Model Comparison and Selection

Use the **Model Comparison** platform to compare competing statistical models and select the best performing model. For details on fitting predictive models in JMP Pro see the guides and videos at [jmp.com/learn](http://jmp.com/learn) under Data Mining.

Model Comparison – Continuous Response

Example: We use the *Body Fat.jmp* data to predict Percent body fat. Formulas for several models, saved to the data table, are grouped under **Prediction Formulas** in the column panel. The models were built using the Validation column, which in this example partitions the data into Training and Validation data.

1. Open the dataset, and select **Analyze > Predictive Modeling > Model Comparison**.
2. Select the prediction formula columns from **Select Columns**, and click **Y, Predictors**. If no columns are selected JMP will use all saved prediction formulas.
3. Select **Validation** from the **Select Columns** list, and click **By**. Then, click **OK**.

JMP provides the following statistics for comparing the performance of the different models (statistics for the Validation set are displayed):

- **RSquare** (higher is better)
- **RASE** (Root Average Squared Error) (like RMSE, but can be compared for competing models)
- **AAE** (Average Absolute Error) (a measure of the magnitude of the errors)

Model Comparison – Categorical Response

Example: In the *Equity.jmp* data, we predict Bad as a function of several predictors. In this example, the data were partitioned into Training, Validation and Test sets.

Create the predictive models of your choice (with Validation), then follow steps 1-3 above to generate model statistics for each value of the Validation column.

- The misclassification rate and other measures of performance are provided.
- ROC curves, lift curves, the confusion matrix and other options are available from the red triangles.

Notes: Additional options are available from the red triangles. **Model Comparison** is also available from the **Formula Depot**. For more details on model comparison and the **Formula Depot**, see the book *Predictive and Specialized Modeling* (under Help > Books) or search for “Model Comparison Platform” in the JMP Help.