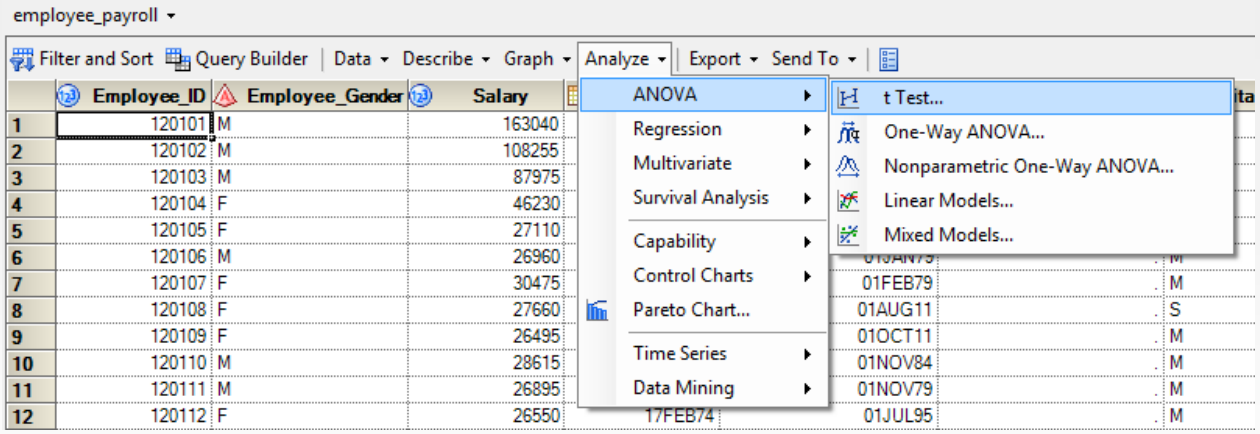
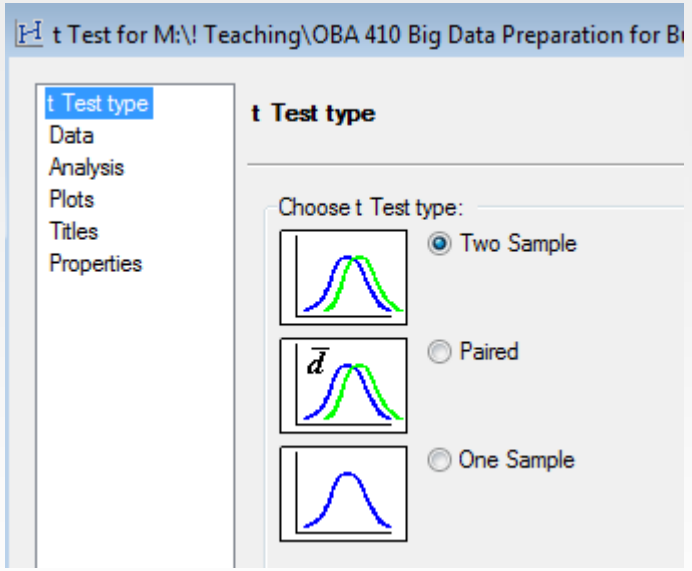
Exploring Data with Tasks

- Demonstration: Comparing Means

Exploring Data with Tasks

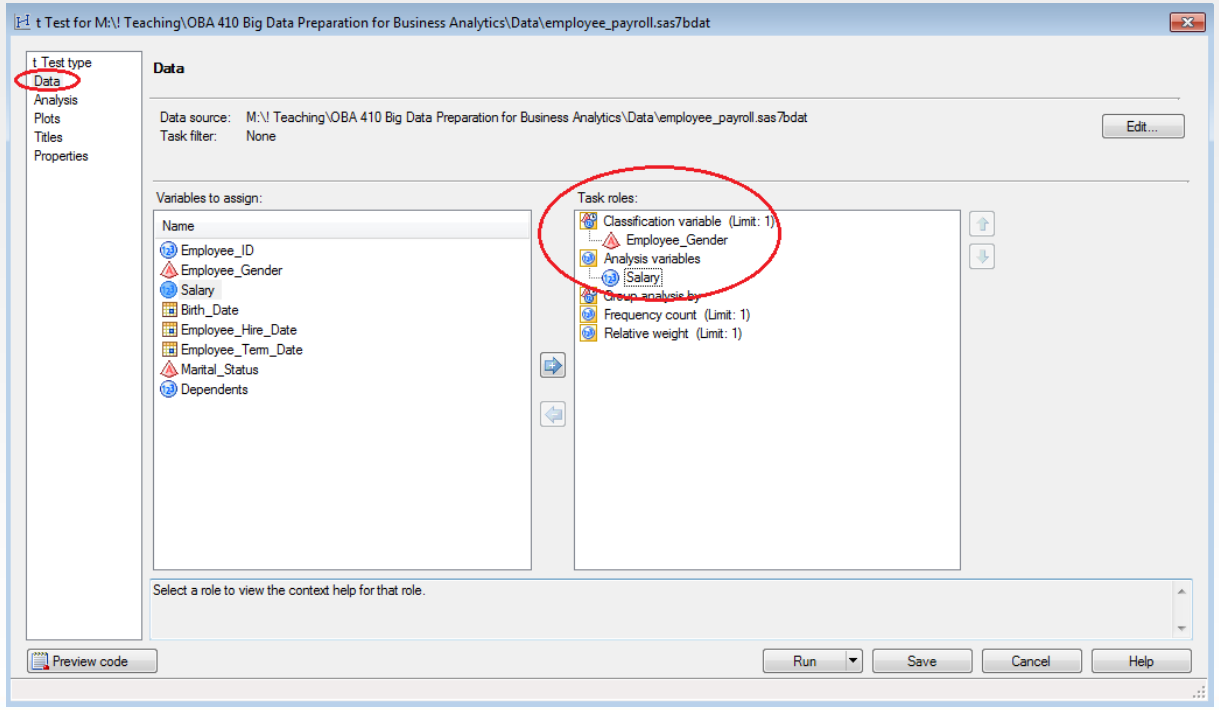
- Demonstration: Comparing Means
  1. Open the **Employee_payroll** data set in a project.
  2. Select **Tasks** > **ANOVA** > **t Test type…**.





Exploring Data with Tasks

- Demonstration: Comparing Means
  3. Select Data and assign **Employee_Gender** as the Classification variable and **Salary** as the Analysis variable.



Exploring Data with Tasks

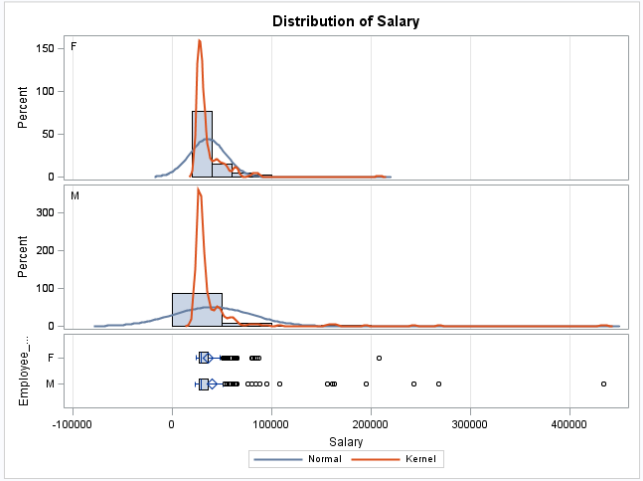
- Demonstration: Comparing Means
  4. Select **Plots** > **Summary plot**.
  5. Select **Run**.

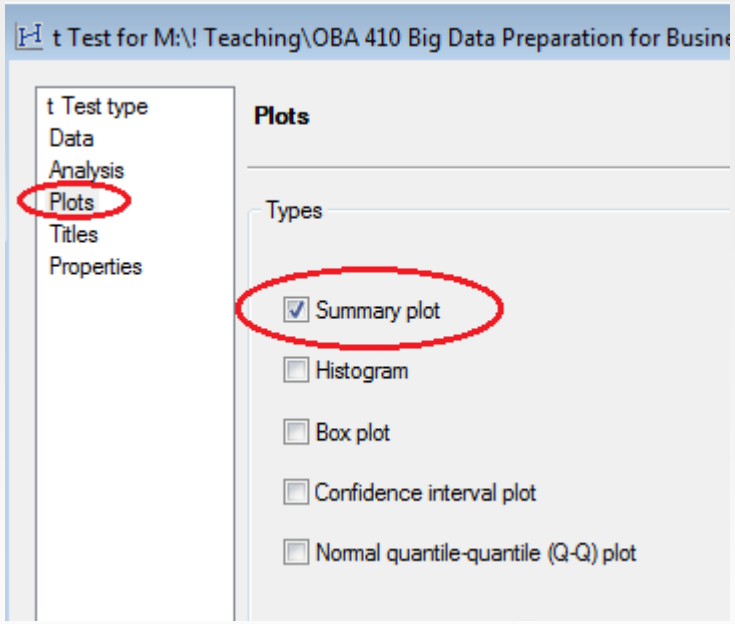
Employee_Gender	N	Mean	Std Dev	Std Err	Minimum	Maximum
F	191	35591.3	17944.5	1298.4	24015.0	207885
M	233	40050.0	39550.5	2591.0	22710.0	433800
Diff (1-2)		-4458.7	31700.8	3094.3		

Employee_Gender	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
F		35591.3	33030.1	38152.5	17944.5	16307.4	19949.9
M		40050.0	34945.1	45155.0	39550.5	36255.9	43508.9
Diff (1-2)	Pooled	-4458.7	-10540.8	1623.4	31700.8	29698.9	33994.4
Diff (1-2)	Satterthwaite	-4458.7	-10159.5	1242.0			

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	422	-1.44	0.1503
Satterthwaite	Unequal	337.19	-1.54	0.1249

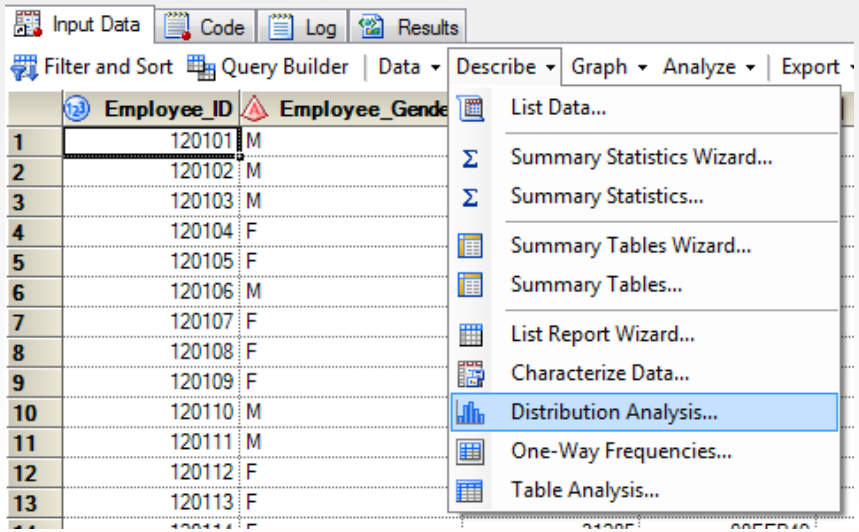
Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	232	190	4.86	<.0001

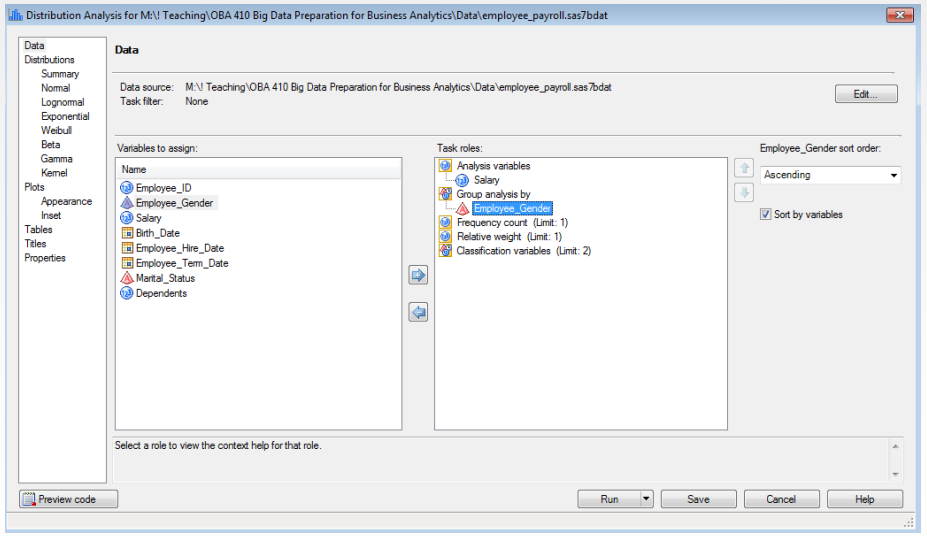




Exploring Data with Tasks

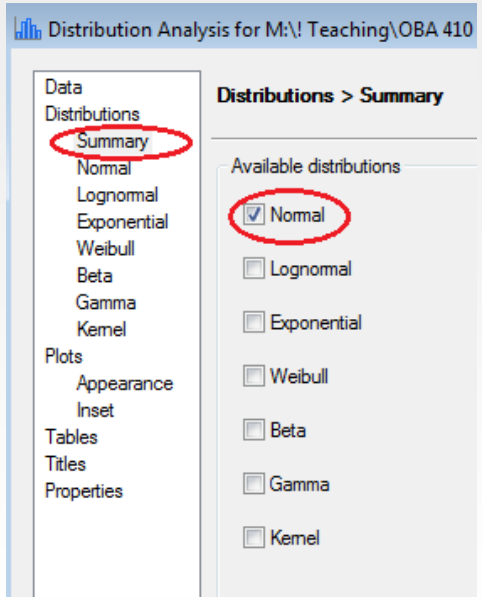
- Demonstration: Distribution Analysis
  1. Run a distribution analysis to confirm that the data are not normally distributed. Select **Task** > **Describe** > **Distribution analysis…**. Select **Salary** as the **Analysis Variable** and **Employee_Gender** as the **Group analysis by** variable.

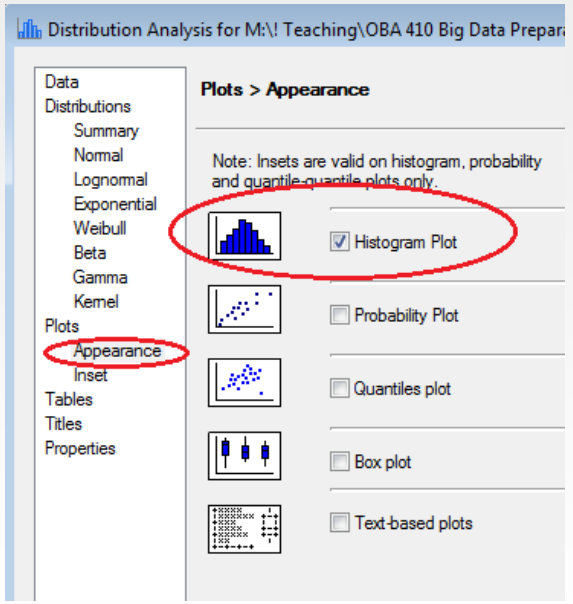




Exploring Data with Tasks

- Demonstration: Distribution Analysis
  2. Select **Distributions** > **Summary** > **Normal**.
  3. Select **Plots** > **Appearance** > **Histogram Plot**.
  4. Select **Run**.





Exploring Data with Tasks

- Demonstration: Nonparametric ANOVA
  1. Select **Tasks** > **ANOVA** > **Nonparametric One-Way ANOVA…**. Select Salary as the Dependent variable and **Employee_Gender** as the Independent variable.
  2. Under **Analysis** select the box next to **Wilcoxon**. Deselect all the other check boxes.
  3. Select **Run**. Save project.