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Demo: Examining Distributions Using SAS Studio Tasks

Use the One-Way Frequencies task to create one-way frequency tables for the variables **Bonus**, **Fireplaces**, and **Lot_Shape_2**. Use the Table Analysis task to create two-way frequency tables for the variables **Bonus** by **Fireplaces**, and **Bonus** by **Lot_Shape_2**. For the continuous variable **Basement_Area**, use the Summary Statistics task to generate histograms for each level of **Bonus**.

Generating One-Way Frequency Tables

1. In the Navigation pane, select **Tasks and Utilities**.
2. Expand **Tasks**.
3. Expand **Statistics** and open the **One-Way Frequencies** task.
4. Select the **stat1.ameshousing3** table.
5. Assign the variables **Bonus**, **Fireplaces**, and **Lot_Shape_2** to the Analysis variables role.
6. Click **Run**.

Generated Code

```
proc freq data=STAT1.AMESHOUSING3;
   tables Fireplaces Lot_Shape_2 Bonus / plots=(freqplot cumfreqplot);
run;
```

Generating Two-Way Frequency Tables

1. Open the **Table Analysis** task.
2. On the DATA tab, verify that **stat1.ameshousing3** is already selected.
3. Assign **Fireplaces** and **Lot_Shape_2** to the Row variables role, and assign **Bonus** to the Column variables role.
4. On the OPTIONS tab, expand **FREQUENCY TABLE**.
5. Under Percentages, select **Cell**, **Row**, and **Column**.
6. Under Statistics, clear the check box for **Chi-square statistics**.
7. Click **Run**.

Generated Code

```
ods noproctitle;

proc freq data=STAT1.AMESHOUSING3;
   tables (Fireplaces Lot_Shape_2) *(Bonus) / nocum plots(only)=(freqplot
                  mosaicplot);
run;
```

Generating Histograms

1. Open the **Summary Statistics** task.
2. Assign **Basement_Area** to the Analysis variables role, and assign **Bonus** to the Classification variables role.
3. On the OPTIONS tab, clear the check box for **Number of observations**.
4. Expand **PLOTS** and select **Histogram**, and then select **Add inset statistics**.
5. Click **Run**.

Generated Code

```
ods noproctitle;
ods graphics / imagemap=on;

proc means data=STAT1.AMESHOUSING3 chartype mean std min max vardef=df;
   var Basement_Area;
   class Bonus;
run;

proc univariate data=STAT1.AMESHOUSING3 vardef=df noprint;
   var Basement_Area;
   class Bonus;
   histogram Basement_Area;
   inset mean std min max / position=nw;
run;
```