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Challenge Practice: Creating a Customized Graph of a Two-Way Frequency Table

The SGPLOT procedure can be used to create statistical graphics such as histograms and regression plots, in addition to simple graphics such as bar charts and line plots. Statements and options enable you to control the appearance of your graph and add additional features such as legends and reference lines.

Reminder: If you restarted your SAS session,you must recreate the **PG1** library so you can access your practice files. In SAS Studio, open and submit the **libname.sas** program in the **EPG194** folder. In Enterprise Guide, run the **Autoexec** process flow.

1. Open **p105p03.sas** from the **practices** folder. Highlight the first TITLE statement and PROC FREQ step, run the selected code, and examine the generated plot. The program subsets the **pg1.np_codelookup** table for three park types: **National Historic Site**, **National Monument**, and **National Park**. The plot uses a stacked layout with a horizontal orientation.

2. To create a more customized frequency bar chart, the SGPLOT procedure can be used with the **pg1.np_codelookup** table. Examine the PROC SGPLOT step in the program.

```
title1 'Counts of Selected Park Types by Park Region';
proc sgplot data=pg1.np_codelookup;
    where Type in ('National Historic Site', 'National Monument', 'National Park');
    hbar region / group=type;
    keylegend / opaque across=1 position=bottomright location=inside;
    xaxis grid;
run;
```

   - The HBAR statement creates a horizontal bar chart with separate bars for each **Region**. The GROUP= option segments each bar by the distinct values of **Type**.
   - The KEYLEGEND statement customizes the appearance and position of the legend.
   - The XAXIS statement adds reference lines on the horizontal axis.

3. Use SAS Help or autocomplete prompts to look for additional options in the HBAR statement to customize the appearance of the chart.

   a. Display labels on each segment of the bars.
   b. Change the fill attributes for each bar so that the color is 50% transparent.
   c. Apply different values for the DATASKIN option to change the color effect on the bars.
   d. Submit the program and view the results.

```
proc sgplot data=pg1.np_codelookup;
    where Type in ('National Historic Site', 'National Monument',
                   'National Park');
    hbar region / group=type seglabel
                  fillattrs=(transparency=0.5) dataskin=crisp;
    keylegend / opaque across=1 position=bottomright
                location=inside;
    xaxis grid;
run;
title;
```

Hide Solution