**Dr. Ji**

# Social Statistics

# Chapters 5-7

An Overview: Nominal and Ordinal Measures of Association

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Measures Appropriate

Of Levels of PRE Additional

Association Measurement Range Symmetric? Measure? Information

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C One or both 0 to Yes No Upper limit

variables are <1.00 changes with

nominal table size, but

is always less

than 1.00.

Cramer’s V One or both 0 to Yes No Can reach

variables are 1.00 +1.00 for table

nominal of any size.

V= φ for 2 by

2 table

φ2 One or both 0 to Yes Yes (φ2) Use only for 2

variables are 1.00 by c or r by 2

nominal table. φ2= r for 2 by 2 table

Lambda One or both 0 to No Yes May

variables are 1.00 underestimate

nominal. strength if dependent variable is shewed. Symmetric lambda is also available.

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Gamma Both variables -1.00 Yes Yes Tends to run high

are ordinal to 1.00 Does not take ties

into account.

Somer’s DYX Both variables -1.00 No Yes Use DYX if

(and DXY) are ordinal to 1.00 dependent variable is the row variable.

Tau-b Both variables -1.00 Yes Yes Can reach +1.00

are ordinal to 1.00 only for square tables.

Tau-c Both variables -1.00 Yes No Can reach +1.00

are ordinal to 1.00 table of any size.

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