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Demo: Fitting a Binary Logistic Regression Model Using the Binary Logistic Regression Task

Use the Binary Logistic Regression task to fit a binary logistic regression model and characterize the relationship between **Basement_Area** and the categorical response, **Bonus**. Model the probability of being bonus eligible, and request profile likelihood confidence intervals for the estimated odds ratio.

1. In the Navigation pane, select **Tasks and Utilities**.
2. Expand **Tasks**.
3. Expand **Statistics** and open the **Binary Logistic Regression** task.
4. Select the **stat1.ameshousing3** table.
5. Assign **Bonus** to the Response role, and use the Event of interest drop-down list to specify **1**.
6. Assign **Basement_Area** to the Continuous variables role.
7. On the MODEL tab, verify that **Main effects model** is selected.
8. On the OPTIONS tab, in the Select statistics to display drop-down list, select **Default and additional statistics**.
9. Expand the **Parameter Estimates** property. In the Confidence intervals for odds ratios drop-down list, select **Based on profile likelihood**.
10. Expand **PLOTS**, and in the Select plots to display drop-down list, select **Default and additional plots**.
11. Select **Effect plot** and **Odds ratio plot**.
12. Click **Run**.

Generated Code

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

proc logistic data=STAT1.AMESHOUSING3 plots=(effect oddsratio(cldisplay=serifarrow));
   model Bonus(event='1')=Basement_Area / link=logit clodds=pl alpha=0.05
             technique=fisher;
run;
```