Chapter 142

Pie Charts

Introduction

The pie chart is constructed by dividing a circle into two or more sections or slices. The chart is used to show the proportion that each part is of the whole. Hence, it should be used when you want to compare individual categories with the whole. If you want to compare the values of categories with each other, a bar chart may be more useful.

The chart below shows the budget for each of four departments in a hypothetical company.

Pie Chart of Budget
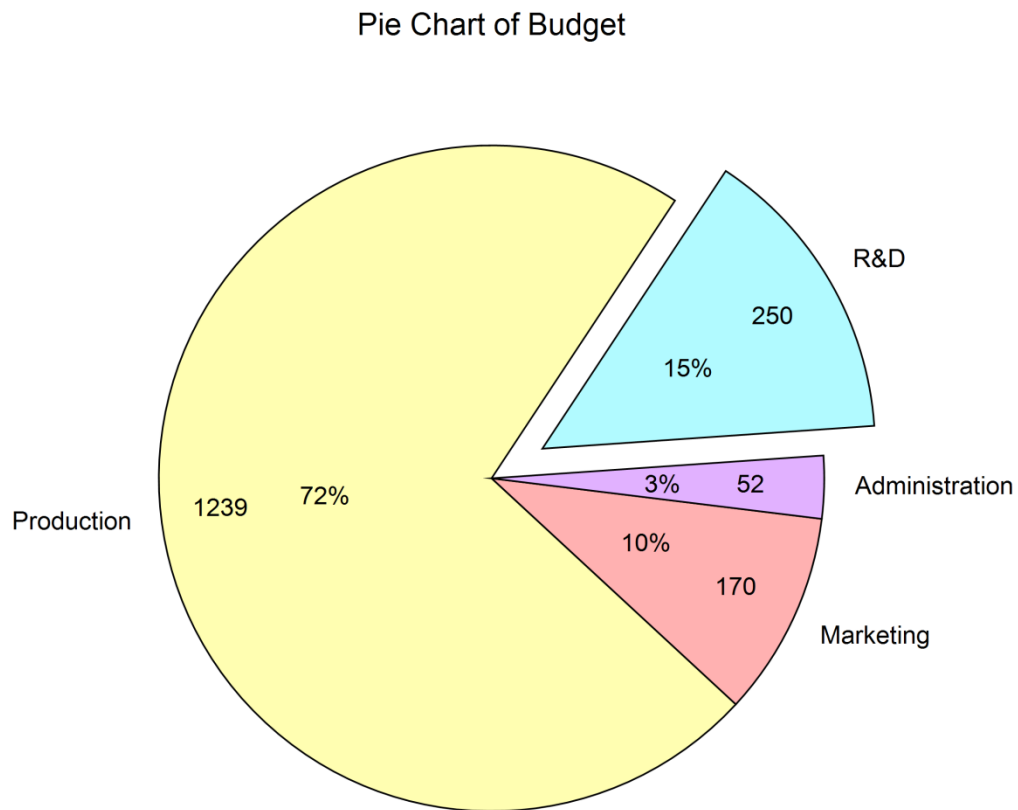
Pie Chart Variations

The following pie charts were produced from the same dataset as the pie chart shown above.

Pie Chart of Budget

Pie Chart of Budget
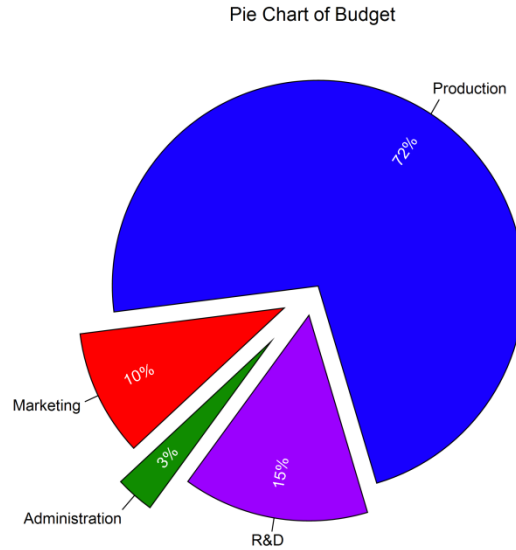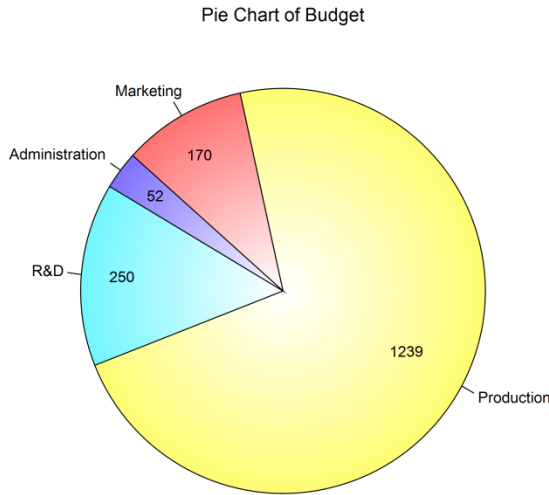
Data Structure

Data values must be positive and numeric. Non-positive values are given their absolute value. The data are entered as columns. An option labeling column may be used for slice labels. An example of such data is shown in the Budget dataset.

Budget Dataset

| Department	Budget
Marketing	170
Production	1239
R&D	250
Administration	52

Pie Chart Window Options

This section describes the specific options available on the Pie Chart window, which is displayed when a Pie Chart Format button is clicked. Common options, such as axes, labels, legends, and titles are documented in the Graphics Components chapter.
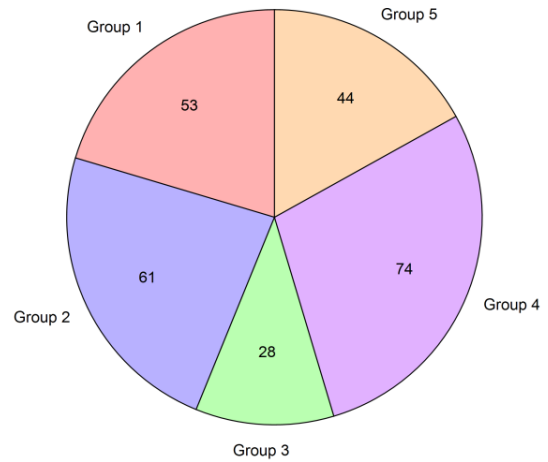
Slices Tab

Slice Fill Direction

This option is used to specify whether the slices are ordered clockwise from the reference angle or counterclockwise from the reference angle. The default reference angle is 90 degrees (straight up).
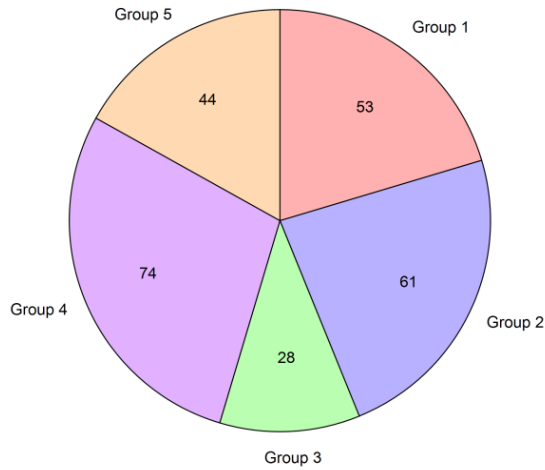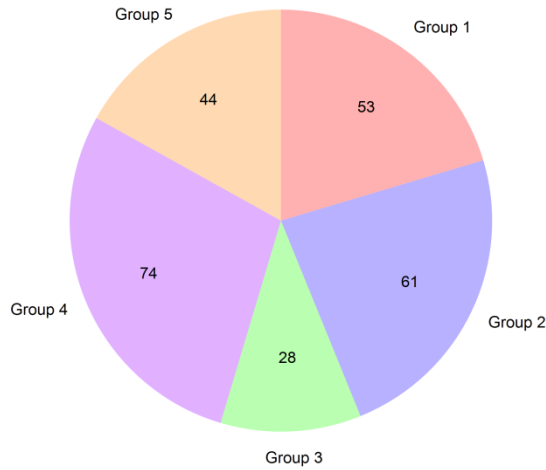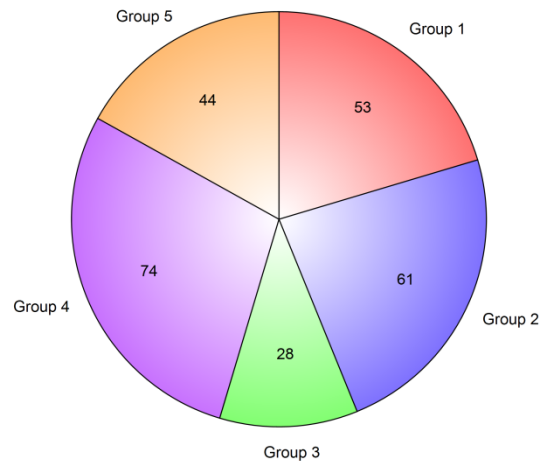
Slice Fills and Borders

The slice fills can be any of the standard fills, including gradient fills. The slice borders use the standard options. Either the slice fills or the slice borders can be excluded if desired.
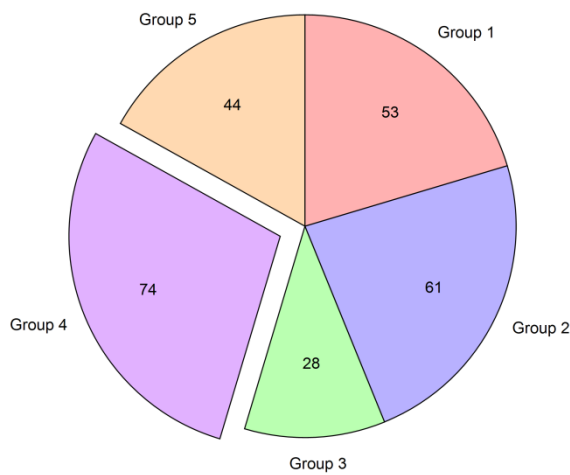

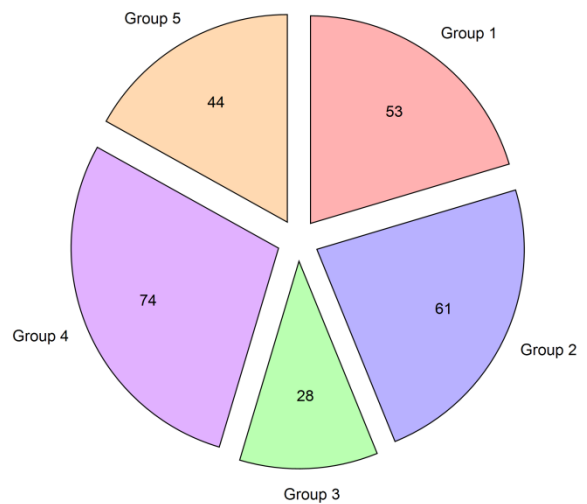No Borders

Circular Gradient Fills

Slice Offset and Size

The slice offset allows you to emphasize a slice by causing it to "explode" away from the pie.
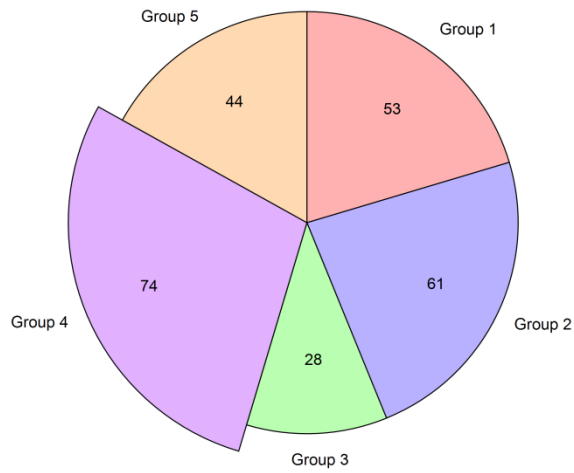

Offset Group 4

Offset All

The slice size allows you to emphasize a slice by causing it to be larger than the other pie slices.
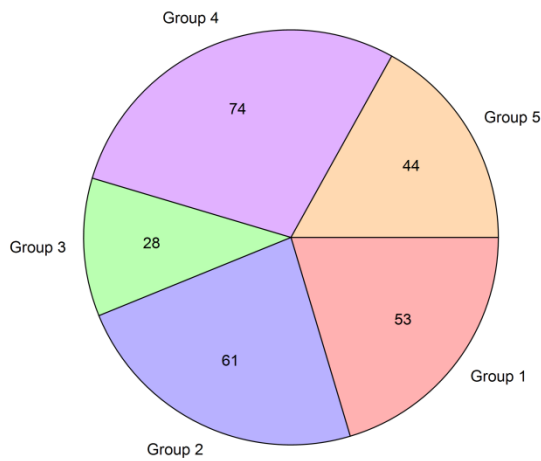

Extra Large Group 4

Reference Angle

This is the angle from which the first slice starts. This value can be used to rotate the pie chart. The direction of the slices from this angle is chosen under Slice Fill Direction.


Reference Angle 0

Labels Tab

Slice Labels

Available labels for each slice are the slice label, the slice value, and the slice percent. Each of these labels can be moved in or out individually or collectively, based on the given radius. The angle of the text for each label can be set to horizontal, the direction of the center of the slice, or a custom angle. Individual labels may also be shifted in any direction.
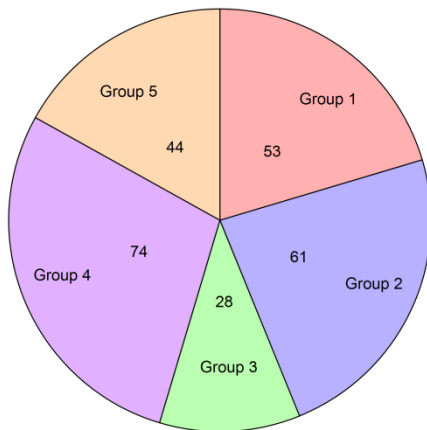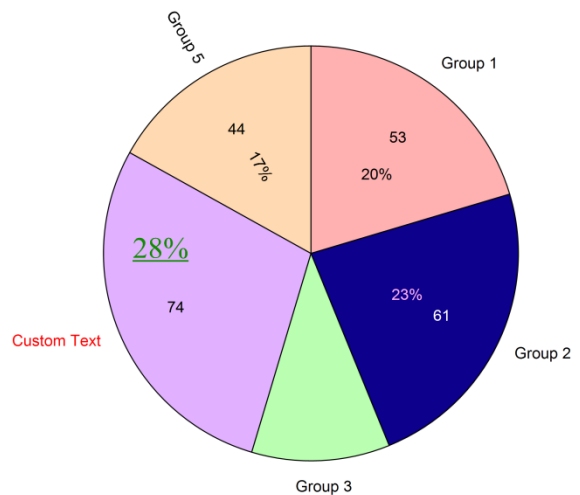
All Three Labels at Defaults
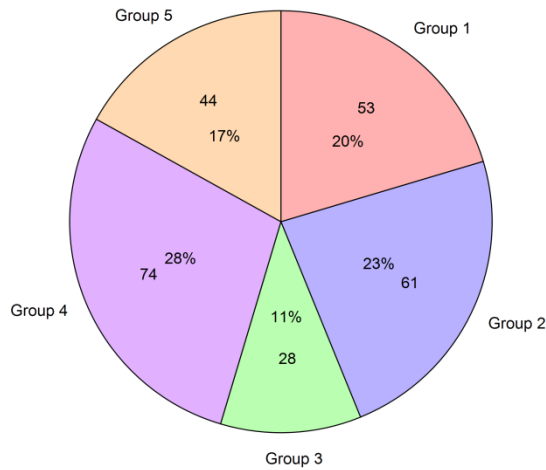
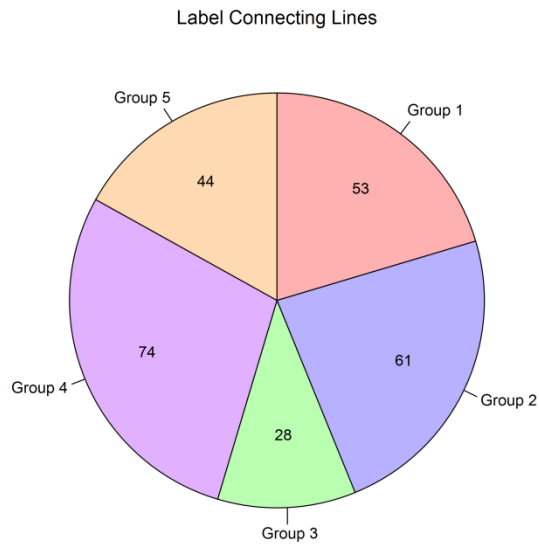Slice Label Angles with Slices
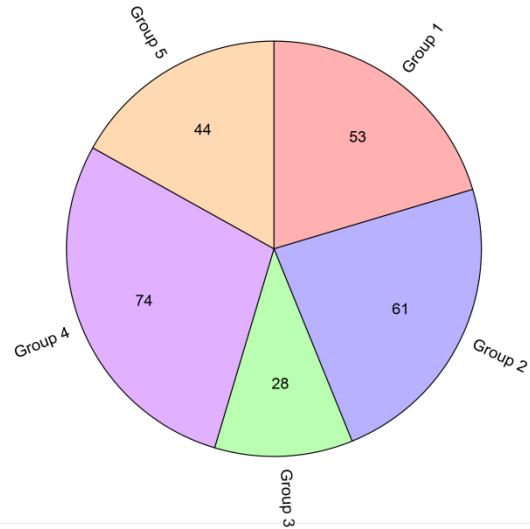
Adjusting the Label Radius

Label Variations

Lines Tab

Label Connecting Lines

A line may be drawn to each label from the corresponding slice. These lines can start from the interior of the slice or the edge of the slice, and may be drawn to either the slice label, the slice value, or the slice percent.

Example 1 – Creating a Pie Chart

This section presents an example of how to create a pie chart of the data stored on the Budget dataset.

Setup

To run this example, complete the following steps:

1   Open the Budget example dataset
- From the File menu of the NCSS Data window, select **Open Example Data**.
- Select **Budget** and click **OK**.

2   Specify the Pie Charts procedure options
- Find and open the **Pie Charts** procedure using the menus or the Procedure Navigator.
- The settings for this example are listed below and are stored in the **Example 1** settings file. To load these settings to the procedure window, click **Open Example Settings File** in the Help Center or File menu.

Variables Tab

Data Variables ....**Budget**
Label Variable..**Department**

Pie Chart Format (*Click the Button*)

Slice Fill Format (*Click the Button*)
   Fills 1 through 4...**Select the desired colors**

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3   Run the procedure
- Click the **Run** button to perform the calculations and generate the output.

Pie Chart Output

Pie Chart Report
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Pie Chart of Budget

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