DVA LAB EXAM

NAME :- P SAI VARUN

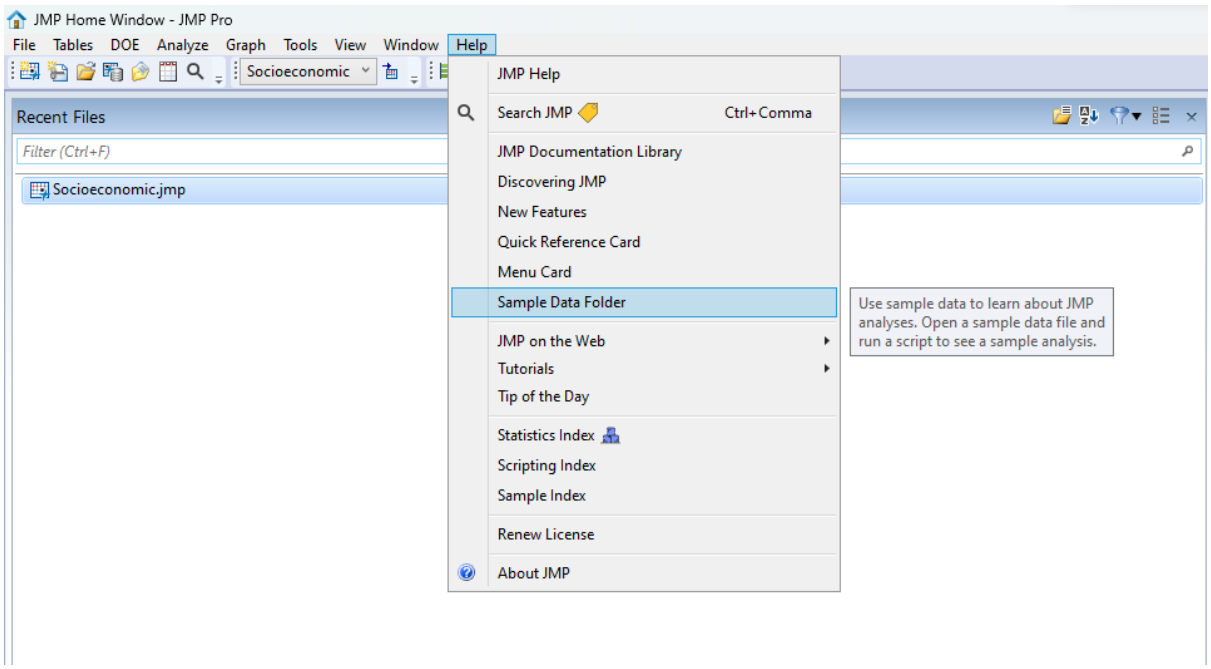
USN :- 1BM21AI110

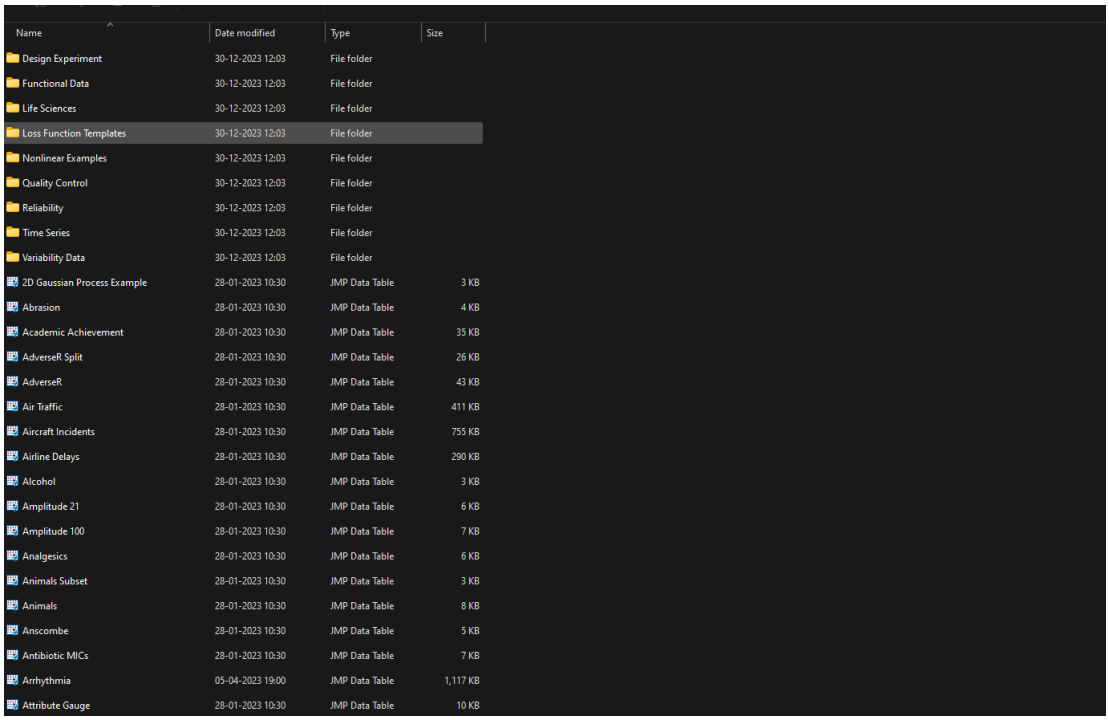
QUESTION - 3

STEP 1-> OPEN JMP SOFTWARE

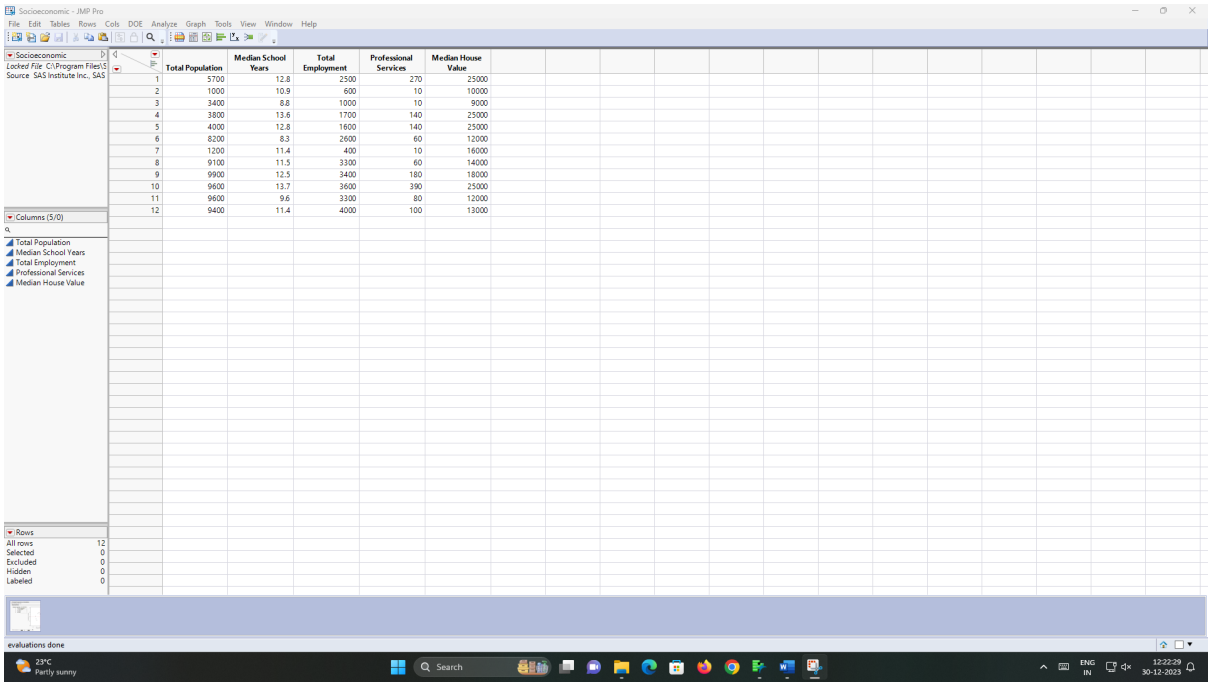
->CLICK ON HELP ->SAMPLE DATA FOLDER ->DATA SET

-> OPEN ANY DATABASE FROM THE GIVEN AVAILABLE DATABASE .EX- SOCIO ECONOMIC DATABASE

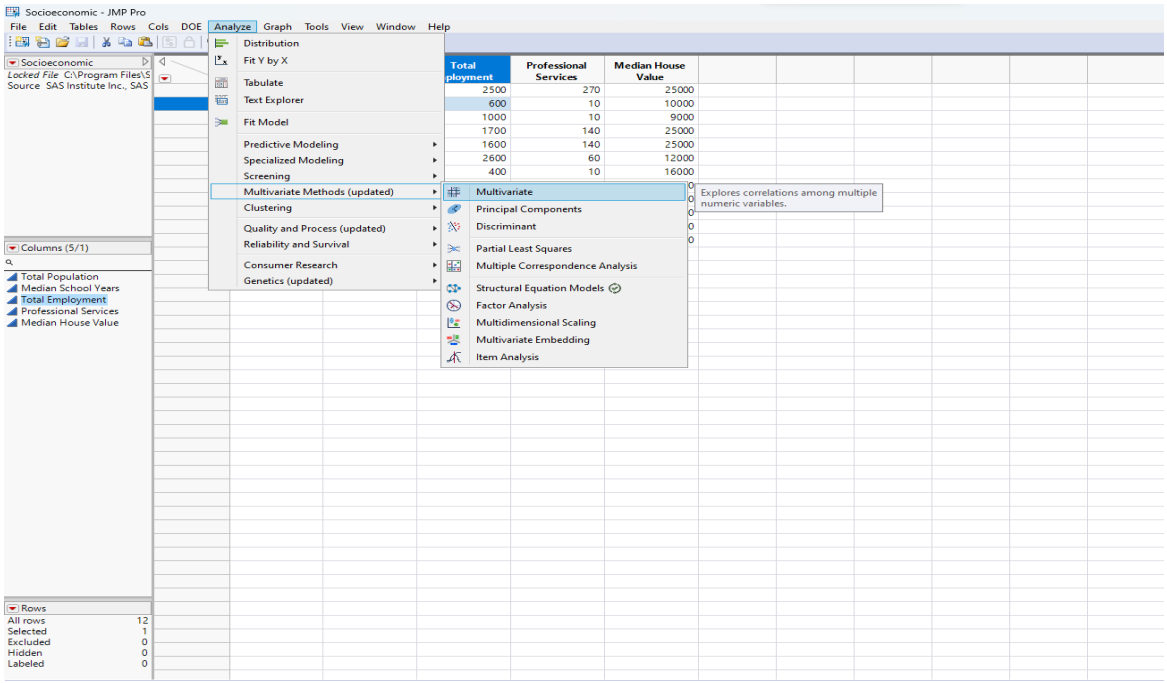




Step 2:- you will find the desired dataset on the jmp software

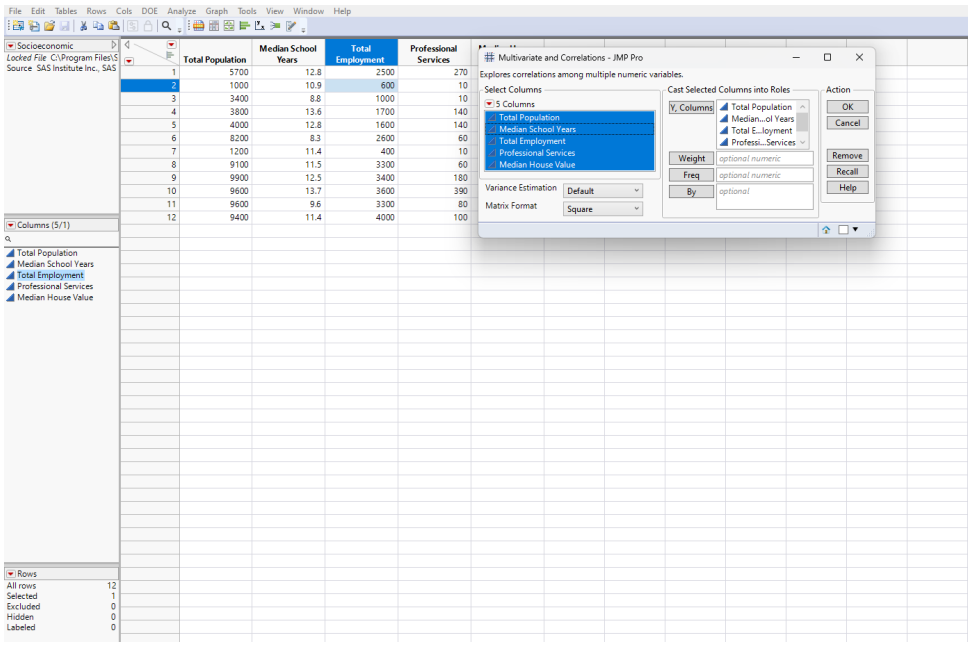


Step3:- click on analyse and then click on multivariate methods

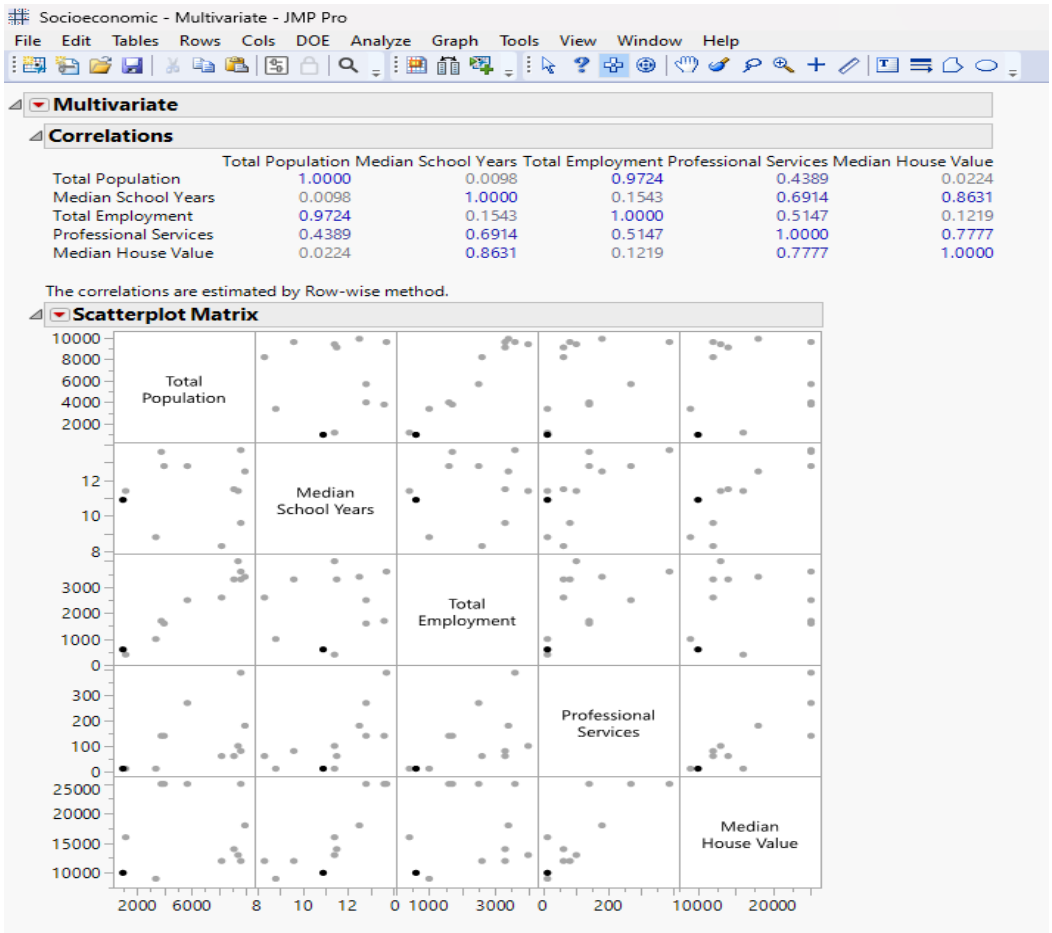


Step 4:- -> FOR MULTIVARIATE ANALYSIS OUTPUT

->CLICK ON MULTIVARIATE AND PASTE ALL THE COLUMNS IN THE Y-AXIS TO GET MULTIVARIATE ANALYSIS OUTPUT

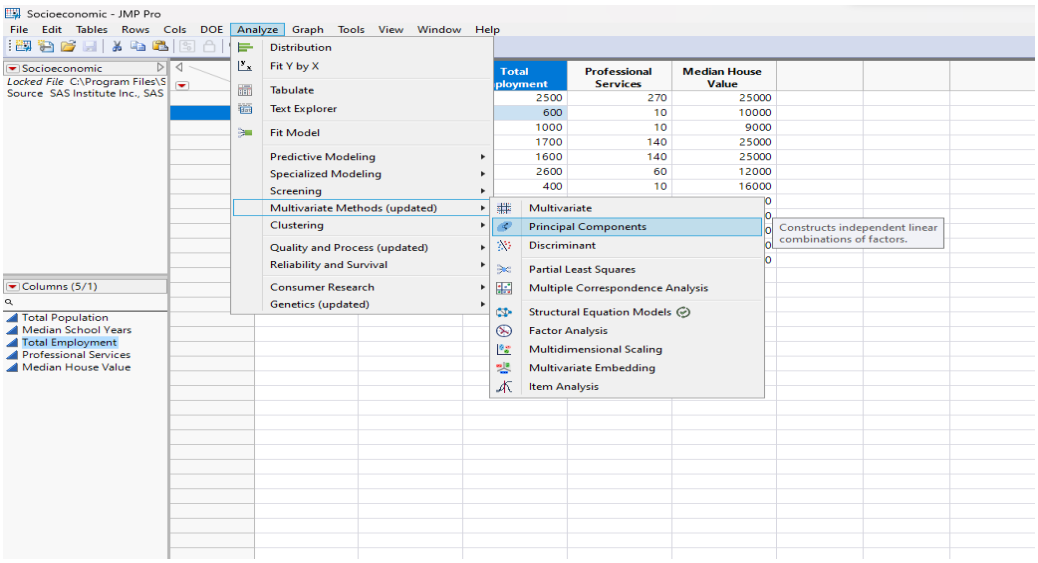


MULTIVARIATE OUTPUT



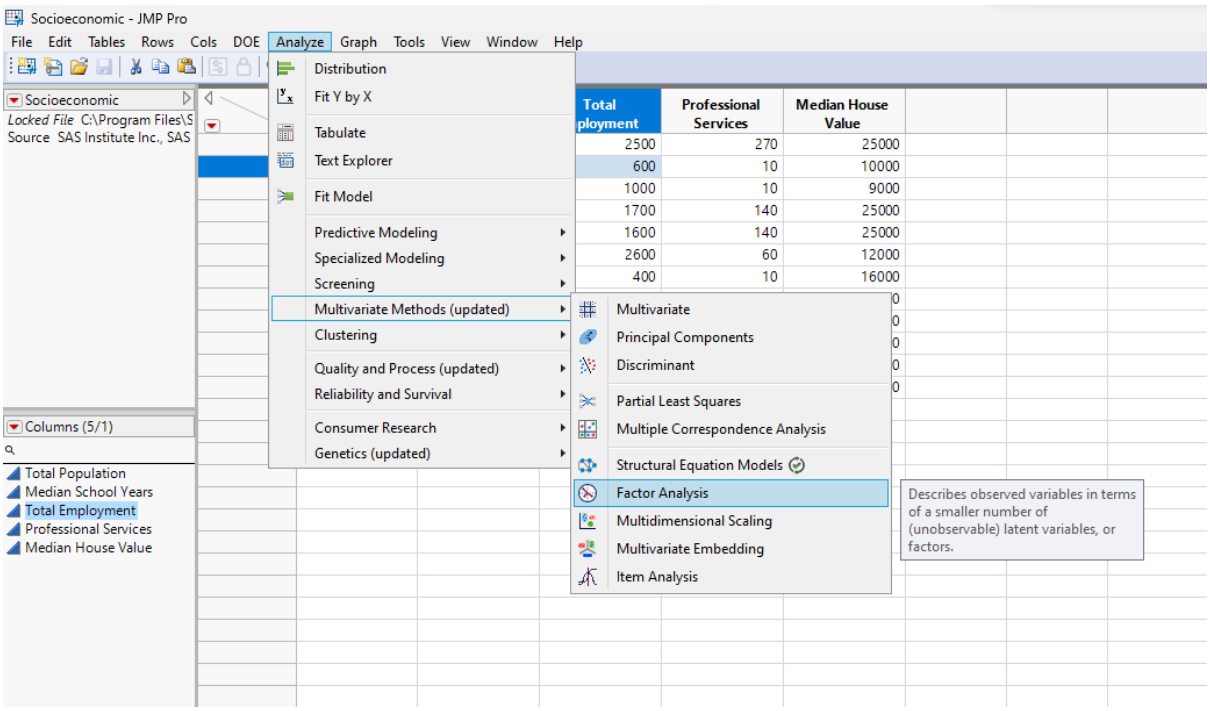
➔ STEPS TO GET PRINCIPLE COMPONENT ANALYSIS (PCA) OUTPUT

STEP 1:- CLICK ON ANALYSE ->MULTIVARIATE METHODS ->PRINCIPLE COMPONENT ANALYSIS TO GET PCA OUTPUT

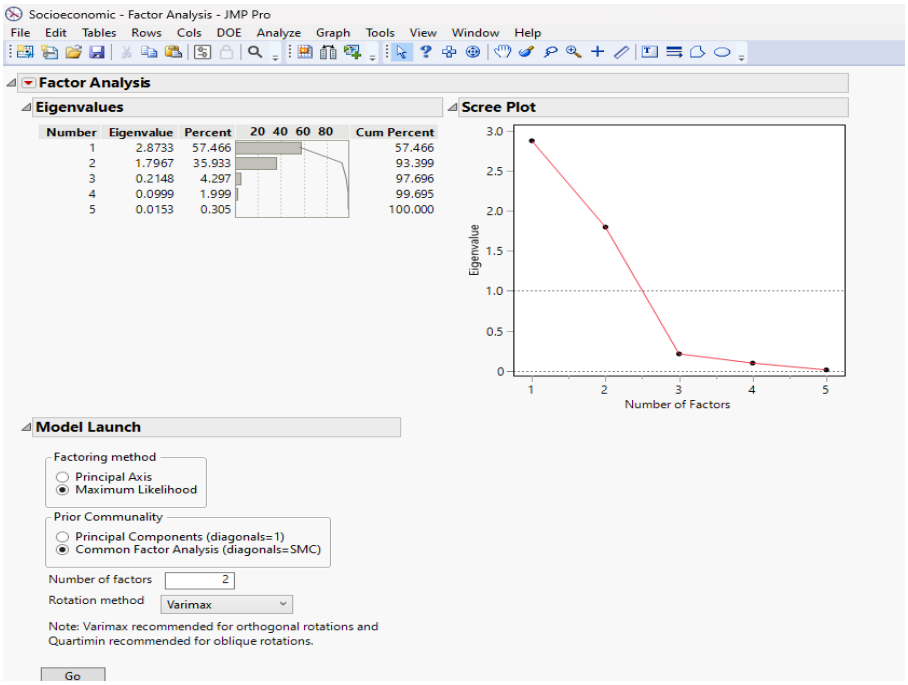


➔ STEPS TO GET FACTOR ANALYSIS

STEP 1 -> CLICK ON ANALYSE ->MULTIVARIATE METHODS -> FACTOR ANALYSIS TO GET THE OUTPUT

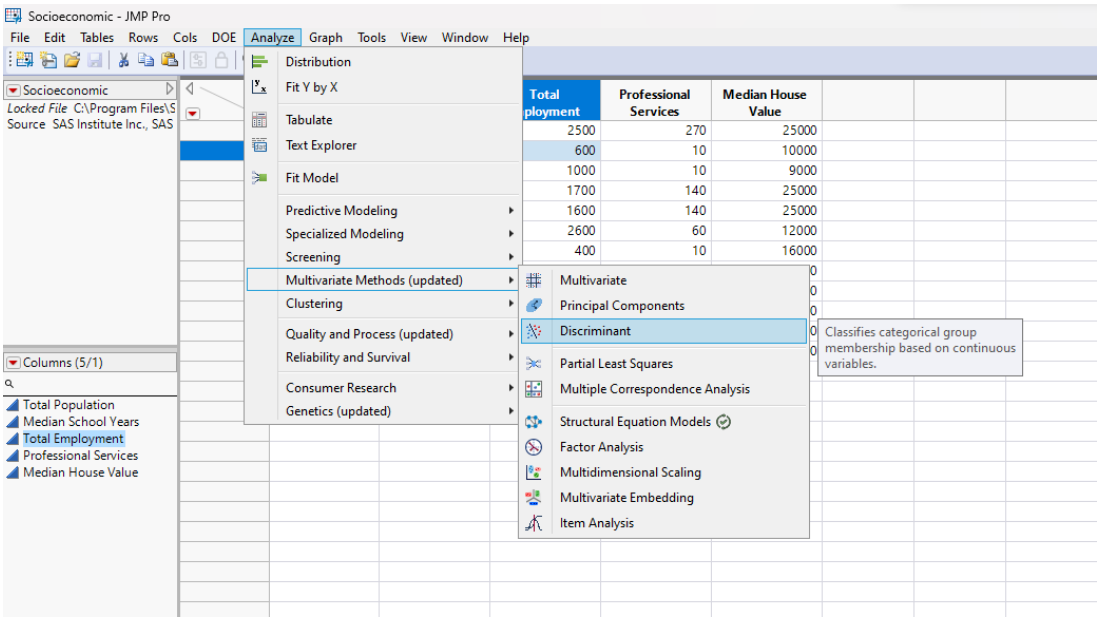


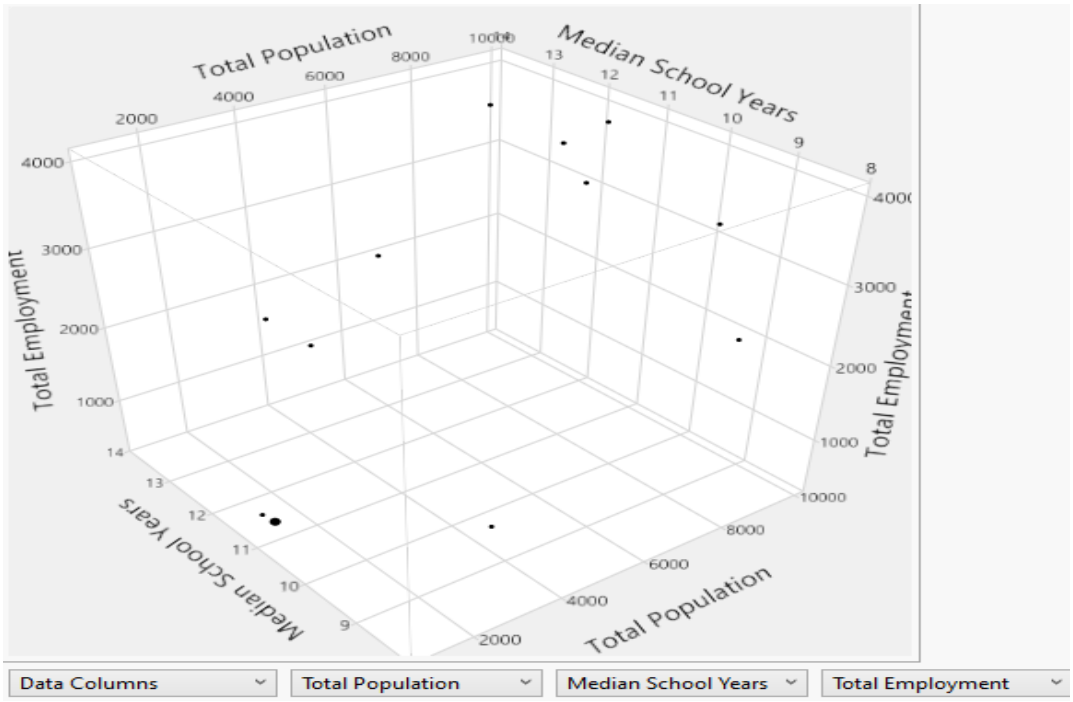
FACTOR ANALYSIS



➔ TO FIND DISCREMINANT

STEP 1 :-CLICK ON ANALYSIS -> MULTIVARIATE METHODS ->DISCREMINANT

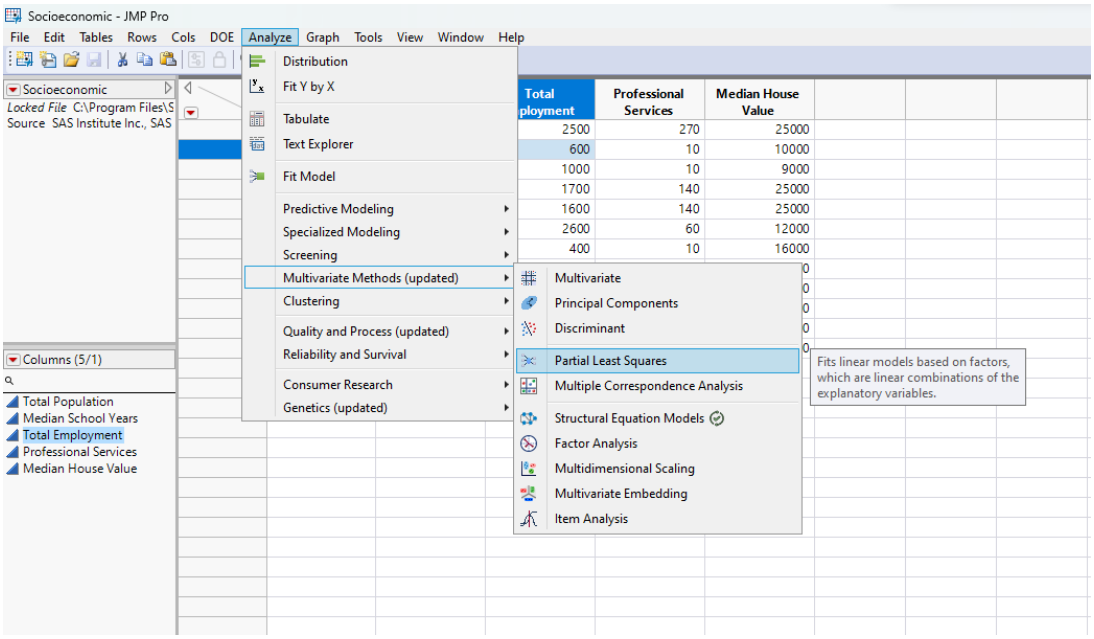


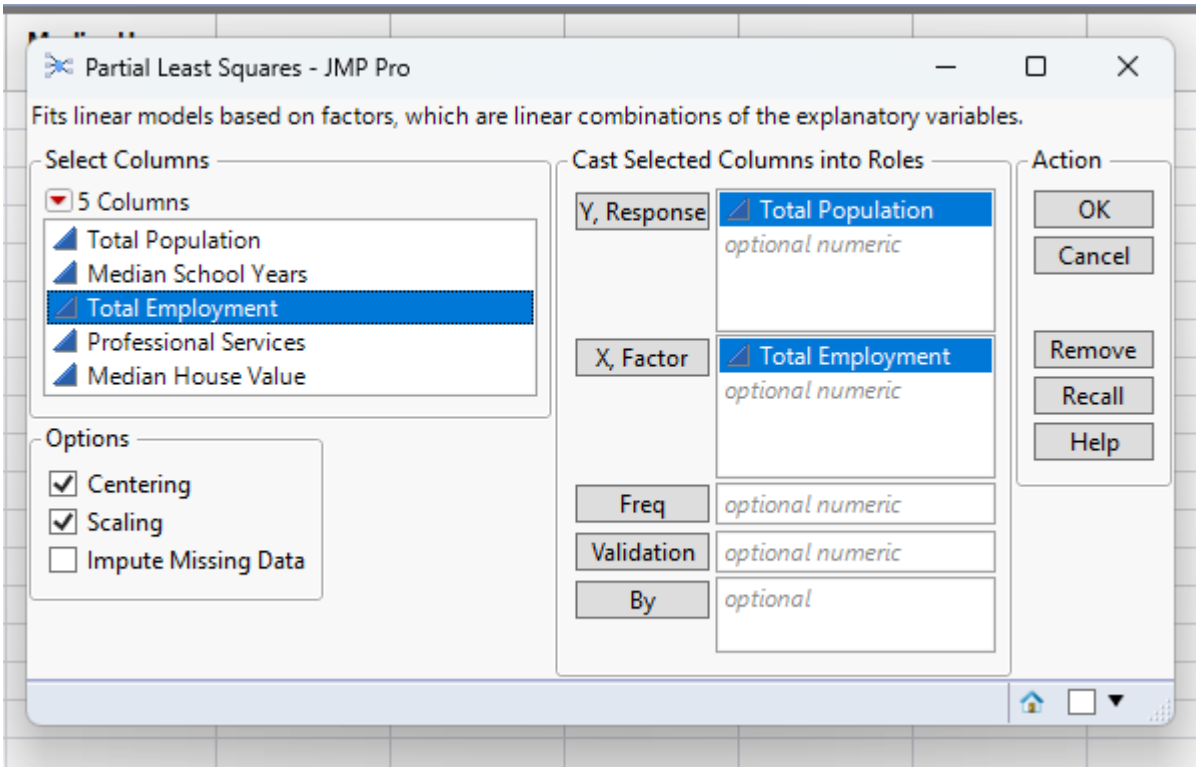


➔ STEPS TO GET PARTIAL LEAST SQUARE (PLS)

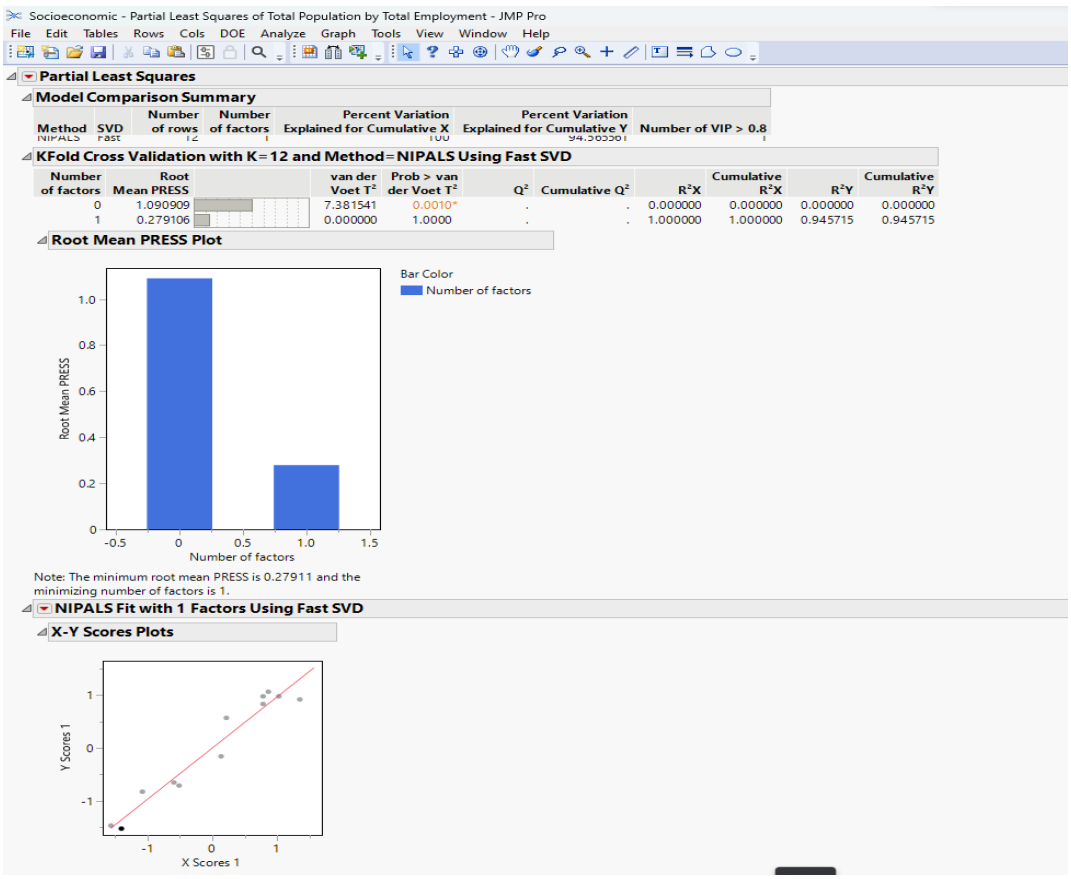
STEP 1 :- CLICK ON ANALYSE ->MULTIVARIATE METHODS -> PARTIAL LEAST SQUARE(PLS)

STEP 2 :- SELECT THE REQUIRED X AND Y VALUES FROM THE TABEL AND DROP THEM IN THE RESPECTIVE COLUMN




Partial Least Squares - JMP Pro
Fits linear models based on factors, which are linear combinations of the explanatory variables.
Select Columns
5 Columns
Total Population
Median School Years
Total Employment
Professional Services
Median House Value
Options
Centering
Scaling
Impute Missing Data
Cast Selected Columns into Roles
Y, Response
Total Population
optional numeric
X, Factor
Total Employment
optional numeric
Freq
optional numeric
Validation
optional numeric
By
optional
Action
OK
Cancel
Remove
Recall
Help

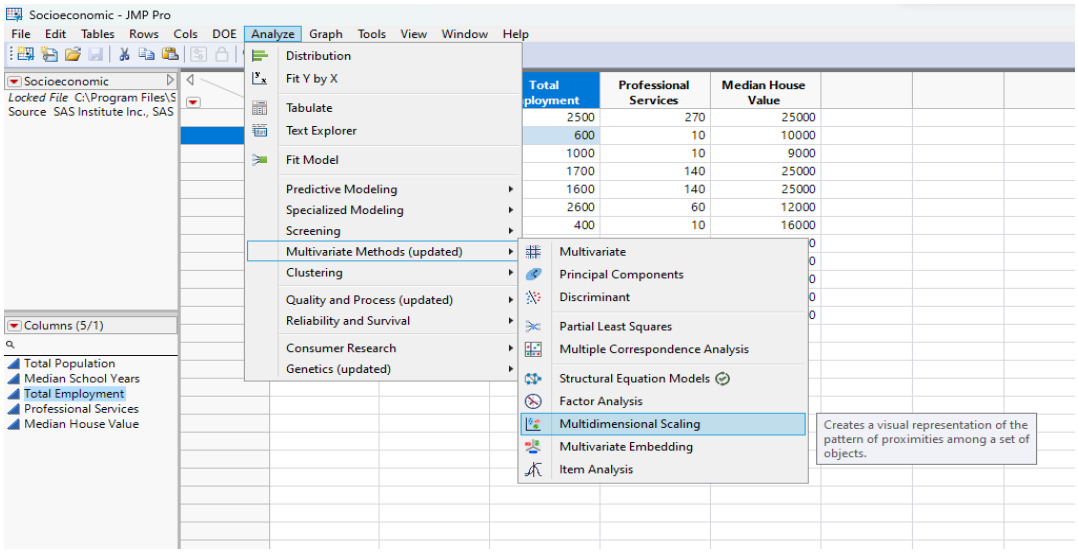
PLS OUTPUT

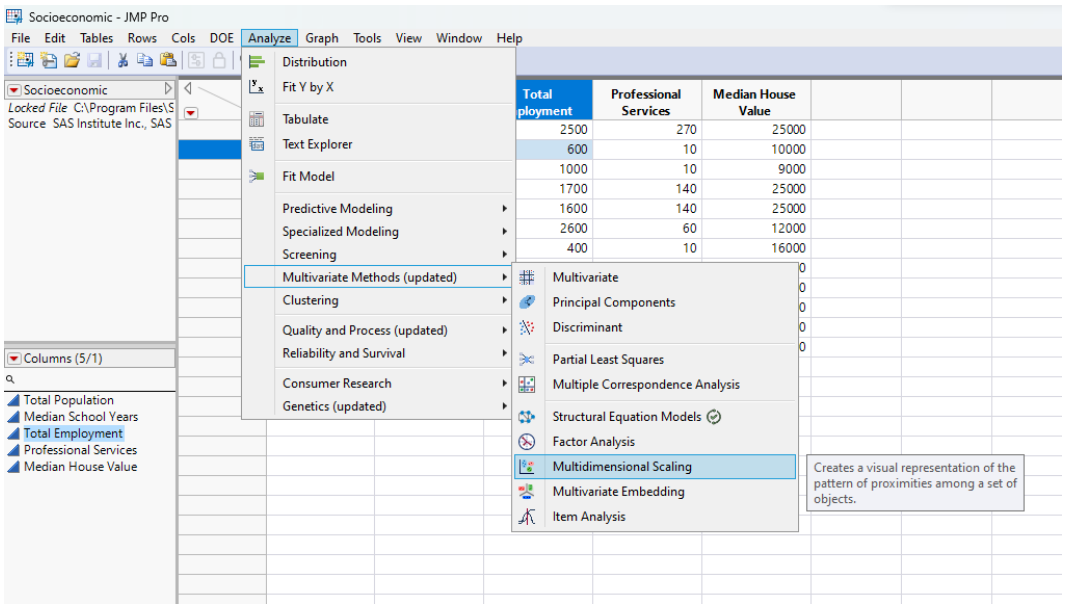

Socioeconomic - Partial Least Squares of Total Population by Total Employment - JMP Pro
File Edit Tables Rows Cols DOE Analyze Graph Tools View Window Help
Partial Least Squares
Model Comparison Summary
Method SVD Number of rows Number of factors Percent Variation Explained for Cumulative X Percent Variation Explained for Cumulative Y Number of VIP > 0.8
NIPALS Fast 12 1 100 94.565561 1
KFold Cross Validation with K=12 and Method=NIPALS Using Fast SVD
Number of factors Root Mean PRESS van der Voet T² Prob > van der Voet T² Q² Cumulative Q² R²X Cumulative R²X R²Y Cumulative R²Y
0 1.090909 7.381541 0.0010* . . 0.000000 0.000000 0.000000 0.000000
1 0.279106 0.000000 1.0000 . . 1.000000 1.000000 0.945715 0.945715
Root Mean PRESS Plot
Bar Color
Number of factors
Root Mean PRESS
Number of factors
Note: The minimum root mean PRESS is 0.27911 and the minimizing number of factors is 1.
NIPALS Fit with 1 Factors Using Fast SVD
X-Y Scores Plots
Y Scores 1
X Scores 1

➔ STEPS TO GET MULTIDIMENTIONAL SCALING (MDS)

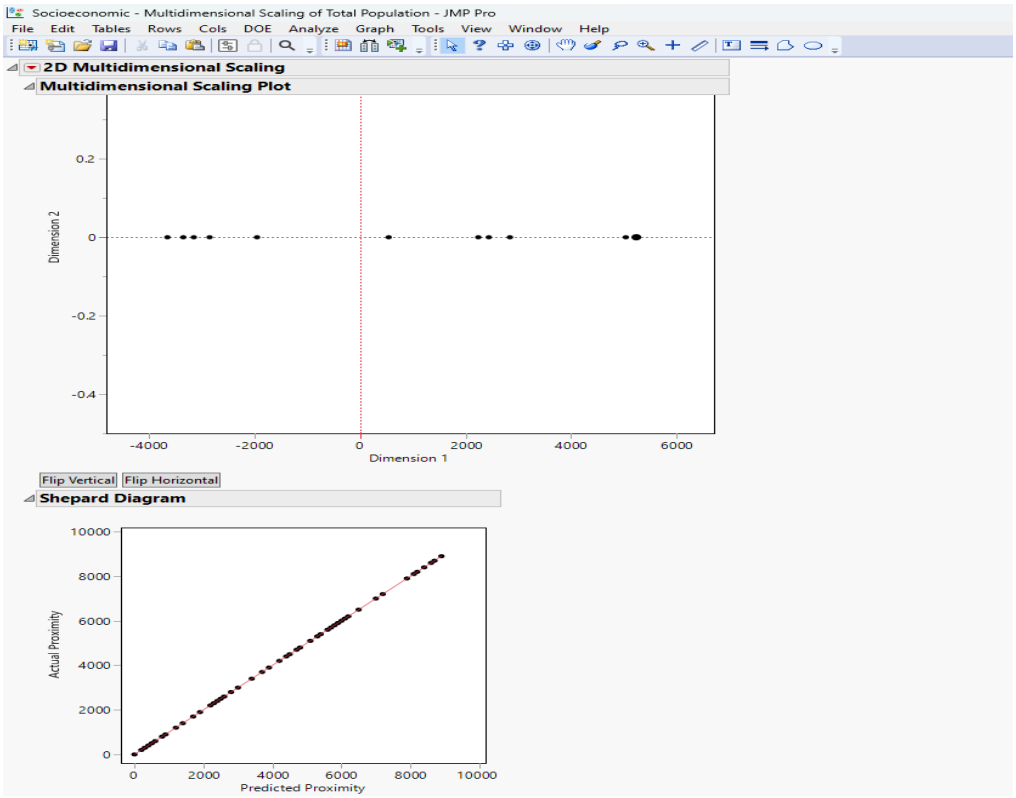
STEP 1 :- CLICK ON ANALYSE -> MULTIVARIATE METHODS -> MULTIDIMENTIONAL SCALING(MDS)

STEP 2:- DRAG AND DROP THE POPULATION INTO Y AXIS TO GET THE OUTPUT





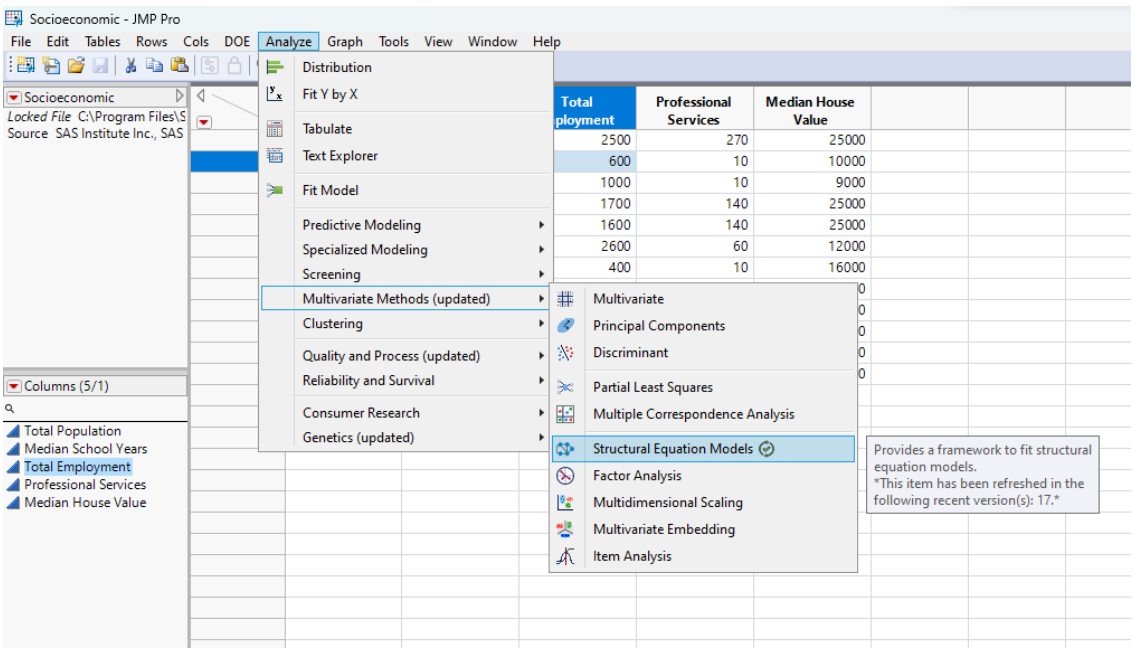
OUTPUT FOR MDS

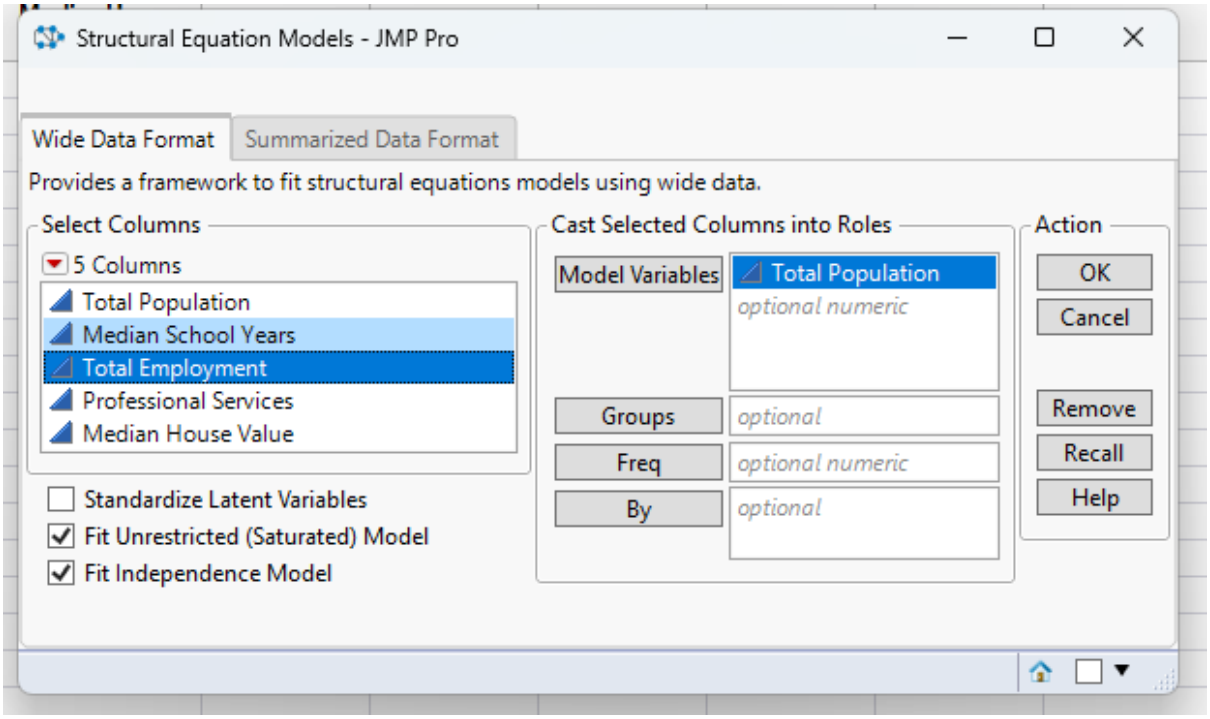


➔ STEPS TO FIND STRUCTURAL EQUATION MODELS (SEM)

STEP 1:- SELECT ANALYSE ->MULTIVARIATE METHODS ->STRUCTURAL EQUATION MODELS (SEM)

STEP2 :-DRAG AND DROP THE POPULATION FROM THE TABLE INTO Y AXIS TO GET THE OUTPUT





OUTPUT FOR STRUCTURAL EQUATION MODELS