



Looking for Relationship Data

Tech Tips - IBM SPSS Modeler

Tech Tips – Looking for Relationships in Data

- **Data Type: Categorical by Categorical**

- Analysis: Matrix Node
- Visual: Web Plot



Matrix



Web

- **Data Type: Categorical by Numeric**

- Analysis: Means Node
- Visual: Histogram Node



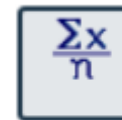
Means



Histogram

- **Data Type: Numeric by Numeric**

- Analysis: Statistics Node
- Visual: Plot



Statistics



Plot

Tech Tips – Looking for Relationships in Data

- **Categorical x Categorical**

- For example: We want to examine the relationship between how customers are paid (HOWPAID) and credit risk (RISK).
- **Test:** Crosstabs and chi-square
- **Node:** Matrix
- **Location:** Output palette



Matrix of HOWPAID by RISK #2

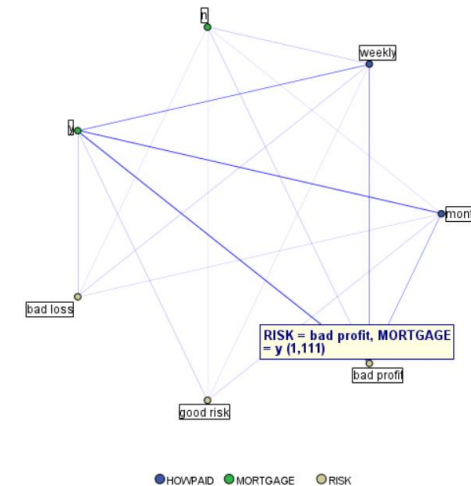
File Edit Generate

Matrix Appearance Annotations

		RISK		
HOWPAID		bad loss	bad profit	good risk
monthly	Count	234	669	293
	Row %	19.565	55.936	24.498
weekly	Count	325	806	128
	Row %	25.814	64.019	10.167

Cells contain: cross-tabulation of fields (including missing values)
Chi-square = 90.649, df = 2, probability = 0

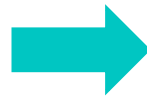
OK



Tech Tips – Looking for Relationships in Data

- **Categorical x Numeric**

- For example: I want to examine average income (INCOME) and number of cards (NUMCARDS) across categories of marital status.
- **Test:** F test
- **Node:** Means
- **Location:** Output palette



Means of [MARITAL][INCOME NUMKIDS NUMCARDS STORECAR LO...

File Edit

Means Annotations

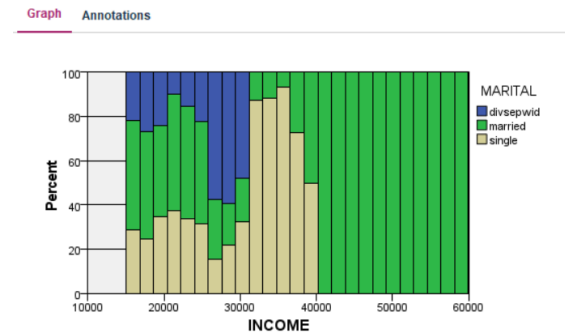
Sort by: Field View: Simple

Grouping field: MARITAL

*Cells contain: Mean

Field	married*	single*	divsepwid*	Importance
INCOME	27628.194	23694.557	23753.870	1.000 Important
NUMKIDS	1.409	0.390	2.966	1.000 Important
NUMCARDS	1.580	1.603	5.487	1.000 Important
STORECAR	2.293	1.734	3.998	1.000 Important
LOANS	1.248	0.751	2.500	1.000 Important

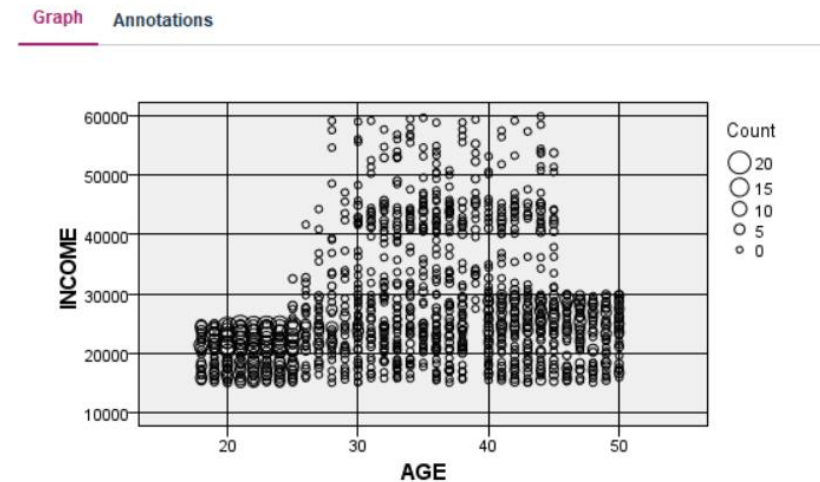
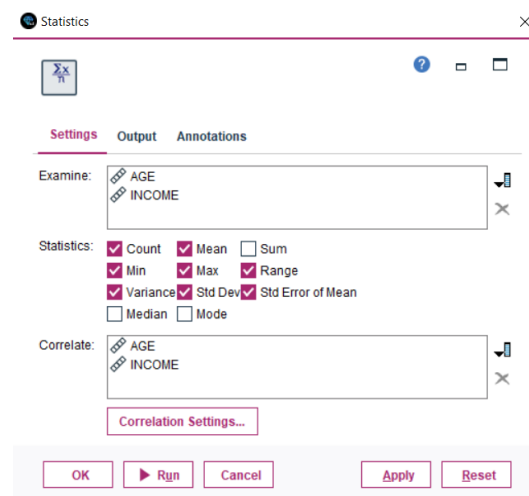
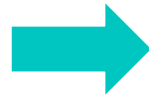
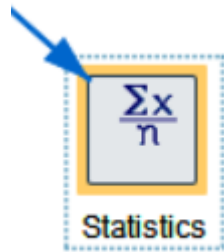
OK



Tech Tips – Looking for Relationships in Data

- **Numeric x Numeric**

- For example: I want to examine the association between age (AGE) and income (INCOME).
- **Test:** Correlation
- **Node:** Statistics
- **Location:** Output palette





Thank You

For more information
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