Regulatory Compliance Skewness

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In dealing with regulatory compliance data distributions, one is always impressed with the skewness of the data distribution. This is a major disadvantage of working with these data distributions because it eliminates utilizing parametric statistics. These short comings have been dealt with in the past by using non-parametric statistics, the dichotomization of data distributions, moving from a nominal to ordinal scaling, and risk assessment/weighting. These adjustments have been successful in helping to analyze the data but are not ideal and will never approach a normally distributed curve. However, that is not the intent of regulatory compliance data, the data distribution should demonstrate a good deal of skewness because these data are demonstrating protections for clients and not quality services. One would not want the data to be normally distributed.

This short paper/technical research note delineates the state of the art with an international regulatory compliance data base that has been created over the past 40 years at the Research Institute for Key Indicators (RIKILLC). In it, I provide basic descriptive statistics to demonstrate to other researchers the nature of the data distributions so that they can be aware of the shortcomings of the data when it comes to statistical analyses. I have employed various scaling methods to help with the skewness of the data but it still does not approximate normally distributed data. This will be self-evident in the data displays.

	KI	PQ	RC	PQ 1-5	RC 1-5
Mean	1.68	3.42	5.51	2.96	3.48
SD	1.61	0.86	5.26	0.90	1.43
Sum	175	348	573	302	362
Variance	3.61	0.74	27.63	0.81	2.06
Range	6.00	4.11	25.00	4.00	4.00
Minimum	0	1.86	0	1.00	1.00
Maximum	6.00	5.97	25.00	5.00	5.00
SE Mean	0.16	0.09	0.52	0.09	0.14
Kurtosis	0.073	-0.134	2.112	-0.388	-1.097
Skewness	0.898	0.467	1.468	0.327	-0.494

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Legend:

KI = Key Indicators

PQ = Program Quality (ERS Scale)

RC = Regulatory Compliance (State Comprehensive Review Checklist)

PQ 1-5 = Program Quality using 1-5 scale

RC 1-5 = Regulatory Compliance using 1-5 scale (1 = Low RC; 2-4 = Med Level RC; 5 = High/Substantial RC)

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