

Illustration of Consistency and Coverage with Crisp Sets
 Based on Byrne's Chapter 14 in Byrne & Ragin, eds., 2009

From *The Handbook of Case-Based Methods*, pp 260-268, 2009 (London

Accessed Aug. 2013							Number of Cases	% With Y	Sufficiency		Necessity		Def'n of X	CONSISTENCY for SUFFICIENCY NUMERATOR
X1	X2	X3	X4	X5	X6	Consistency			Coverage	Consistency	Coverage			
1	1	1	1	1	0	27	82	0.82	0.31	0.31	0.82	X1X2X3X4X5	22	
0	1	1	1	1	0	18	61	0.61	0.15	0.15	0.61	X2X3X4X5	11	
0	0	0	0	1	0	12	8	0.08	0.01	0.01	0.08	X5	1	
0	1	1	0	1	0	12	17	0.17	0.03	0.03	0.17	X2X3X5	2	
0	0	1	0	1	0	11	27	0.27	0.04	0.04	0.27	X3X5	3	
1	1	1	1	1	1	9	78	0.78	0.10	0.10	0.78	X1X2X3X4X5X6	7	
0	0	1	1	1	0	8	63	0.63	0.07	0.07	0.63	X3X4X5	5	
0	1	0	0	1	0	7	0	0	0.00	0.00	0.00	X1X2X3X4X5	0	
1	0	1	1	1	0	6	33	0.33	0.03	0.03	0.33	X1X2X3X4X5	2	
0	1	0	1	1	0	4	25	0.25	0.01	0.01	0.25	X1X2X3X4X5	1	
1	0	0	0	1	0	4	0	0	0.00	0.00	0.00	X1X2X3X4X5	0	
1	1	0	1	0	1	1	100	1	0.01	0.01	1.00	X1X2X4X6	1	
1	1	0	1	1	1	1	100	1	0.01	0.01	1.00	X1X2X4X5X6	1	
1	1	1	0	1	0	1	100	1	0.01	0.01	1.00	X1X2X3X5	1	
Total Overall							155	45.8	0.46	0.00	1.00	0.46	Any of above	71

N1+ N2 + N3+
N4

Proportion of This Config's Cases
with Y=1

N2+N3

$$=(\text{SUM}(N3) / (\text{SUM}(N3+N4)))$$

$$=(\text{SUM}(N3) / (\text{SUM}(N2+N3)))$$

By Wendy Olsen 2013
 Uploaded to Jisc Email list 'QUAL-COMPARE'
 Open to all. This table can be used by anyone.

For a given line in the table above, \underline{X} is the intersection of selected elements from $\{X1, X2, X3, X4, X5, \text{ and } X6\} = \min(\text{some of } \{X1, X2, X3, X4, X5, \text{ and } X6\})$

Y = 1	n2	n3
Y = 0	n1	n4
	<u>X</u> = 0	<u>X</u> = 1

By Wendy Olsen

2020

comments to: wendy.olsen@manchester.ac.uk

File name NotesonByrneTable.XLSX WITH THREE TABS

TAB 2 IS THE TRUTH TABLE

TAB 3 IS THE RAW DATA

LABELS ON THE COLUMNS ARE:

x1sixth x2sen x3lowabs x4notdep x5coed
Has low

Has sixth Has high absenteeis Is not in Is it co-ed by
form? SEN rate? m? deprived area? sex?

i: Sage).

N3+ N4

COVERAGE for SUFFICIENCY NUMERATOR	DENOMINATOR FOR BOTH,
27	71
18	71
12	71
12	71
11	71
9	71
8	71
7	71
6	71
4	71
4	71
1	71
1	71
1	71
155	71

Overall Sum(N2+ N3)

4, X5, X6}).

rk

x6relig

Religious school?