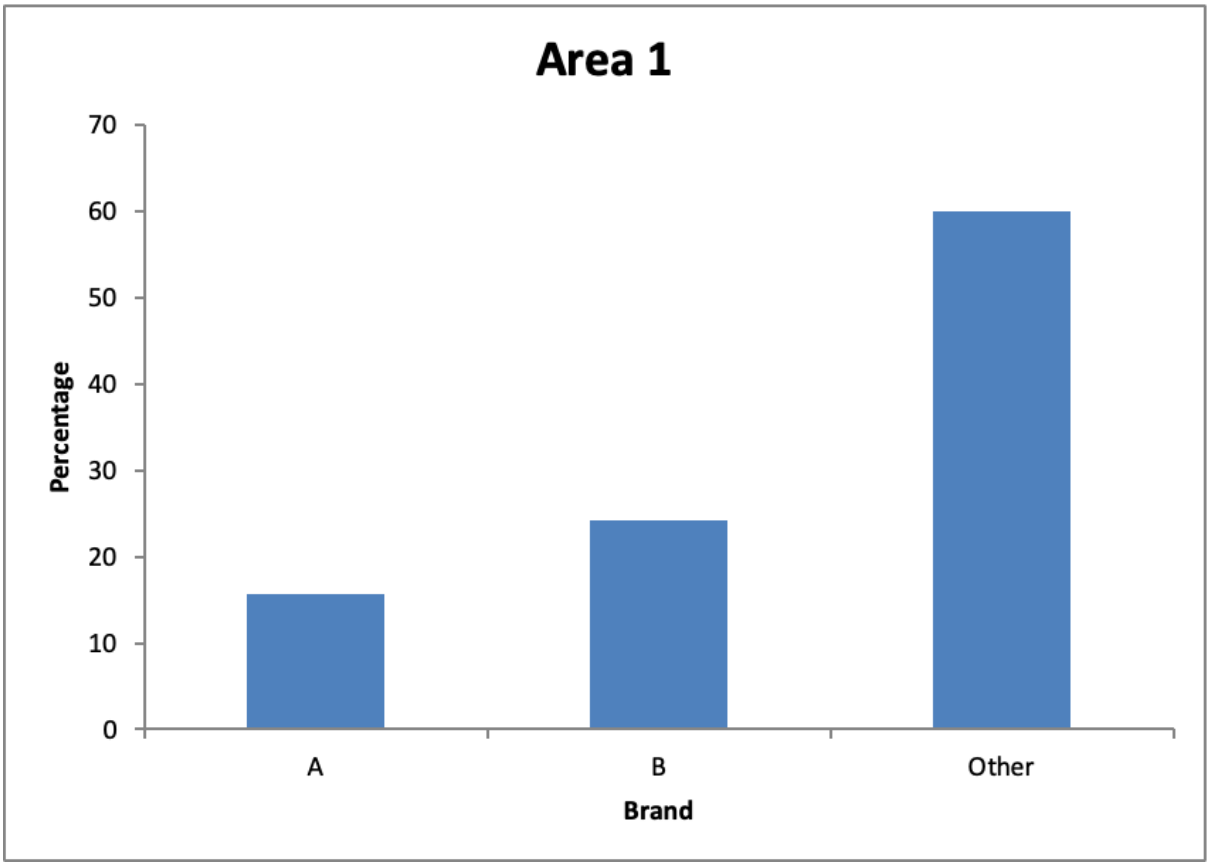

Figure 1: Percentage distribution in Area 1.

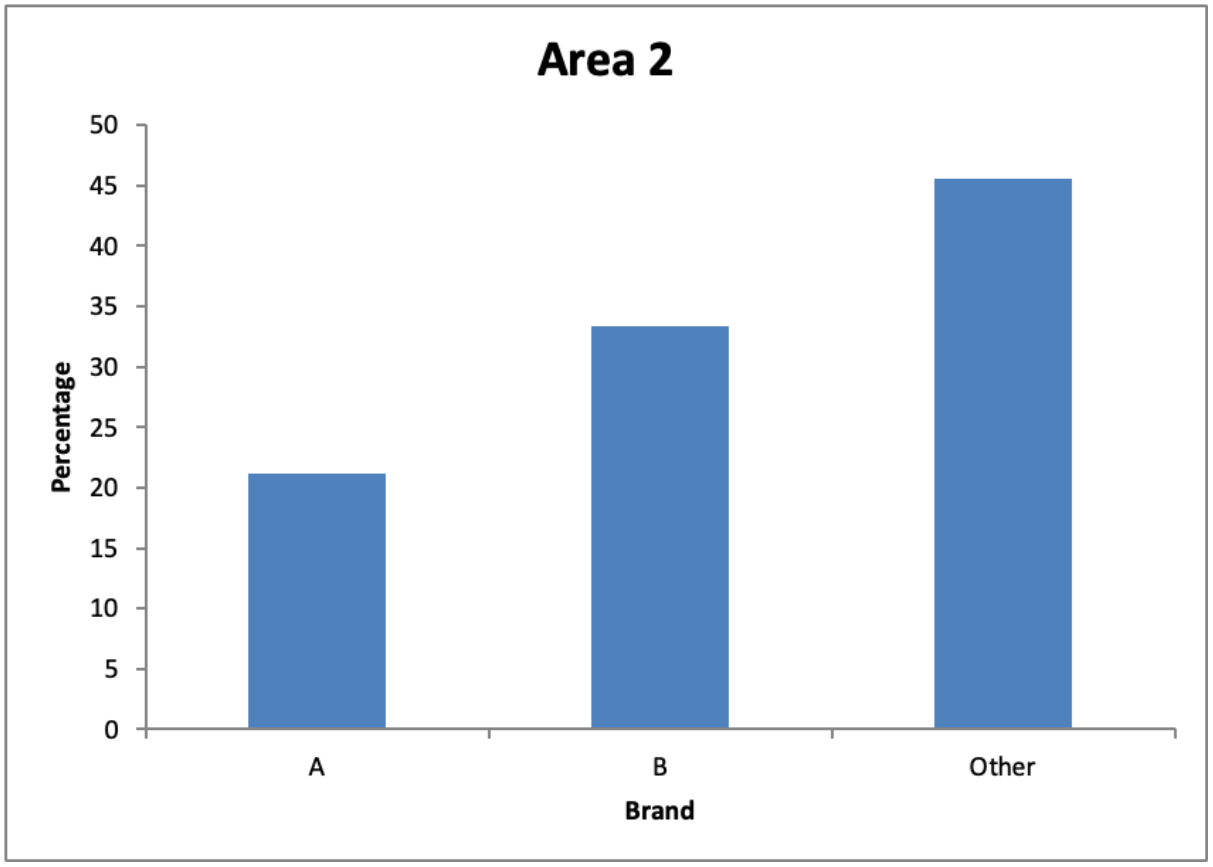

Figure 2: Percentage distribution in Area 2.

Similarly to the exercise from the previous Unit, it is clear that in Area 2 both surveyed brands have higher popularity than in Area 1. At the 'cost' of 'Other' both A and B in Area 2 have higher scores than the ones in Area 1.

Exercise 9.2

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

Briefly interpret your findings.

Answer

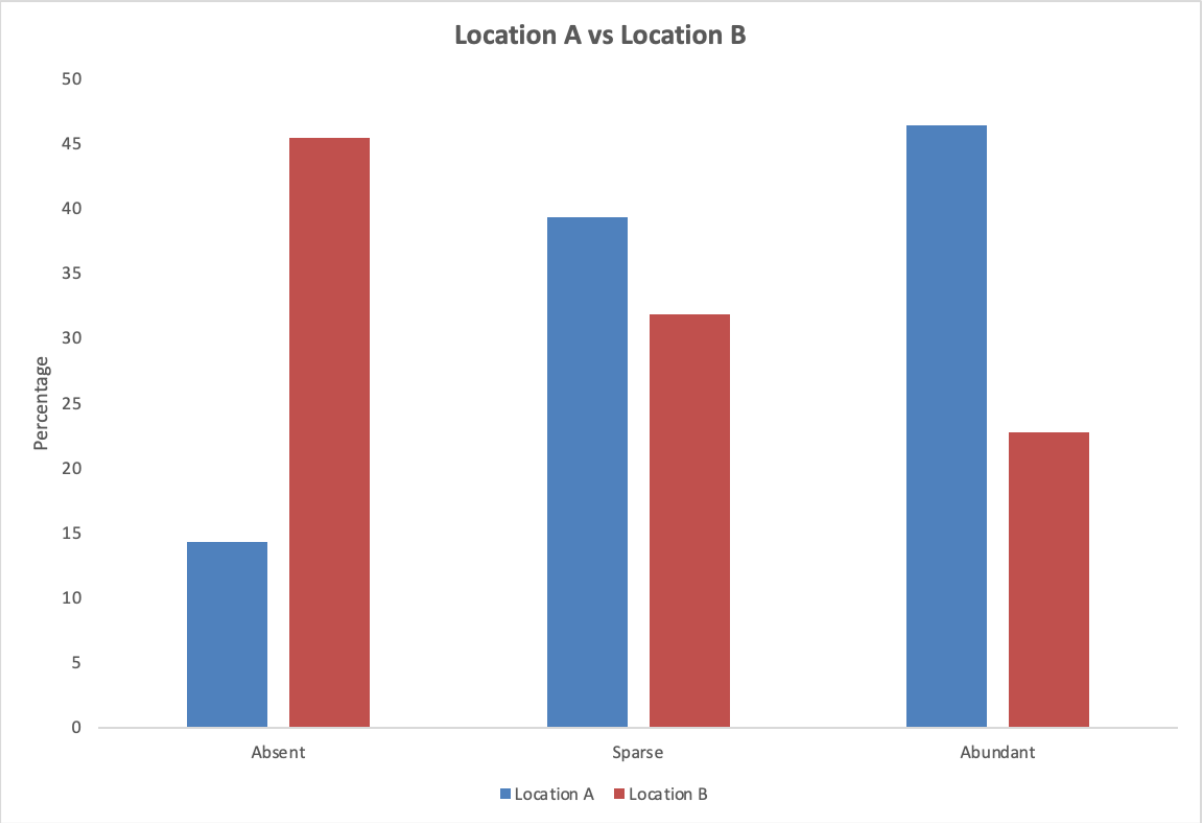

Figure 3: Percentage distribution comparison between Location A and Location B.

First conclusion that comes to mind is that the percentage share grows from left to right for Location A while the same share grows from right to left for Location B. This creates fairly similar values for the Sparse, while Absent and Abundant have high differences between each other. Therefore one can conclude that the two locations differ significantly, in general, with the closest point being at Sparse.

Exercise 9.3

Open the Excel workbook in **Exe 9.3B.xlsx** from the Exercises 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 summary 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?

Answer

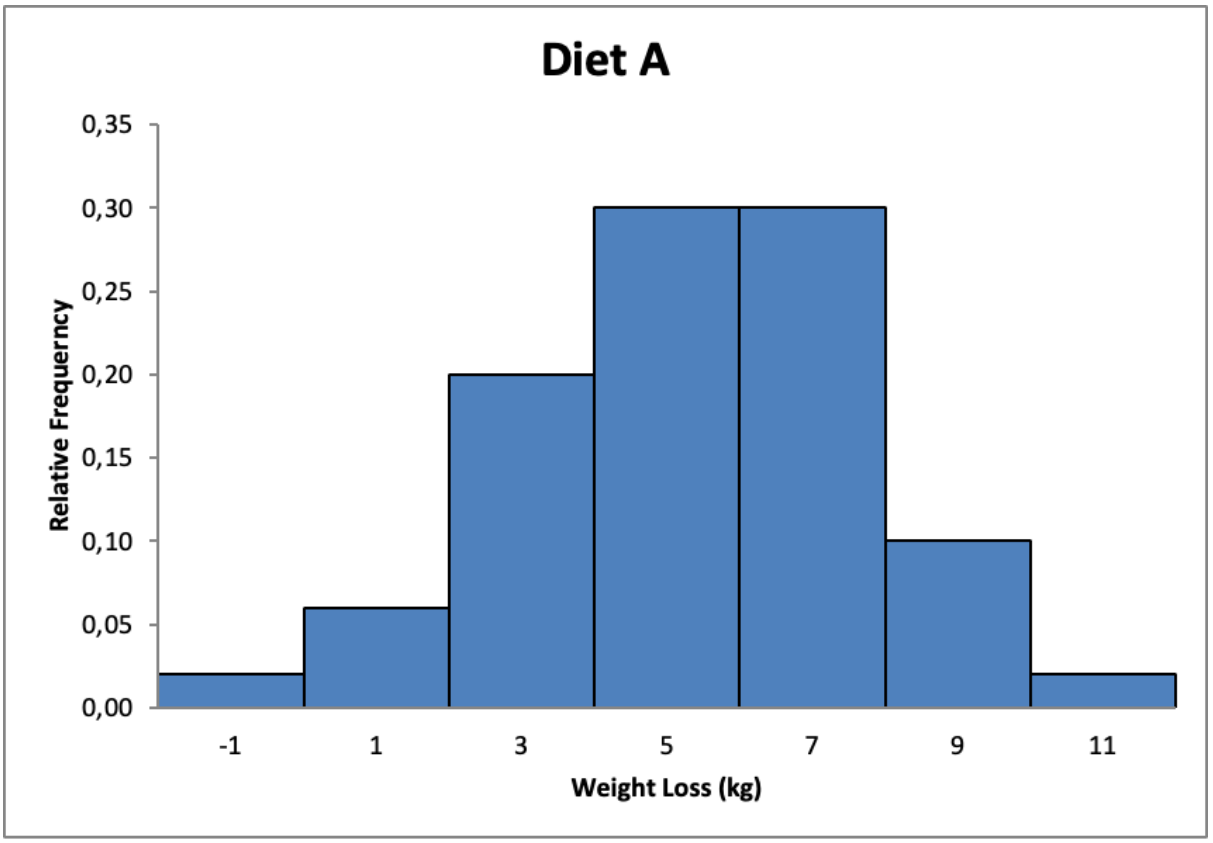

Figure 4: Histogram of relative frequency of weight loss in Diet A.

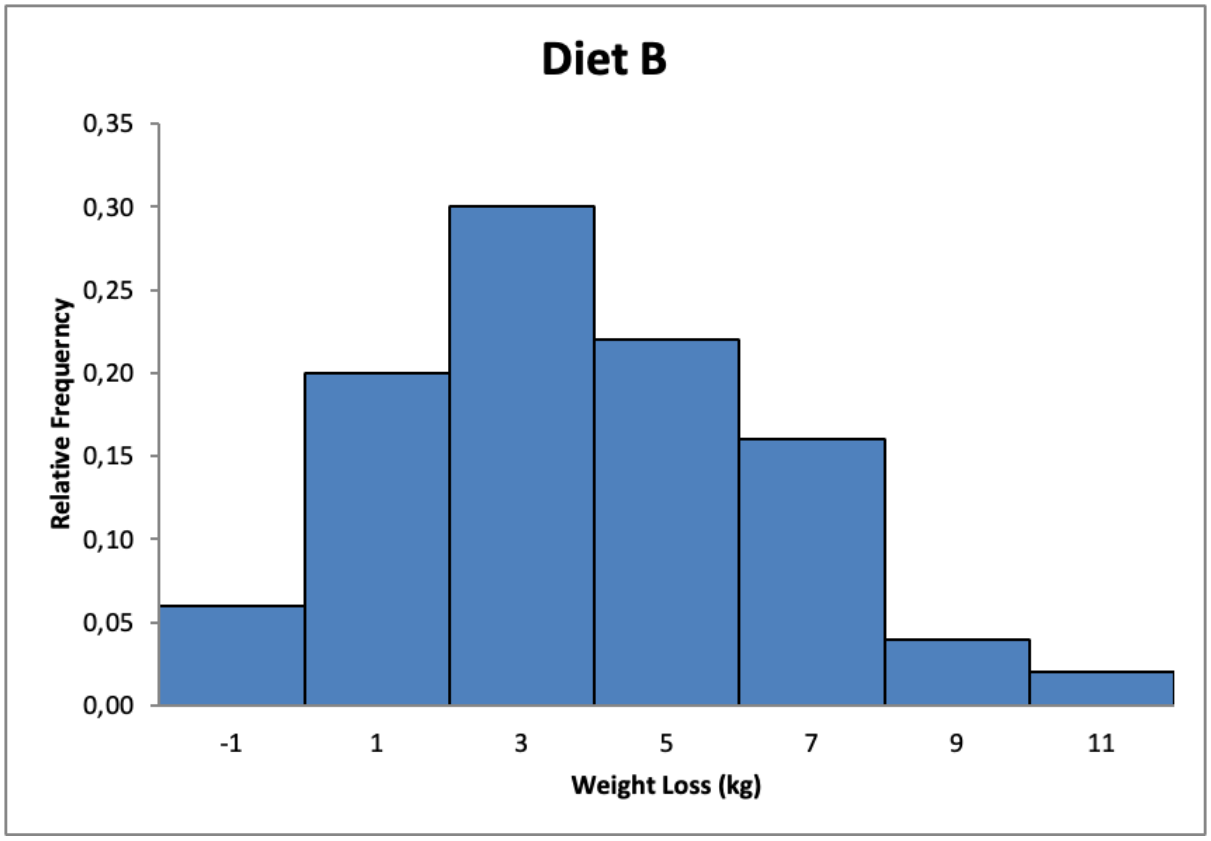

Figure 5: Histogram of relative frequency of weight loss in Diet B.

Diet B has a much more skewed right distribution compared to Diet B. It peaks at 3 kg weight loss while Diet A peaks at 5 & 7 (equal values) kg weight loss. These facts combined show that both diets are effective but Diet A is much more effective than Diet B. Both of these diets follow a distribution close enough to normal.